| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000020 | 2 | Test for running PRESENT application after service selection (Service Bound) | TRUE | After service selection, with an already running service bound application, and the same application signaled as PRESENT in the AIT of the newly selected service, the terminal shall kill the currently running application. |
| org.hbbtv_00000030 | 1 | Test for running AUTOSTART application after service selection (Not Service Bound) | TRUE | After service selection, with an already running not service bound application, and the same application signaled with control code AUTOSTART in the AIT of the newly selected service, the terminal shall allow the application to run uninterrupted. |
| org.hbbtv_00000040 | 2 | Test for running PRESENT application after service selection (Not Service Bound) | TRUE | After service selection, with an already running not service bound application, and the same application signalled with control code PRESENT in the AIT of the newly selected service, the terminal shall allow the application to run uninterrupted. |
| org.hbbtv_00000050 | 2 | Test for running DISABLED application after service selection (Not Service Bound) | TRUE | After service selection, with an already running not service bound application, and the same application signalled with control code DISABLED in the AIT of the newly selected service, the terminal shall allow the application to run uninterrupted. |
| org.hbbtv_00000060 | 2 | Cookies expire at the correct time | TRUE | After service selection, with an already running not service bound application, and the same application signaled with control code KILL in the AIT of the newly selected service, the terminal shall kill the currently running application. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000070 | 2 | Test for NOT SIGNALLED application after service selection (Not Service Bound) | TRUE | After service selection, with an already running not service bound application, and the same application is not signalled in the AIT of the newly selected service, the terminal shall kill the currently running application. |
| org.hbbtv_00000110 | 3 | AIT changes while no broadcast related application is running, AUTOSTART application from DSMCC signalled, part 1 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain one AUTOSTART application carried on a DSMCC carousel. The terminal shall start that application. |
| org.hbbtv_00000130 | 2 | Service selection with AUTOSTART application from broadband, part 1 (success) | TRUE | Terminal is tuned to a service with no application running. The terminal is then tuned to a service with an AIT which signals one AUTOSTART application carried via HTTP. The terminal has an operational broadband connection. The application is available from this connection. The terminal shall start the application. |
| org.hbbtv_00000160 | 2 | AIT changes while no broadcast related application is running, multiple AUTOSTART applications signalled, broadband and broadcast, part 1 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain two AUTOSTART applications. App1 is carried via HTTP; App2 via DSMCC; App1 has a higher priority. The terminal has an operational broadband connection. The terminal shall start App1. |
| org.hbbtv_00000170 | 2 | AIT changes while no broadcast related application is running, multiple AUTOSTART applications signalled, broadband and broadcast, part 2 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain two AUTOSTART applications. App1 is carried via HTTP; App2 via DSMCC; App1 has a higher priority. The terminal has an operational broadband conntection. App1 is temporarily unavailable. The terminal shall finally start App2. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000190 | 2 | AIT changes while no broadcast related application is running, multiple AUTOSTART applications signalled, broadband, part 1 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain two AUTOSTART applications carried via HTTP, App1 and App2; App1 has a higher priority. The terminal has an operational broadband connection. The terminal shall start App1. |
| org.hbbtv_00000200 | 2 | AIT changes while no broadcast related application is running, multiple AUTOSTART applications, broadband signalled, part 2 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain two AUTOSTART applications carried via HTTP, App1 and App2; App1 has a higher priority. The terminal has an operational broadband connection. App1 is temporarily unavailable. The terminal shall finally start App2. |
| org.hbbtv_00000210 | 3 | AIT changes while no broadcast related application is running, AUTOSTART application signalled on broadband and broadcast, part 1 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain an AUTOSTART application carried on HTTP and DSMCC, with a higher priority for HTTP. The terminal has an operational broadband connection. The terminal shall finally start the application from broadband via HTTP. |
| org.hbbtv_00000220 | 3 | AIT changes while no broadcast related application is running, AUTOSTART application signalled on broadband and broadcast, part 2 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain an AUTOSTART application carried on HTTP and DSMCC, with a higher priority for HTTP. The terminal has an operational broadband connection. The app is temporarily not available via the broadband connection. The terminal shall finally start the application from broadcast. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000240 | 3 | AIT changes while no broadcast related application is running, AUTOSTART application signalled on broadcast (higher priority) and broadband, part 1 | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain an AUTOSTART application carried on HTTP and DSMCC, with a higher priority for DSMCC. The terminal shall start the application from broadcast. |
| org.hbbtv_00000250 | 2 | AIT changes while no broadcast related application is running, AUTOSTART application signalled on broadcast (higher prio) and broadband, part 2 (failure) | TRUE | While a service is selected and no application is signalled, the terminal shall detect a change in the AIT; which is updated to contain an AUTOSTART application carried on HTTP and DSMCC, with a higher priority for DSMCC. The DSMCC carousel is not present. The terminal shall start the application finally from broadband. |
| org.hbbtv_00000260 | 2 | AIT update with no AUTOSTART applications, broadband and broadcast, part 3 | TRUE | While a service is selected and no application is signalled the terminal detects an AIT which signals one application with control code PRESENT. The terminal shall not start the application. |
| org.hbbtv_00000270 | 2 | AIT changes while broadcast related application is running, application still signalled | TRUE | While service selected, the terminal detects a change in the AIT, a broadcast related application is running and it is still signalled with a control other than KILL. The application SHALL continue to run. |
| org.hbbtv_00000280 | 2 | AIT changes while broadcast related application is running, application signaled with KILL | TRUE | While a service is selected, the terminal detects a change in the AIT, a broadcast related application is running and it is still signaled, but with the control code KILL and a new application is signaled as AUTOSTART. The running application SHALL be killed and the new application shall be started. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000290 | 2 | AIT changes while broadcast related application is running, application not signalled | TRUE | While a service is selected the terminal detects a change in the AIT, a broadcast related application is running and it is not signalled in the AIT anymore and a new application is signalled as AUTOSTART. The running application SHALL be killed and the new application shall be started. |
| org.hbbtv_00000300 | 2 | AIT changes while no broadcast related application is running, AUTOSTART application from HTTP signalled. | TRUE | While a service is selected and a broadcast related application is not running, the terminal detects a change in the AIT with an autostart application signalled carried over HTTP. The autostart application SHALL be started. |
| org.hbbtv_00000310 | 2 | Application exits | TRUE | While a service is selected and a broadcast related application is running, the application exits. The AIT signals an autostart application The terminal SHALL start the autostart application. |
| org.hbbtv_00000320 | 2 | Triggering ChannelChangeSucceededEvent when transitioning from Broadcast Related to Broadcast Independent state | TRUE | When a broadcast-related application calls the setChannel() method on the video/broadcast object with a value of null for its channel argument, a ChannelChangeSucceededEvent shall be dispatched to the video/broadcast object that caused the transition with a value of null for the channel property. |
| org.hbbtv_00000330 | 4 | Broadcast Independent Applications created from an HTML page accessed over HTTP | TRUE | Calling Application.createApplication() with a valid HTTP URL pointing to an HTML page shall create a broadcast-independent application without an organization_id or application_id. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000340 | 4 | A broadcast-independent application transitioning to a broadcast-related application shall not be killed if all specified conditions are met | TRUE | A broadcast-independent application that wants to become a broadcast-related application, by successfully selecting a broadcast service, SHALL NOT be killed if all the following conditions are met:<br><br>1. The broadcast-independent application has an organization_id and application_id (whether obtained through a broadcast AIT or an XML AIT).<br><br>2. An application of the same organization_id and application_id is signalled in the broadcast channel to be selected with control code AUTOSTART or PRESENT.<br><br>3. The application signalled in the broadcast channel with the same organization_id and application_id includes a transport_protocol_descriptor with protocol_id equal to 3.<br><br>4. The URL of the entry point document of the broadcast-independent application has the same origin as at least one of the URLs signalled in the broadcast for that organization_id and application_id.<br><br>5. The URL of the page currently loaded in the broadcast-independent application is inside the application boundary of the application as defined in clause 6.3. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000350 | 4 | A broadcast-independent application transitioning to a broadcast-related application shall be killed if the first of the specified conditions are not met | TRUE | A broadcast-independent application that wants to transition back to a broadcast-related application SHALL be killed if the following condition is not met:<br><br>1. The broadcast-independent application has an organization_id and application_id (whether obtained through a broadcast AIT or an XML AIT). |
| org.hbbtv_00000360 | 4 | A broadcast-independent application transitioning to a broadcast-related application shall be killed if the second of the specified conditions are not met | TRUE | A broadcast-independent application that wants to transition back to a broadcast-related application SHALL be killed if the following condition is not met:<br><br>2. An application of the same organization_id and application_id is signalled in the broadcast channel to be selected with control code AUTOSTART or PRESENT. |
| org.hbbtv_00000370 | 5 | A broadcast-independent application transitioning to a broadcast-related application shall be killed if the third of the specified conditions are not met | TRUE | A broadcast-independent application that wants to transition back to a broadcast-related application SHALL be killed if the following condition is not met:<br><br>3. The application signalled in the broadcast channel with the same organization_id and application_id includes a transport_protocol_descriptor with protocol_id equal to 3. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000380 | 5 | A broadcast-independent application transitioning to a broadcast-related application shall be killed if the fourth of the specified conditions are not met | FALSE | A broadcast-independent application that wants to transition back to a broadcast-related application SHALL be killed if the following condition is not met:\n\n4. The URL of the entry point document of the broadcast-independent application has the same origin as at least one of the URLs signalled in the broadcast for that organization_id and application_id. |
| org.hbbtv_00000400 | 4 | Broadcast Independent Applications created from an XML AIT over HTTP and with no boundary defined | TRUE | Calling Application.createApplication() with a valid HTTP URL pointing to an XML AIT shall create a broadcast-independent application with the org_id and app_id specified in the XML AIT and an application domain that is the 'fully qualified domain name' (FQDN) of the first page of the application in the absence of an application_boundary_descriptor. |
| org.hbbtv_00000440 | 4 | Broadcast Independent Applications started from a Broadcast Related application | TRUE | When a broadcast-related application starts a broadcast-independent application, the application is started but the broadcast service shall cease to be selected and access to broadcast resources shall be lost |
| org.hbbtv_00000450 | 3 | Transition of an Application from Broadcast Related to Broadcast Independent state using Set Channel | FALSE | When a broadcast-related application calls the setChannel() method on the video/broadcast object with a value of null for its channel argument it shall become a broadcast independent application. Access to broadcast resources shall be lost |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000460 | 4 | A broadcast-independent application transitioning to a broadcast-related application shall be killed if the fifth of the specified conditions are not met | TRUE | A broadcast-independent application that wants to transition back to a broadcast-related application SHALL be killed if the following condition is not met:<br><br>5. The URL of the page currently loaded in the broadcast-independent application is inside the application boundary of the application as defined in clause 6.3. |
| org.hbbtv_00000570 | 2 | User input - VK_BACK | TRUE | When user press the BACK button, there should be a key event of VK_BACK dispatched |
| org.hbbtv_00000580 | 2 | User input - VK_0 | TRUE | When user press the 0 button, there should be a key event of VK_0 dispatched |
| org.hbbtv_00000590 | 2 | User input - VK_1 | TRUE | When user press the 1 button, there should be a key event of VK_1 dispatched |
| org.hbbtv_00000600 | 2 | User input - VK_2 | TRUE | When user press the 2 button, there should be a key event of VK_2 dispatched |
| org.hbbtv_00000610 | 2 | User input - VK_3 | TRUE | When user press the 3 button, there should be a key event of VK_3 dispatched |
| org.hbbtv_00000620 | 2 | User input - VK_4 | TRUE | When user press the 4 button, there should be a key event of VK_4 dispatched |
| org.hbbtv_00000630 | 2 | User input - VK_REWIND | TRUE | When user press the rewind button, there should be a key event of VK_REWIND dispatched |
| org.hbbtv_00000640 | 2 | User input - VK_RED | TRUE | When user press the red button, there should be a key event of VK_RED dispatched |
| org.hbbtv_00000650 | 2 | User input - VK_GREEN | TRUE | When user press the GREEN button, there should be a key event of VK_GREEN dispatched |
| org.hbbtv_00000660 | 2 | User input - VK_YELLOW | TRUE | When user press the YELLOW button, there should be a key event of VK_YELLOW dispatched |
| org.hbbtv_00000670 | 2 | User input - VK_BLUE | TRUE | When user press the BLUE button, there should be a key event of VK_BLUE dispatched |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000680 | 2 | User input - VK_UP | TRUE | When user press the UP button, there should be a key event of VK_UP dispatched |
| org.hbbtv_00000690 | 2 | User input - VK_DOWN | TRUE | When user press the DOWN button, there should be a key event of VK_DOWN dispatched |
| org.hbbtv_00000700 | 2 | User input - VK_LEFT | TRUE | When user press the LEFT button, there should be a key event of VK_LEFT dispatched |
| org.hbbtv_00000710 | 2 | User input - VK_RIGHT | TRUE | When user press the RIGHT button, there should be a key event of VK_RIGHT dispatched |
| org.hbbtv_00000720 | 2 | User input - VK_ENTER | TRUE | When user press the ENTER or OK button, there should be a key event of VK_ENTER dispatched |
| org.hbbtv_00000730 | 2 | User input - VK_5 | TRUE | When user press the 5 button, there should be a key event of VK_5 dispatched |
| org.hbbtv_00000740 | 2 | User input - VK_6 | TRUE | When user press the 6 button, there should be a key event of VK_6 dispatched |
| org.hbbtv_00000750 | 2 | User input - VK_7 | TRUE | When user press the 7 button, there should be a key event of VK_7 dispatched |
| org.hbbtv_00000760 | 2 | User input - VK_8 | TRUE | When user press the 8 button, there should be a key event of VK_8 dispatched |
| org.hbbtv_00000770 | 2 | User input - VK_9 | TRUE | When user press the 9 button, there should be a key event of VK_9 dispatched |
| org.hbbtv_00000780 | 2 | User input - VK_STOP | TRUE | When user press the STOP button, there should be a key event of VK_STOP dispatched |
| org.hbbtv_00000790 | 2 | User input - VK_PLAY | TRUE | When user press the PLAY button, there should be a key event of VK_PLAY dispatched |
| org.hbbtv_00000800 | 2 | User input - VK_PAUSE | TRUE | When user press the PAUSE button, there should be a key event of VK_PAUSE dispatched |
| org.hbbtv_00000810 | 2 | User input - VK_PLAY_PAUSE | TRUE | When user press the PLAY_PAUSE button, there should be a key event of VK_PLAY_PAUSE dispatched |
| org.hbbtv_00000820 | 2 | User input - VK_FAST_FWD | TRUE | When user press the FAST_FWD button, there should be a key event of VK_FAST_FWD dispatched |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00000830 | 2 | User input - CSS3 directional focus navigation - VK_UP | TRUE | On UP keydown events, the terminal shall handle CSS3 directional focus navigation when the nav-up CSS property is used by the application and UP key events are not captured by the application (no JavaScript Navigation). |
| org.hbbtv_00000840 | 2 | User input - CSS3 directional focus navigation - VK_DOWN | TRUE | On DOWN keydown events, the terminal shall handle CSS3 directional focus navigation when the nav-down CSS property is used by the application and DOWN key events are not captured by the application (no JavaScript Navigation). |
| org.hbbtv_00000850 | 2 | User input - CSS3 directional focus navigation - VK_LEFT | TRUE | On LEFT keydown events, the terminal shall handle CSS3 directional focus navigation when the nav-left CSS property is used by the application and LEFT key events are not captured by the application (no JavaScript Navigation). |
| org.hbbtv_00000860 | 2 | User input - CSS3 directional focus navigation - VK_RIGHT | TRUE | On RIGHT keydown events, the terminal shall handle CSS3 directional focus navigation when the nav-right CSS property is used by the application and RIGHT key events are not captured by the application (no JavaScript Navigation). |
| org.hbbtv_00000910 | 2 | User input - Javascript navigation - VK_UP | TRUE | On UP keydown events, terminals shall allow applications to capture the events and prevent the default action (known as 'Javascript navigation'). |
| org.hbbtv_00000920 | 2 | User input - Javascript navigation - VK_DOWN | TRUE | On DOWN keydown events, terminals shall allow applications to capture the events and prevent the default action (known as 'Javascript navigation'). |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_00000930 | 2 | User input - Javascript navigation - VK_LEFT | TRUE | On LEFT keydown events, terminals shall allow applications to capture the events and prevent the default action (known as 'Javascript navigation'). |
| org.hbbtv_00000940 | 2 | User input - Javascript navigation - VK_RIGHT | TRUE | On RIGHT keydown events, terminals shall allow applications to capture the events and prevent the default action (known as 'Javascript navigation'). |
| org.hbbtv_00000950 | 2 | User input - Navigation priority - VK_RIGHT | TRUE | On RIGHT keydown events, the terminal shall prioritize javascript navigation over CSS3 directional focus navigation if both are used by an application. |
| org.hbbtv_00000960 | 2 | User input - Navigation priority - VK_UP | TRUE | On UP keydown events, the terminal shall prioritize javascript navigation over CSS3 directional focus navigation if both are used by an application. |
| org.hbbtv_00000970 | 2 | User input - Navigation priority - VK_DOWN | TRUE | On DOWN keydown events, the terminal shall prioritize javascript navigation over CSS3 directional focus navigation if both are used by an application. |
| org.hbbtv_00000980 | 2 | User input - Navigation priority - VK_LEFT | TRUE | On LEFT keydown events, the terminal shall prioritize javascript navigation over CSS3 directional focus navigation if both are used by an application. |
| org.hbbtv_00000990 | 2 | Access to resources inside the boundary of an application loaded from carousel | TRUE | Adding application boundaries to a 'trusted' application loaded via a carousel grants elements within the extended application domain access to API functions marked with security 'trusted'. |
| org.hbbtv_00001000 | 4 | Loading a document outside the boundary of an application loaded via HTTP | TRUE | Loading a document from outside the application boundary of a 'trusted' application loaded via HTTP, suspends access to API functions marked with security 'trusted'. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001010 | 4 | Loading a document from outside the application boundary including a document from within the application boundary | TRUE | When presenting a document from outside the application boundary of a trusted application loaded via HTTP, loading a document from within the application boundary of the trusted application restores access to API functions marked with security 'trusted'. |
| org.hbbtv_00001020 | 3 | Access to resources within the Application domain via XMLHttpRequest | TRUE | Adding application boundaries to an application loaded via HTTP grants XMLHttpRequests within the extended application domain access to those resources. |
| org.hbbtv_00001030 | 2 | Access to resources outside the application domain via XmlHttpRequest | TRUE | XMLHttpRequests to resources outside the application domain of an application loaded via HTTP is not allowed. |
| org.hbbtv_00001040 | 2 | Access to 'trusted' API from within an iframe loaded from inside the application domain | TRUE | Adding application boundaries to an application loaded via HTTP grants documents loaded in an <iframe> within the extended application domain access to API functions marked with security 'trusted'. |
| org.hbbtv_00001050 | 4 | Block access to trusted API from document outside the application boundary | TRUE | Documents that are outside the application boundary of an application, where the application is loaded via HTTP and has no application boundaries set, do not have access to API functions marked with security 'trusted'. |
| org.hbbtv_00001060 | 2 | Access to trusted APIs from a document inside the application boundary of a trusted application loaded via HTTP | TRUE | Adding application boundaries to a trusted application loaded via HTTP grants elements within the extended application domain access to API functions marked with security 'trusted'. |
| org.hbbtv_00001150 | 4 | Access to trusted API from a document outside the application boundary (app loaded via HTTP) | TRUE | Documents loaded in an <iframe> outside the application boundary of an application loaded via HTTP have no access to API functions marked with security 'trusted'. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001160 | 4 | Access to trusted API from a document outside the application boundary (app loaded via carousel) | TRUE | Loading a document from outside the application boundary of a trusted application loaded via a carousel, suspends access to API functions marked with security 'trusted'. |
| org.hbbtv_00001170 | 4 | Access to trusted API from a document inside the application boundary (app loaded via carousel) | TRUE | When presenting a document from outside the application boundary of a trusted application loaded via a carousel, loading a document from within the application boundary of the trusted application restores access to API functions marked with security 'trusted'. |
| org.hbbtv_00001180 | 2 | Access to carousel via XMLHttpRequest (app loaded via carousel) | FALSE | Adding application boundaries to an application loaded via a carousel grants XMLHttpRequests within the extended application domain access to those resources. |
| org.hbbtv_00001190 | 2 | Access to resources outside the application domain via XMLHttpRequest | TRUE | XMLHttpRequests to resources outside the application domain of an application loaded via a carousel is not allowed. |
| org.hbbtv_00001200 | 2 | Access to trusted API from a document inside the application domain (app loaded via carousel) | TRUE | Adding application boundaries to a trusted application loaded via a carousel grants documents loaded in an <iframe> within the extended application domain access to API functions marked with security 'trusted'. |
| org.hbbtv_00001210 | 4 | Blocking access to trusted API from a document outside the application boundary (app loaded via carousel) | TRUE | Documents loaded in an <iframe> outside the application boundary of a trusted application loaded via a carousel have no access to API functions marked with security 'trusted'. |
| org.hbbtv_00001220 | 1 | Stopping applications: Application.destroyApplication | TRUE | A DVB service with an AUTOSTART Application is tuned. The AUTOSTART Application can be requested to kill itself using the Application.destroyApplication() method |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001230 | 2 | Stopping applications: out of resources | TRUE | A DVB service with an AUTOSTART Application is tuned. The AUTOSTART Application continuously allocates resources without freeing them. Once the terminal runs out of resources, the terminal stops the Application |
| org.hbbtv_00001240 | 1 | Starting broadcast related applications invisible | TRUE | The terminal starts a broadcast related application. Application.show() is not called. The Application is not visible. |
| org.hbbtv_00001260 | 1 | Starting broadcast independent applications | TRUE | The terminal starts a broadcast-independent Application, by calling createApplication(). The Application is visible. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001400 | 3 | HTTP User Agent header grammar | TRUE | The User-Agent header shall match the HbbTvUserAgent production in the following ABNF grammar that operates on ASCII characters:<br><br>HbbTvUserAgent = HbbTvUserAgent_1 HbbTvUserAgent_2<br>HbbTvUserAgent_1 = TEXT 'HbbTV/1.1.1' [LWS] '(' [HbbTvOptions] ';' [LWS] [vendorName] ';' [LWS] [modelName] ';'<br>HbbTvUserAgent_2 = [LWS] [softwareVersion] ';' [LWS] [hardwareVersion] ';' [LWS] reserved ')' TEXT<br><br>vendorName = TEXT<br>modelName = TEXT<br>softwareVersion = TEXT<br>hardwareVersion = TEXT<br>reserved = TEXT<br><br>HbbTvOptions = 1*HbbTvOption<br>HbbTvOption = DLOption \| PVROption \| RTSPOption<br>DLOption = '+DL'<br>PVROption = '+PVR'<br>RTSPOption = '+RTSP'<br><br>TEXT, LWS non-terminals are specified in RFC2616. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001401 | 1 | HTTP User Agent header grammar | TRUE | The User-Agent header shall match the HbbTvUserAgent production in the following ABNF grammar that operates on ASCII characters:<br><br>HbbTvUserAgent = HbbTvUserAgent_1 HbbTvUserAgent_2<br>HbbTvUserAgent_1 = TEXT 'HbbTV/1.2.1' [LWS] '(' [HbbTvOptions] ';' [LWS] [vendorName] ';' [LWS] [modelName] ';'<br>HbbTvUserAgent_2 = [LWS] [softwareVersion] ';' [LWS] [hardwareVersion] ';' [LWS] reserved ')' TEXT<br><br>vendorName = TEXT<br>modelName = TEXT<br>softwareVersion = TEXT<br>hardwareVersion = TEXT<br>reserved = TEXT<br><br>HbbTvOptions = 1*HbbTvOption<br>HbbTvOption = DLOption \| PVROption \| DRMOption<br>DLOption = '+DL'<br>PVROption = '+PVR'<br>DRMOption = '+DRM'<br><br>TEXT, LWS non-terminals are specified in RFC2616. |
| org.hbbtv_00001410 | 2 | Status value is 404 when trying to access non-existing DSM-CC objects with XMLHttpRequest | TRUE | The status property will return value 404 when trying to access non-existing DSM-CC objects in a mounted carousel with XMLHttpRequest. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001420 | 2 | When accessing DSM-CC objects with XMLHttpRequest, statusText will return an empty string | FALSE | When accessing DSM-CC objects with XMLHttpRequest, statusText will return an empty string. |
| org.hbbtv_00001450 | 2 | Calls to getAllResponseHeaders() return an empty string when accessing DSM-CC objects with XMLHttpRequest | TRUE | Calls to getAllResponseHeaders() return an empty string when accessing DSM-CC objects with XMLHttpRequest. |
| org.hbbtv_00001460 | 2 | When accessing a DSM-CC File object with XMLHttpRequest, responseText returns the content of the requested file | TRUE | When accessing a DSM-CC File object with XMLHttpRequest, responseText returns the content of the requested file. |
| org.hbbtv_00001470 | 2 | When accessing a DSM-CC Directory object with XMLHttpRequest, responseText returns a comma-separated list of objects in the directory | TRUE | When accessing a DSM-CC Directory object with XMLHttpRequest, responseText returns a comma-separated list of objects in the directory. |
| org.hbbtv_00001480 | 2 | When accessing a DSM-CC File object with '.xml' extension with XMLHttpRequest, responseXML returns an XML document object | TRUE | When accessing a DSM-CC File object with '.xml' extension with XMLHttpRequest, responseXML returns an XML document object representation of the requested XML document. |
| org.hbbtv_00001490 | 2 | When accessing a DSM-CC Directory object with XMLHttpRequest, responseXML returns null | TRUE | When accessing a DSM-CC Directory object with XMLHttpRequest, responseXML returns null. |
| org.hbbtv_00001500 | 2 | When accessing a DSM-CC Stream Event object with XMLHttpRequest, responseXML returns null | TRUE | When accessing a DSM-CC Stream Event object with XMLHttpRequest, responseXML returns null. |
| org.hbbtv_00001520 | 2 | Test of minimum terminal capabilities. Supported proportional font | TRUE | The terminal shall support the Tiresias Screenfont (or equivalent) with Unicode character range 'Basic Euro Latin Character set' as defined in Annex C of TS 102 809 |
| org.hbbtv_00001530 | 2 | Test of minimum terminal capabilities. Supported proportional font | TRUE | When the font to use is not explicitly specified in any application, the terminal shall use the Tiresias Screenfont (or equivalent) as default font |
| org.hbbtv_00001540 | 2 | Test of minimum terminal capabilities. Supported proportional font | TRUE | The Tiresias Screenfont font (even if it is an equivalent of 'Tiresias Screenfont') shall be accessible with the following CSS rule: font-family: Tiresias; |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001550 | 2 | Test of minimum terminal capabilities. Supported proportional font | TRUE | When 'sans serif' generic family is used for a 'font family' CSS rule (i.e. font-family: sans-serif), the terminal shall use the 'Tirerias Screenfont' font (or equivalent). |
| org.hbbtv_00001560 | 2 | Test of minimum terminal capabilities. Supported non-proportional font | TRUE | The terminal shall support the 'Letter Gothic 12 Pitch' (or equivalent) font with the support for the Unicode character range 'Basic Euro Latin Character set' as defined in Annex C of TS 102 809 |
| org.hbbtv_00001570 | 2 | Test of minimum terminal capabilities. Supported non-proportional font | TRUE | The Letter Gothic 12 Pitch font (even if it is an equivalent of 'Letter Gothic 12 Pitch') shall be accessible with the following CSS rule: font-family: 'Letter Gothic 12 Pitch'; |
| org.hbbtv_00001580 | 2 | Test of minimum terminal capabilities. Supported non-proportional font | TRUE | When 'monospace' generic family is used for a 'font family' CSS rule (i.e. font-family: monospace;), the terminal shall use the 'Letter Gothic 12 Pitch' font (or equivalent). |
| org.hbbtv_00001590 | 2 | Test of minimum terminal capabilities. Text entry method | TRUE | The terminal shall support either multi-tap (e.g. as defined in ES 201 130 [i. 2]) or an equivalent (e.g. software keyboard) where characters are input character by character in the text field. |
| org.hbbtv_00001600 | 2 | Test of minimum terminal capabilities, text entry method | TRUE | For multi-tap or other methods which use supported key events to generate characters, these intermediate key events shall not be reported to applications. Only the final character result shall be reported to applications. |
| org.hbbtv_00001620 | 1 | Test of minimum terminal capabilities, PVR management | TRUE | The manageRecordings attribute of the recording capability shall have the value 'samedomain'. |
| org.hbbtv_00001630 | 1 | Test of minimum terminal capabilities, download management | TRUE | The manageDownload attribute of the download capability shall have the value 'samedomain'. |
| org.hbbtv_00001680 | 2 | State of a video/broadcast object when it is instantiated | TRUE | When a video/broadcast object is instantiated, it shall be in the unrealized state. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001690 | 2 | Change of state of a video/broadcast object when the nextChannel() method is called while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the nextChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001700 | 2 | Change of state of a video/broadcast object when the prevChannel() method is called while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the prevChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001710 | 2 | Change of state of a video/broadcast object when the bindToCurrentChannel() method is called while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the bindToCurrentChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001720 | 2 | Change of state of a video/broadcast object when the release() method is called while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the release() method is called, this shall have no effect. |
| org.hbbtv_00001730 | 2 | Change of state of a video/broadcast object when the stop() method is called while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the stop() method is called, this shall have no effect. |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_00001810 | 2 | Change of state of a video/broadcast object when the nextChannel() method is called while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the nextChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001820 | 2 | Change of state of a video/broadcast object when the prevChannel() method is called while it is in the presenting state | FALSE | When a video/broadcast object is in the presenting state and the prevChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001830 | 2 | Change of state of a video/broadcast object when the bindToCurrentChannel() method is called while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the bindToCurrentChannel() method is called, this shall have no effect. |
| org.hbbtv_00001840 | 2 | Change of state of a video/broadcast object when the release() method is called while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the release() method is called, the video/broadcast object shall transition to the unrealized state. A PlayStateChange DOM event shall be triggered with the state property set to 0 (unrealized) and the error property set to undefined (i.e. unallocated error value). |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001850 | 2 | Change of state of a video/broadcast object when the stop() method is called while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the stop() method is called, the video/broadcast object shall transition to the stopped state. A PlayStateChange DOM event shall be triggered with the state property set to 3 (stopped) and the error property set to undefined (i.e. unallocated error value). The playState property of the video/broadcast object shall be 3 while the state is stopped. |
| org.hbbtv_00001900 | 2 | Change of state of a video/broadcast object when the bindToCurrentChannel() method is called while it is in the stopped state | TRUE | When a video/broadcast object is in the stopped state and the bindToCurrentChannel() method is called, the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001910 | 2 | Change of state of a video/broadcast object when the release() method is called while it is in the stopped state | TRUE | When a video/broadcast object is in the stopped state and the release() method is called, the video/broadcast object shall transition to the unrealized state. A PlayStateChange DOM event shall be triggered with the state property set to 0 (unrealized) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00001920 | 2 | Change of state of a video/broadcast object when the stop() method is called while it is in the stopped state | TRUE | When a video/broadcast object is in the stopped state and the stop() method is called, this shall have no effect. |
| org.hbbtv_00001940 | 2 | video/broadcast object presentation - presenting  state | TRUE | When the video/broadcast object is in the presenting state, the video/broadcast object contains the video being presented. |
| org.hbbtv_00001950 | 2 | video/broadcast object presentation - stopped   state | TRUE | When the video/broadcast object is in the stopped state, the content of the video/broadcast object shall be an opaque black rectangle. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00001970 | 2 | Change of state of a video/broadcast object when the setChannel() method is called (with a null parameter) while it is in the unrealized state | TRUE | When a video/broadcast object is in the unrealized state and the setChannel() method is called (with a null parameter), the video/broadcast object shall stay in the unrealized state. |
| org.hbbtv_00002000 | 2 | Change of state of a video/broadcast object when the setChannel() method is called (with a correct parameter) while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the setChannel(x) method is called (where 'x' is a correct parameter for setChannel() method), the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00002010 | 2 | Change of state of a video/broadcast object when the setChannel() method is called (with a null parameter) while it is in the presenting state | TRUE | When a video/broadcast object is in the presenting state and the setChannel() method is called (with a null parameter), the video/broadcast object shall transition to the unrealized state. A PlayStateChange DOM event shall be triggered with the state property set to 0 (unrealized) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00002020 | 2 | Change of state of a video/broadcast object when the setChannel() method is called (with a correct parameter) while it is in the stopped state | TRUE | When a video/broadcast object is in the stopped state and the setChannel(x) method is called (where 'x' is a correct parameter for setChannel() method), the video/broadcast object shall transition to the connecting state. A PlayStateChange DOM event shall be triggered with the state property set to 1 (connecting) and the error property set to undefined (i.e. unallocated error value). |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002030 | 2 | Change of state of a video/broadcast object when the setChannel() method is called (with a null parameter) while it is in the stopped state | TRUE | When a video/broadcast object is in the stopped state and the setChannel() method is called (with a null parameter), the video/broadcast object shall transition to the unrealized state. A PlayStateChange DOM event shall be triggered with the state property set to 0 (unrealized) and the error property set to undefined (i.e. unallocated error value). |
| org.hbbtv_00002230 | 2 | AV Object Overlap (Partial overlap of object with a higher Z index) | TRUE | When an AV object having a higher z index as compared to the HTML Objects, the AV Object shall partially overlap HTML objects. |
| org.hbbtv_00002240 | 2 | AV Object Overlap (Partial overlap of object with a lower Z index) | TRUE | When a AV object having a lower z index as compared to the HTML objects, the AV Object shall be partially overlapped by the HTML objects. |
| org.hbbtv_00002250 | 2 | AV Object Overlap (Total overlap of object with a higher Z index) | TRUE | When an AV object having a higher z index as compared to the HTML Objects, the AV Object shall completely overlap HTML objects. |
| org.hbbtv_00002260 | 2 | AV Object Overlap (Total overlap of object with a lower Z index) | TRUE | When an AV object having a lower z-index as compared to the HTML objects, the AV Object shall be completely overlapped by the HTML objects. |
| org.hbbtv_00002270 | 2 | AV Object Scaling (1/8; Video Res 1280x720; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 1280x720, at sizes down to 1/8 by 1/8 of the width and height of the logical video plane - equivalent to 160 x 90 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002280 | 2 | AV Object Scaling (1/8; Video Res 640x720; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 640x720 at sizes down to 1/8 by 1/8 of the width and height of the logical video plane - equivalent to 160 x 90 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002290 | 2 | AV Object Scaling (1/8; Video Res 720x576; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 720x576 at sizes down to 1/8 by 1/8 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 160 x 90 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002300 | 2 | AV Object Scaling (1/8; Video Res 352x288; 4:3) | TRUE | Terminals shall be able to scale video having resolution of 352x288 at sizes down to 1/8 by 1/8 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 160 x 90 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002310 | 3 | AV Object Scaling (2/13; Video Res 1280x720; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 1280x720, at sizes down to 2/13 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 196 x 110 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002320 | 3 | AV Object Scaling (2/13; Video Res 640x720; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 640x720, at sizes down to 2/13 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 196 x 110 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002330 | 3 | AV Object Scaling (2/13; Video Res 720x576; 16:9) | TRUE | Terminals shall be able to scale video having resolution of 720x576, at sizes down to 2/13 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 196 x 110 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002340 | 3 | AV Object Scaling (2/13; Video Res 352x288; 4:3) | TRUE | Terminals shall be able to scale video having resolution of 352x288, at sizes down to 2/13 of the width and height of the logical video plane for videos contained in a MP4 format - equivalent to 196 x 110 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002350 | 2 | AV Object Scaling (x2; Video Res 1280x720) | TRUE | Terminals shall be able to scale video having resolution of 1280x720 up to 2 x 2 of the width and height of the logical video plane - equivalent to 2560x1440 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002360 | 2 | AV Object Scaling (x2; Video Res 640x720) | TRUE | Terminals shall be able to scale video having resolution of 640x720 up to 2 x 2 of the width and height of the logical video plane - equivalent to 2560x1440 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002370 | 2 | AV Object Scaling (x2; Video Res 720x576) | TRUE | Terminals shall be able to scale video having resolution of 720x576 up to 2 x 2 of the width and height of the logical video plane - equivalent to 2560x1440 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |
| org.hbbtv_00002380 | 3 | AV Object Scaling (x2; Video Res 352x288) | TRUE | Terminals shall be able to scale video having resolution of 352x288 up to 2 x 2 of the width and height of the logical video plane - equivalent to 2560x1440 pixels in the Hybrid Broadcast Broadband TV application graphics plane. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002390 | 2 | AV Object Scaling (1/2x1/4; Video Res 1280x720) | TRUE | Terminals shall be able to scale video having resolution of 1280x720 to 1/2 x 1/4 of the width and height of the logical video plane. The aspect ratio of decoded video shall be preserved such that all of the decoded video is visible within the area of the video/broadcast or AV Control object. Finally a video having a resolution of 640x180 pixels in the Hybrid Broadcast Broadband TV application graphics plane shall be visible. |
| org.hbbtv_00002400 | 2 | AV Object Scaling (1/2x1/4; Video Res 640x720) | TRUE | Terminals shall be able to scale video having resolution of 640x720 up to 1/2 x 1/4 of the width and height of the logical video plane. The aspect ratio of decoded video shall be preserved such that all of the decoded video is visible within the area of the video/broadcast or AV Control object. Finally a video having a resolution of 640x180 pixels in the Hybrid Broadcast Broadband TV application graphics plane shall be visible. |
| org.hbbtv_00002410 | 2 | AV Object Scaling (1/2x1/4; Video Res 720x576) | TRUE | Terminals shall be able to scale video having resolution of 720x576 up to 1/2 x 1/4 of the width and height of the logical video plane. The aspect ratio of decoded video shall be preserved such that all of the decoded video is visible within the area of the video/broadcast or AV Control object. Finally a video having a resolution of 640x180 pixels in the Hybrid Broadcast Broadband TV application graphics plane shall be visible. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002420 | 2 | AV Object Scaling (1/2x1/4; Video Res 352x288) | TRUE | Terminals shall be able to scale video having resolution of 352x288 up to 1/2 x 1/4 of the width and height of the logical video plane. The aspect ratio of decoded video shall be preserved such that all of the decoded video is visible within the area of the video/broadcast or AV Control object. Finally a video having a resolution of 640x180 pixels in the Hybrid Broadcast Broadband TV application graphics plane shall be visible. |
| org.hbbtv_00002430 | 2 | Terminal stores cookies with an expiry date in persistent memory | TRUE | The terminal shall store cookies with expiry dates in persistent memory. |
| org.hbbtv_00002440 | 2 | Cookies expire at the correct time | TRUE | Terminals shall respect the expiry date of the cookie and remove them once they expire. |
| org.hbbtv_00002450 | 1 | Terminal supports cookies of 4096 bytes | TRUE | The terminal shall support storage and retrieval of a cookie with a size of 4096 bytes |
| org.hbbtv_00002460 | 1 | Terminal supports at least 100 cookies | TRUE | The terminal shall support a minimum of 100 cookies |
| org.hbbtv_00002470 | 1 | Terminal supports at least 100 x 4KB cookies | FALSE | The terminal shall support a minimum of 100 cookies having a maximum individual size of 4k each. |
| org.hbbtv_00002480 | 1 | Terminal supports 20 cookies per domain | TRUE | The terminal shall support storage and retrieval of 20 cookies for a single domain. |
| org.hbbtv_00002490 | 1 | Memory Audio - Infinite Looping | TRUE | When an A/V Control object is initialised for memory audio, and its 'loop' PARAM element has the value 'infinite'; when the play() method is called on the A/V Control object with its 'speed' argument specified as 1, the terminal shall play the whole memory audio clip in full and shall repeat playback indefinitely |

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| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_00002500 | 1 | Memory Audio - Stopping looping playback | TRUE | When the terminal is continuously playing looping memory audio, it shall be able to stop playback when the stop() method is called on the A/V Control object |
| org.hbbtv_00002510 | 2 | Test of support for MP4 File Format streamed over HTTP; 1280x720p@25, 16:9 | TRUE | The terminal shall correctly decode and display AV from MP4 File Formats streamed over HTTP (1280x720p@25, 16:9). |
| org.hbbtv_00002520 | 2 | Test of support for MP4 File Format streamed over HTTP; 352x288i@25, 4:3 | TRUE | The terminal shall correctly decode and display AV from MP4 File Formats streamed over HTTP (352x288i@25, 4:3). |
| org.hbbtv_00002530 | 2 | Test of support for MPEG-2 TS streamed over HTTP; 1280x720p@25, 16:9 | TRUE | The terminal shall correctly decode and display AV from MPEG-2 TS streamed over HTTP (1280x720p@25, 16:9). |
| org.hbbtv_00002540 | 2 | Test of support for MPEG-2 TS streamed over HTTP; 352x288i@25, 4:3 | TRUE | The terminal shall correctly decode and display AV from MPEG-2 TS streamed over HTTP (352x288i@25, 4:3). |
| org.hbbtv_00002590 | 2 | Test of High Bitrate Streaming; MP4 File Format | TRUE | The terminal shall correctly decode and display AV from an MP4 streamed over HTTP at 8Mbit/s. |
| org.hbbtv_00002600 | 1 | Test of High Bitrate Streaming; MPEG-2 TS | TRUE | The terminal shall correctly decode and present AV from an MPEG-2 TS streamed over HTTP at 8 Mbit/s |
| org.hbbtv_00002610 | 2 | Test that terminal ignores any AIT signalling present in MPEG-2 TS streamed over HTTP | TRUE | The terminal shall ignore any AIT data present in an MPEG-2 TS streamed over HTTP. |
| org.hbbtv_00002630 | 2 | Test of support for AVC_SD_25; 720x576p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 720x576p@25, 16:9. |
| org.hbbtv_00002640 | 2 | Test of support for AVC_SD_25; 544x576p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 544x576p@25, 16:9. |
| org.hbbtv_00002650 | 2 | Test of support for AVC_SD_25; 480x576p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 480x576p@25, 16:9. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002660 | 2 | Test of support for AVC_SD_25; 352x576p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x576p@25, 16:9. |
| org.hbbtv_00002670 | 2 | Test of support for AVC_SD_25; 352x288p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x288p@25, 16:9. |
| org.hbbtv_00002680 | 2 | Test of support for AVC_SD_25; 720x576i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 720x576i@25, 16:9. |
| org.hbbtv_00002690 | 2 | Test of support for AVC_SD_25; 544x576i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 544x576i@25, 16:9. |
| org.hbbtv_00002700 | 2 | Test of support for AVC_SD_25; 480x576i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 480x576i@25, 16:9. |
| org.hbbtv_00002710 | 2 | Test of support for AVC_SD_25; 352x576i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x576i@25, 16:9. |
| org.hbbtv_00002720 | 2 | Test of support for AVC_SD_25; 352x288i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x288i@25, 16:9. |
| org.hbbtv_00002730 | 2 | Test of support for AVC_SD_25; 720x576p@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 720x576p@25, 4:3. |
| org.hbbtv_00002740 | 2 | Test of support for AVC_SD_25; 544x576p@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 544x576p@25, 4:3. |
| org.hbbtv_00002750 | 2 | Test of support for AVC_SD_25; 480x576p@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 480x576p@25, 4:3. |
| org.hbbtv_00002760 | 2 | Test of support for AVC_SD_25; 352x576p@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x576p@25, 4:3. |
| org.hbbtv_00002770 | 2 | Test of support for AVC_SD_25; 352x288p@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x288p@25, 4:3. |
| org.hbbtv_00002780 | 2 | Test of support for AVC_SD_25; 720x576i@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 720x576i@25, 4:3. |
| org.hbbtv_00002790 | 2 | Test of support for AVC_SD_25; 544x576i@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 544x576i@25, 4:3. |
| org.hbbtv_00002800 | 2 | Test of support for AVC_SD_25; 480x576i@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 480x576i@25, 4:3. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002810 | 2 | Test of support for AVC_SD_25; 352x576i@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x576i@25, 4:3. |
| org.hbbtv_00002820 | 2 | Test of support for AVC_SD_25; 352x288i@25, 4:3 | TRUE | The terminal shall correctly decode and display AVC_SD_25 streaming video at 352x288i@25, 4:3. |
| org.hbbtv_00002830 | 2 | Test of support for AVC_HD_25; 1280x720p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1280x720p@25, 16:9. |
| org.hbbtv_00002840 | 2 | Test of support for AVC_HD_25; 960x720p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 960x720p@25, 16:9. |
| org.hbbtv_00002850 | 2 | Test of support for AVC_HD_25; 640x720p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 640x720p@25, 16:9. |
| org.hbbtv_00002860 | 2 | Test of support for AVC_HD_25; 1280x720i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1280x720i@25, 16:9. |
| org.hbbtv_00002870 | 2 | Test of support for AVC_HD_25; 960x720i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 960x720i@25, 16:9. |
| org.hbbtv_00002880 | 2 | Test of support for AVC_HD_25; 640x720i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 640x720i@25, 16:9. |
| org.hbbtv_00002890 | 2 | Test of support for AVC_HD_25; 1920x1080p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1920x1080p@25, 16:9. |
| org.hbbtv_00002900 | 2 | Test of support for AVC_HD_25; 1440x1080p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1440x1080p@25, 16:9. |
| org.hbbtv_00002910 | 2 | Test of support for AVC_HD_25; 1280x1080p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1280x1080p@25, 16:9. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00002920 | 2 | Test of support for AVC_HD_25; 960x1080p@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 960x1080p@25, 16:9. |
| org.hbbtv_00002930 | 2 | Test of support for AVC_HD_25; 1920x1080i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1920x1080i@25, 16:9. |
| org.hbbtv_00002940 | 2 | Test of support for AVC_HD_25; 1440x1080i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1440x1080i@25, 16:9. |
| org.hbbtv_00002950 | 2 | Test of support for AVC_HD_25; 1280x1080i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1280x1080i@25, 16:9. |
| org.hbbtv_00002960 | 2 | Test of support for AVC_HD_25; 960x1080i@25, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 960x1080i@25, 16:9. |
| org.hbbtv_00002970 | 2 | Test of support for AVC_HD_25; 1280x720p@50, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 1280x720p@50, 16:9. |
| org.hbbtv_00002980 | 2 | Test of support for AVC_HD_25; 960x720p@50, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 960x720p@50, 16:9. |
| org.hbbtv_00002990 | 2 | Test of support for AVC_HD_25; 640x720p@50, 16:9 | TRUE | The terminal shall correctly decode and display AVC_HD_25 streaming video at 640x720p@50, 16:9. |
| org.hbbtv_00003000 | 2 | Test of support for HE-AAC; Mono, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono HE-AAC audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003010 | 2 | Test of support for HE-AAC; Stereo, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo HE-AAC audio as part of AV Content streamed over HTTP. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003020 | 2 | Test of support for HE-AAC; Multichannel, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel HE-AAC audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003030 | 2 | Test of support for AAC; Mono, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono AAC audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003040 | 2 | Test of support for AAC; Stereo, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo AAC audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003050 | 2 | Test of support for AAC; Multichannel, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel AAC audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003060 | 3 | Test of support for AC-3; Mono, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono AC-3 audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003070 | 3 | Test of support for AC-3; Stereo, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo AC-3 audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003080 | 3 | Test of support for AC-3; Multichannel, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel AC-3 audio as part of AV Content streamed over HTTP. |
| org.hbbtv_00003090 | 1 | Test of support for MP4 E-AC-3; Mono, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono E-AC-3 audio as part of AV Content encapsulated in an MP4 container and streamed over HTTP. |
| org.hbbtv_00003100 | 1 | Test of support for MP4 E-AC-3; Stereo, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo E-AC-3 audio as part of AV Content encapsulated in an MP4 container and streamed over HTTP. |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003110 | 1 | Test of support for MP4 E-AC-3; Multichannel, AV Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel E-AC-3 audio as part of AV Content encapsulated in an MP4 container and streamed over HTTP. |
| org.hbbtv_00003120 | 2 | Test of support for HE-AAC; Mono, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono HE-AAC audio as part of Audio Only (Radio) Content streamed over HTTP. |
| org.hbbtv_00003130 | 2 | Test of support for HE-AAC; Stereo, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo HE-AAC audio as part of Audio Only (Radio) Content streamed over HTTP. |
| org.hbbtv_00003140 | 2 | Test of support for HE-AAC; Multichannel, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel HE-AAC audio as part of Audio Only (Radio) Content streamed over HTTP. |
| org.hbbtv_00003170 | 1 | Test of support for MP4 AAC; Multichannel, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present multichannel AAC audio as part of audio only (radio) content encapsulated in an MP4 container and streamed over HTTP. |
| org.hbbtv_00003180 | 2 | Test of support for MP3; Mono, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present mono MP3 audio as part of Audio Only (Radio) Content streamed over HTTP. |
| org.hbbtv_00003190 | 2 | Test of support for MP3; Stereo, Audio Only (Radio) Content, Streamed over HTTP | TRUE | The terminal shall correctly decode and present stereo MP3 audio as part of Audio Only (Radio) Content streamed over HTTP. |
| org.hbbtv_00003400 | 2 | Test of downmixing Multichannel HE-AAC (AV Content) Streamed over HTTP | TRUE | The terminal shall correctly downmix multichannel HE-AAC for presentation over a stereo output. |
| org.hbbtv_00003410 | 2 | Test of downmixing Multichannel AAC (AV Content) Streamed over HTTP | TRUE | The terminal shall correctly downmix multichannel AAC for presentation over a stereo output. |
| org.hbbtv_00003420 | 3 | Test of downmixing Multichannel AC-3 (AV Content) Streamed over HTTP | TRUE | The terminal shall correctly downmix multichannel AC-3 for presentation over a stereo output. |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003430 | 1 | Test of downmixing Multichannel E-AC-3 (AV Content) Streamed over HTTP | TRUE | The terminal shall correctly downmix multichannel E-AC-3 for presentation over a stereo output |
| org.hbbtv_00003440 | 1 | Test of interpretation of audio metadata when downmixing Multichannel HE-AAC (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly interpret downmix parameters from the audio metadata when downmixing multichannel HE-AAC for presentation over a stereo output. |
| org.hbbtv_00003450 | 1 | Test of interpretation of audio metadata when downmixing Multichannel AAC (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly interpret downmix parameters from the audio metadata when downmixing multichannel AAC for presentation over a stereo output. |
| org.hbbtv_00003460 | 3 | Test of interpretation of audio metadata when downmixing Multichannel AC-3 (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly interpret downmix parameters from the audio metadata when downmixing multichannel AC-3 for presentation over a stereo output. |
| org.hbbtv_00003470 | 2 | Test of interpretation of audio metadata when downmixing Multichannel E-AC-3 (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly interpret downmix parameters from the audio metadata when downmixing multichannel E-AC-3 for presentation over a stereo output. |
| org.hbbtv_00003480 | 2 | Test of passthrough of HE-AAC (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly passthrough an HE-AAC bitstream onto the digital audio output. |
| org.hbbtv_00003490 | 2 | Test of passthrough of AAC (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly passthrough an AAC bitstream onto the digital audio output. |
| org.hbbtv_00003500 | 1 | Test of passthrough of AC-3 (AV Content) Streamed over HTTP | TRUE | The terminal shall correctly passthrough an AC-3 bitstream onto the digital audio output. |
| org.hbbtv_00003510 | 2 | Test of passthrough of EAC-3 (AV Content) Streamed over HTTP | FALSE | The terminal shall correctly passthrough an EAC-3 bitstream onto the digital audio output. |
| org.hbbtv_00003520 | 2 | Transcoding to AC3 from HE-AAC v1 | TRUE | When streaming an MP4 containing 5.1 channel, HE-AAC v1 audio and accompanying video data over HTTP; the terminal shall correctly transcode the audio to AC-3 over the S/PDIF output |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003530 | 2 | Transcoding to AC3 from AAC LC | TRUE | When streaming an MP4 containing 5.1 channel, AAC LC audio and accompanying video data over HTTP; the terminal shall correctly transcode the audio to AC-3 over the S/PDIF output |
| org.hbbtv_00003540 | 3 | AV Object Seeking Within Buffer (MP4 Forward 5s) | TRUE | The terminal shall correctly seek to a new position inside buffer for a video contained in a MP4 format. The terminal shall seek to 5s forward within buffer. |
| org.hbbtv_00003560 | 3 | AV Object Seeking Outside Buffer (MP4 Forward) | TRUE | The terminal shall correctly seek forward to a new position outside buffer for a video contained in a MP4 format. |
| org.hbbtv_00003580 | 2 | AV Object Seeking Outside Buffer (MP4 Backward) | TRUE | The terminal shall correctly seek backward to an earlier position outside buffer for a video contained in a MP4 format. |
| org.hbbtv_00003600 | 3 | AV Object Seeking Within Buffer (MP4 Backward 5s) | TRUE | The terminal shall correctly seek backward to an earlier position within buffer for a video contained in a MP4 format. |
| org.hbbtv_00003630 | 2 | AV Streaming Tests: AV Object (Pause) | TRUE | Setting the A/V control object's play speed property to 0('paused') while streaming video over HTTP SHALL cause the video to freeze and audio to suspend |
| org.hbbtv_00003640 | 2 | AV Streaming Tests: AV Object (Stop) | TRUE | Stopping playback shall cause the video plane to be made opaque black and the audio to stop. |
| org.hbbtv_00003650 | 2 | Test for onPlayStateChanged event when transitioning from Play to Pause | TRUE | When the A/V Control Object successfully transitions from 'playing' state to 'paused' state, an onPlayStateChanged event with a state of 2 shall be generated. |
| org.hbbtv_00003660 | 2 | Test for onPlayStateChanged event when transitioning from Play to Stop | TRUE | When the A/V Control Object successfully transitions from 'playing' state to 'stopped' state, an onPlayStateChanged event with a state of 0 shall be generated. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003670 | 2 | Test for onPlayStateChanged event when transitioning from Paused to Playing | TRUE | When the A/V Control Object successfully transitions from 'paused' state to 'playing' state, an onPlayStateChanged event with a state of 1 shall be generated. |
| org.hbbtv_00003680 | 2 | Test for onPlayStateChanged event when transitioning from Paused to Stop | TRUE | When the A/V Control Object successfully transitions from 'paused' state to 'stopped' state, an onPlayStateChanged event with a state of 0 shall be generated. |
| org.hbbtv_00003690 | 2 | Test for onPlayStateChanged event when transitioning from Stop to Play | TRUE | When the A/V Control Object successfully transitions from 'stopped' state to 'playing' state, an onPlayStateChanged event with a state of 1 shall be generated. |
| org.hbbtv_00003700 | 3 | Test for onPlayStateChanged event when transitioning from Stopped to Pause | TRUE | When the A/V Control Object successfully transitions from 'stopped' state to 'paused' state, an onPlayStateChanged event with a state of 2 shall be generated. |
| org.hbbtv_00003710 | 2 | the application.privateData.currentChannel after application start | TRUE | After selecting a service programmatically, the currentChannel property of the application.privateData object shall reflect new channel. |
| org.hbbtv_00003730 | 2 | the application.privateData.currentChannel after channel selection by application | TRUE | After start of application, the currentChannel property of the application.privateData object shall reflect the channel the application was started from. |
| org.hbbtv_00003740 | 2 | CreateApplication with parameters in URL | TRUE | When calling an application via createApplication, the parameters signalled in the AIT (?param1=value1) and the parameters of the createApplication call (?param2=value2) are combined. |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_00003750 | 2 | CreateApplication with hash in URL | TRUE | When calling an application via createApplication, the parameters signalled in the AIT (?param1=value1) and the parameters of the createApplication call (#test) are combined. |
| org.hbbtv_00003760 | 2 | video.currentChannel after channel selection by application | TRUE | After selecting a service programmatically, the currentChannel property on the video/broadcast shall reflect the new channel. |
| org.hbbtv_00003780 | 2 | video.currentChannel after application start | TRUE | After start of application, the currentChannel property on the video/broadcast shall reflect the channel the application was started from. |
| org.hbbtv_00003790 | 2 | EIT p/f | TRUE | When video/broadcast object is tuned to a channel, EIT present/following data can be retrieved using the programmes property. |
| org.hbbtv_00003800 | 2 | Letter Gothic font rendering width | TRUE | Rendering width of Letter Gothic 12 Pitch font (or equivalent) should match pre-defined rendering width. |
| org.hbbtv_00003810 | 2 | Line-height CSS style | TRUE | The actual line-height in font rendering should match the specified line-height CSS style, even when font-weight is bold. |
| org.hbbtv_00003820 | 2 | Tiresias font rendering width | TRUE | Rendering width of Tiresias font (or equivalent) should match pre-defined rendering width. |
| org.hbbtv_00003830 | 2 | OIPF capabilities: hasCapability() | TRUE | When calling the hasCapability method on the application/oipfCapabilities object for the following string arguments, a boolean value is returned: +DL, +PVR, +RTSP. |
| org.hbbtv_00003840 | 2 | OIPF Capabilities: extra decodes | TRUE | The properties extraSDVideoDecodes and extraHDVideoDecodes are numeric integer values greater or equal to 0. |
| org.hbbtv_00003850 | 3 | OIPF Configuration: preferredAudioLanguage | TRUE | The configuration.preferredAudioLanguage property of the application/oipfConfiguration object contains a list of comma separated ISO 639 language codes. |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_00003851 | 1 | OIPF Configuration: preferredAudioLanguage | TRUE | The configuration.preferredAudioLanguage property of the application/oipfConfiguration object contains a list of comma separated ISO 639.2 language codes. |
| org.hbbtv_00003860 | 3 | OIPF Configuration: preferredSubtitleLanguage | TRUE | The configuration.preferredSubtitleLanguage property of the application/oipfConfiguration object contains a list of comma separated ISO 639 language codes. |
| org.hbbtv_00003861 | 1 | OIPF Configuration: preferredSubtitleLanguage | TRUE | The configuration.preferredSubtitleLanguage property of the application/oipfConfiguration object contains a list of comma separated ISO 639.2 language codes. |
| org.hbbtv_00003870 | 2 | OIPF Configuration: countryId | FALSE | The configuration.countryId property of the application/oipfConfiguration is set to an ISO-3166 three character country code. |
| org.hbbtv_00003880 | 2 | StreamEvent reference DVB URL | TRUE | After registering a StreamEvent listener via a dvb: URL referencing a carousel and stream event PID on the same service, stream events are received. After removing the listener, no more stream event is received. |
| org.hbbtv_00003890 | 2 | StreamEvent reference event description file | FALSE | After registering a StreamEvent listener via a HTTP URL referencing a event description file which itself references a stream event PID on the same service (via a component tag), stream events are received. After removing the listener, no more stream event is received. The stream event name of the received event is equal to the one that was used to register the listener. |
| org.hbbtv_00003900 | 2 | Browser user agent test | TRUE | User-agent header of XmlHTTPRequests made by terminal contain correct user agent |
| org.hbbtv_00003901 | 2 | Browser user agent test | TRUE | User-agent header of XmlHTTPRequests made by terminal contain correct user agent |

Test Suite v8.0.0

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003910 | 3 | Video player user agent test | TRUE | User-agent header of HTTP video download requests made by terminal contain correct user agent |
| org.hbbtv_00003911 | 3 | Video player user agent test | TRUE | User-agent header of HTTP video download requests made by terminal contain correct user agent |
| org.hbbtv_00003920 | 3 | invalid video playback: A/V format | TRUE | When playing back a video with invalid video format, a single error event should occur, the error property should be set to 0, 2, or 4. |
| org.hbbtv_00003930 | 3 | invalid video playback: cannot connect | TRUE | When playing back a video with an URL referencing a port on a server that allows no connection, a single error event should occur, the error property should be set to 1. |
| org.hbbtv_00003940 | 3 | invalid video playback: video not found | TRUE | When playing back a video URL that results in a HTTP error 404 (not found), a single error event should occur, the error property should be set to 1, 2, 5 or 6. |
| org.hbbtv_00003950 | 3 | Playback of video without content-range support | TRUE | Terminal should be able to play back video from servers that do not support HTTP content-range headers (e.g. when playing back live video). |
| org.hbbtv_00003960 | 3 | Video playTime | TRUE | During broadband video playback, playTime returns the total duration of the video in milliseconds. |
| org.hbbtv_00003970 | 3 | video queue | TRUE | During playback, queuing another video makes play the video after the first video has finished playing. Calling queue(null) will erase the queue and return true. Next video queued is actually played back. |
| org.hbbtv_00003980 | 3 | seek in broadband video playback | TRUE | During playback, of a broadband served video, seek sets the current play position. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00003990 | 3 | video/mp4 keeps aspect ratio | TRUE | video/mp4 object displays video with correct aspect ratio and letterboxing.    Note: this may lead to problems, as it is quite complicated for many platforms/implementations to support transparency in the video/mp4 object. However, background color is black which should avoid problems in this case (video-broadcast test is not black). |
| org.hbbtv_00004000 | 2 | video/broadcast keeps aspect ratio | TRUE | video/broadcast object displays video with correct aspect ratio and letterboxing.    Note: this may lead to problems, as it is quite complicated for many platforms/implementations to support transparency in the video/broadcast object. |
| org.hbbtv_00005010 | 4 | MetadataSearch - addChannelConstraint() - Channel constraint with single channel | TRUE | When passing a Channel object to addChannelConstraint() on the MetadataSearch object, the terminal shall constrain query-based searches to that channel |
| org.hbbtv_00005020 | 4 | MetadataSearch - addChannelConstraint() - Clearing channel constraints when no constraints have been set | TRUE | When passing null to addChannelConstraint() on the MetadataSearch object when no channel constraints have been set, the terminal shall continue to constrain query-based searches to all channels |
| org.hbbtv_00007005 | 1 | DASH: mpd outside of application boundary. | TRUE | Loading of mpd with URL pointing outside of application boundary shall not be blocked due to 'the same origin' policy. |
| org.hbbtv_00007009 | 1 | DASH: playing state of A/V Control object. | TRUE | The A/V control has transitioned to playing state due to the play() method on DASH content. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00007040 | 4 | MetadataSearch - createQuery() - 'startTime' field - Comparison: Greater than | TRUE | The terminal shall be able to generate a metadata query specifying that the programme's 'startTime' field is greater than a specified value when the createQuery() method is called from the MetadataSearch object |
| org.hbbtv_00007050 | 4 | MetadataSearch - createQuery() - 'Programme.startTime' field - Comparison: Greater than or equal to | TRUE | The terminal shall be able to generate a metadata query specifying that the programme's 'startTime' field is greater than or equal to a specified value when the createQuery() method is called from the MetadataSearch object |
| org.hbbtv_00007060 | 4 | MetadataSearch - createQuery() - 'startTime' field - Comparison: Less than | TRUE | The terminal shall be able to generate a metadata query specifying that the programme's 'startTime' field is less than a specified value when the createQuery() method is called from the MetadataSearch object |
| org.hbbtv_00007070 | 4 | MetadataSearch - createQuery() - 'startTime' field - Comparison: Less than or equal to | TRUE | The terminal shall be able to generate a metadata query specifying that the programme's 'startTime' field is less than or equal to a specified value when the createQuery() method is called from the MetadataSearch object |
| org.hbbtv_00007110 | 1 | DASH: connecting state of A/V Control object. | TRUE | The A/V Control has transitioned to the connecting state (3) due to call play() method on DASH content. |
| org.hbbtv_00007120 | 1 | DASH: buffering state of A/V Control | TRUE | The A/V Control has transitioned to the buffering state from connecting state due to play() method on DASH content. |
| org.hbbtv_00007121 | 3 | DASH: MPD file size 100 kB | TRUE | The terminal correctly handles MPEG DASH MPD file with size 100 kbytes and plays content defined in it. |
| org.hbbtv_00007122 | 1 | Terminal plays MPEG DASH video segment files that are fifteen seconds long. | TRUE | The A/V Control has played DASH content that contains fifteen seconds length segments. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00007124 | 1 | Terminal plays last MPEG DASH video fragment that is shorter than 1 second. | TRUE | A/V Control displays correct DASH video when last segment is shorter than one second. |
| org.hbbtv_00007181 | 1 | DASH, change dimmesions of A/V player. | TRUE | Terminal shall correctly play DASH content when video player layer dimmesions change from 1/4 x 1/4 of logical video plane to fullscreen. |
| org.hbbtv_00007201 | 1 | DASH: maximum number of Adaptation Sets (16). | TRUE | Terminal supports the mpd with maximum number of Adaptation Sets (16) in the period. |
| org.hbbtv_00007236 | 1 | hasCapability method returns +DRM string for terminal supporting DRM feature | TRUE | A terminal that supports the DRM feature must indicate this by returning the option string '+DRM' by hasCapability method. |
| org.hbbtv_00007354 | 1 | DASH: XML validation error (updated mpd) | FALSE | A/V control object shall switch play state to 6 - 'error' with error value 4 - 'content corrupt or invalid' if updated mpd is invalid. The playback starts with correct mpd file. |
| org.hbbtv_00007374 | 1 | DASH: update with overlapping Periods. | TRUE | Dynamic mpd file contains one period only, after updating second period is available. Second period @start attribute points to the end time of the first period. Terminal shall start playing the second Period. |
| org.hbbtv_00007375 | 1 | DASH: update with non-overlapping Periods. | TRUE | Dynamic mpd file contains one period only, it have set @duration attribute. After updating second period without start time is available. Terminal shall start playing the second Period. |
| org.hbbtv_00007377 | 1 | DASH: update baseURL on MPD level. | TRUE | Terminal should change request address, when baseURL is updated on MPD level. |
| org.hbbtv_00007378 | 1 | DASH: update of SegmentTimeline on AdaptationSet level. | TRUE | After MPD update, terminal shall play MPD with SegmentTimeline inside SegmentTemplate on AdaptationSet level |
| org.hbbtv_00007402 | 1 | DASH: BaseURL at the Adaptation Set, SegmentTemplates at Representation. | TRUE | BaseURL defined at the Adaptation Set level and segments described by SegmentTemplates in Representation Level. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00007403 | 1 | DASH: BaseURL at the MPD level, SegmentTemplates in Adaptation Set. | TRUE | Terminal shall present content when BaseURL is defined at the MPD level and segments are described by SegmentTemplates at Adaptation Set level. |
| org.hbbtv_00008000 | 4 | MetadataSearch - findProgrammesFromStream() - Scheduled programmes in the current channel after and including the current programme | TRUE | When the findProgrammesFromStream() method is called from the application/oipfSearchManager with the channel specified as the current channel and the startTime specified as null; the terminal shall return results for all programmes on the current service after the current time when the getResults() method is called. |
| org.hbbtv_00008010 | 4 | MetadataSearch - findProgrammesFromStream() - Scheduled programmes from a different channel after and including the current programme | TRUE | When the findProgrammesFromStream() method is called from the application/oipfSearchManager with the channel specified as a channel other than the current channel and the startTime specified as null; the terminal shall return results for all programmes on the channel after and including the current programme when the getResults() method is called. |
| org.hbbtv_00008020 | 4 | MetadataSearch - findProgrammesFromStream() - Scheduled programmes from a different channel after and including the following programme | TRUE | When the findProgrammesFromStream() method is called from the application/oipfSearchManager with the channel specified as a channel other than the current channel and the startTime specified as the startTime of the following programme (UTC, expressed in seconds from Unix epoch); the terminal shall return all programmes after and including the following programme when the getResults() method is called. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00012000 | 2 | XML Capabilities: Base features | FALSE | When a terminal supports only the base level requirements, the canonicalized form of the xmlCapabilities property of the application/oipfCapabilities object shall be equal to the canonicalized form of the XML specified in 10.2.4 of [HBBTV] |
| org.hbbtv_00012010 | 2 | XML Capabilities: Base features and E-AC3 | FALSE | When a terminal supports the base level requirements and E-AC3, the canonicalized form of the xmlCapabilities property of the application/oipfCapabilities object shall be equal to the canonicalized form of the XML specified in 10.2.4 of [HBBTV] |
| org.hbbtv_00013000 | 3 | ChannelConfig object in application/oipfSearchManager object | TRUE | Terminal shall be able to create a ChannelConfig object when the getChannelConfig() method is called on the application/oipfSearchManager object and its 'channelList' property shall contain all expected channels |
| org.hbbtv_00020041 | 1 | The Window object supports close() method. | TRUE | The terminal shall support the window.close() method. close() is equivalent to calling method destroyApplication(). |
| org.hbbtv_00020042 | 1 | The Window object supports debug() method. | TRUE | The terminal shall support the window.debug() method. |
| org.hbbtv_00021000 | 1 | Test for on-demand support of AVC - 1280 x 720 px MP4 - with moov box size = 2.5 Mb | TRUE | The terminal shall correctly present an AVC encoded video file with a moov box size of 2.5 MB |
| org.hbbtv_00021010 | 2 | A/V Control object - HTTP chunked transfer coding | TRUE | The terminal shall be able to present A/V content which is served using HTTP chunked transfer coding |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00021020 | 1 | HTTP Status Code 302 (Found) - MP4 AVC | TRUE | When an HTTP request is initiated by the A/V Control object and an HTTP response with status code 302 (found) and content type 'video/mp4' is received, the terminal shall then correctly present the MP4 AVC file referenced by the URL in the 'Location' field of the HTTP response |
| org.hbbtv_00021030 | 1 | HTTP Status Code 307 (Temporary Redirect) - MP4 AVC file | TRUE | When an HTTP request is initiated by the A/V Control object and an HTTP response with status code 307 (temporary redirect) and content type 'video/mp4' is received, the terminal shall then correctly present the MP4 AVC file referenced by the URL in the 'Location' field of the HTTP response |
| org.hbbtv_00027213 | 1 | DASH video transitions: profile and level, over Period boundaries. | TRUE | Terminal supports video transitions between DASH Representations which differ by profile and level during during playback over Period boundaries. |
| org.hbbtv_00027215 | 1 | DASH video transitions: full-screen resolution (high to low), over Period boundaries. | TRUE | Terminal supports video transitions between DASH Representations which differ by full-screen resolution (from high resolution to low resolution) during playback over Period boundaries. During transition video does not contain artifacts or picture corruption. |
| org.hbbtv_00027216 | 1 | DASH video transitions: full-screen resolution (low to high ), over Period boundaries. | TRUE | Terminal supports video transitions between DASH Representations which differ by full-screen resolution (from low resolution to high resolution) during playback over Period boundaries. During transition video does not contain artifacts or picture corruption. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_00027223 | 1 | DASH video transitions: bitrate - low to high, over Period boundaries. | TRUE | Terminal supports video transitions between DASH Representations which differ by bitrate, from low bitrate to high bitrate during playback over Period boundaries. During transition video does not contain artifacts or picture corruption. |
| org.hbbtv_00027224 | 1 | Terminal supports video transitions between MPEG DASH Representations which differ by bitrate, from high bitrate to low bitrate during playback over Period boundaries. | TRUE | Terminal supports video transitions between DASH Representations which differ by bitrate, from high bitrate to low bitrate during playback over Period boundaries. During transition video does not contain artifacts or picture corruption. |
| org.hbbtv_02003101 | 1 | The Window object supports 'document' property. | TRUE | The terminal shall support the window.document property. |
| org.hbbtv_02003102 | 1 | The Window object supports 'frames' property. | TRUE | The terminal shall support the window.frames property. |
| org.hbbtv_02003103 | 1 | The Window object supports 'history' property | TRUE | The terminal shall support the window.history property. |
| org.hbbtv_02003104 | 1 | The Window object supports 'innerHeight' and 'innerWidth' properties | TRUE | The terminal shall support the window.innerHeight and window.innerWidth properties. |
| org.hbbtv_02003105 | 1 | The Window object supports 'location' property | TRUE | The terminal shall support the window.location property. |
| org.hbbtv_02003107 | 1 | The Window object supports 'name' property | TRUE | The terminal shall support the window.name property. |
| org.hbbtv_02003108 | 1 | The Window object supports 'navigator' property | TRUE | The terminal shall support the window.navigator property. The userAgent indicates HbbTV marker. |
| org.hbbtv_02003109 | 1 | The Window object supports 'oipfObjectFactory' property | TRUE | The terminal shall support the window.oipfObjectFactory property. |
| org.hbbtv_02003111 | 1 | The Window object supports 'onkeydown', 'onkeyup' and 'onkeypress' properties | TRUE | The terminal shall support the properties: window.onkeydown, window.onkeyup and window.onkeypress. The sequence of events triggering shall be correct. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_02003112 | 1 | The Window object supports 'parent' property | TRUE | The terminal shall support the window.parent property. |
| org.hbbtv_02003114 | 1 | The Window object supports 'self' property | TRUE | The terminal shall support the window.self property. |
| org.hbbtv_02003115 | 1 | The Window object supports 'top' property | TRUE | The terminal shall support the window.top property. |
| org.hbbtv_02003116 | 1 | The Window object supports 'XMLHttpRequest' property | TRUE | The terminal shall support the window.XMLHttpRequest property. |
| org.hbbtv_02003117 | 1 | The Window object supports setTimeout() method. | TRUE | The terminal shall support the window.setTimeout() method. |
| org.hbbtv_02003118 | 1 | The Window object supports setInterval() method. | TRUE | The terminal shall support the window.setInterval() method. |
| org.hbbtv_02003119 | 1 | The Window object supports clearTimeout() method. | TRUE | The terminal shall support the window.clearTimeout() method. |
| org.hbbtv_02003120 | 1 | The Window object supports clearInterval() method. | TRUE | The terminal shall support the window.clearInterval() method. |
| org.hbbtv_02003121 | 1 | The Window object supports addEventListener() method. | TRUE | The terminal shall support the window.addEventListener() method. |
| org.hbbtv_02003122 | 1 | The Window object supports removeEventListener() method. | TRUE | The terminal shall support the window.removeEventListener() method. |
| org.hbbtv_02003123 | 1 | The Window object supports 'onfocus' callback. | TRUE | The terminal shall support the window.onfocus callback. |
| org.hbbtv_02003124 | 1 | The Window object supports 'onblur' callback. | TRUE | The terminal shall support the window.onblur callback. |
| org.hbbtv_02003125 | 1 | The Window object supports 'frameElement' property. | TRUE | The terminal shall support the window.frameElement property. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_ADD00010 | 1 | AV Object Toggle Fullscreen (MP4 640x720i HP@L4) | TRUE | Terminals shall be able to resize the A/V Control object from the top-left quarter of the screen to full-screen. For both sizes, 640x720i video shall not be cropped, it shall be positioned in the centre of A/V Control object and its aspect ratio shall be preserved. Under these conditions the video shall be scaled to fill as much of the A/V Control object as possible. |
| org.hbbtv_ADD00020 | 1 | AV Object Toggle Fullscreen (MP4 720x576i MP@L3) | TRUE | Terminals shall be able to resize the A/V Control object from the top-left quarter of the screen to full-screen. For both sizes, 720x576i video shall not be cropped, it shall be positioned in the centre of A/V Control object and its aspect ratio shall be preserved. Under these conditions the video shall be scaled to fill as much of the A/V Control object as possible. |
| org.hbbtv_ADD00030 | 1 | AV Object Toggle Fullscreen (MP4 352x288i MP@L3) | TRUE | Terminals shall be able to resize the A/V Control object from the top-left quarter of the screen to full-screen. For both sizes, 352x288i video shall not be cropped, it shall be positioned in the centre of A/V Control object and its aspect ratio shall be preserved. Under these conditions the video shall be scaled to fill as much of the A/V Control object as possible. |
| org.hbbtv_AVC00010 | 1 | video/broadcast object supports media playback extensions API. | TRUE | Video/broadcast object shall support: constants - COMPONENT_TYPE_VIDEO, COMPONENT_TYPE_AUDIO, COMPONENT_TYPE_SUBTITLE, methods - getComponents, getCurrentActiveComponents, selectComponent and unselectComponent. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00020 | 1 | Correct collection of AVcomponents is returned by getComponents(null) method of video/broadcast. | TRUE | getComponents method shall return collection of components with length = 8, all 8 items contain valid AVcomponents. Array notation to access AVcomponents is supported. |
| org.hbbtv_AVC00030 | 1 | video/broadcast object correctly converts component_tag field in the stream_identifier_descriptor in PMT into componentTag property of AVComponent. | TRUE | getComponents(null) method of video/broadcast object shall return collection of AVcomponents where componentTag property of items is respectively 1, 2, 3, 4, 5, 6, 7, 8. |
| org.hbbtv_AVC00040 | 1 | video/broadcast object correctly converts elementary_pid field in the stream_identifier_descriptor in PMT into pid property of AVComponent. | TRUE | getComponents(null) method of video/broadcast object shall return collection of AVcomponents where pid field of items are respectively 0x62, 0x65, 0x66, 0x74, 0x75, 0x76, 0x67, 0x68 |
| org.hbbtv_AVC00045 | 1 | Terminal correctly recognizes type of AVComponent. | TRUE | getComponents(null) method of video/broadcast object shall return following collection of AVcomponents:     type=COMPONENT_TYPE_VIDEO, pid = 0x62, pid = 0x65,     type=COMPONENT_TYPE_AUDIO, pid = 0x66, pid = 0x74, pid = 0x75, pid = 0x76,     type=COMPONENT_TYPE_SUBTITLE, pid = 0x67, pid = 0x68. |
| org.hbbtv_AVC00050 | 1 | getComponents(COMPONENT_TYPE_VIDEO) method of video/broadcast object returns correct collection of video AVcomponents. | TRUE | getComponents method shall return collection of video components with length = 2, one component has pid=0x62, componentTag=1, other pid=0x65, componentTag=2 |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00060 | 1 | getComponents(COMPONENT_TYPE_AUDIO) method of video/broadcast object returns correct collection of audio AVcomponents. | TRUE | getComponents method shall return collection of audio components with length = 4, components have parameters:<br> pid=0x66, componentTag=3,<br> pid=0x74, componentTag=4.<br> pid=0x75, componentTag=5.<br> pid=0x76, componentTag=6 |
| org.hbbtv_AVC00070 | 1 | getComponents(COMPONENT_TYPE_SUBTITLE) method of video/broadcast object returns correct collection of subtitle AVcomponents. | TRUE | getComponents method shall return collection of subtitle components with length = 2, components have parameters:<br>     pid=0x67, componentTag=7,<br>     pid=0x68, componentTag=8 |
| org.hbbtv_AVC00085 | 1 | Terminal correctly recognizes scrambling of AVComponent. | TRUE | getComponents method of video/broadcast object shall return collection of AVcomponents where:<br>     audio component with componentTag=5 has property encrypted=true. |
| org.hbbtv_AVC00090 | 1 | Terminal correctly calculates 'aspectRatio' property of AVVideoComponents | TRUE | When the video/broadcast object is bound to an MPEG-2 TS stream containing one 4:3 aspect ratio and one 16:9 aspect ratio elementary video stream, getComponents() shall return an AVComponentCollection containing two AVVideoComponents with 'aspectRatio' properties of 1.33 and 1.78, respectively |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00100 | 1 | Terminal correctly recognizes language of audio AVComponents. | TRUE | getComponents method of video/broadcast object shall return collection of AVcomponents where:<br>    audio component with componentTag=3 has language='eng',<br>    audio component with componentTag=4 has language='pol',<br>    audio component with componentTag=5 has language='kor',<br>    audio component with componentTag=6 has language='ita', |
| org.hbbtv_AVC00110 | 1 | Terminal correctly sets audioDescription of audio AVComponent. | TRUE | getComponents method of video/broadcast object shall return collection of AVcomponents where: one audio component has audioDescription=true. |
| org.hbbtv_AVC00130 | 1 | Terminal correctly recognizes language of subtitle AVComponent. | TRUE | getComponents method of video/broadcast object shall return collection of AVcomponents where subtitle components have languages 'pol' and 'eng'. |
| org.hbbtv_AVC00140 | 1 | Terminal correctly recognizes hearing impaired of subtitle AVComponent. | TRUE | getComponents method of video/broadcast object shall return collection of AVcomponents where 1 subtitle component have hearingImpaired=true. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00145 | 1 | Terminal correctly returns active AVComponents using getCurrentActiveComponents( componentType ) method of video/broadcast object. | TRUE | When the video/broadcast object is playing a stream containing multiple video, audio and subtitle components, a call to getCurrentActiveComponents() with a componentType of COMPONENT_TYPE_VIDEO, COMPONENT_TYPE_AUDIO or COMPONENT_TYPE_SUBTITLE, shall return the currently active AVComponent for the video, audio or subtitle component, respectively |
| org.hbbtv_AVC00150 | 1 | Terminal correctly switches AVComponents using selectComponent( AVComponent component ) method of video/broadcast object. | TRUE | Terminal shall read current active components (video, audio and subtitle), next it selects from all components non-active audio and subtitle. |
| org.hbbtv_AVC00155 | 1 | Terminal correctly updates active AVComponents collection. | TRUE | Terminal shall read collection of current active components (video, audio and subtitle) using getCurrentActiveComponents( Integer componentType ) method, and compares it with active AVcomponents after switching. |
| org.hbbtv_AVC00160 | 1 | SelectedComponentChange callback is called when selectComponent switches AVComponents. | FALSE | Terminal shall read current active audio and subtitle components, next it selects from all components non-active audio and subtitle. After each switching, callback SelectedComponentChange with appropriate argument is called. |
| org.hbbtv_AVC00170 | 1 | Unselecting COMPONENT_TYPE_VIDEO stops rendering video AVComponent. | FALSE | When unselectComponent(COMPONENT_TYPE_VIDEO) is called video/broadcast object shall stop to render video. |
| org.hbbtv_AVC00180 | 1 | Terminal stops presenting audio AV component when unselectComponent(COMPONENT_TYPE_AUDIO)of video/broadcast object is called. | TRUE | When unselectComponent(COMPONENT_TYPE_AUDIO) is called video/broadcast object shall stop to render audio. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00190 | 1 | Unselecting COMPONENT_TYPE_SUBTITLE stops rendering subtitle AVComponent. | TRUE | When unselectComponent(COMPONENT_TYPE_SUBTITLE) is called video/broadcast object shall stop to render subtitle. |
| org.hbbtv_AVC00200 | 1 | Terminal restore rendering video AVComponents after selectComponent(COMPONENT_TYPE_VIDEO) calling. | TRUE | Terminal shall restore rendering video component, when selectComponent(COMPONENT_TYPE_VIDEO) is called. |
| org.hbbtv_AVC00201 | 1 | Terminal restores rendering audio AVComponents after selectComponent(COMPONENT_TYPE_AUDIO) calling. | TRUE | Terminal shall restore rendering audio component, when selectComponent(COMPONENT_TYPE_AUDIO) is called. |
| org.hbbtv_AVC00202 | 1 | Terminal restore rendering subtitle AVComponents after selectComponent(COMPONENT_TYPE_SUBTITLE) calling. | FALSE | Terminal shall restore rendering subtitle component, when selectComponent(COMPONENT_TYPE_SUBTITLE) is called. |
| org.hbbtv_AVC00210 | 1 | Terminal selects by default audio AV component with language equal preferredAudioLanguage property of Configuration object. | TRUE | Language of current active audio component and preferredAudioLanguage in Configuration object ('eng') shall be the same. |
| org.hbbtv_AVC00220 | 1 | Terminal selects by default subtitle AVcomponent with language equal preferredSubtitleLanguage property of Configuration object. | TRUE | Language of current active subtitle component and preferredSubtitleLanguage in Configuration object ('eng') shall be the same. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC00230 | 1 | video/broadcast object updates component collection, if broadcasted data related to AV components changes. | TRUE | 7 components: 1 video, 4 audio and 2 subtitle is broadcasted in the current channel. getComponents method shall return correct number and type of components. Next 4 components are broadcasted: 1 video, 2 audio and 1 subtitle. Terminal shall update number and type of components. Next 5 components are broadcasted: 1 video, 3 audio and 1 subtitle. Terminal shall update number and type of components. |
| org.hbbtv_AVC00235 | 1 | SelectedComponentChange is called, if AVcomponent being presented is no longer available. | FALSE | 1 video, 4 audio and 2 subtitle components are broadcasted, sequently video, audio and subtitle selected components are no longer broadcasted. Each time selected components is no longer available SelectedComponentChange shall be called. |
| org.hbbtv_AVC01010 | 1 | A/V Control object supports media playback extensions API. | TRUE | A/V Control object shall support: constants - COMPONENT_TYPE_VIDEO, COMPONENT_TYPE_AUDIO, COMPONENT_TYPE_SUBTITLE, methods - getComponents, getCurrentActiveComponents, selectComponent and unselectComponent. |
| org.hbbtv_AVC01020 | 1 | getComponents(null) method of A/V control object returns collection of AVcomponents defined in played MPEG-2 TS file. | FALSE | getComponents method shall return collection of components with length = 8, items contains AV components. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC01030 | 1 | getComponents(null) method of A/V control object returns correct collection of AVcomponents defined mp4 file. | TRUE | getComponents method shall return collection of components with length = 5, items contains AV components which corresponds to tracks in mp4 file. |
| org.hbbtv_AVC01040 | 1 | A/V Control object correctly converts trackID of mp4 file into pid property of AVComponent. | TRUE | getComponents(null) method of A/V Control object shall return collection of AVComponents where pid field of items are respectively 1, 2, 3, 4, 5. |
| org.hbbtv_AVC01050 | 1 | getComponents(COMPONENT_TYPE_VIDEO) method of A/V control object returns correct collection of video AVcomponents from mp4 file. | TRUE | getComponents method shall return collection of components with length = 2, items contain AV video components which corresponds to tracks with sample description type 'avc1'. |
| org.hbbtv_AVC01060 | 1 | getComponents(COMPONENT_TYPE_AUDIO) method of A/V control object returns correct collection of audio AVcomponents from mp4 file. | TRUE | getComponents method returns collection of components with length = 3, items shall contain AV audio components which corresponds to tracks with sample description type 'mp4a'. |
| org.hbbtv_AVC01070 | 1 | A/V Control object correctly sets language of audio AVComponents. | TRUE | A/V control object shall play mp4 file, in which media header 'mdhd' contains language code 'pol' for track 3, 'eng' for track 4 and 'kor' for track 5.<br>    getComponents method of A/V control object returns collection of AVComponents which contains components with:<br>    pid=3 and language='pol',<br>    pid=4 have language='eng',<br>    pid=5 have language='kor'. |
| org.hbbtv_AVC01080 | 1 | Terminal correctly reads active AVComponents using getCurrentActiveComponents( componentType ) method of A/V Control object. | TRUE | Terminal shall read current active components (video and audio) from mp4 file using getCurrentActiveComponents( Integer componentType ) method, and compares it with output. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC01099 | 1 | onSelectedComponentChanged callback is called when terminal switches AVComponents using unselectComponent( AVComponent component ) method of A/V Control object. | TRUE | Terminal unselects AVcomponents (video and audio). After each unselecting, callback onSelectedComponentChanged with valid argument shall be called. |
| org.hbbtv_AVC01101 | 1 | Terminal correctly switches AVComponents using selectComponent(AVComponent) method of A/V control object | TRUE | When a playing A/V Control object's selectComponent() method is called with an AVComponent representing an inactive video or audio from an mp4 file, the currently active video or audio component shall be changed to that of the inactive AVComponent and a SelectedComponentChange event shall be dispatched |
| org.hbbtv_AVC01110 | 1 | Terminal stops presenting video AV component when unselectComponent(COMPONENT_TYPE_VIDEO) of A/V Control object is called. | TRUE | When unselectComponent(COMPONENT_TYPE_VIDEO) is called A/V Control object shall stop to render video from mp4 file. |
| org.hbbtv_AVC01120 | 1 | Terminal stops presenting audio AVcomponent when unselectComponent(COMPONENT_TYPE_AUDIO) of A/V Control object is called. | TRUE | When unselectComponent(COMPONENT_TYPE_AUDIO) is called A/V Control object shall stop to render audio from mp4 file. |
| org.hbbtv_AVC01130 | 1 | Terminal starts to render AVComponents using selectComponent( componentType ) method of A/V Control object. | TRUE | First, terminal shall stop rendering AVComponent using unselectComponent() method, next terminal starts to render video and audio components from mp4 file, when selectComponent() is called. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_AVC01140 | 1 | A/V control object updates component collection after start of playing different mp4 file. | TRUE | Terminal shall update information of  A/V Components when next mp4 file is played.<br>     When second mp4 file is played A/V Control shall contain information of 5 A/V components: 2 video (pid=1 and pid=2) and 3 audio :<br> pid=3, language='pol',<br> pid=4, language = 'eng',<br> pid=5, language='kor'.<br>     When third mp4 file  is played A/V Control shall contain information of 2 A/V components, 1 video (pid=1) and 1 audio(pid=2) with language 'rus'. |
| org.hbbtv_D00007040 | 1 | The A/V Control have state stopped when transitioning from playing to stopped on video (MPEG DASH). | TRUE | The A/V control has transitioned to stopped state from playing state due to the stop() method on DASH content. |
| org.hbbtv_D00007050 | 1 | DASH: finished state of A/V Control object | TRUE | The A/V control is transitioned to finished state due to reaching end of video content. |
| org.hbbtv_D00007060 | 1 | DASH: error state reporting when mpd contains invalid xml. | TRUE | A/V Control object shall go to error state 6 with error value 'content corrupt or invalid', when it tries to play mpd file containing invalid xml. |
| org.hbbtv_D1000020 | 1 | Update of BaseURL at the Period level. | FALSE | When an MPD contains one Period with a BaseURL on the Period level, and the BaseURL is updated during playback, the terminal shall request the segments from the new location. |
| org.hbbtv_D1000030 | 1 | Update of BaseURL at the Adaptation Set level. | FALSE | When an MPD contains one Period with a BaseURL on the Adaptation Set level, and the BaseURL is updated during playback, the terminal shall request the segments from the new location. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_D1000040 | 1 | Update of BaseURL at the Representation level. | FALSE | When an MPD contains one Period with a BaseURL on the Representation level, and the BaseURL is updated during playback, the terminal shall request the segments from the new location. |
| org.hbbtv_D1000110 | 3 | DASH: Increasing @availabilityEndTime | TRUE | When the @availabilityEndTime attribute of a dynamic, single-Period MPD is extended, the A/V control object shall continue playing segments past the original @availabilityEndTime |
| org.hbbtv_D1000200 | 1 | DASH: update of playPosition. | TRUE | playPosition property of A/V Control object shall be correctly updated due to normal playout. MPD type is static. |
| org.hbbtv_D1000230 | 1 | Request for segments shall respect format tag when $Number$ identifier is used. | TRUE | When $Number$ identifier is used and number of digits is less than [width], the result shall be padded with zeros. |
| org.hbbtv_D1000231 | 1 | Request for segments shall respect format tag when $Bandwidth$ identifier is used. | TRUE | When $Bandwidth$ identifier is used and number of digits is less than [width], the result shall be padded with zeros. |
| org.hbbtv_D1000232 | 1 | Request for segments shall respect format tag when $Time$ identifier is used. | TRUE | When $Time$ identifier is used and number of digits is less than [width], the result shall be padded with zeros. |
| org.hbbtv_D1000233 | 1 | Request for segments shall contain not truncated number, even if $Number$ value have more digits than format tag. | TRUE | When $Number$ identifier is used and number of digits is bigger than [width], the result shall not be truncated. |
| org.hbbtv_D1000234 | 1 | Request for segments shall contain not truncated number, even if $Bandwidth$ value have more digits than format tag. | TRUE | When $Bandwidth$ identifier is used and number of digits is bigger than [width], the result shall not be truncated. |
| org.hbbtv_D1000400 | 1 | DASH: SegmentTemplate@startNumber | TRUE | The first url of media segment request send by terminal shall contain value of @startNumber parameter of segmentTemplate. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_D1000410 | 1 | DASH: absence of SegmentTemplate@startNumber. | TRUE | If the @startNumber attribute is not present in the corresponding SegmentTemplate element at Period level, the $Number$ identifier shall be replaced with 1 in the URL when the terminal requests the first segment |
| org.hbbtv_DA540290 | 3 | Simple DASH A/V stream | TRUE | The terminal shall correctly decode and display video content from a stream defined by a static MPD containing one audio adaptation set with one representation, and one video adaptation set with one representation. |
| org.hbbtv_DA540300 | 3 | Simple DASH A/V stream (Audio check) DASH Audio stream with one representation | TRUE | The terminal shall correctly decode and display audio content from a stream defined by a static MPD containing one audio adaptation set with one representation, and one video adaptation set with one representation. |
| org.hbbtv_DA540310 | 3 | DASH A/V stream with two video representations | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one audio adaptation set with one representation and one video adaptation set with two representations. |
| org.hbbtv_DA540320 | 3 | DASH A/V stream with 16 video representations | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one audio adaptation set with one representation and one video adaptation set with 16 representations. |
| org.hbbtv_DA540340 | 3 | DASH streams with HE-AAC Broadcast-mix Audio Description (main audio only) | TRUE | Terminal correctly presents main broadcast audio from a DASH stream containing 1 video and 2 HE-AAC audio AdaptationSets, where 1 audio AdaptationSet is signalled as containing broadcast mix Audio Description using the AudioPurpose classification scheme |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540341 | 4 | DASH streams with HE-AAC Broadcast-mix Audio Description (audio description only) | TRUE | Terminal correctly presents broadcast mix Audio Description from a DASH stream containing 1 video and 2 HE-AAC audio AdaptationSets, where 1 audio AdaptationSet is signalled as containing broadcast mix Audio Description using the AudioPurpose classification scheme |
| org.hbbtv_DA540360 | 3 | DASH streaming with one period, without a start or duration attribute | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one period, the period not having a start or duration attribute defined. |
| org.hbbtv_DA540370 | 3 | DASH streaming with one period with start attribute and no duration attribute | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one period with a start attribute and no duration attribute. |
| org.hbbtv_DA540380 | 3 | DASH streaming with one period with duration attribute and no start attribute | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one period with a duration attribute and no start attribute. |
| org.hbbtv_DA540390 | 3 | DASH streaming with one period with start and duration attributes | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing one period with a start attribute and a duration attribute. |
| org.hbbtv_DA540400 | 3 | DASH streaming with two contiguous periods, both with start and duration attributes | TRUE | The terminal shall correctly decode and display video content from a stream defined by a static MPD containing two contiguous periods, each having a start and a duration attribute defined. The terminal shall be able to transition between the two periods |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540405 | 3 | DASH streaming with two contiguous periods, both with start and duration attributes (audio check) | TRUE | The terminal shall correctly decode and play audio content from a stream defined by a static MPD containing two contiguous periods, each having a start and a duration attribute defined. The terminal shall correctly transition between the two periods. |
| org.hbbtv_DA540410 | 3 | DASH streaming with two contiguous periods, one with start and duration attributes, the other with start attribute and a SegmentTimeline | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing two contiguous periods, the first period having a start and a duration attribute defined, the second having a start attribute defined and containing a SegmentTimeline element. The terminal shall be able to transition between the two periods |
| org.hbbtv_DA540420 | 3 | DASH streaming with three contiguous periods, one with start and duration attributes, the others with start attribute and SegmentTimeline | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing three contiguous periods, the first period having a start and a duration attribute defined, the second and third having a start attribute defined and containing a SegmentTimeline element. |
| org.hbbtv_DA540430 | 3 | DASH streaming with 32 contiguous periods, each with start and duration attributes | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD containing 32 contiguous periods, the first having a start attribute defined, and others having a duration attribute defined. The terminal shall correctly and smoothly transition between periods. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540440 | 3 | DASH stream with 'lmsg' compatibility brand in last segment of one period | TRUE | The terminal shall correctly play a DASH stream described by a static MPD containing three periods, where the last media segment of the second period carries the 'lmsg' compatibility brand |
| org.hbbtv_DA540460 | 3 | DASH streaming with segments described per Representation by SegmentTemplates defined using $Number$ | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the Representation level using the $Number$ identifier |
| org.hbbtv_DA540470 | 4 | DASH streaming with segments described per Representation by SegmentTemplates defined using $Time$ and SegmentTimeline | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the Representation level using the $Time$ identifier and the SegmentTimeline element |
| org.hbbtv_DA540480 | 3 | DASH streaming with segments described per AdaptationSet by SegmentTemplates defined using $Number$ and $Bandwidth$ | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the AdaptationSet level using the $Number$ and $Bandwidth$ identifiers |
| org.hbbtv_DA540490 | 4 | DASH streaming with segments described per AdaptationSet by SegmentTemplates defined using $Time$, $Bandwidth$ and SegmentTimeline | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the AdaptationSet level using the $Time$ and $Bandwidth$ identifiers and the SegmentTimeline element |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540500 | 3 | DASH streaming with segments described per AdaptationSet by SegmentTemplates defined using $Number$ and $RepresentationID$ | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the AdaptationSet level using the $Number$ and $RepresentationID$ identifiers |
| org.hbbtv_DA540510 | 4 | DASH streaming with segments described per AdaptationSet by SegmentTemplates defined using $Time$ and $RepresentationID$ | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which segments are described by SegmentTemplates at the AdaptationSet level using the $Time$ and $RepresentationID$ identifiers and the SegmentTimeline element |
| org.hbbtv_DA540520 | 3 | DASH streaming with BaseURL defined at top level of MPD and segments described per Representation by SegmentTemplates | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which a BaseURL is defined at the top level of the MPD, and segments are described by SegmentTemplates at the Representation level |
| org.hbbtv_DA540530 | 3 | DASH streaming with BaseURL defined per Period and segments described per Representation by SegmentTemplates | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which BaseURL is defined in each Period, and segments are described by SegmentTemplates at the Representation level |
| org.hbbtv_DA540540 | 3 | DASH streaming with BaseURL defined per Representation and segments described per AdaptationSet by SegmentTemplates | TRUE | The terminal shall correctly decode and display AV content from a stream defined by a static MPD in which BaseURL is defined in each Representation, and segments are described by SegmentTemplates at the AdaptationSet level |
| org.hbbtv_DA540550 | 4 | Test that dynamic MPD updates are requested | TRUE | When playing content described by an MPD which has @type='dynamic' the terminal shall make requests for an updated MPD according to the @minimumUpdatePeriod attribute of the MPD element. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540560 | 4 | Test dynamic MPD with @mediaPresentationDuration attribute | TRUE | When playing content described by an MPD which has @type='dynamic' and @mediaPresentationDuration set to the full length of the video, the terminal shall play the video to the end. |
| org.hbbtv_DA540570 | 1 | Early available period - Test dynamic MPDs with the addition of content to an empty Period. | FALSE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. The MPD shall initially be served to the terminal containing a single empty Period element. The MPD shall then be updated so that the Period contains accessible segments. The terminal shall then start playing content. |
| org.hbbtv_DA540580 | 4 | Addition of a Period to a dynamic MPD with 1 Period. | TRUE | When playing content described by an MPD which has @type='dynamic' and has one Period element when initially served to the terminal, the terminal shall correctly play content described in a Period element which is dynamically added to the MPD. |
| org.hbbtv_DA540590 | 4 | Added Period in a Dynamic MPD - Low to High | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic' and contains a single Period, which shall have @start=0. The MPD shall then be updated to change the segments described by the video Representation to a higher bitrate Representation with a different @id. Playback of video on the terminal shall continue without interruption using the segments described in the new Representation. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540595 | 4 | Added Period in a Dynamic MPD - High to Low | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic' and contains a single Period, which shall have @start=0. The MPD shall then be updated to change the segments described by the video Representation to a lower bitrate Representation with a different @id. Playback of video on the terminal shall continue without interruption using the segments described in the new Representation. |
| org.hbbtv_DA540600 | 4 | Removal of a completed period from a dynamic MPD | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic' and which contains two Periods. Once playback of the first Period has completed, the MPD shall be updated to remove it. The terminal shall continue to correctly play content without interruption. |
| org.hbbtv_DA540605 | 4 | Removal of a completed period from a dynamic MPD (Audio check) | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic' and which contains two Periods. Once playback of the first Period has completed, the MPD shall be updated to remove it. The terminal shall continue to correctly play audio content without interruption. |
| org.hbbtv_DA540610 | 4 | Addition of a new representation to a dynamic MPD | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. Once playback has commenced the MPD shall be updated to add a Representation. The terminal shall continue to correctly play video content without interruption and shall use the added Representation when the bandwidth to use other Representations is not available. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540615 | 4 | Addition of a new representation to a dynamic MPD (audio check) | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. Once playback has commenced the MPD shall be updated to add a Representation. The terminal shall continue to correctly play audio content without interruption and shall use the added Representation when the bandwidth to use other Representations is not available. |
| org.hbbtv_DA540620 | 4 | Change to the SegmentTemplate of a dynamic MPD | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. Once playback has commenced the MPD shall be updated with a modified SegmentTemplate. The terminal shall continue to correctly play content without interruption. |
| org.hbbtv_DA540630 | 4 | Change to the BaseURL of a dynamic MPD | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. Once playback has commenced the MPD shall be updated with a modified BaseURL element. The terminal shall continue to correctly play content without interruption. |
| org.hbbtv_DA540640 | 4 | Termination of MPD updates when @mediaPresentationDuration is set | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic' and which specifies a value for @minimumUpdatePeriod. Once playback has commenced the MPD shall be updated to replace the @minimumUpdatePeriod attribute with the @mediaPresentationDuration. The terminal shall make no further requests for the MPD. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540650 | 4 | Test dynamic MPDs with changing availabilityEndTime | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. The MPD shall initially be served to the terminal containing a single Period element such that the combination of MPD@availabilityStartTime, MPD@timeShiftBufferDepth, Period@start, Period@duration and MPD@availabilityEndTime result in all segments being available. The MPD shall then be updated so that the value of the MPD@availabilityEndTime attribute results in all segments being unavailable. The terminal shall then stop playing content. |
| org.hbbtv_DA540655 | 4 | Correct handling of a decrease in @minimumUpdatePeriod in a dynamic MPD | TRUE | The terminal shall play a stream defined by an MPD which has @type='dynamic'. The MPD shall initially be served to the terminal containing a single Period and the @minimumUpdatePeriod set to 30 seconds. After 1 minute the MPD shall be replaced by one with the @minimumUpdatePeriod reduced to 10 seconds. The terminal shall increase the frequency at which it updates the MPD to 10 seconds. |
| org.hbbtv_DA540660 | 5 | DASH stream transitioning from high to low bitrate interlaced video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition seamlessly from a video representation with a high bit rate (1.5Mbps) and interlaced content to a representation with a low bit rate (256kbps) and interlaced content. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540670 | 5 | DASH stream transitioning from low to high bitrate interlaced video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition seamlessly from a video representation with a low bit rate (256kbps) and interlaced content to a representation with a high bit rate (1.5Mbps) and interlaced content. |
| org.hbbtv_DA540680 | 5 | DASH stream transitioning from high to low bitrate progressive video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition seamlessly from a video representation with a high bit rate (1.5Mbps) and progressive content to a representation with a low bit rate (256kbps) and progressive content. |
| org.hbbtv_DA540690 | 5 | DASH stream transitioning from low to high bitrate progressive video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition seamlessly from a video representation with a low bit rate (256kbps) and progressive content to a representation with a high bit rate (1.5Mbps) and progressive content. |
| org.hbbtv_DA540700 | 4 | DASH stream transitioning from 576i to 1080i video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a 576i video representation to a 1080i video representation without decoding artefacts or picture corruption |
| org.hbbtv_DA540710 | 4 | DASH stream transitioning from 1080i to 576i video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a 1080i video representation to a 576i video representation without decoding artefacts or picture corruption |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540720 | 4 | DASH stream transitioning video content from luminance resolution 480x576 to luminance resolution 720x576 | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a video representation with a luminance resolution of 480x576 to a video representation with a luminance resolution of 720x576 without decoding artefacts or picture corruption |
| org.hbbtv_DA540730 | 4 | DASH stream transitioning video content from luminance resolution 720x576 to luminance resolution 480x576 | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a video representation with a luminance resolution of 720x576 to a video representation with a luminance resolution of 480x576 without decoding artefacts or picture corruption |
| org.hbbtv_DA540740 | 4 | DASH stream transitioning from interlaced to progressive video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a video representation with interlaced frames to a video representation with progressive frames without decoding artefacts or picture corruption |
| org.hbbtv_DA540750 | 4 | DASH stream transitioning from progressive to interlaced video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a video representation with progressive frames to a video representation with interlaced frames without decoding artefacts or picture corruption |
| org.hbbtv_DA540760 | 4 | DASH stream transitioning from 25fps video to 50fps video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a 25fps video representation to a 50fps video representation without decoding artefacts or picture corruption |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540770 | 4 | DASH stream transitioning from 50fps video to 25fps video content | TRUE | During playout of a stream defined in a static MPD the terminal shall transition across a period boundary, from a 50fps video representation to a 25fps video representation without decoding artefacts or picture corruption |
| org.hbbtv_DA540780 | 5 | DASH stream transitioning HEAAC audio content from low to high bitrate Representations | TRUE | During playout of a stream defined in a static MPD in response to increased bandwidth availability the terminal shall seamlessly transition from an audio representation with a bitrate of 56kbps to an audio representation with a bitrate of 384kbps, both representations being encoded using HEAAC. |
| org.hbbtv_DA540790 | 5 | DASH stream transitioning HEAAC audio content from high to low bitrate Representations | TRUE | During playout of a stream defined in a static MPD in response to decreased bandwidth availability the terminal shall seamlessly transition from an audio representation with a bitrate of 384kbps to an audio representation with a bitrate of 54kbps, both representations being encoded using HEAAC. |
| org.hbbtv_DA540820 | 4 | DASH stream transitioning from HE-AAC audio content to E-AC3 audio content | TRUE | During playout of a stream defined in a static MPD, the terminal shall transition from an audio representation using HE-AAC encoding to one using E-AC3 encoding |
| org.hbbtv_DA540830 | 4 | DASH stream transitioning from EAC-3 audio content to HE-AAC audio content | TRUE | During playout of a stream defined in a static MPD, the terminal shall transition from an audio representation using E-AC3 encoding to one using HE-AAC encoding |
| org.hbbtv_DA540840 | 4 | DASH stream transitioning from an audio representation with 2 channels to one with 5.1 channels | TRUE | During playout of a stream defined in a static MPD the terminal shall transition from an audio representation with 2 channels to one with 5.1 channels |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540850 | 4 | DASH stream transitioning from an audio representation with 5.1 channels to one with 2 channels | TRUE | During playout of a stream defined in a static MPD, the terminal shall transition from an audio representation with 5.1 channels to one with 2 channels |
| org.hbbtv_DA540860 | 4 | DASH stream transitioning from an audio representation with a high sample rate to one with a low sample rate | TRUE | During playout of a stream defined in a static MPD, the terminal shall transition from an audio representation with a high sample rate to one with a low sample rate |
| org.hbbtv_DA540870 | 4 | DASH stream transitioning from an audio representation with a low sample rate to one with a high sample rate | TRUE | During playout of a stream defined in a static MPD, the terminal shall transition from an audio representation with a low sample rate to one with a high sample rate |
| org.hbbtv_DA540880 | 4 | MPEG DASH - Redirect to an MPD - HTTP 302 (Found) | TRUE | When a HTTP 302 (Found) status code is received as a response to a request for an MPD, the terminal shall request the MPD from the URI provided in the Location field of the HTTP response |
| org.hbbtv_DA540890 | 4 | MPEG DASH - Redirect to an MPD - HTTP 307 (Temporary Redirect) | TRUE | When a HTTP 307 (Temporary Redirect) status code is received as a response to a request for an MPD, the terminal shall request the MPD from the URI provided in the Location field of the HTTP response |
| org.hbbtv_DA540910 | 3 | HTTP 502 error when trying to load a DASH MPD | TRUE | When a HTTP 502 (bad gateway) status code is received as a response to a request for an MPD, the AV object shall generate an onPlayStateChange event and transition to state 6 (error) |
| org.hbbtv_DA540920 | 3 | HTTP 401 error when trying to load a DASH MPD | TRUE | When a HTTP 401 (unauthorised) status code is received as a response to requests for an MPD, the AV object shall generate an onPlayStateChange event and transition to state 6 (error) |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_DA540930 | 4 | HTTP 404 error when trying to load a DASH initialization segment | TRUE | When a HTTP 404 (not found) status code is received as a response to a request for an Initialization Segment, the AV object shall generate an onPlayStateChange event and transition to playState 6 ('error') |
| org.hbbtv_DA540940 | 4 | HTTP 404 errors when trying to load a DASH segment | TRUE | When a HTTP 404 (not found) status code is received as a response to requests for a DASH media segment, the AV object shall generate a onPlayStateChange event and transition to state 6 (error), and the terminal shall stop presenting DASH media and blank the display. |
| org.hbbtv_DA540950 | 4 | MPEG DASH - Redirect to a Video Segment - HTTP 302 (Found) | TRUE | When a HTTP 302 (found) status code is received as a response to a request for a media segment, the terminal shall request the segment from the URI provided in the Location field of the HTTP response |
| org.hbbtv_DA540960 | 4 | MPEG DASH - Redirect to a Video Segment - HTTP 307 (Temporary Redirect) | TRUE | When a HTTP 307 (temporary redirect) status code is received as a response to a request for a media segment, the terminal shall request the segment from the URI provided in the Location field of the HTTP response and successfully play the DASH stream. |
| org.hbbtv_DA540980 | 3 | DASH stream with 1 video AdaptationSet and 15 audio AdaptationSets | TRUE | The terminal shall play a DASH stream described by an MPD containing 1 video and 15 audio AdaptationSets, with each audio AdaptationSet having a different @lang attribute. When the stream is played the terminal shall select an appropriate language AdaptationSet, and correctly play both audio and video content. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA540990 | 3 | DASH stream with 1 video representation and 16 audio representations | TRUE | The terminal shall play a DASH stream described by an MPD containing 1 video and 1 audio AdaptationSet, with the audio AdaptationSet containing 16 Representations. When the stream is played the terminal shall select an audio Representation, and correctly play both audio and video content. |
| org.hbbtv_DA541000 | 3 | Playback of DASH stream with 1 second segments | TRUE | The terminal shall correctly play back video in a stream defined in a static MPD in which audio and video are encoded in segments 1 second in duration. |
| org.hbbtv_DA541005 | 3 | Playback of DASH stream with 1 second segments (audio check) | TRUE | The terminal shall correctly play back audio a stream defined in a static MPD in which audio and video are encoded in segments 1 second in duration. |
| org.hbbtv_DA541010 | 3 | Playback of DASH stream with 15 second segments | TRUE | The terminal shall correctly play back video in a stream defined in a static MPD in which audio and video are encoded in segments 15 seconds in duration. |
| org.hbbtv_DA541015 | 3 | Playback of DASH stream with 15 second segments (audio check) | TRUE | The terminal shall correctly play back audio in a stream defined in a static MPD in which audio and video are encoded in segments 15 seconds in duration. |
| org.hbbtv_DA541020 | 3 | Playback of DASH stream with 3 second video segments and 15 second audio segments (video check) | TRUE | The terminal shall correctly play back video in a stream defined in a static MPD in which video is encoded in segments 3 seconds duration, and audio is encoded in segments 15 seconds in duration. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541025 | 3 | Playback of DASH stream with 3 second video segments and 15 second audio segments (audio check) | TRUE | The terminal shall correctly play back audio in a stream defined in a static MPD in which video is encoded in segments 3 seconds duration, and audio is encoded in segments 15 seconds in duration. |
| org.hbbtv_DA541030 | 3 | Playback of DASH stream with 15 second video segments and 3 second audio segments (video check) | TRUE | The terminal shall correctly play back video in a stream defined in a static MPD in which video is encoded in segments 15 seconds in duration and audio is encoded in segments 3 seconds in duration. |
| org.hbbtv_DA541035 | 3 | Playback of DASH stream with 15 second video segments and 3 second audio segments (audio check) | TRUE | The terminal shall correctly play back audio in a stream defined in a static MPD in which video is encoded in segments 15 seconds in duration and audio is encoded in segments 3 seconds in duration. |
| org.hbbtv_DA541040 | 3 | Playback of DASH stream with audio segments described by a SegmentTemplate containing a SegmentTimeline at the Period level of the associated MPD. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the segments for the audio Representation are described by a SegmentTemplate containing a SegmentTimeline at the Period level. The video segments shall be described by a SegmentTemplate within the Representation which overrides the higher level SegmentTemplate and SegmentTimeline. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541050 | 3 | Playback of DASH stream with audio segments described by a SegmentTemplate at the Representation level inheriting a SegmentTimeline from the Period Level. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the audio segments are described by a SegmentTemplate containing a SegmentTimeline at the Period level and a second SegmentTemplate containing @media and @initialization at the Representation level. The video segments shall be described by a SegmentTemplate within the Representation which overrides the higher level SegmentTemplate and SegmentTimeline. |
| org.hbbtv_DA541060 | 3 | Playback of DASH stream with segments described by a SegmentTemplate containing a SegmentTimeline at the AdaptationSet level of the associated MPD. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the segments are described by a SegmentTemplate containing a SegmentTimeline at the AdaptationSet level. |
| org.hbbtv_DA541070 | 3 | Playback of DASH stream with segments described by a SegmentTemplate with SegmentTimeline at the AdaptationSet level inheriting attributes from a SegmentTemplate at the Period Level. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the segments are described by a SegmentTemplate containing a SegmentTimeline at the AdaptationSet level and a second SegmentTemplate containing @media and @initialization at the Period level. |
| org.hbbtv_DA541080 | 3 | Playback of DASH stream with segments described by a SegmentTemplate containing a SegmentTimeline at the Representation level of the associated MPD. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the segments are described by a SegmentTemplate containing a SegmentTimeline at the Representation level. |
| org.hbbtv_DA541090 | 3 | Playback of DASH stream with segments described by a SegmentTemplate with SegmentTimeline at the Representation level inheriting attributes from a SegmentTemplate at the Period Level. | TRUE | The terminal shall correctly play a stream defined by a static MPD in which the segments are described by a SegmentTemplate containing a SegmentTimeline at the Representation level and a second SegmentTemplate containing @media and @initialization at the Period level. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541150 | 2 | Play with speed specified as 4x for DASH encoded clear content | TRUE | The terminal shall play a DASH stream. In response to a request to play back at 4x normal speed, the terminal shall select and use an appropriate playback speed (greater than or equal to 1) and the terminal shall dispatch a PlaySpeedChanged event, correctly reporting the actual playback speed. |
| org.hbbtv_DA541160 | 2 | Play with speed specified as -4x for DASH encoded clear content | TRUE | The terminal shall play a DASH stream. In response to a request to play back at -4x normal speed, the terminal shall select and use an appropriate playback speed (less than or equal to -1) and the terminal shall dispatch a PlaySpeedChanged event, correctly reporting the actual playback speed. |
| org.hbbtv_DA541170 | 1 | Play with speed specified as 0.5x for DASH encoded clear content | TRUE | The terminal shall play a DASH stream. In response to a request to play back at 0.5x normal speed, the terminal shall select and use an appropriate playback speed (less than or equal to 1, and greater than 0) and the terminal shall dispatch a PlaySpeedChanged event, correctly reporting the actual playback speed. |
| org.hbbtv_DA541180 | 1 | Play with speed specified as -0.5x for DASH encoded clear content | TRUE | The terminal shall play a DASH stream. In response to a request to play back at -0.5x normal speed, the terminal shall select and use an appropriate playback speed (greater than or equal to -1, and less than 0) and the terminal shall dispatch a PlaySpeedChanged event, correctly reporting the actual playback speed. |
| org.hbbtv_DA541190 | 3 | Support for normal playback of DASH encoded clear content streamed over HTTP | TRUE | Terminal shall correctly decode and display AV content from DASH stream delivered over HTTP |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541200 | 3 | Support for pausing DASH encoded clear content streamed over HTTP. | TRUE | Terminal shall correctly pause playback of DASH video content streamed over HTTP when the 'play' method of the A/V control object is called with 0 passed as the 'speed' parameter. |
| org.hbbtv_DA541220 | 4 | AV Object Seeking (Forward 5s) in DASH encoded clear content streamed over HTTP | TRUE | The terminal shall correctly seek to 5 seconds ahead of the current position in a DASH stream delivered over HTTP using the seek() method of the A/V control object. |
| org.hbbtv_DA541230 | 4 | AV Object Seeking Outside Buffer (Forward 6 minutes) in DASH encoded clear content streamed over HTTP. | TRUE | The terminal shall correctly seek to 6 minutes ahead of the current position in a DASH stream delivered over HTTP using the seek() method of the A/V control object. |
| org.hbbtv_DA541240 | 4 | AV Object Seeking Within Buffer (Backward 5s) in DASH encoded clear content streamed over HTTP | TRUE | The terminal shall correctly seek to 5 seconds before the current position in a DASH stream delivered over HTTP using the seek() method of the A/V control object. |
| org.hbbtv_DA541250 | 5 | AV Object Seeking Outside Buffer (Backwards 60s) in DASH content streamed over HTTP. | TRUE | The terminal shall correctly seek to 60 seconds before the current position in a DASH stream delivered over HTTP using the seek() method of the A/V control object. |
| org.hbbtv_DA541480 | 3 | Enforcement of the default value @maxPlayoutRate=1 for DASH encoded clear content streamed over HTTP | TRUE | The terminal shall play a DASH stream defined by a static MPD containing a single video and a single audio AdaptationSet, each containing a single Representation. The @maxPlayoutRate attribute shall not be present in the MPD. In response to a request to play back at 4x normal speed the terminal shall return true, select a playback speed of 1.0, and shall dispatch a PlaySpeedChanged event with a speed of 1.0. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541500 | 1 | Support for trick mode Fast Forward for DASH encoded clear content with multiple representations | TRUE | The terminal shall play a DASH stream defined by a static MPD which defines a single AdaptationSet for video, and a single AdaptationSet for audio. The audio AdaptationSet shall define one Representation, and the video AdaptationSet shall define three Representations, with bandwidths of 256000, 1500000 and 7500000 and @maxPlayoutRate elements set to 5, 3 and 2 respectively. In response to a request to play back at 4x normal speed the terminal shall select and use an appropriate playback speed (greater than or equal to 1) and the terminal shall dispatch a PlaySpeedChanged event correctly reporting the actual playback speed. |
| org.hbbtv_DA541510 | 1 | Support for trick mode Fast Rewind for DASH encoded clear content with multiple representations | TRUE | The terminal shall play a DASH stream defined by a static MPD which defines a single AdaptationSet for video, and a single AdaptationSet for audio. The audio AdaptationSet shall define one Representation, and the video AdaptationSet shall define three Representations, with bandwidths of 256000, 1500000 and 7500000 and @maxPlayoutRate elements set to 5, 3 and 2 respectively. In response to a request to play back at -4x normal speed the terminal shall select and use an appropriate playback speed (less than or equal to -1) and the terminal shall dispatch a PlaySpeedChanged event correctly reporting the actual playback speed. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541800 | 1 | 'language' property of the AVAudioComponent is undefined if the audio component's 'lang' attribute in the MPD is not primary language subtag | FALSE | If the MPD contains one video component and one audio component, and the audio component's 'lang' attribute is absent, then the value of the 'language' property of the corresponding AVComponent object shall be undefined |
| org.hbbtv_DA541820 | 1 | MPD schema validation error | TRUE | If the A/V Control object's 'data' attribute is set to an MPD containing one <Representation> element, and the MPD / associated A/V content are otherwise valid except that the <Representation> element does not have a @bandwidth attribute, after the play() method is called on the A/V Control object the A/V Control object shall go to play state 6 (error) with an error code of 4 (content corrupt or invalid) |
| org.hbbtv_DA541830 | 1 | AVComponent's componentTag property is equal to the adaptation sets @id property | TRUE | If the A/V Control object's 'data' attribute is set to an MPD containing both video and audio adaptation sets and the corresponding <AdaptationSet> element has an @id attribute with the value '123' for audio and '11' for video, then the 'componentTag' property of the associated AVComponent instance shall be a number of the given value. |
| org.hbbtv_DA541840 | 1 | AVAudioComponent 'language' property is undefined when DASH AdaptationSet@lang subtag is not 2-3 characters in length | TRUE | If the MPD contains one video component and one audio component where the audio component's 'lang' attribute contains a valid subtag according to IETF RFC 5646, but not 2 or 3 characters in length -- and the 'mdhd' of the audio track contains the ISO-639-2 language code 'deu', then the value of the 'language' property of the corresponding AVComponent object shall be undefined |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DA541850 | 1 | <AdaptationSet> element with Role@value of 'main' - Lower element position | TRUE | If an MPD contains 1 period containing 2 video adaptation sets, and each adaptation set has a corresponding <AdaptationSet> element, namely [1] and [2]. If [1] appears above [2] in the XML document, but [2] contains a <Role> element where its @value attribute has a value of 'main', then the video referenced by [2] shall be presented |
| org.hbbtv_DA541860 | 1 | <AdaptationSet> element with Role@value of 'main' - Higher @id attribute | FALSE | If an MPD contains 1 period containing 2 video adaptation sets, and each adaptation set has a corresponding <AdaptationSet> element, namely [1] and [2]. If [1] has an @id attribute with a value of '2' and a <Role> element where its @value attribute has a value of 'main', and [2] has an @id attribute with a value of '1' but no <Role> element, then the video referenced by [1] shall be presented |
| org.hbbtv_DA541870 | 1 | DASH MPD with Multiple Profiles | TRUE | The terminal shall be able to present a DASH stream where the MPD contains 2 valid adaptation sets in which the 1st adaptation set uses a profile mandated by the DASH specification but not the HbbTV specification and the 2nd adaptation set uses the 'urn:hbbtv:dash:profile:isoff-live:2012' profile |
| org.hbbtv_DA541880 | 1 | DASH - AVC_SD_25 | TRUE | The terminal shall be able to present DASH content from an MPD containing one video component that uses AVC_SD_25 encoded segments |
| org.hbbtv_DA541890 | 1 | DASH - AVC_HD_25 | TRUE | The terminal shall be able to present DASH content from an MPD containing one video component that uses AVC_HD_25 encoded segments |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DDP-GC-CODE( | 1 | AV Components: getComponents() returns correct the 'encoding' strings for DD+ (E-AC3) and HEAAC in a DASH stream | TRUE | The terminal shall correctly return values of E-AC3 and HEAAC for the 'encoding' parameter when calling getComponents on an AV Control object playing a stream with DD+ (E-AC3) and HEAAC audio (respectively) as part of a DASH stream |
| org.hbbtv_DDP-GC-CODE( | 1 | AV Components: getComponents() returns correct the 'encoding' strings for DD+ (E-AC3) and HEAAC in an mp4 stream | TRUE | The terminal shall correctly return values of E-AC3 and HEAAC for the 'encoding' parameter when calling getComponents on an AV Control object playing a stream with DD+ (E-AC3) and HEAAC audio (respectively) as part of an mp4 stream |
| org.hbbtv_DDP-GC-CODE( | 1 | AV Components: getComponents() returns correct the 'encoding' strings for DD+ (E-AC3) and HEAAC in a TS stream | TRUE | The terminal shall correctly return values of E-AC3 and HEAAC for the 'encoding' parameter when calling getComponents on an AV Control object playing a stream with DD+ (E-AC3) and HEAAC audio (respectively) as part of a TS stream |
| org.hbbtv_DDP-GC-LANG- | 1 | AV Components: getComponents() returns correct the 'language' strings for multiple DD+ (EAC3) audio components in a DASH stream | TRUE | The terminal shall return the correct ISO 639-2 value for the 'language' parameter when calling getComponents on an AV Control object playing a DASH stream for each of multiple DD+ audio components |
| org.hbbtv_DDP-GC-LANG- | 1 | AV Components: getComponents() returns correct the 'language' strings for multiple DD+ (EAC3) audio components in an mp4 stream | TRUE | The terminal shall return the correct ISO 639-2 value for the 'language' parameter when calling getComponents on an AV Control object playing an mp4 stream for each of multiple DD+ audio components |
| org.hbbtv_DDP-GC-LANG- | 1 | AV Components: getComponents() returns correct the 'language' strings for multiple DD+ (EAC3) audio components in a TS stream | TRUE | The terminal shall return the correct ISO 639-2 value for the 'language' parameter when calling getComponents on an AV Control object playing a TS stream for each of multiple DD+ audio components |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DDP-SC-CODEC | 1 | AV Components: Selecting audio components from a DASH stream with DD+ (E-AC3) and HE-AAC audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing a DASH stream with DD+ (E-AC3) and HEAAC audio components |
| org.hbbtv_DDP-SC-CODEC | 1 | AV Components: Selecting audio components from an mp4 stream with DD+ (E-AC3) and HE-AAC audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing an mp4 stream with DD+ (E-AC3) and HEAAC audio components |
| org.hbbtv_DDP-SC-CODEC | 1 | AV Components: Selecting audio components from a TS stream with DD+ (E-AC3) and HE-AAC audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing a TS stream with DD+ (E-AC3) and HEAAC audio components |
| org.hbbtv_DDP-SC-LANG- | 1 | AV Components: Selecting audio components from a DASH stream with multiple language DD+ (EAC3) audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing a DASH stream with multiple language DD+ (EAC3) audio components |
| org.hbbtv_DDP-SC-LANG- | 1 | AV Components: Selecting audio components from an mp4 stream with multiple language DD+ (EAC3) audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing an mp4 stream with multiple language DD+ (EAC3) audio components |
| org.hbbtv_DDP-SC-LANG- | 1 | AV Components: Selecting audio components from a TS stream with multiple language DD+ (EAC3) audio components | TRUE | The terminal shall correctly select and play the audio component which is not initially played, by using the selectComponents function on an AV Control object playing a TS stream with multiple language DD+ (EAC3) audio components |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC001 | 1 | Adding stream event listeners: valid stream event | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is also valid and instantiated. A StreamEvent of type 'StreamEvent' with status equal to 'trigger' shall be dispatched and passed to the event listener. |
| org.hbbtv_DSMCC002 | 1 | Adding stream event listeners: malformed targetURL | TRUE | The addStreamEventListener method is called with a malformed targetURL. The EventListener supplied to the method is valid and instantiated. A StreamEvent of type 'StreamEvent' with status equal to 'error' shall be dispatched and passed to the event listener. |
| org.hbbtv_DSMCC003 | 1 | Adding stream event listeners: malformed eventName | TRUE | The addStreamEventListener method is called with a malformed eventName. The EventListener supplied to the method is valid and instantiated. A StreamEvent of type 'StreamEvent' with status equal to 'error' shall be dispatched and passed to the event listener. |
| org.hbbtv_DSMCC004 | 1 | Adding stream event listeners: eventName not found | TRUE | The addStreamEventListener method is called with a well formed eventName. However, the StreamEvent object pointed to by targetURL does not contain the event specified by eventName. The EventListener supplied to the method is valid and instantiated. A StreamEvent of type 'StreamEvent' with status equal to 'error' shall be dispatched and passed to the event listener. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC005 | 1 | Removing stream event listeners with an altered eventName | TRUE | It shall be impossible to remove a registered stream event listener via removeStreamEventListener with all matching parameters but a different eventName value compared with the one used when registering the listener. The registered listener shall function as before. |
| org.hbbtv_DSMCC006 | 1 | Adding stream event listeners: identical instances | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is valid and instantiated and the call succeeds. Upon the reception of multiple indentical instances of the MPEG private data section carrying an event (including the version number), only one event shall be dispatched. A StreamEvent of type 'StreamEvent' with status equal to 'trigger' shall be dispatched and passed to the event listener. |
| org.hbbtv_DSMCC007 | 1 | Adding stream event listeners: different version numbers | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is valid and instantiated and the call succeeds. Upon receiving multiple instances of an event, with the same event name (but different version numbers), one event shall be dispatched for each different event received. A StreamEvent of type 'StreamEvent' with status equal to 'trigger' shall be dispatched and passed to the event listener in each case. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC008 | 1 | Removing stream event listeners with matching parameters | TRUE | It shall be possible to remove a registered stream event listener via removeStreamEventListener with matching parameters and the removed listeners shall not receive any stream event afterwards. |
| org.hbbtv_DSMCC009 | 1 | Removing stream event listeners with an altered targetURL value | TRUE | It shall be impossible to remove a registered stream event listener via removeStreamEventListener with all matching parameters but a different targetURL value compared with the one used when registering the listener. The registered listener shall function as before. |
| org.hbbtv_DSMCC010 | 1 | Removing stream event listeners with an altered listener function value | TRUE | It shall be impossible to remove a registered stream event listener via removeStreamEventListener with all matching parameters but a different listener function value compared with the one used when registering the listener. The registered listener shall function as before. |
| org.hbbtv_DSMCC011 | 1 | DSM-CC StreamEvent event: returns valid name | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is also valid and instantiated. When a StreamEvent of type 'StreamEvent' with status equal to 'trigger' is dispatched and passed to the event listener we check that the name element of the StreamEvent returned matches the eventName made in the call to the addStreamEventListener method. |

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| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_DSMCC012 | 1 | DSM-CC StreamEvent event: returns well formed data element | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is also valid and instantiated. When a StreamEvent of type 'StreamEvent' with status equal to 'trigger' is dispatched and passed to the event listener we check that the data element of the StreamEvent returned is well formed. |
| org.hbbtv_DSMCC013 | 1 | DSM-CC StreamEvent event: returns well formed text element | TRUE | The addStreamEventListener method is called with a valid targetURL and eventName of a valid and available StreamEvent. The EventListener supplied to the method is also valid and instantiated. When a StreamEvent of type 'StreamEvent' with status equal to 'trigger' is dispatched and passed to the event listener we check that the text element of the StreamEvent returned is well formed. |
| org.hbbtv_DSMCC014 | 1 | Carousel objects access with XMLHttpRequest: XML file via relative URL | TRUE | The status returned from accessing a relative URL to a DSM-CC xml file object (with extension '.xml') via open() method of XMLHttpRequest shall be 200, the responseText and responseXml returned shall be as defined in XMLHTTPRequest [11] |
| org.hbbtv_DSMCC015 | 1 | Carousel objects access with XMLHttpRequest: A directory via relative URL | TRUE | The status returned from accessing a relative URL to a DSM-CC directory object via open() method of XMLHttpRequest shall be 200, the responseText returned shall be a comma-separated list of all objects in the directory including path and name information, the responseXML returned shall be null. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC016 | 1 | Carousel objects access with XMLHttpRequest: XML file via absolute URL | TRUE | The status returned from accessing an absolute URL to a DSM-CC xml file object (with extension '.xml') via open() method of XMLHttpRequest shall be 200, the responseText and responseXml returned shall be as defined in XMLHTTPRequest [11] |
| org.hbbtv_DSMCC017 | 1 | Carousel objects access with XMLHttpRequest: A directory via absolute URL | TRUE | The status returned from accessing an absolute URL to a DSM-CC directory object via open() method of XMLHttpRequest shall be 200, the responseText returned shall be a comma-separated list of all objects in the directory including path and name information, the responseXML returned shall be null. |
| org.hbbtv_DSMCC018 | 1 | Carousel objects access with XMLHttpRequest: stream event listing via relative URL | TRUE | The status returned from accessing a relative URL to a DSM-CC stream event object via open() method of XMLHttpRequest shall be 200, the responseText returned shall be a comma-separated list of all events in the stream event, the responseXML returned shall be null. |
| org.hbbtv_DSMCC019 | 1 | Carousel objects access with XMLHttpRequest: stream event listing via absolute URL | TRUE | The status returned from accessing an absolute URL to a DSM-CC stream event object via open() method of XMLHttpRequest shall be 200, the responseText returned shall be a comma-separated list of all events in the stream event, the responseXML returned shall be null. |
| org.hbbtv_DSMCC040 | 1 | Mounting carousel via broadcasting initial page in the same transport stream. | TRUE | The initial page of the application is broadcast in the current channel, the carousel shall be mounted and the application shall be launched successfully. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC042 | 1 | Mounting carousel via the component_tag of a carousel containing service gateway. | TRUE | A broadcast-related application, whose initial page is not broadcast in the current channel, launches. It contains an 'img' element referencing an image file and also makes a XMLHttpRequst to a file, which are both in the current channel's carousel encoded with service gateway. The two files shall be retrieved and shall be presented on the screen correctly. |
| org.hbbtv_DSMCC043 | 1 | Mounting carousel via the component_tag of a carousel containing no service gateway. | TRUE | A broadcast-related application, whose initial page is not broadcast in the current channel, launches. It contains an 'img' element referencing an image file and also makes a XMLHttpRequst to a second file, which are both in the current channel's carousel carrying no service gateway. The two files shall not be retrieved and shall not be presented. |
| org.hbbtv_DSMCC044 | 1 | Mounting the carousel in broadcast-independent application | TRUE | Application2 is created via a broadcast-related application, whose initial page is not broadcast, by using createApplication method. Application2 tries to access a file via XMLHttpRequest in the current channel's carousel encoded with service gateway via XMLHttpRequest, the file shall not be retrieved. Application2 is converted to broadcast-related application via using the setchannel(current channel) method and requires the same file again, the content of file shall be retrieved and shall be presented correctly. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC045 | 1 | One carousel mounted for a running application | TRUE | A broadcast-related application, whose initial page is broadcast, a stream event is signalled regularly in current stream, the application requires the file via XMLHttpRequest in another carousel. The file shall be retrieved and shall be present, then the StreamEvent shall be only received once before retrieving the file. |
| org.hbbtv_DSMCC046 | 1 | Carousel update | TRUE | A broadcast-related application, whose initial page is broadcast, requires one file via XMLHttpRequest carried in the current mounted carousel. The file shall be retrieved and shall be presented correctly. After a few seconds, the carousel is updated and the content of the file is updated as well. The file is required again. The updated content of the file shall be retrieved and shall be presented correctly. |
| org.hbbtv_DSMCC047 | 1 | Carousel split across: Minimum 3 elementary streams | TRUE | A broadcast-related application, whose initial page is broadcast, requires four files (file1, file2, file3 and file4) via XMLHttpRequest. The entries of the four files are in the current mounted carousel, but the actual content of file1 is located in the current carousel's DDB which is different from the one carrying the application's initial page. The actual content of file2, file3 and file4 are located in different carousels, which is different from the ones carrying initial page and file1. The four files shall be retrieved and shall be presented correctly. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC048 | 1 | Carousel split across: minimum 3 elementary streams with one reserved for StreamEvent. | TRUE | A broadcast-related application, whose initial page is not broadcast, requires two files (file1 and file2) via XMLHttpRequest and calls the addStreamEventListener() method to listen for the StreamEvent. The entries of the two files and the StreamEvent are in the current mounted carousel (carousel1), but the actual content of file1 is located in a different carousel (carousel2) from the current one. The StreamEvent will be signalled in a carousel (carousel3) which is different from the ones carrying the application's initial page and file1, the actual content of file2 is located in a carousel carried in a different channel. Carousels 2-3 do not have the service gateway. The two files shall be retrieved and shall be presented correctly, the StreamEvent shall be captured. |
| org.hbbtv_DSMCC049 | 1 | Subsequent carousel mounting in the same transport stream. | TRUE | A broadcast-related application that requests a file from a valid carousel other than the one that is currently mounted, causes the new carousel to be mounted and the requested file to be loaded successfully. |
| org.hbbtv_DSMCC051 | 1 | Subsequent carousel mounting in the same transport stream: The pending requests | TRUE | A broadcast-related application with pending requests from a currently mounted carousel that requires a file from a valid carousel other than the one that is currently mounted, causes the pending requests to the currently mounted carousel to be cancelled, the new carousel to be mounted and the requested file to successfully be loaded. |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_DSMCC053 | 1 | The length constraint of DSM-CC object reference: File object | TRUE | A broadcast-related application, whose initial page has a DSM-CC object reference which is 64 bytes long, shall be possible to launch. |
| org.hbbtv_DSMCC054 | 1 | The length constraint of DSM-CC object reference: StreamEvent object | TRUE | It shall be possible to subscribe to a stream event whose DSM-CC object reference is 64 bytes long. |
| org.hbbtv_DSMCC101 | 2 | CRC errors in DSM-CC sections | TRUE | An object carousel composed of DSM-CC sections with and without CRC32 errors is received. |
| org.hbbtv_DSMCC102 | 2 | last_section_number for DDB sections is 0xFE | TRUE | An DSM-CC object carousel with all sections that transport DDB messages have last_section_number set to 0xFE must be received successfully |
| org.hbbtv_DSMCC103 | 2 | Maximum DSM-CC section length is 4096 bytes | TRUE | An object carousel with DSM-CC sections using maximum allowed section size of 4096 must be received. |
| org.hbbtv_DSMCC104 | 2 | Maximum number of four DSM-CC sections per TS packet | TRUE | A DSM-CC object carousel composed of DSM-CC sections with the maximum allowed number is sections per TS packet must be received successfully. |
| org.hbbtv_DSMCC105 | 2 | Ignore dsmccAdaptationHeader | TRUE | A DSM-CC object carousel with dsmccDownloadDataHeader and dsmccMessageHeader with non empty dsmccAdaptionHeader must be received successfully. |
| org.hbbtv_DSMCC106 | 2 | Maximum size 4066 bytes for DII blockSize | TRUE | A DSM-CC object carousel with maximum size (4066 bytes) of DII blockSize must be received successfully. |
| org.hbbtv_DSMCC107 | 2 | Ignore privateData field in DII messages | TRUE | A DSM-CC object carousel with non-empty privateData in the DII messages must be received successfully. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC108 | 2 | Ignore id and selector fields of BIOP::ModuleInfo::Taps | TRUE | A DSM-CC object carousel with a DII message which encodes a moduleInfo with different values for the tap id and non-empty selector fields must be received successfully. |
| org.hbbtv_DSMCC109 | 2 | Ignore additional taps in the BIOP::ModuleInfo::Taps. | TRUE | A DSM-CC object carousel with a DII message which encodes a moduleInfo with a BIOP::ModuleInfo::Taps with more than one tap must be successfully received. |
| org.hbbtv_DSMCC110 | 2 | Support compressed modules in DSM-CC object carousels | TRUE | A DSM-CC object carousel with compressed modules must be supported. |
| org.hbbtv_DSMCC111 | 2 | Ignore unknown descriptors in BIOP::ModuleInfo::UserInfo | TRUE | A DSM-CC object carousel with a DII message which encodes a moduleInfo with a BIOP::ModuleInfo::UserInfo with unknown descriptors must be succesfully received. |
| org.hbbtv_DSMCC112 | 2 | BIOP::ModuleInfo::moduleTimeOut, blockTimeOut and minBlockTime | TRUE | A DSM-CC object carousel whose repetition rate is with the duration defined in its moduleTimeout, blockTimeOut and minBlockTime must be received successfully |
| org.hbbtv_DSMCC113 | 2 | Ignore BIOP::ServiceGatewayInfo::downloadTaps | TRUE | A DSM-CC object carousel with a DSI message which encodes a non-empty BIOP::ServiceGatewayInfo::downloadTaps must be successfully received. |
| org.hbbtv_DSMCC114 | 2 | Ignore BIOP::ServiceGatewayInfo::serviceContextList | TRUE | A DSM-CC object carousel with a DSI message which encodes a non-empty BIOP::ServiceGatewayInfo::serviceContextList must be succesfully received. |
| org.hbbtv_DSMCC115 | 2 | Ignore BIOP::ServiceGatewayInfo::UserInfo | TRUE | A DSM-CC object carousel with a DSI message which encodes a non-empty BIOP::ServiceGatewayInfo::UserInfo must be succesfully received. |
| org.hbbtv_DSMCC116 | 2 | Ignore DownloadCancel messages in DSM-CC object carousels | TRUE | A DSM-CC object carousel with a DownloadCancel message must be successfully received. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC117 | 2 | BIOP::FileMessage with empty MessageSubHeader::ObjectInfo | TRUE | A DSM-CC object carousel with a BIOP::FileMessage with emtpy MessageSubHeader::ObjectInfo must be received successfully. |
| org.hbbtv_DSMCC118 | 2 | BIOP:FileMessage with MessageSubHeader::ObjectInfo with DSM::File::ContentSize | TRUE | A DSM-CC object carousel with a BIOP::FileMessage which encodes a MessageSubHeader::ObjectInfo with a DSM::File::ContentSize and no descriptors must be received successfully. |
| org.hbbtv_DSMCC119 | 2 | BIOP:FileMessage with MessageSubHeader::ObjectInfo with content_type descriptor | TRUE | A DSM-CC object carousel with a BIOP::FileMessage which encodes a MessageSubHeader::ObjectInfo with a DSM::File::ContentSize and a content_type_descriptor must be received successfully. |
| org.hbbtv_DSMCC120 | 2 | BIOP:FileMessage with MessageSubHeader::ObjectInfo unknown descriptors | TRUE | A DSM-CC object carousel with a BIOP::FileMessage which encodes a MessageSubHeader::ObjectInfo with a DSM::File::ContentSize followed by unknown descriptors must be received successfully. |
| org.hbbtv_DSMCC121 | 2 | Ignore the MessageSubHeader::ServiceContextList in a BIOP::FileMessage | TRUE | A DSM-CC object carousel with a non-empty MessageSubHeader::ServiceContextList in a BIOP::FileMessage must be received successfully. |
| org.hbbtv_DSMCC122 | 2 | Ignore MessageSubHeader::ObjectInfo in a BIOP::DirectoryMessage | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with non-emtpy MessageSubHeader::ObjectInfo must be received successfully. |
| org.hbbtv_DSMCC123 | 2 | Ignore MessageSubHeader::ServiceContextList in a BIOP::DirectoryMessage | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with non-emtpy MessageSubHeader::ServiceContextList must be received successfully. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC124 | 2 | Different length for names in BIOP::DirectoryMessage | TRUE | A DSM-CC object carousel with names from length 2 to 255 (inclusive null-termination) must be supported in a BIOP::DirectoryMessage. |
| org.hbbtv_DSMCC125 | 2 | BIOP::DirectoryMessage with empty BIOP::Binding::ObjectInfo | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with emtpy BIOP::Binding::ObjectInfo must be received successfully. |
| org.hbbtv_DSMCC126 | 2 | BIOP::DirectoryMessage with BIOP::Binding::ObjectInfo with DSM::File::ContentSize | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with BIOP::Binding::ObjectInfo with DSM::File::ContentSize must be received successfully. |
| org.hbbtv_DSMCC127 | 2 | BIOP::DirectoryMessage with BIOP::Binding::ObjectInfo with content_type_descriptor | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with BIOP::Binding::ObjectInfo with DSM::File::ContentSize followed by a content_type_descriptor must be received successfully. |
| org.hbbtv_DSMCC128 | 2 | Ignore unknown descriptors in BIOP::Binding::ObjectInfo in BIOP::DirectoryMessage | TRUE | A DSM-CC object carousel with a BIOP::DirectoryMessage with BIOP::Binding::ObjectInfo with unknown descriptors must be received successfully. |
| org.hbbtv_DSMCC129 | 2 | Ignore BIOP::IOR with unknown profile | TRUE | BIOP object references with unknown profiles must be ignored. |
| org.hbbtv_DSMCC130 | 2 | BIOP::IOR: Ignore additional IOP::taggedProfiles | TRUE | IOP::TaggedProfiles following the first profile in a BIOP::IOR must be received successfully. |
| org.hbbtv_DSMCC131 | 2 | BiopProfileBody: ignore additional BIOP::LiteComponents | TRUE | BiopProfileBody::LiteComponents following the BiopObjectLocation and DSM::ConnBinder in a BIOP Profile Body must be ignored. |
| org.hbbtv_DSMCC132 | 2 | Ignore BIOP object reference with wrong tap type in DSM::ConnBinder | TRUE | BIOP object references with wrong tap type in DSM::ConnBinder must be ignored. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_DSMCC133 | 2 | BiopProfileBody: Ignore additonal taps in DSM::ConnBinder | TRUE | Taps following the first one in DSM::ConnBinder must be ignored. |
| org.hbbtv_DSMCC134 | 2 | BiopProfileBody: Ignore id field of tap in a DSM::ConnBinder | TRUE | The id field in a tap of a DSM::ConnBinder must be ignored |
| org.hbbtv_DSMCC135 | 2 | LiteOptionsProfileBody: ignore additional BIOP::LiteComponents | TRUE | BIOP::LiteComponents following the initial DSM::ServiceLocation component in a LiteOptionsProfileBody must be ignored. |
| org.hbbtv_DSMCC136 | 2 | LiteOptionsProfileBody: ignore DSM::ServiceLocation::InitialContext | TRUE | The DSM::ServiceLocation::InitialContext must be ignored. |
| org.hbbtv_DSMCC137 | 2 | Add file to DSM-CC object carousel | TRUE | A new file added to a DSM-CC object carousel must be received. |
| org.hbbtv_DSMCC138 | 2 | Update file of DSM-CC object carousel | TRUE | Updates of files of a DSM-CC object carousel must be received. |
| org.hbbtv_DSMCC139 | 2 | Add directory to DSM-CC object carousel | TRUE | A new directory added to a DSM-CC object carousel must be received. |
| org.hbbtv_DSMCC140 | 2 | Update directory of DSM-CC object carousel | TRUE | An updated directory of a DSM-CC object carousel must be received. |
| org.hbbtv_DSMCC141 | 2 | Move file object to different module in DSM-CC object carousel | TRUE | Object moved from one module to another module in a DSM-CC object carousel must still be accessible. |
| org.hbbtv_DSMCC142 | 2 | Change PID of DSM-CC object carousel | TRUE | The PIDs where an object carousel is transmitted may be updated. The carousel must still be accessible. |
| org.hbbtv_DSMCC143 | 2 | Add new PID for DSM-CC object carousel | TRUE | The data transmitted on the new PID must be accessible. |
| org.hbbtv_DSMCC144 | 2 | DSM-CC object carousel composed from different services | TRUE | DSM-CC object carousels transmitted over different services using the deferred_association_tags descriptor must be supported. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_E1210020 | 4 | EIT P/F - video/broadcast object can decode all required UTF-8 characters | FALSE | When all the characters in the 'Generic Western European character set' as defined in annex C of TS 102 809 excluding 0149 and 066B are encoded in the EIT present/following table with UTF-8 encoding; all characters shall have the expected UTF-16 character codes when retrieved using the video/broadcast object |
| org.hbbtv_E1210030 | 4 | EIT Schedule - MetadataSearch object can decode all required UTF-8 characters | TRUE | When all characters in the 'Generic Western European character set' as defined in annex C of TS 102 809 excluding codes 0149 and 066B are encoded in the EIT schedule table with UTF-8 encoding; all characters shall have the expected UTF-16 character codes when retrieved using the application/oipfSearchManager object |
| org.hbbtv_E1210040 | 2 | Correct graphics display and aspect ratio when showing broadband video which contains 4:3 to 16:9 transition. | TRUE | When a full screen 1280 x 720 PNG is displayed on top of a full screen SD broadband video; it shall not be changed in any way when the video transitions from 4:3 to 16:9 aspect ratio |
| org.hbbtv_E1210050 | 2 | Correct graphics display and aspect ratio when showing broadband video which contains 16:9 to 4:3 transition. | TRUE | When a full screen 1280 x 720 PNG is displayed on top of a full screen SD broadband video; it shall not be changed in any way when the video transitions from 16:9 to 4:3 aspect ratio |
| org.hbbtv_E1210060 | 3 | Correct graphics display and aspect ratio when showing broadcast video which contains 4:3 to 16:9 transition. | TRUE | When a full screen 1280 x 720 PNG is displayed on top of full screen SD broadcast video, which is bound to the video/broadcast object; it shall not be changed in any way when the video transitions from 4:3 to 16:9 aspect ratio |
| org.hbbtv_E1210070 | 3 | Correct graphics display and aspect ratio when showing broadcast video which contains 16:9 to 4:3 transition. | TRUE | When a full screen 1280 x 720 PNG is displayed on top of full screen SD broadcast video, which is bound to the video/broadcast object; it shall not be changed in any way when the video transitions from 16:9 to 4:3 aspect ratio |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_E1210080 | 3 | Correct graphics display and aspect ratio when transitioning from 4:3 broadband video to 16:9 broadcast video | TRUE | When a full screen 1280 x 720 PNG is displayed on top of 4:3 full screen SD broadband video; it shall not be changed in any way when the video transitions to 16:9 full screen SD broadcast video |
| org.hbbtv_E1210090 | 3 | Correct graphics display and aspect ratio when transitioning from 16:9 broadband video to 4:3 broadcast video | TRUE | When a full screen 1280 x 720 PNG is displayed on top of 16:9 full screen SD broadband video; it shall not be changed in any way when the video transitions to 4:3 full screen SD broadcast video |
| org.hbbtv_E12100A0 | 1 | Correct graphics display and aspect ratio when transitioning from 4:3 broadcast video to 16:9 broadband video | FALSE | When a full screen 1280 x 720 PNG is displayed on top of 4:3 full screen SD broadcast video which has been bound using the video/broadcast object, it shall not be changed in any way when the video transitions to 16:9 full screen SD broadband video |
| org.hbbtv_E12100B0 | 1 | Correct graphics display and aspect ratio when transitioning from 16:9 broadcast video to 4:3 broadband video | FALSE | When a full screen 1280 x 720 PNG is displayed on top of 16:9 full screen SD broadcast video which has been bound using the video/broadcast object, it shall not be changed in any way when the video transitions to 4:3 full screen SD broadband video |
| org.hbbtv_EAC30001 | 2 | Test of support for E-AC3 stereo, Streamed over HTTP. MP4 container. | TRUE | The terminal shall correctly decode and present E-AC3 stereo AV content from an MP4 container streamed over HTTP. |
| org.hbbtv_EAC30002 | 3 | Test of support for down-mixed E-AC3; 5.1 channel, AV Content, Streamed over HTTP. MP4 container. | TRUE | The terminal shall correctly decode and present down-mixed 5.1 channel E-AC3 AV content from an MP4 container streamed over HTTP. |
| org.hbbtv_EAC30003 | 3 | Test of support for down-mixed E-AC3; 7.1 channel, AV Content, Streamed over HTTP. MP4 container. | TRUE | The terminal shall correctly decode and present down-mixed 7.1 channel E-AC3 AV content from an MP4 container streamed over HTTP. |
| org.hbbtv_EAC30004 | 3 | Test of support for E-AC-3 stereo. HbbTV ISOBMFF Live profile | TRUE | The terminal shall correctly decode and present E-AC3 stereo AV content from an MPEG DASH live stream. |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| org.hbbtv_EAC30005 | 4 | Test of support for down-mixed E-AC3; 5.1 channel, AV Content, HbbTV ISOBMFF Live profile | TRUE | The terminal shall correctly decode and present down-mixed 5.1 channel E-AC3 AV content from an MPEG DASH live stream |
| org.hbbtv_EAC30006 | 4 | Test of support for down-mixed E-AC3; 7.1 channel, AV Content, HbbTV ISOBMFF Live profile | TRUE | The terminal shall correctly decode and present down-mixed 7.1 channel E-AC3 AV content from an MPEG DASH live stream |
| org.hbbtv_EAC30007 | 2 | Test of support for E-AC3 stereo, Streamed over HTTP. MPEG-2 TS container. | TRUE | The terminal shall correctly decode and present E-AC3 stereo AV content from an MPEG-2 TS container streamed over HTTP. |
| org.hbbtv_EAC30008 | 3 | Test of support for down-mixed E-AC3; 5.1 channel, AV Content, Streamed over HTTP. MPEG-2 TS container. | TRUE | The terminal shall correctly decode and present down-mixed 5.1 channel E-AC3 AV content from an MPEG-2 TS container streamed over HTTP |
| org.hbbtv_EAC30009 | 3 | Test of support for down-mixed E-AC3; 7.1 channel, AV Content, Streamed over HTTP. MPEG-2 TS container. | TRUE | The terminal shall correctly decode and present down-mixed 7.1 channel E-AC3 AV content from an MPEG-2 TS container streamed over HTTP |
| org.hbbtv_EAC3000D | 2 | Test of support for an E-AC-3 Audio Description. HbbTV ISOBMFF Live profile (audio description only) | TRUE | Terminal correctly presents broadcast mix Audio Description from an MPEG DASH stream containing 1 video and 2 E-AC-3 audio AdaptationSets, where 1 audio AdaptationSet is signalled as containing broadcast mix Audio Description (Live Streaming Profile). |
| org.hbbtv_EAC3000D_2 | 2 | Test of support for an E-AC-3 Audio Description. HbbTV ISOBMFF Live profile (main audio only) | TRUE | Terminal correctly presents main broadcast audio from an MPEG DASH stream containing 1 video and 2 E-AC-3 audio AdaptationSets, where 1 audio AdaptationSet is signalled as containing broadcast mix Audio Description (Live Streaming Profile). |
| org.hbbtv_EAC3000F | 3 | HbbTV ISOBMFF Live profile, DD+ 5.1, single bitrate, contradicting channel layout metadata | TRUE | When an MPD contains channel layout metadata that contradicts the channel layout of the audio content, the terminal shall correctly play the audio content. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_EAC30010 | 3 | DASH Live Profile, DD+ 5.1, single bitrate, contradicting codec metadata | TRUE | When an MPD contains codec metadata contradicting the audio content, the terminal shall correctly play the audio content. |
| org.hbbtv_EAC30013 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, MP4 container (audio language change during test) | TRUE | For a terminal that supports changing the audio language while an application is running, it shall be able to decode and present multiple languages (English and French) from multiple E-AC-3 elementary streams stored in an MP4 container. |
| org.hbbtv_EAC30013_2 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, MP4 container (English) (audio language change before test) | TRUE | For a terminal that only supports changing the audio language when an application is not running, The terminal shall be able to decode and present the selected language (English) from multiple E-AC-3 elementary streams stored in an MP4 container. |
| org.hbbtv_EAC30013_3 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, MP4 container (French) (audio language change before test) | TRUE | For a terminal that only supports changing the audio language when an application is not running, The terminal shall be able to decode and present the selected language (French) from multiple E-AC-3 elementary streams stored in an MP4 container. |
| org.hbbtv_EAC30014 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, HbbTV ISOBMFF Live profile (English) (audio language change during test) | TRUE | For a terminal that supports changing the audio language while an application is running, the terminal shall be able to decode and present multiple languages (English and French) from multiple E-AC-3 Adaptation Sets in an MPEG-DASH stream (HbbTV ISOBMFF Live profile) |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_EAC30014_2 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, HbbTV ISOBMFF Live profile (English) (audio language change before test) | TRUE | For a terminal that only supports changing the audio language when an application is not running, the terminal shall be able to decode and present the selected language (English) from multiple E-AC-3 Adaptation Sets in an MPEG-DASH stream (HbbTV ISOBMFF Live profile) |
| org.hbbtv_EAC30014_3 | 4 | Test of support for Multiple Languages from multiple E-AC-3 elementary streams, HbbTV ISOBMFF Live profile (French) (audio language change before test) | TRUE | For a terminal that only supports changing the audio language when an application is not running, the terminal shall be able to decode and present the selected language (French) from multiple E-AC-3 Adaptation Sets in an MPEG-DASH stream (HbbTV ISOBMFF Live profile) |
| org.hbbtv_EAC30016 | 4 | HbbTV ISOBMFF Live profile, DD+ Stereo MultiRate, Low to High | TRUE | During playout of a stream defined in a static MPD in response to increased bandwidth availability the terminal shall transition seamlessly from an audio representation with a bitrate of 96kbps to an audio representation with a bitrate of 384kbps, both representations being encoded using E-AC3. |
| org.hbbtv_EAC30017 | 4 | HbbTV ISOBMFF Live profile, DD+ Stereo MultiRate, High to Low | TRUE | During playout of a stream defined in a static MPD in response to decreased bandwidth availability the terminal shall transition seamlessly from an audio representation with a bitrate of 384kbps to an audio representation with a bitrate of 96kbps, both representations being encoded using E-AC3. |
| org.hbbtv_MSR09010 | 1 | 'application/oipfSearchManager' implements API functions: 'createSearch', 'getChannelConfig'. | TRUE | 'application/oipfSearchManager' object implements API functions: 'createSearch', 'getChannelConfig'. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09020 | 1 | Calling the getChannelConfig function on 'application/oipfSearchManager' and 'video/broadcast' embedded objects return identical objects. | TRUE | Content of ChannelConfig objects returned by getChannelConfig function of 'application/oipfSearchManager' and 'video/broadcast' are compared. All properties, especially channels in channelList shall be identical. All included channel parameters: channelType, ccid, dsd, onid, tsid, sid and name are considered. |
| org.hbbtv_MSR09030 | 3 | Function 'createSearch(1)' of 'application/oipfSearchManager' embedded object returns MetadataSearch type object. | TRUE | Function 'createSearch(1)' of 'application/oipfSearchManager' embedded object returns object which implements MetadataSearch class API methods: createQuery, setQuery, addChannelConstraint and findProgrammesFromStream, properties: searchTarget=1 and result. |
| org.hbbtv_MSR09060 | 1 | onMetadataSearch callback shall be called with correct parameters. | TRUE | After calling getResults() method of application/oipfSearchManager object the onMetadataSearch callback shall be run with two parameters: first 'MetadataSearch' type object, second Integer.<br>    MetadataSearch object contains following properties: searchTarget, result, setQuery, addChannelConstraint, createQuery and findProgrammesFromStream. |
| org.hbbtv_MSR09061 | 1 | onMetadataSearch callback shall be called asynchronously. | TRUE | After calling getResults() method of application/oipfSearchManager object, the onMetadataSearch callback shall be run asynchronously. |
| org.hbbtv_MSR09062 | 1 | When search is finished, onMetadataSearch callback with argument state=0 is called. | TRUE | When search is finished, onMetadataSearch(state=0,...) callback shall be run. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09064 | 1 | When search is finished, the state argument of event object send to MetadataSearch listener is equal 0. | TRUE | The MetadataSearch Event interface object sent to the listener after terminal finishes search shall contain the property state equal to 0. |
| org.hbbtv_MSR09065 | 1 | DOM2 'MetadataSearch' listener shall be called with correct event parameter. | TRUE | After calling the getResults method of the application/oipfSearchManager object, the DOM2 'MetadataSearch' event listener shall be called. The Event interface object sent to the listener shall contain properties: 'bubbles' equal 'false', 'cancelable' equal 'false', number 'state' and 'search' - an instance of the MetadataSearch class containing following properties and methods: 'searchTarget', 'result', 'setQuery', 'addChannelConstraint', 'createQuery' and 'findProgrammesFromStream'. |
| org.hbbtv_MSR09066 | 1 | DOM2 'MetadataSearch' listener shall be dispatched asynchronously. | TRUE | After call of getResults method of the application/oipfSearchManager object the DOM2 event listener method shall be dispatched asynchronously. |
| org.hbbtv_MSR09067 | 1 | MetadataSearch results are based on the updated metadata, if EIT table changes. | TRUE | After performing a search, if the EIT table changes, getResults() shall eventually get results based on the updated metadata. |
| org.hbbtv_MSR09068 | 1 | Update of metadata due to EIT table changes shall not affect on the data exposed via the SearchResult.item() of MetadataSearch. | TRUE | After search performing, if EIT table is updated, objects returned by SearchResult.item() shall not change. |
| org.hbbtv_MSR09080 | 1 | 'SearchResults' type object implements API functions: 'item', 'getResults', 'abort'. | TRUE | 'SearchResults' type object implements API functions: 'item', 'getResults', 'abort'. |
| org.hbbtv_MSR09081 | 1 | Array notation of SearchResults. | TRUE | Access to i-th element of currently available results shall be realized by 'result[i]', where i = 0, 1, ..., result.length - 1. |
| org.hbbtv_MSR09090 | 1 | 'offset' argument of getResults(offset,....) shift result set. | TRUE | The result collection retrieved by call of getResults(offset,...) method shall be correctly shifted by value of offset parameter. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09091 | 1 | Subsequent calls of getResults() method retrieves specified subset of items. | TRUE | When getResults() is called with its 'offset' and 'count' parameters specified to fetch a subset of programmes within the expected results, and is then called again to fetch the rest of the programmes after the subset in the previous search; both calls to getResults() shall retrieve the expected results. |
| org.hbbtv_MSR09092 | 1 | 'offset' parameter of result property. | TRUE | After each call of getResults(offset,...), the 'offset' parameter of the result property shall be set correctly. |
| org.hbbtv_MSR09093 | 1 | 'totalSize' parameter is not altered after subsequent calls of getResults(). | TRUE | When getResults(offset, count) is called subsequently, the totalSize parameter of the result property shall stay unchanged. |
| org.hbbtv_MSR09100 | 1 | Result property of MetadataSearch class shall be empty until getResults() is used. | TRUE | result property, until 'getResults()' is used, shall have: length = 0, totalSize = 0. Call item() shall return undefined. |
| org.hbbtv_MSR09130 | 1 | Value of 'totalSize' property of 'SearchResults' type object is equal to number of results found by MetadataSearch. | TRUE | When the getResults() method has been called, specifying a sub-set of the expected results; the 'totalSize' property of the resulting SearchResults object shall be equal to the total number of programmes matching the query. |
| org.hbbtv_MSR09210 | 3 | Terminal correctly implements comparison type '0' in Metadata APIs for 'Programme.name' parameter. | TRUE | MetadataSearch queries launched for compare field: 'Programme.name' with comparison type=0 (True if the specified value is equal to the value of the specified field) shall return correct set of programmes. |
| org.hbbtv_MSR092101 | 3 | Terminal correctly implements comparison type '0' in Metadata APIs for 'Programme.startTime' parameter. | TRUE | MetadataSearch queries launched for compare field: 'Programme.startTime' with comparison type=0 (True if the specified value is equal to the value of the specified field) shall return correct set of programmes. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR092102 | 3 | Terminal correctly implements comparison type '0' in Metadata APIs for 'Programme.programmeID' parameter. | TRUE | MetadataSearch queries launched for compare field: 'Programme.programmeID' with comparison type=0 (True if the specified value is equal to the value of the specified field) shall return correct set of programmes. |
| org.hbbtv_MSR09211 | 3 | Terminal correctly implements comparison type '1' in Metadata APIs for 'Programme.name' parameter. | TRUE | MetadataSearch queries launched for compare field 'Programme.name', with comparison type=1 (True if the specified value is not equal to the value of the specified field) shall return correct set of programmes. |
| org.hbbtv_MSR092111 | 1 | Terminal correctly implements comparison type '1' in Metadata APIs for 'Programme.startTime' parameter. | TRUE | MetadataSearch queries launched for compare field 'Programme.startTime' with comparison type=1 (True if the specified value is not equal to the value of the specified field) shall return correct set of programmes. |
| org.hbbtv_MSR092112 | 1 | Terminal correctly implements comparison type '1' in Metadata APIs for 'Programme.programmeID' parameter. | TRUE | MetadataSearch queries launched for compare field 'Programme.programmeID' with comparison type=1 (True if the specified value is not equal to the value of the specified field) shall return correct set of programmes. |
| org.hbbtv_MSR09216 | 3 | Terminal correctly implements comparison type '6' for compare field 'Programme.name' in Metadata APIs. | TRUE | MetadataSearch queries launched for compare field: 'Programme.name' with comparison type=6 (True if the string value of the specified field contains the specified value) shall return correct set of programmes. |
| org.hbbtv_MSR092162 | 1 | Comparison type '6' for compare field: 'Programme.name' shall be case-insensitive. | FALSE | MetadataSearch queries launched for compare field: 'Programme.name', with comparison type=6 (True if the string value of the specified field contains the specified value) shall be case-insensitive. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09217 | 1 | setQuery - remove existing query. | FALSE | If a search is performed on a MetadataSearch object using a Query object (Query A), and while the MetadataSearch object is in the 'found' state a 2nd search is performed using a new Query object (Query B) that matches different programmes and a sub-set of the programmes matched by Query A. The terminal shall only retrieve programmes that match Query B and Query A shall not affect the results. |
| org.hbbtv_MSR09240 | 1 | Search manager shall be able to perform two independent searches. | FALSE | When two queries that match 2 distinct sets of results are assigned to two MetadataSearch objects using the setQuery() method, and results are obtained for each in turn; the SearchResult object associated with each MetadataSearch object shall contain the expected results. |
| org.hbbtv_MSR09241 | 1 | Two independent searches with different channel constraints. | FALSE | Two MetadataSearch objects are instantiated, each object is given different channel constraints that will give two distinct sets of results with the following Query objects: Both Query objects are created using the createQuery() method of their respective MetadataSearch objects, and in each case, createQuery() is given identical parameters; after the search is performed the SearchResult object associated with each MetadataSearch object shall contain the expected results. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09242 | 1 | Channel constraints shall be removed on given search object only. | FALSE | Two MetadataSearch objects are instantiated, each object is given the same channel constraints that will affect the expected results matched by the following Query objects: Both Query objects are created using the createQuery() method of the two MetadataSearch objects, and in each case, createQuery() is given identical parameters. When the channel constraints are removed from one of the MetadataSearch objects and the search is performed on each MetadataSearch object in turn, the SearchResult object associated with each MetadataSearch object shall contain the expected results. |
| org.hbbtv_MSR09243 | 1 | Two independent 'findProgrammesFromStream()' searches. | FALSE | When 2 MetadataSearch objects are instantiated, and findProgrammesFromStream() is called on each with different parameters specified that will return different sets of results; when the search is performed on each in turn, the SearchResult object associated with each MetadataSearch object shall contain the expected results. |
| org.hbbtv_MSR09250 | 3 | Subsequent calls to addChannelConstraint SHALL add the specified channel to the list of channels from which results should be returned in Metadata API. | TRUE | Two calls of addChannelConstraint(Channel) for different channels shall limit search results to programmes on those channels. |
| org.hbbtv_MSR09260 | 1 | findProgrammesFromStream(currentChannel, startTime,...) of Metadata API shall retrieve programme showing at the startTime on current channel. | TRUE | findProgrammesFromStream(currentChannel, startTime,...) shall retrieve programme, which starts before startTime and is showing at the startTime. |
| org.hbbtv_MSR09262 | 1 | findProgrammesFromStream() removes channel constraints. | FALSE | When calling findProgrammesFromStream() on the MetadataSearch object, the existing channel constraints shall be removed. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09263 | 1 | findProgrammesFromStream(Channel, startTime,...) of Metadata API shall retrieve programme showing at the startTime from given (not current) Channel. | TRUE | findProgrammesFromStream (Channel, startTime,...) shall retrieve programme, which starts before startTime and is showing at the startTime. Channel parameter does not refer to the currentChannel. |
| org.hbbtv_MSR09270 | 3 | The 'and()' method of query object performs the logical AND operation on queries. | TRUE | The MetadataSearch object shall be able to combine two queries using AND boolean logic when the and() method is called on a Query object, specifying a second Query object as its argument. |
| org.hbbtv_MSR09280 | 3 | The 'or()' method of query object performes the logical OR operation on queries. | TRUE | The MetadataSearch object shall be able to combine two queries using OR boolean logic when the or() method is called on a Query object, specifiying a second Query object as its argument. |
| org.hbbtv_MSR09290 | 3 | The 'not' method of query object creates a query based on the logical NOT operation. | TRUE | The logical NOT operation on query shall be realized by 'not()' method of given Query type object. |
| org.hbbtv_MSR09295 | 1 | Complex queries using the Metadata API 'not' 'and' and 'or' method of query object are supported. | TRUE | A complex query using the and(), or() and not() methods available on the Query object can be created and when set to the MetadataSearch object, shall produce the expected results. |
| org.hbbtv_MSR09300 | 1 | All search results of MetadataSearch type object shall be returned ordered first by channel, in the same order as presented to applications through a ChannelList object, then by start time in ascending order. | TRUE | All search results of MetadataSearch type object shall be returned ordered first by channel, in the same order as presented to applications through a ChannelList object, then by start time in ascending order. |
| org.hbbtv_MSR09310 | 3 | Metadata APIs channel constraint is removed by addChannelConstraint(null) call. | TRUE | addChannelConstraint(null) shall remove constraint set by call addChannelConstraint(Channel). |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| org.hbbtv_MSR09510 | 1 | MetadataSearch: Idle state after channel constraint adding. | TRUE | When constraints are added; the 'length' and totalSize parameters of the SearchResults object shall be equal to 0; calling item() with the 'index' parameter specified as 0 shall return undefined, the 0th element of SearchResults array shall be undefined. |
| org.hbbtv_MSR09511 | 1 | MetadataSearch: Idle state after channel constraint removing. | TRUE | When constraints are removed; the 'length' and totalSize parameters of the SearchResults object shall be equal to 0; calling item() with the 'index' parameter specified as 0 shall return undefined, the 0th element of SearchResults array shall be undefined. |
| org.hbbtv_MSR09530 | 1 | getResults(.., count): results limited to count. | FALSE | Achieved length of search results collection shall be equal to the 'count' parameter of the getResults(..., count) method. The total number of programmes which matches to the query is greater than the count value. |
| org.hbbtv_OBF08170 | 1 | Method oipfObjectFactory.isObjectSupported() shall return true for all mandatory embedded objects. | TRUE | window.oipfObjectFactory.isObjectSupported() shall return true for all mandatory objects (mime types: video/broadcast, application/oipfApplicationManager, application/oipfCapabilities, application/oipfConfiguration, application/oipfSearchManager, application/oipfParentalControlManager). |
| tv.oipf_AVC-AAC-003 | 1 | Audio From Memory - HE-AAC | FALSE | The terminal shall correctly decode memory audio encoded according to HE-AAC |
| tv.oipf_AVC-AAC-004-001 | 1 | 5.1 multi-channel audio output on S/PDIF | FALSE | The terminal shall correctly output 5.1 multi-channel HE-AAC audio on an S/PDIF output |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-AAC-004-002 | 1 | 5.1 multi-channel audio with DRC parameters output on S/PDIF | FALSE | The terminal shall correctly output 5.1 multi-channel HE-AAC audio (containing Dynamic Range Control parameters and specified prog_ref_level) on an S/PDIF output |
| tv.oipf_AVC-AAC-004-003 | 2 | 5.1 multi-channel audio with DRC parameters and prog_ref_level unspecified output on S/PDIF | FALSE | The terminal shall correctly output 5.1 multi-channel HE-AAC audio (containing Dynamic Range Control parameters and prog_ref_level not specified) on an S/PDIF output |
| tv.oipf_AVC-AAC-005-001 | 2 | HE-AAC downmixing - matrix coefficient = 0 | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with the matrix coefficient set to 0 |
| tv.oipf_AVC-AAC-005-002 | 2 | HE-AAC downmixing - matrix coefficient = 1 | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with the matrix coefficient set to 1 |
| tv.oipf_AVC-AAC-005-003 | 2 | HE-AAC downmixing - matrix coefficient = 2 | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with the matrix coefficient set to 2 |
| tv.oipf_AVC-AAC-005-004 | 2 | HE-AAC downmixing - matrix coefficient = 3 | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with the matrix coefficient set to 3 |
| tv.oipf_AVC-AAC-005-005 | 2 | HE-AAC downmixing - center_mix_level = 0 dB (000), surround_mix_level = 0 dB (000) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels both set to 0 dB |
| tv.oipf_AVC-AAC-005-006 | 2 | HE-AAC downmixing - center_mix_level = -3 dB (010), surround_mix_level = -3 dB (010) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels both set to -3 dB |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-AAC-005-007 | 2 | HE-AAC downmixing - center_mix_level = -6 dB (100), surround_mix_level = -6 dB (100) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels both set to -6 dB |
| tv.oipf_AVC-AAC-005-008 | 2 | HE-AAC downmixing - center_mix_level = -6 dB (100), surround_mix_level = -4.5 dB (011) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels set to -6 dB and -4.5 dB respectively |
| tv.oipf_AVC-AAC-005-009 | 2 | HE-AAC downmixing - center_mix_level = -3 dB (010), surround_mix_level = -7.5 dB (101) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels set to -3 dB and -7.5 dB respectively |
| tv.oipf_AVC-AAC-005-010 | 2 | HE-AAC downmixing - center_mix_level = -infinity dB (111), surround_mix_level -infinity dB (111) | FALSE | The terminal shall downmix audio when down-mix parameters are present in the HE-AAC metadata with center mix and surround mix channels enabled and their corresponding sound levels both set to -infinity dB |
| tv.oipf_AVC-AC3-001 | 1 | Decode AC-3 audio from an MPEG-2 transport stream | FALSE | Terminal shall decode AC-3 audio from an MPEG-2 transport stream |
| tv.oipf_AVC-CPT-001-001 | 1 | DVB subtitles | FALSE | Terminal shall correctly present DVB formatted subtitle information encoded in an MPEG-2 transport stream which also contains standard definition video encoded according to H.264/AVC |
| tv.oipf_AVC-CPT-001-002 | 1 | DVB subtitles (HD) | FALSE | Terminal shall correctly present DVB formatted subtitle information encoded in an MPEG-2 transport stream which also contains high definition video encoded according to H.264/AVC |
| tv.oipf_AVC-GIF-001-001 | 2 | Image rendering - GIF - 20 x 20 px | FALSE | Terminal shall correctly render a 20 x 20 px GIF image |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-GIF-001-002 | 2 | Image rendering - GIF - 40 x 20 px | FALSE | Terminal shall correctly render a 40 x 20 px GIF image |
| tv.oipf_AVC-GIF-001-003 | 2 | Image rendering - GIF - 20 x 40 px | FALSE | Terminal shall correctly render a 20 x 40 px GIF image |
| tv.oipf_AVC-GIF-001-004 | 2 | Image rendering - GIF - 40 x 40 px | FALSE | Terminal shall correctly render a 40 x 40 px GIF image |
| tv.oipf_AVC-GIF-001-005 | 2 | Image rendering - GIF - 347 x 131 px | FALSE | Terminal shall correctly render a 347 x 131 px GIF image |
| tv.oipf_AVC-GIF-001-006 | 2 | Image rendering - GIF - 640 x 50 px | FALSE | Terminal shall correctly render a 640 x 50 px GIF image |
| tv.oipf_AVC-GIF-001-007 | 2 | Image rendering - GIF - 50 x 480 px | FALSE | Terminal shall correctly render a 50 x 480 px GIF image |
| tv.oipf_AVC-GIF-001-008 | 2 | Image rendering - GIF - 320 x 240 px | FALSE | Terminal shall correctly render a 320 x 240 px GIF image |
| tv.oipf_AVC-GIF-001-009 | 2 | Image rendering - GIF - 240 x 320 px | FALSE | Terminal shall correctly render a 240 x 320 px GIF image |
| tv.oipf_AVC-GIF-001-010 | 2 | Image rendering - GIF - 640 x 480 px | FALSE | Terminal shall correctly render a 640 x 480 px GIF image |
| tv.oipf_AVC-GIF-001-011 | 2 | Image rendering - GIF (Animated) - 50 x 50 px | FALSE | Terminal shall correctly render an animated 50 x 50 px GIF image |
| tv.oipf_AVC-GIF-001-012 | 2 | Image rendering - GIF (Transparent) - 50 x 50 px | FALSE | Terminal shall correctly render a 50 x 50 px GIF image that contains transparent pixels |
| tv.oipf_AVC-GIF-002 | 2 | Image rendering - GIF - 720 x 576 px | FALSE | Terminal shall correctly render a 720 x 576 px GIF image |
| tv.oipf_AVC-GIF-004-001 | 2 | Image rendering - GIF - 1024 x 768 px | FALSE | Terminal shall correctly render a 1024 x 768 px GIF image |
| tv.oipf_AVC-GIF-004-002 | 2 | Image rendering - GIF - 1920 x 1080 px | FALSE | Terminal shall correctly render a 1920 x 1080 px GIF image |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-HD-009-009 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.1 - 1280 x 720 px @ 25i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 3.1 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 25i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-017 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1920 x 1080 px @ 25i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 3.2 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 25i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-025 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1280 x 720 px @ 50p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 3.2 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 50p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-028 | 2 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1920 x 1080 px @ 25p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 4.0 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 25p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-032 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 25p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 25p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-HD-009-035 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1920 x 1080 px @ 25i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 4.0 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 25i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-039 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 25i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 25i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-009-043 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 50p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_25 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 50p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-008 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.1 - 1280 x 720 px @ 24p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.1 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 24p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-014 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.1 - 1280 x 720 px @ 30p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.1 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-HD-010-026 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.1 - 1280 x 720 px @ 30i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.1 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-036 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1280 x 720 px @ 24p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.2 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 24p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-044 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1280 x 720 px @ 30p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.2 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-054 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1920 x 1080 px @ 30i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.2 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 30i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-058 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1280 x 720 px @ 30i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.2 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-HD-010-064 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 3.2 - 1280 x 720 px @ 60p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 3.2 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 60p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-074 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1920 x 1080 px @ 24p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 24p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-078 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 24p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 24p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-088 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1920 x 1080 px @ 30p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 30p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-092 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 30p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-HD-010-102 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1920 x 1080 px @ 30i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1920 x 1080 px resolution, 30i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-106 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 30i - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 30i frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-HD-010-114 | 3 | Fragmented MP4 - HD - H.264/AVC - HP 4.0 - 1280 x 720 px @ 60p - 16:9 - 24 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_HD_30 video format, High 4.0 profile, 16:9 aspect ratio, 1280 x 720 px resolution, 60p frame rate, 24 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-JPG-001-001 | 2 | Image rendering - JPEG - 20 x 20 px | FALSE | Terminal shall correctly render a 20 x 20 px JPEG image |
| tv.oipf_AVC-JPG-001-002 | 2 | Image rendering - JPEG - 40 x 20 px | FALSE | Terminal shall correctly render a 40 x 20 px JPEG image |
| tv.oipf_AVC-JPG-001-003 | 2 | Image rendering - JPEG - 20 x 40 px | FALSE | Terminal shall correctly render a 20 x 40 px JPEG image |
| tv.oipf_AVC-JPG-001-004 | 2 | Image rendering - JPEG - 40 x 40 px | FALSE | Terminal shall correctly render a 40 x 40 px JPEG image |
| tv.oipf_AVC-JPG-001-005 | 2 | Image rendering - JPEG - 347 x 131 px | FALSE | Terminal shall correctly render a 347 x 131 px JPEG image |
| tv.oipf_AVC-JPG-001-006 | 2 | Image rendering - JPEG - 640 x 50 px | FALSE | Terminal shall correctly render a 640 x 50 px JPEG image |
| tv.oipf_AVC-JPG-001-007 | 2 | Image rendering - JPEG - 50 x 480 px | FALSE | Terminal shall correctly render a 50 x 480 px JPEG image |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-JPG-001-008 | 2 | Image rendering - JPEG - 320 x 240 px | FALSE | Terminal shall correctly render a 320 x 240 px JPEG image |
| tv.oipf_AVC-JPG-001-009 | 2 | Image rendering - JPEG - 240 x 320 px | FALSE | Terminal shall correctly render a 240 x 320 px JPEG image |
| tv.oipf_AVC-JPG-001-010 | 2 | Image rendering - JPEG - 640 x 480 px | FALSE | Terminal shall correctly render a 640 x 480 px JPEG image |
| tv.oipf_AVC-JPG-002 | 2 | Image rendering - JPEG - 720 x 576 px | FALSE | Terminal shall correctly render a 720 x 576 px JPEG image |
| tv.oipf_AVC-JPG-004-001 | 2 | Image rendering - JPEG - 1024 x 768 px | FALSE | Terminal shall correctly render a 1024 x 768 px JPEG image |
| tv.oipf_AVC-JPG-004-002 | 2 | Image rendering - JPEG - 1920 x 1080 px | FALSE | Terminal shall correctly render a 1920 x 1080 px JPEG image |
| tv.oipf_AVC-PNG-001-001 | 2 | Image rendering - PNG - 20 x 20 px | FALSE | Terminal shall correctly render a 20 x 20 px PNG image |
| tv.oipf_AVC-PNG-001-002 | 2 | Image rendering - PNG - 40 x 20 px | FALSE | Terminal shall correctly render a 40 x 20 px PNG image |
| tv.oipf_AVC-PNG-001-003 | 2 | Image rendering - PNG - 20 x 40 px | FALSE | Terminal shall correctly render a 20 x 40 px PNG image |
| tv.oipf_AVC-PNG-001-004 | 2 | Image rendering - PNG - 40 x 40 px | FALSE | Terminal shall correctly render a 40 x 40 px PNG image |
| tv.oipf_AVC-PNG-001-005 | 2 | Image rendering - PNG - 347 x 131 px | FALSE | Terminal shall correctly render a 347 x 131 px PNG image |
| tv.oipf_AVC-PNG-001-006 | 2 | Image rendering - PNG - 640 x 50 px | FALSE | Terminal shall correctly render a 640 x 50 px PNG image |
| tv.oipf_AVC-PNG-001-007 | 2 | Image rendering - PNG - 50 x 480 px | FALSE | Terminal shall correctly render a 50 x 480 px PNG image |
| tv.oipf_AVC-PNG-001-008 | 2 | Image rendering - PNG - 320 x 240 px | FALSE | Terminal shall correctly render a 320 x 240 px PNG image |
| tv.oipf_AVC-PNG-001-009 | 2 | Image rendering - PNG - 240 x 320 px | FALSE | Terminal shall correctly render a 240 x 320 px PNG image |
| tv.oipf_AVC-PNG-001-010 | 2 | Image rendering - PNG - 640 x 480 px | FALSE | Terminal shall correctly render a 640 x 480 px PNG image |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_AVC-PNG-002 | 2 | Image rendering - PNG - 720 x 576 px | FALSE | Terminal shall correctly render a 720 x 576 px PNG image |
| tv.oipf_AVC-PNG-004-001 | 2 | Image rendering - PNG - 1024 x 768 px | FALSE | Terminal shall correctly render a 1024 x 768 px PNG image |
| tv.oipf_AVC-PNG-004-002 | 2 | Image rendering - PNG - 1920 x 1080 px | FALSE | Terminal shall correctly render a 1920 x 1080 px PNG image |
| tv.oipf_AVC-SD-009-001 | 4 | Fragmented MP4 - SD - H.264/AVC - MP 3.0 - 720 x 576 px @ 25p - 4:3 - 8 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_SD_25 video format, Main 3.0 profile, 4:3 aspect ratio, 720 x 576 px resolution, 25p frame rate, 8 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-SD-009-006 | 4 | Fragmented MP4 - SD - H.264/AVC - MP 3.0 - 720 x 576 px @ 25i - 4:3 - 8 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_SD_25 video format, Main 3.0 profile, 4:3 aspect ratio, 720 x 576 px resolution, 25i frame rate, 8 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-SD-009-011 | 4 | Fragmented MP4 - SD - H.264/AVC - MP 3.0 - 720 x 576 px @ 25p - 16:9 - 8 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_SD_25 video format, Main 3.0 profile, 16:9 aspect ratio, 720 x 576 px resolution, 25p frame rate, 8 Mbps bandwidth and 4 seconds of video in each mdat box |
| tv.oipf_AVC-SD-009-016 | 4 | Fragmented MP4 - SD - H.264/AVC - MP 3.0 - 720 x 576 px @ 25i - 16:9 - 8 Mbps | FALSE | The terminal shall correctly decode and present video from a fragmented MP4 file encoded with the AVC_SD_25 video format, Main 3.0 profile, 16:9 aspect ratio, 720 x 576 px resolution, 25i frame rate, 8 Mbps bandwidth and 4 seconds of video in each mdat box |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | DAE Gateway Discovery and Control APIs with no CI+ CAM inserted | FALSE | With no CI+ CAM inserted in the terminal, the isCSPGCIPlusSupported property shall be true and the isCSPGCIPlusDiscovered property shall be false. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Successful CSPG-CI+ discovery using DAE Gateway Discovery and Control APIs | FALSE | Following successful CSPG-CI+ discovery, the isCSPGCIPlusDiscovered property shall be true and a DiscoverCSPGCIPlus event shall be dispatched. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Unsuccessful CSPG-CI+ discovery using DAE Gateway Discovery and Control APIs | FALSE | Following unsuccessful CSPG-CI+ discovery due to the connection being refused, the isCSPGCIPlusDiscovered property shall be false and the DiscoverCSPGCIPlus event shall not be dispatched. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Loss of CSPG-CI+ gateway using DAE Gateway Discovery and Control APIs | FALSE | Following loss of a CSPG-CI+ gateway, the isCSPGCIPlusDiscovered property shall be false and a DiscoverCSPGCIPlus event shall be dispatched. |
| tv.oipf_CSP-CSPG-CIPLUS- | 1 | Signalling of CSPG-CI+ support using CEA-2014 capability negotiation and extensions with no CI+ CAM inserted | FALSE | With no CI+ CAM inserted in the terminal, the CEA-2014 capabilities shall not contain a 'drm' element with 'ci+' in the 'protectionGateways' attribute in the 'ext' element of the 'ui_profile' element and the video_profile element for MPEG2-TS shall not contain any CSPG-CI+ DRMSystemID attribute values. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 1 | Signalling of CSPG-CI+ support using CEA-2014 capability negotiation and extensions following successful CSPG-CI+ discovery | FALSE | Following successful CSPG-CI+ discovery, the CEA-2014 capabilities shall contain three 'drm' elements each with 'ci+' in the 'protectionGateways' attribute in the 'ext' element of the 'ui_profile' element and a unique 'DRMSystemID' attribute corresponding to the CAM supported ca_system_id values (4096, 4097, 4098). The media profile capability indication video_profile for MPEG2-TS shall include a DRMSystemID attribute with value 'urn:dvb:casystemid:4096', which corresponds to the ca_system_id in the current service. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Signalling of CSPG-CI+ support using CEA-2014 capability negotiation and extensions following unsuccessful CSPG-CI+ discovery | FALSE | Following unsuccessful CSPG-CI+ discovery (CAM inserted without CI+ support), the CEA-2014 capabilities shall not contain a 'drm' element with 'ci+' in the 'protectionGateways' attribute in the 'ext' element of the 'ui_profile' element. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x00) when a 'reply_msg' with an oipf_status of 0x00 'Successful' is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x00 'Successful' and an empty oipf_ca_vendor_specific_information string, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x00 'Successful', the 'resultMsg' property set to an empty string and the 'msgID' property matching the value returned by the call to sendDRMMessage. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x00) when a 'reply_msg' with an oipf_status of 0x00 'Successful' and oipf_ca_vendor_specific_information present is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x00 'Successful' and oipf_ca_vendor_specific_information 'TEST_RESPONSE', a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x00 'Successful', the 'resultMsg' property set to 'TEST_RESPONSE' and the 'msgID' property matching the value returned by the call to sendDRMMessage. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x01) when a 'reply_msg' with an oipf_status of 0x01 'Unspecified error' and oipf_ca_vendor_specific_information present is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x01 'Unspecified error' and oipf_ca_vendor_specific_information 'TEST_RESPONSE', a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x01 'Unknown error', the 'resultMsg' property set to 'TEST_RESPONSE' and the 'msgID' property matching the value returned by the call to sendDRMMessage. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x02) when a 'reply_msg' with an oipf_status of 0x02 'Out of time' is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x02 'Out of time' and an empty oipf_ca_vendor_specific_information string, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x02 'Cannot process request', the 'resultMsg' property set to an empty string and the 'msgID' property matching the value returned by the call to sendDRMMessage. |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x03) and send_msg not sent when a sendDRMMessage is attempted with an unknown MIME type | FALSE | When a sendDRMMessage is attempted with an unknown MIME type, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x03 'Unknown MIME type' and the 'msgID' property matching the value returned by the call to sendDRMMessage, and a send_msg message shall not be sent by the terminal. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x04) when a 'reply_msg' with an oipf_status of 0x04 'User consent needed' is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x04 'User consent needed' and an empty oipf_ca_vendor_specific_information string, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x04 'User consent needed' and the 'resultMsg' property set to an empty string, and the 'msgID' property matching the value returned by the call to sendDRMMessage. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x05) when a 'reply_msg' with an oipf_status of 0x05 'Unknown DRM system' is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x05 'Unknown DRM system' and an empty oipf_ca_vendor_specific_information string, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x05 'Unknown DRM system', the 'resultMsg' property set to an empty string, and the 'msgID' property matching the value returned by the call to sendDRMMessage. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x05) and send_msg not sent when a sendDRMMessage is attempted with a non matching DRMSystemId | FALSE | When a sendDRMMessage is attempted with a non matching ca_system_id, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x05 'Unknown DRM system', 'msgID' property matching the value returned by the call to sendDRMMessage, and a send_msg message shall not be sent by the terminal. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Correct DRMMessageResult event sent (0x06) when a 'reply_msg' with an oipf_status of 0x03 'Wrong format' is received from the CICAM | FALSE | When the CICAM sends a 'reply_msg' with an oipf_status of 0x03 'Wrong format' and an empty oipf_ca_vendor_specific_information string, a 'DRMMessageResult' event shall be dispatched with the 'resultCode' property set to 0x06 'Wrong format', the 'resultMsg' property set to an empty string, and the 'msgID' property matching the value returned by the call to sendDRMMessage. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | 'send_msg' is sent to CICAM when sendDRMMessage is called with an empty 'msg' | FALSE | When sendDRMMessage is called with msgType set to application/vnd.oipf.cspg-hexbinary, an empty 'msg' and DRMSystemId set to 'urn:dvb:casystemid:4096', a 'send_msg' shall be sent to the CICAM with a ca_system_id of 4096 and an empty oipf_ca_vendor_specific_information string. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | 'send_msg' is sent to CICAM when sendDRMMessage is called with 'msg' data present | FALSE | When sendDRMMessage is called with msgType set to application/vnd.oipf.cspg-hexbinary, 'msg' set to 'TEST_REQUEST' and DRMSystemId set to 'urn:dvb:casystemid:4096', a 'send_msg' shall be sent to the CICAM with a ca_system_id of 4096 and an oipf_ca_vendor_specific_information string 'TEST_REQUEST'. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | DRMRightsError handling following a CICAM rights_info message with a null 'oipf-rights_issuer_url', where descrambling is stopped | FALSE | When the CICAM sends a 'rights_info' message with 'oipf_access_status' 0 ('program not descrambled'), a 'ca_system_id' of 4096 and a null 'oipf_rights_issuer_url', the video shall no longer be presented by the terminal, a 'DRMRightsError' event shall be dispatched with errorState 0 ('No license'), 'DRMSystemID' set to 'urn:dvb:casystemid:4096' and undefined 'rightsIssuerURL'. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | DRMRightsError handling following a CICAM rights_info message with a null 'oipf-rights_issuer_url', where descrambling is stopped and then re-enabled | FALSE | When the CICAM sends a 'rights_info' message with 'oipf_access_status' 0 ('program not descrambled') and a null 'oipf-rights_issuer_url', the video shall no longer be presented. When the CICAM sends a 'rights_info' with 'oipf_access_status' 1 ('program descrambled'), a 'ca_system_id' of 4096 and an empty 'oipf_rights_issuer_url', the terminal shall present video again, a 'DRMRightsError' event shall be dispatched with errorState 2 ('valid license'), 'DRMSystemID' set to 'urn:dvb:casystemid:4096' and an empty 'rightsIssuerURL'. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | DRMRightsError handling following a CICAM rights_info message with a valid 'oipf-rights_issuer_url' HTTP URL where descrambling is stopped | FALSE | When the CICAM sends a 'rights_info' message with 'oipf_access_status' 0 ('program not descrambled'), a 'ca_system_id' of 4096 and 'oipf_rights_issuer_url' set to a valid HTTP URL, the video shall no longer be presented by the terminal, a 'DRMRightsError' event shall be dispatched with errorState 0 ('no license'), DRMSystemID set to 'urn:dvb:casystemid:4096' and 'rightsIssuerURL' set to the same valid HTTP URL. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x00 (mandatory DVB parental rating type) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x00 (mandatory DVB parental rating type), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x00 (mandatory DVB parental rating type) and a null 'oipf_parental_control_url' where descrambling is stopped and then re-enabled | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x00 (mandatory DVB parental rating type), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. When the CICAM then sends a 'parental_control_info' message with 'oipf_access_status' 1 (program descrambled), the terminal shall present video again, shall send a 'ParentalRatingChange' event with parameters matching the 'parental_control_info' message and shall not send a 'ParentalRatingError' event. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x01 (Japanese Motion Picture Parental Rating) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x01 (Japanese Motion Picture Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x02 (Internet Content Rating Association Parental Rating) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x02 (Internet Content Rating Association Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x03 (MPAA Parental Rating) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x03 (MPAA Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x04 (Internet Content Rating Association Parental Rating for Nudity) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x04 (Internet Content Rating Association Parental Rating for Nudity), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x05 (RIAA Parental Rating) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x05 (RIAA Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x06 (Internet Content Rating Association Parental Rating for Sex) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x06 (Internet Content Rating Association Parental Rating for Sex), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x07 (MPAA Parental Rating for TV) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x07 (MPAA Parental Rating for TV), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x08 (Internet Content Rating Association Parental Rating for Violence) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x08 (Internet Content Rating Association Parental Rating for Violence), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 3 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x09 (German Freiwillige Selbstkontrolle der Filmwirtschaft Rating System) and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x09 (German Freiwillige Selbstkontrolle der Filmwirtschaft Rating System), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingChange' event shall be sent with matching parameters and a 'ParentalRatingError' event shall not be sent. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x01 (Japanese Motion Picture Parental Rating) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x01 (Japanese Motion Picture Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x02 (Internet Content Rating Association Parental Rating) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x02 (Internet Content Rating Association Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x03 (MPAA Parental Rating) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x03 (MPAA Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |

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| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x04 (Internet Content Rating Association Parental Rating for Nudity) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x04 (Internet Content Rating Association Parental Rating for Nudity), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x05 (RIAA Parental Rating) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x05 (RIAA Parental Rating), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x06 (Internet Content Rating Association Parental Rating for Sex) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x06 (Internet Content Rating Association Parental Rating for Sex), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x07 (MPAA Parental Rating for TV) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x07 (MPAA Parental Rating for TV), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x08 (Internet Content Rating Association Parental Rating for Violence) that is unsupported by the terminal and a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x08 (Internet Content Rating Association Parental Rating for Violence), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_CSP-CSPG-CIPLUS- | 2 | Management of parental_control_info message sent by the CICAM with oipf_rating_type 0x09 (German Freiwillige Selbstkontrolle der Filmwirtschaft Rating System) that is unsupported by the terminal with a null 'oipf_parental_control_url' where descrambling is stopped | FALSE | When the CICAM sends a 'parental_control_info' message with 'oipf_rating_type' 0x09 (German Freiwillige Selbstkontrolle der Filmwirtschaft Rating System), 'oipf_access_status' 0 (program not descrambled) and a null 'oipf_parental_control_url', the video shall no longer be presented by the terminal, a 'ParentalRatingError' event shall be sent with matching parameters and a 'ParentalRatingChange' event shall not be sent. |
| tv.oipf_DAE-APP_MGMT- | 1 | getOwnerApplication() method of application/oipfApplicationManager | FALSE | The getOwnerApplication() method shall be available on the application/oipfApplicationManager object |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-APP_MGMT- | 1 | A/V Control object audio is silenced when destroyApplication() is called | FALSE | An A/V Control object's associated audio shall no longer be audible after destroyApplication() has been called on the owner Application object |
| tv.oipf_DAE-APP_MGMT- | 2 | Application only receives registered key set events | FALSE | When a keyset is registered to the application using the setValue() method of the Keyset object, only key events for registered keys shall be sent to the currently focused DOM Window object |
| tv.oipf_DAE-APP_MGMT- | 2 | Applications with different key sets receive a union of all key events | FALSE | When different keysets have been registered to multiple applications using the setValue() method of the Keyset object, all applications will receive a union of all registered keys' events |
| tv.oipf_DAE-CAPABILITY-0 | 1 | HD output supports HD graphics with HD video | FALSE | Terminal shall support 1280x720 graphics on its HD output while a HD video is being decoded |
| tv.oipf_DAE-CAPABILITY-0 | 1 | HD output supports HD graphics with no video (OIPF) | FALSE | Terminal shall support 1280x720 graphics on its HD output while no video is being decoded |
| tv.oipf_DAE-CAPABILITY-0 | 3 | PNG / A/V Control object - Per-pixel alpha | FALSE | The terminal shall correctly apply alpha compositing, when a PNG image with fully-transparent pixels is positioned on top of a playing video |
| tv.oipf_DAE-CE_HTML_DE | 2 | A/V Control object - play() - Unsupported A/V Format | FALSE | When calling play() on the A/V Control object, if the MP4 file contains an unknown video codec, the A/V Control object shall dispatch a PlayStateChange event, its 'playState' property shall be set to 6 (ERROR) and its 'error' property shall be equal to 0 (A/V format not supported) |
| tv.oipf_DAE-CE_HTML_DE | 2 | A/V Control object - play() - Content Corrupt or Invalid | FALSE | When calling play() on the A/V Control object, if the file specified by the 'data' attribute of the A/V Control object does not have a valid MP4 header, the A/V Control object shall dispatch a PlayStateChange event with its 'state' context equal to 6 (ERROR) and its 'error' context equal to 4 (content corrupt or invalid) |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-CE_HTML_DE | 2 | Seek to play position greater than duration (MP4) | FALSE | When calling the seek() method on the A/V Control object to seek to a play position greater than the duration of an MP4 video, the A/V Control object shall dispatch a 'PlayPositionChanged' event and the 'playPosition' property of the A/V Control object shall be set to the play position at the moment the seek() method was called (with a tolerance of +/-10 seconds) |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_T | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 12 (ID_DVB_T), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, raster, ofdm, modulationModes, bandwidth |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_T2 | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 16 (ID_DVB_T2), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, raster, ofdm, modulationModes, bandwidth |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_C | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 10 (ID_DVB_C), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, raster, startNetworkScanOnNIT, modulationModes, symbolRate, networkId |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_C2 | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 14 (ID_DVB_C2), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, raster, startNetworkScanOnNIT, modulationModes, symbolRate, networkId |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_S | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 11 (ID_DVB_S), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, modulationModes, symbolRate, polarisation, codeRate, orbitalPosition, networkId |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_DVB_S2 | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 15 (ID_DVB_S2), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, modulationModes, symbolRate, polarisation, codeRate, orbitalPosition, networkId |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - ID_ATSC_T | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to 30 (ID_ATSC_T), the method shall return an object and the values of the following properties shall be undefined: startFrequency, endFrequency, raster, modulationModes |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanParametersObject() - Argument Set To Invalid Integer | FALSE | When createChannelScanParametersObject() is called on the ChannelConfig object with its 'idType' argument set to an invalid integer, the method shall return null |
| tv.oipf_DAE-CHANNEL_SC | 1 | createChannelScanOptionsObject() | FALSE | When createChannelScanOptionsObject() is called on the ChannelConfig object, the method shall return an object and the values of the following properties shall be undefined: channelType, replaceExisting |
| tv.oipf_DAE-CHANNEL_SC | 1 | startScan() - DVB-C/C2 - No Channels In Range | FALSE | When startScan() is used on a DVB-C/DVB-C2 terminal to scan a frequency range that is empty (i.e. white noise), a 'ChannelScan' event with its 'scanEvent' context equal to 2, 3 or 5 shall not be dispatched |
| tv.oipf_DAE-CHANNEL_SC | 1 | stopScan() - DVB-C/C2 - Previous Scan Not In Progress | FALSE | When a previous scan is not in progress, calling stopScan() on the ChannelConfig object shall not cause an exception to be thrown and no onChannelScan events (including corresponding DOM events) shall be dispatched |
| tv.oipf_DAE-CHANNEL_SC | 1 | stopScan() - DVB-C/C2 - Previous Scan In Progress | FALSE | When a previous scan is in progress and stopScan() is called on the ChannelConfig object, a 'ChannelScan' event shall be dispatched with its 'scanEvent' context equal to 5 |
| tv.oipf_DAE-CHANNEL_SC | 1 | startScan() - DVB-C/C2 - In Progress Events | FALSE | When a scan is in progress: at least 1 onChannelScan event shall be dispatched with its 'scanEvent' context equal to 1 and its 'progress' context equal to an integer in the range -1 to 100; the value of the 'progress' context shall never decrease between subsequent events |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-CHANNEL_SC | 1 | startScan() - DVB-C/C2 - Channels In Range | FALSE | When startScan() is used on a DVB-C/DVB-C2 terminal to scan a frequency range that contains a DVB multiplex, the status shall be correctly reported via 'ChannelScan' events |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterfaceCollection - Access Items Using item() | FALSE | The item() method of the NetworkInterfaceCollection object shall return a NetworkInterface object at each valid index |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterfaceCollection - Access Items Using Array Notation | FALSE | When using array notation, the NetworkInterfaceCollection object shall return a NetworkInterface object at each valid index |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - 'ipAddress' Property | FALSE | The value of the 'ipAddress' property on each NetworkInterface object in the NetworkInterfaceCollection object shall be either in dotted-quad notation for IPv4, colon-hexadecimal notation for IPv6 or undefined |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - 'macAddress' Property | FALSE | The value of the 'macAddress' property on each NetworkInterface object in the NetworkInterfaceCollection shall be a colon-separated MAC address |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - 'connected' Property | FALSE | The value of the 'connected' property on each NetworkInterface object in the NetworkInterfaceCollection object shall be a boolean |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - 'enabled' Property | FALSE | The value of the 'enabled' property on each NetworkInterface object in the NetworkInterfaceCollection shall be a boolean |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - At Least 1 Connected | FALSE | At least 1 NetworkInterface object in the NetworkInterfaceCollection shall have a 'connected' property with a value equal to true |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - Only Enabled Network Interfaces Are Connected | FALSE | All network interfaces with 'connected' property of true shall have 'enabled' property of true |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - Disconnect Cable or Wireless Access Point | FALSE | When disconnecting a network connection, the 'connected' state of the associated NetworkInterface object shall change from true to false |
| tv.oipf_DAE-CONFIGURAT | 1 | NetworkInterface - Disabling a Connected Interface | FALSE | Changing a NetworkInterface object's 'enabled' property from true to false shall cause it's 'connected' property to change from true to false |
| tv.oipf_DAE-CONFIGURAT | 1 | AVOutputCollection - Access Using item() Method | FALSE | The item() method of the AVOutputCollection object shall return an AVOutput object at each valid index |
| tv.oipf_DAE-CONFIGURAT | 2 | LocalSystem - volume | FALSE | When the 'volume' property of the LocalSystem object is set, the audio output level of the terminal shall be adjusted accordingly |
| tv.oipf_DAE-CONFIGURAT | 3 | LocalSystem - mute | FALSE | When the 'mute' property of the LocalSystem object is set, the default audio output(s) of the terminal shall be muted |
| tv.oipf_DAE-CONFIGURAT | 2 | LocalSystem - outputs (OIPF 1) | FALSE | The 'outputs' property of the LocalSystem object shall contain an AVOutputCollection containing one or more AVOutput objects; there shall be an AVOutput object for each audio, video or A/V output; the properties of each AVOutput object shall contain valid values; each property shall correctly describe the output that they represent (OIPF 1) |
| tv.oipf_DAE-CONFIGURAT | 2 | LocalSystem - outputs (OIPF 2) | FALSE | The 'outputs' property of the LocalSystem object shall contain an AVOutputCollection containing one or more AVOutput objects; there shall be an AVOutput object for each audio, video or A/V output; the properties of each AVOutput object shall contain valid values; each property shall correctly describe the output that they represent (OIPF 2) |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-CONFIGURAT | 2 | Configuration - preferredAudioLanguage | FALSE | The 'preferredAudioLanguage' property of the Configuration object shall contain a comma separated set of valid language codes, as defined in ISO 639.2 |
| tv.oipf_DAE-CONFIGURAT | 2 | Configuration - preferredSubtitleLanguage (OIPF 1) | FALSE | The 'preferredSubtitleLanguage' property of the Configuration object shall contain a comma separated set of valid language codes, as defined in ISO 639.2 (OIPF 1) |
| tv.oipf_DAE-CONFIGURAT | 1 | Configuration - preferredSubtitleLanguage (OIPF 2) | FALSE | The 'preferredSubtitleLanguage' property of the Configuration object shall contain a comma separated set of valid language codes as defined in ISO 639.2, and/or a wildcard specifier as the last item in the set (OIPF 2) |
| tv.oipf_DAE-CONFIGURAT | 2 | Configuration - preferredUILanguage | FALSE | The 'preferredUILanguage' property of the Configuration object shall contain a comma separated set of valid language codes, as defined in ISO 639.2 |
| tv.oipf_DAE-CONFIGURAT | 1 | Tuner - Object Validation | FALSE | The item() method of the TunerCollection object shall return a Tuner object at each valid index |
| tv.oipf_DAE-CONFIGURAT | 1 | Tuner - Unique 'id' Property | FALSE | The 'id' property of each of the Tuner objects shall be a unique integer |
| tv.oipf_DAE-CONFIGURAT | 1 | Tuner - Valid 'idTypes' Property | FALSE | For each Tuner object in the TunerCollection object, the IntegerCollection object of its 'idTypes' property shall only contain values that are equal to the values of the Channel class constants prepended with 'ID_' |
| tv.oipf_DAE-MEDIA_PLAY | 2 | Audio plays if A/V object is positioned outside of viewport | FALSE | When an A/V Control object is positioned outside of the DOM viewport and the play() method is called on it with a playSpeed of 1, the associated audio shall still be outputted by the terminal |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-MEDIA_PLAY | 2 | Audio still plays if an A/V Control object's 'visibility' style attribute is set to 'hidden' | FALSE | When the 'visibility' style attribute of the A/V Control object is set to 'hidden' and the play() method is called on it with a playSpeed of 1, the associated audio shall still be outputted by the terminal |
| tv.oipf_DAE-MEDIA_PLAY | 2 | Audio plays if A/V object's CSS opacity property is set to 0 (fully transparent) | FALSE | When an A/V Control object CSS opacity property is set to 0 and the play() method is called on it with a playSpeed of 1, the associated audio shall still be outputted by the terminal |
| tv.oipf_DAE-MEDIA_PLAY | 2 | A/V Control object obscured by an HTML element does not release its resources | FALSE | When the A/V Control object is in play state 'playing' and is completely obscured by another fully opaque HTML element with a higher Z-index, it shall continue to present the associated audio |
| tv.oipf_DAE-MEDIA_PLAY | 2 | Calling play(0) on A/V Control object in 'buffering' state puts the object into 'paused' state | FALSE | When a A/V Control object has a playState of 4 (buffering) and the play() method is called on it with its 'speed' argument set to 0, its playState shall change to 2 (paused) |
| tv.oipf_DAE-MEDIA_PLAY | 2 | Calling play(0) on A/V Control object in 'connecting' state puts the object into 'paused' state | FALSE | When an A/V Control object has a playState of 3 (connecting) and the play() method is called on it with its 'speed' argument set to 0, its playState shall change to 2 (paused) |
| tv.oipf_DAE-MEDIA_PLAY | 2 | Calling play(0) on A/V Control object in 'stopped' state puts the object into 'paused' state | FALSE | When an A/V Control object has a playState of 0 ('stopped') and the play() method is called on it with its playSpeed parameter set to 0, its playState shall change to 2 ('paused') |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-MEDIA_PLAY | 2 | play() method of A/V Control called before sufficient data is available for 'playable_download' acquisition | FALSE | When a download is initiated using a Content Access Download descriptor with its <TransferType> element set to 'playable_download'; setting the A/V Control object's source to the download and calling play() before sufficient data has been downloaded to initiate playback shall cause the A/V Control object to go to play state 6 (error) with an error code of 5 (content not available) |
| tv.oipf_DAE-MEDIA_PLAY | 2 | play() method of A/V Control called before sufficient data is available for 'full_download' acquisition | FALSE | When a download is initiated using a Content Access Download descriptor with its <TransferType> element set to 'full_download'; setting the A/V Control object's source to the download and calling play() before sufficient data has been downloaded to initiate playback shall cause the A/V Control object to go to play state 6 (error) with an error code of 5 (content not available) |
| tv.oipf_DAE-MEDIA_PLAY | 1 | HE-AAC memory audio loop parameter | FALSE | When an A/V Control object plays HE-AAC memory audio, it shall loop the audio as many times as specified in the 'loop' parameter |
| tv.oipf_DAE-MEDIA_PLAY | 1 | Stopping playing memory audio | FALSE | Terminal shall be able to stop memory audio before it finishes playing |
| tv.oipf_DAE-MEDIA_PLAY | 1 | <param> element is accessible through the A/V control object | FALSE | <param> element of the A/V Control object shall be accessible after memory audio has been played, then stopped |
| tv.oipf_DAE-MEDIA_PLAY | 1 | Audio from memory - Playing after previously stopped (HE-AAC) | FALSE | Terminal shall play HE-AAC after it was previously played, then stopped |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-MEDIA_PLAY | 2 | AV Object Seeking (MP4 Forward 5s) correctly reports its position via onPlayPositionChanged | FALSE | When the seek() method is called on the A/V Control object specifying the position as the current position plus 5 seconds, and an AVC_SD_25 MP4 is currently being streamed over HTTP; an 'onPlayPositionChanged' event shall be dispatched and its 'position' parameter shall report the expected position |
| tv.oipf_DAE-MEDIA_PLAY | 2 | AV Object Seeking (MP4 Forward 180s) correctly reports its position via onPlayPositionChanged | FALSE | When the seek() method is called on the A/V Control object specifying the position as the current position plus 180 seconds, and an AVC_SD_25 MP4 is currently being streamed over HTTP; an 'onPlayPositionChanged' event shall be dispatched and its 'position' parameter shall report the expected position |
| tv.oipf_DAE-MEDIA_PLAY | 2 | AV Object Seeking (MP4 Backward 180s) correctly reports its position via onPlayPositionChanged | FALSE | When the seek() method is called on the A/V Control object specifying the position as the current position minus 180 seconds, and an AVC_SD_25 MP4 is currently being streamed over HTTP; an 'onPlayPositionChanged' event shall be dispatched and its 'position' parameter shall report the expected position |
| tv.oipf_DAE-MEDIA_PLAY | 2 | AV Object Seeking (MP4 Backward 5s) correctly reports its position via onPlayPositionChanged | FALSE | When the seek() method is called on the A/V Control object specifying the position as the current position minus 5 seconds, and an AVC_SD_25 MP4 is currently being streamed over HTTP; an 'onPlayPositionChanged' event shall be dispatched and its 'position' parameter shall report the expected position |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-MISCELLANE( | 3 | hasCapability() - +PVR - Supported | FALSE | If the terminal supports the +PVR capability, the hasCapability() method of the application/oipfCapabilities object shall return true when called with its 'profileName' argument set to '+PVR' |
| tv.oipf_DAE-MISCELLANE( | 1 | hasCapability() - +PVR - Not Supported | FALSE | If the terminal does not support the +PVR capability, the hasCapability() method of the application/oipfCapabilities object shall return false when called with its 'profileName' argument set to '+PVR' |
| tv.oipf_DAE-MISCELLANE( | 2 | hasCapability() - +TRICKMODE - Supported | FALSE | If the terminal supports the +TRICKMODE capability, the hasCapability() method of the application/oipfCapabilities object shall return true when called with its 'profileName' argument set to '+TRICKMODE' |
| tv.oipf_DAE-MISCELLANE( | 1 | hasCapability() - +TRICKMODE - Not Supported | FALSE | If the terminal does not support the +TRICKMODE capability, the hasCapability() method of the application/oipfCapabilities object shall return false when called with its 'profileName' argument set to '+TRICKMODE' |
| tv.oipf_DAE-MISCELLANE( | 2 | hasCapability() - +DVB_C - Supported | FALSE | If the terminal supports the +DVB_C capability, the hasCapability() method of the application/oipfCapabilities object shall return true when called with its 'profileName' argument set to '+DVB_C' |
| tv.oipf_DAE-MISCELLANE( | 1 | hasCapability() - +DVB_C - Not Supported | FALSE | If the terminal does not support the +DVB_C capability, the hasCapability() method of the application/oipfCapabilities object shall return false when called with its 'profileName' argument set to '+DVB_C' |

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|---|---|---|---|---|
| tv.oipf_DAE-MISCELLANE( | 2 | hasCapability() - +DVB_C2 - Supported | FALSE | If the terminal supports the +DVB_C2 capability, the hasCapability() method of the application/oipfCapabilities object shall return true when called with its 'profileName' argument set to '+DVB_C2' |
| tv.oipf_DAE-MISCELLANE( | 1 | hasCapability() - +DVB_C2 - Not Supported | FALSE | If the terminal does not support the +DVB_C2 capability, the hasCapability() method of the application/oipfCapabilities object shall return false when called with its 'profileName' argument set to '+DVB_C2' |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - application/oipfApplicationManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfApplicationManager, it shall return true and the createApplicationManagerObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - application/oipfCapabilities | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfCapabilities, it shall return true and the createCapabilitiesObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - application/oipfConfiguration | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfConfiguration, it shall return true and the createConfigurationObject() method of the OipfObjectFactory object shall not return null or undefined |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FACT | 2 | isObjectSupported() (true) - application/oipfDownloadManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDownloadManager, it shall return true and the createDownloadManagerObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 2 | isObjectSupported() (true) - application/oipfDownloadTrigger | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDownloadTrigger, it shall return true and the createDownloadTriggerObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 2 | isObjectSupported() (true) - application/oipfDrmAgent | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDrmAgent, it shall return true and the createDrmAgentObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (true) - application/oipfParentalControlManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfParentalControlManager, it shall return true and the createParentalControlManagerObject() method of the OipfObjectFactory object shall not return null or undefined |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FACT | 2 | isObjectSupported() (true) - application/oipfRecordingScheduler | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfRecordingScheduler, it shall return true and the createRecordingSchedulerObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (true) - application/oipfSearchManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfSearchManager, it shall return true and the createSearchManagerObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (true) - video/broadcast | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to video/broadcast, it shall return true and the createVideoBroadcastObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (true) - video/mpeg | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to video/mpeg, it shall return true and the createVideoMpegObject() method of the OipfObjectFactory object shall not return null or undefined |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - video/mp4 | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to video/mp4, it shall return true and the createVideoMpegObject() method of the OipfObjectFactory object shall not return null or undefined |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - audio/mpeg | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to audio/mpeg, it shall return true |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (true) - audio/mp4 | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to audio/mp4, it shall return true |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (false) - application/oipfDownloadManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDownloadManager, it shall return false and the createDownloadManagerObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FAC | 1 | isObjectSupported() (false) - application/oipfDownloadTrigger | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDownloadTrigger, it shall return false and the createDownloadTriggerObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FACT | 2 | isObjectSupported() (false) - application/oipfDrmAgent | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfDrmAgent, it shall return false and the createDrmAgentObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (false) - application/oipfParentalControlManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfParentalControlManager, it shall return false and the createParentalControlManagerObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (false) - application/oipfRecordingScheduler | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfRecordingScheduler, it shall return false and the createRecordingSchedulerObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |

| TestID | Version | Title | Approved | Assertion |
|--------|---------|-------|----------|-----------|
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (false) - application/oipfSearchManager | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to application/oipfSearchManager, it shall return false and the createSearchManagerObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (false) - video/broadcast | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to video/broadcast, it shall return false and the createVideoBroadcastObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 1 | isObjectSupported() (false) - audio/mpeg | FALSE | When the isObjectSupported() method of the OipfObjectFactory object is called with the mimeType parameter set to audio/mpeg, it shall return false and the createVideoMpegObject() method of the OipfObjectFactory object shall throw an error with its name property set to the value 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createVideoBroadcastObject() | FALSE | When calling the createVideoBroadcastObject() method of the OipfObjectFactory object, the terminal shall return an object which has a 'type' attribute equal to 'video/broadcast' and a 'playState' property equal to 0 |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FACT | 1 | OipfObjectFactory - createVideoBroadcastObject() - TypeError | FALSE | When the 'video/broadcast' object is not supported and the createVideoBroadcastObject() method of the OipfObjectFactory object is called, the terminal shall throw an exception. The error object's 'name' property shall be equal to 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createVideoMpegObject() | FALSE | When calling the createVideoMpegObject() method of the OipfObjectFactory object, the terminal shall return an object which has a 'type' attribute equal to 'video/mpeg' and a 'playState' property equal to 0 |
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createConfigurationObject() | FALSE | When calling the createConfigurationObject() method of the OipfObjectFactory object, the terminal shall return an object with a 'configuration' property; the 'configuration' property shall contain an object with a 'countryId' property; the 'countryId' property shall contain a string |
| tv.oipf_DAE-OBJECT_FACT | 1 | OipfObjectFactory - createConfigurationObject() - TypeError | FALSE | When the 'application/oipfConfiguration' object is not supported and the createConfigurationObject() method of the OipfObjectFactory is called, the terminal shall throw an exception. The error object's 'name' property shall be equal to 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 2 | createDownloadTriggerObject() API method | FALSE | The terminal shall return a DownloadTrigger object when using the createDownloadTriggerObject() method on the globally accessible OipfObjectFactory object and calling registerDownloadURL() with valid parameters shall return a string |

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|---|---|---|---|---|
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createRecordingSchedulerObject() | FALSE | When calling the createRecordingSchedulerObject() method of the OipfObjectFactory object, the terminal shall return an object with a record() method |
| tv.oipf_DAE-OBJECT_FACT | 2 | OipfObjectFactory - createRecordingSchedulerObject() - TypeError | FALSE | When the 'application/oipfRecordingScheduler' object is not supported and the createRecordingSchedulerObject() method of the OipfObjectFactory object is called, the terminal shall throw an exception. The error object's 'name' property shall be equal to 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createSearchManagerObject() | FALSE | When calling the createSearchManagerObject() method of the OipfObjectFactory object, the terminal shall return an object with a createSearch() method; the createSearch() method shall return an object with a 'searchTarget' property equal to 1 |
| tv.oipf_DAE-OBJECT_FACT | 2 | OipfObjectFactory - createSearchManagerObject() - TypeError | FALSE | When the 'application/oipfSearchManager' object is not supported and the createSearchManagerObject() method of the OipfObjectFactory object is called, the terminal shall throw an exception. The error object's 'name' property shall be equal to 'TypeError' |
| tv.oipf_DAE-OBJECT_FACT | 3 | OipfObjectFactory - createCapabilitiesObject() | FALSE | When calling the createCapabilitiesObject() method of the OipfObjectFactory object, the terminal shall return an object with a hasCapability() method; the hasCapability() method shall return a boolean |
| tv.oipf_DAE-OVERVIEW-0 | 2 | Terminal restores interrupted presentations automatically when interrupted by memory audio | FALSE | The terminal shall restore an A/V Control object's audio after it is interrupted by memory audio from a second A/V Control object |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-OVERVIEW-0 | 2 | Download resumes after a power cycle | FALSE | When a download is in progress and the terminal is powered off, the terminal shall resume the download after the terminal is powered on again |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Recording | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period on the current DVB broadcast channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Recording (RTP) | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period on the selected IP (RTP) broadcast channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Recording (UDP) | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period on the selected IP (UDP) broadcast channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - remove() - Remove a Newly Scheduled Recording | FALSE | If a recording is newly scheduled on the current DVB channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, the associated ScheduleRecording object shall not be present in the ScheduledRecordingCollection object returned by getScheduledRecordings() |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - remove() - Remove a Newly Scheduled Recording (RTP) | FALSE | If a recording is newly scheduled on a selected IP (RTP) channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, the associated ScheduleRecording object shall not be present in the ScheduledRecordingCollection object returned by getScheduledRecordings() |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - remove() - Remove a Newly Scheduled Recording (UDP) | FALSE | If a recording is newly scheduled on a selected IP (UDP) channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, the associated ScheduleRecording object shall not be present in the ScheduledRecordingCollection object returned by getScheduledRecordings() |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - getRecording() - Get an in-progress Recording | FALSE | The getRecording() method of the application/oipfRecordingScheduler object shall return the expected Recording object when there is an in-progress recording on the current DVB channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - getRecording() - Get an in-progress Recording (RTP) | FALSE | The getRecording() method of the application/oipfRecordingScheduler object shall return the expected Recording object when there is an in-progress recording on the selected IP (RTP) channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - getRecording() - Get an in-progress Recording (UDP) | FALSE | The getRecording() method of the application/oipfRecordingScheduler object shall return the expected Recording object when there is an in-progress recording on the selected IP (UDP) channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - stop() - Stop Recording | FALSE | If an in-progress recording on the current DVB channel is stopped using the stop() method on the application/oipfRecordingScheduler object, when the Recording object is subsequently retrieved using the getRecording() method, the value of its 'state' property shall be equal to its 'RECORDING_REC_COMPLETED' constant property |

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|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - stop() - Stop Recording (RTP) | FALSE | If an in-progress recording on the selected IP (RTP) channel is stopped using the stop() method on the application/oipfRecordingScheduler object, when the Recording object is subsequently retrieved using the getRecording() method, the value of its 'state' property shall be equal to its 'RECORDING_REC_COMPLETED' constant property |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - stop() - Stop Recording (UDP) | FALSE | If an in-progress recording on the selected IP (UDP) channel is stopped using the stop() method on the application/oipfRecordingScheduler object, when the Recording object is subsequently retrieved using the getRecording() method, the value of its 'state' property shall be equal to its 'RECORDING_REC_COMPLETED' constant property |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Multiple Day Recording | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period and repeated on specific days on the current DVB broadcast channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Multiple Day Recording (RTP) | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period and repeated on specific days on the selected IP (RTP) broadcast channel |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | ScheduledRecording - recordAt() - Schedule a Multiple Day Recording (UDP) | FALSE | The recordAt() method of the application/oipfRecordingScheduler object shall return a ScheduledRecording object, when used to schedule a recording of a future period and repeated on specific days on the selected IP (UDP) broadcast channel |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' Property - ScheduledRecordingCollection | FALSE | The 'recordings' property of the application/oipfRecordingScheduler object shall contain a ScheduledRecordingCollection object |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' Property - Scheduled Recordings (OIPF) | FALSE | If a recording is newly scheduled on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, the associated ScheduledRecording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_SCHEDULED (OIPF) |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - Scheduled Recordings (RTP) | FALSE | If a recording is newly scheduled on the selected IP (RTP) channel using the recordAt() method of application/oipfRecordingScheduler, the associated ScheduledRecording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_SCHEDULED |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - Scheduled Recordings (UDP) | FALSE | If a recording is newly scheduled on the selected IP (UDP) channel using the recordAt() method of application/oipfRecordingScheduler, the associated ScheduledRecording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_SCHEDULED |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' Property - In-progress Recordings (OIPF) | FALSE | If a recording is started on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_STARTED (OIPF) |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - In-progress Recordings (RTP) | FALSE | If a recording is started on the selected IP (RTP) channel using the recordAt() method of application/oipfRecordingScheduler, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_STARTED |

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|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - In-progress Recordings (UDP) | FALSE | If a recording is started on the selected IP (UDP) channel using the recordAt() method of application/oipfRecordingScheduler, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_STARTED |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - Completed Recordings (OIPF) | FALSE | If a recording is started on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_COMPLETED (OIPF) |
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - Completed Recordings (RTP) | FALSE | If a recording is started on the selected IP (RTP) channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_COMPLETED |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | application/oipfRecordingScheduler - 'recordings' property - Completed Recordings (UDP) | FALSE | If a recording is started on the selected IP (UDP) channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time, the associated Recording object shall then be present in the ScheduledRecordingCollection object of the 'recordings' property and the value of its 'state' property shall be equal to ScheduledRecording.RECORDING_REC_COMPLETED |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 7 - Newly Scheduled Recording | FALSE | When a recording is newly scheduled on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, an onPVREvent shall be dispatched with its 'state' context equal to 7 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 7 - Newly Scheduled Recording (RTP) | FALSE | When a recording is scheduled on an RTP channel using recordAt(), a PVREvent with a 'state' context of 7 and a 'recording' context equal to the scheduled recording is dispatched |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 7 - Newly Scheduled Recording (UDP) | FALSE | When a recording is scheduled on a UDP channel using recordAt(), a PVREvent with a 'state' context of 7 and a 'recording' context equal to the scheduled recording is dispatched |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 9 - Recording Due To Start | FALSE | When a recording is newly scheduled on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, prior to the recording starting the terminal shall dispatch an onPVREvent event with its 'state' context equal to 9 |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 9 - Recording Due to Start (RTP) | FALSE | When a recording is newly scheduled on an RTP channel using the recordAt() method of application/oipfRecordingScheduler, prior to the recording starting the terminal shall dispatch an onPVREvent event with its 'state' context equal to 9 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 9 - Recording Due to Start (UDP) | FALSE | When a recording is newly scheduled on a UDP channel using the recordAt() method of application/oipfRecordingScheduler, prior to the recording starting the terminal shall dispatch an onPVREvent event with its 'state' context equal to 9 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Newly Scheduled Recording Deleted | FALSE | When a recording is newly scheduled on the current DVB channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 8 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Newly Scheduled Recording Deleted (RTP) | FALSE | When a recording is newly scheduled on an RTP channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 8 and its 'recording' context equal to the expected ScheduledRecording object |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Newly Scheduled Recording Deleted (UDP) | FALSE | When a recording is newly scheduled on a UDP channel and then deleted using the remove() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 8 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - In-progress Recording Deleted | FALSE | When a recording is started on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler and then deleted using the remove() method, the terminal shall dispatch an onPVREvent with its 'state' context equal to 8 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - In-progress Recording Deleted (RTP) | FALSE | When a recording is started on an RTP channel using the recordAt() method of application/oipfRecordingScheduler and then deleted using the remove() method, the terminal shall dispatch an onPVREvent with its 'state' context equal to 8 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - In-progress Recording Deleted (UDP) | FALSE | When a recording is started on a UDP channel using the recordAt() method of application/oipfRecordingScheduler and then deleted using the remove() method, the terminal shall dispatch an onPVREvent with its 'state' context equal to 8 |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Completed Recording Deleted | FALSE | When a recording is started on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time. When the recording is subsequently deleted using the remove() method, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 8 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Completed Recording Deleted (RTP) | FALSE | When a recording is started an RTP channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time. When the recording is subsequently deleted using the remove() method, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 8 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 8 - Completed Recording Deleted (UDP) | FALSE | When a recording is started a UDP channel using the recordAt() method of application/oipfRecordingScheduler, and is allowed to run to its scheduled end time. When the recording is subsequently deleted using the remove() method, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 8 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 1 - Recording Started | FALSE | When a recording starts on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 1 |

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|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 1 - Recording Started (RTP) | FALSE | When a recording starts on a RTP channel using the recordAt() method of application/oipfRecordingScheduler, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 1 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 1 - Recording Started (UDP) | FALSE | When a recording starts on a UDP channel using the recordAt() method of application/oipfRecordingScheduler, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 1 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 2 - Recording Completed | FALSE | When a recording is started on the current DVB channel using the recordAt() method of application/oipfRecordingScheduler and is allowed to run to its scheduled end time, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 2 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 2 - Recording Completed (RTP) | FALSE | When a recording is started on an RTP channel using the recordAt() method of application/oipfRecordingScheduler and is allowed to run to its scheduled end time, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 2 |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 2 - Recording Completed (UDP) | FALSE | When a recording is started on a UDP channel using the recordAt() method of application/oipfRecordingScheduler and is allowed to run to its scheduled end time, the terminal shall dispatch an onPVREvent event with its 'state' context equal to 2 |

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|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Duration | FALSE | If a recording is newly scheduled on the current DVB channel and then its 'duration' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Duration (RTP) | FALSE | If a recording is newly scheduled on an RTP channel and then its 'duration' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Duration (UDP) | FALSE | If a recording is newly scheduled on a UDP channel and then its 'duration' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Start Time | FALSE | If a recording is newly scheduled on the current DVB channel and then its 'startTime' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |

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| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Start Time (RTP) | FALSE | If a recording is newly scheduled on an RTP channel and then its 'startTime' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Start Time (UDP) | FALSE | If a recording is newly scheduled on a UDP channel and then its 'startTime' is increased using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Repeat Days | FALSE | If a non-repeating recording is newly scheduled on the current DVB channel and then 'repeatDays' is set to repeat the recording using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Repeat Days (RTP) | FALSE | If a recording is newly scheduled on an RTP channel and then its 'repeatDays' is altered using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHEDULED_ | 1 | onPVREvent - State 10 - Update Scheduled Recording Repeat Days (UDP) | FALSE | If a recording is newly scheduled on a UDP channel and then its 'repeatDays' is altered using the update() method of the application/oipfRecordingScheduler object, an onPVREvent shall be dispatched with its 'state' context equal to 10 and its 'recording' context equal to the expected ScheduledRecording object |
| tv.oipf_DAE-SCHED_CONT | 1 | createChannelObject() (RTP) | FALSE | Calling createChannelObject() with an 'idType' of ID_IPTV_URI (delivered via RTP), valid 'onid', 'tsid', 'sid' and 'ipBroadcastID' properties and a 'sourceID' of undefined shall return a Channel object with all of its properties correctly initialised |
| tv.oipf_DAE-SCHED_CONT | 1 | createChannelObject() (UDP) | FALSE | Calling createChannelObject() with an 'idType' of ID_IPTV_URI (delivered via UDP), valid 'onid', 'tsid', 'sid' and 'ipBroadcastID' properties and a 'sourceID' of undefined shall return a Channel object with all of its properties correctly initialised |
| tv.oipf_DAE-SCHED_CONT | 1 | setChannel() - IP Multicast (UDP) | FALSE | When setChannel() on the video/broadcast object is called with a Channel object with an 'idType' property of 41 (ID_IPTV_URI), valid 'onid', 'tsid', 'sid' and 'ipBroadcastID' properties and a 'sourceID' of undefined, a 'ChannelChangeSucceeded' event shall be dispatched with a 'channel' context equal to the Channel object and the IP-delivered stream (UDP) shall be presented |

| TestID | Version | Title | Approved | Assertion |
|---|---|---|---|---|
| tv.oipf_DAE-SCHED_CONT | 1 | setChannel() - IP Multicast (RTP) | FALSE | When setChannel() on the video/broadcast object is called with a Channel object with an 'idType' property of 41 (ID_IPTV_URI), valid 'onid', 'tsid', 'sid' and 'ipBroadcastID' properties and a 'sourceID' of undefined, a 'ChannelChangeSucceeded' event shall be dispatched with a 'channel' context equal to the Channel object and the IP-delivered stream (RTP) shall be presented |
| tv.oipf_DAE-SHARED_UTI | 2 | EIT - getSIDescriptors() - Descriptor Not Found | FALSE | The current programme in the EIT only contains a Short Event Descriptor (0x4d). When the getSIDescriptors() method is called on the respective Programme object and its 'descriptorTag' argument is specified as 0x4e (Extended Event Descriptor), the method shall return null |
| tv.oipf_DAE-SHARED_UTI | 2 | EIT - getSIDescriptors() - Descriptor Found | FALSE | The current programme in the EIT contains a Short Event Descriptor (0x4d) and an Extended Event Descriptor (0x4e). When the getSIDescriptors() method is called on the respective Programme object and its 'descriptorTag' argument is specified as 0x4e (Extended Event Descriptor), the method shall return a string representation of the descriptor's content bytes, as defined in OIPF DAE section 7.16.2.4 |

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|---|---|---|---|---|
| tv.oipf_DAE-SHARED_UTI | 2 | EIT - getSIDescriptors() - Descriptor Added to Stream | FALSE | The current programme in the EIT contains a Short Event Descriptor (0x4d). When the EIT is updated to also add an Extended Event Descriptor (0x4e) for the current programme, the terminal shall dispatch a MetadataUpdate event with its 'action' event context equal to 1; following this, when the getSIDescriptors() method is called on the respective Programme object and its 'descriptorTag' argument is specified as 0x4e (Extended Event Descriptor), the method shall return a string representation of the descriptor's content bytes, as defined in OIPF DAE section 7.16.2.4 |