

# VPAT™ for Apple TV 4th Generation

The following Voluntary Product Accessibility information refers to the **Apple TV 4th Generation (“Apple TV”)**. For more information on the accessibility features of this product and to learn more about this product’s features, visit <http://www.apple.com/AppleTV> and <http://www.apple.com/accessibility>

## VPAT™ Voluntary Product Accessibility Template *Summary Table*

Criteria	Supporting Features	Remarks and Explanations
Section 1194.21 Software Applications and Operating Systems	<b>Please refer to the attached VPAT</b>	
Section 1194.22 Web-based Internet Information and Applications	<b>Not applicable</b>	
Section 1194.23 Telecommunications Products	<b>Not applicable</b>	
Section 1194.24 Video and Multi-media Products	<b>Not applicable</b>	
Section 1194.25 Self-Contained, Closed Products	<b>Please refer to the attached VPAT</b>	
Section 1194.26 Desktop and Portable Computers	<b>Not applicable</b>	
Section 1194.31 Functional Performance Criteria	<b>Please refer to the attached VPAT</b>	
Section 1194.41 Information, Documentation and Support	<b>Please refer to the attached VPAT</b>	

## Section 1194.21 Software Applications and Operating Systems – Detail

Criteria	Supporting Features	Remarks and Explanations
<p>(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.</p>	<p><b>Supported with exceptions</b></p>	<p>tvOS provides an onscreen keyboard.</p> <p>tvOS also includes VoiceOver, a screen reader that provides control of the device using a VoiceOver cursor. VoiceOver can navigate to and read “static” (non-editable) text and gather status information about the device. It is built into the tvOS operating system and can be activated by pressing the menu button 3 times at initial set up or by activating it in the Accessibility settings menu.</p> <p>tvOS includes Switch Control which allows you to control tvOS devices using an adaptive device such as a switch. Switch Control works with a variety of popular Bluetooth-enabled switch hardware.</p> <p>When an onscreen keyboard is displayed, nearby iOS devices on the same WiFi network and logged into the same iCloud account can receive a notification with access to a keyboard on the iOS device to enter text on Apple TV.</p> <p>Apple TV Remote app is available to download on iPhone which displays a keyboard on iPhone whenever one is displayed on Apple TV.</p>
<p>(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.</p>	<p><b>Supported</b></p>	<p>tvOS includes an accessibility API that enables applications to interact with assistive technologies without disrupting the system or each other.</p>
<p>(c) A well defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.</p>	<p><b>Supported</b></p>	<p>tvOS provides a clear and distinct visual indication of the element focus on-screen.</p> <p>The VoiceOver cursor is also clearly defined. The cursor can be used in conjunction with screen magnification. Using VoiceOver, a description of the elements on which these cursors are focused can also be spoken.</p> <p>Additionally, the Switch Control cursor is clearly defined, and available in “Large Cursor” format and different colors.</p>
<p>(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.</p>	<p><b>Supported with exceptions</b></p>	<p>In a few but rare cases, some buttons and controls may not include names or reflect their state.</p> <p>The tvOS Accessibility API allows applications to provide information about the identity, operation, and state of elements in applications and in the operating system interface itself.</p>

(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	<b>Supported</b>	Images used in tvOS are used in a consistent manner.  Apple provides Human Interface Guidelines that instruct developers of tvOS applications to support this as well. They are provided on the Internet here: <a href="https://developer.apple.com/tvos/human-interface-guidelines/">https://developer.apple.com/tvos/human-interface-guidelines/</a>
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	<b>Supported</b>	
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	<b>Supported</b>	tvOS provides system-level control of display characteristics that cannot be overridden by applications, including: <ul style="list-style-type: none"> <li>• Users can reduce transparency to increase legibility.</li> <li>• Users can choose from a variety of filters and tints and customize intensity</li> <li>• Users can magnify the screen, including dynamically changing content like movies. (See section 1194.31 (b) for more information about Zoom).</li> </ul> All of these features are accessed through the Accessibility settings and can be used together in different combinations to suit the user's needs.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	<b>Supported with exceptions</b>	Animations used for app switching, Messages and Weather are cosmetic only and do not affect the ability to use these features. tvOS provides the ability to reduce motion via the Accessibility settings.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	<b>Supported with exceptions</b>	There may be areas in individual apps that do not provide another means distinguishing a visual element. But tvOS provides the ability to customize color filters to support color blindness and other vision challenges.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	<b>Supported</b>	tvOS allows for system-level control of display characteristics, and provides the ability to choose intensity and hue among some of them.  tvOS allows you to reduce transparency to increase legibility; increase contrast
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	<b>Supported</b>	
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	<b>Not Applicable</b>	

## **Section 1194.25 Self-Contained, Closed Products – Detail**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and Explanations</b>
(a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.	<b>Supported with exception</b>	<p>Apple TV includes a screen reader called VoiceOver than enables the Apple TV to be used without seeing the screen. VoiceOver is available in the prominent languages of over 25 countries.</p> <p>Apple TV includes support for closed captioning and audio descriptions.</p> <p>tvOS includes Switch Control which allows you to control tvOS devices using an adaptive device such as a switch. Switch Control works with a variety of popular Bluetooth-enabled switch hardware.</p>
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	<b>Not applicable</b>	
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with 1194.23 (k) (1) through (4).	<b>Supported with exception</b>	<p>Apple TV can be controlled using a physical remote control (included), a bluetooth keyboard, and the Apple TV Remote app for iPhone.</p> <p>tvOS includes Switch Control which allows you to control tvOS devices using an adaptive device such as a switch. Switch Control works with a variety of popular Bluetooth-enabled switch hardware.</p>
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	<b>Not applicable</b>	
(e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.	<b>Supported</b>	Apple TV uses an industry-standard HDMI output to connect Apple TV to a television or AV receiver.
(f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.	<b>Not applicable</b>	

(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	<b>Supported</b>	
(h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.	<b>Supported</b>	tvOS allows for system-level control of display characteristics, and provides the ability to choose intensity and hue among some of them.
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	<b>Supported</b>	
(j) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following:	<b>Not applicable</b>	
(1) The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.	<b>Not applicable</b>	
(2) Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.	<b>Not applicable</b>	
(3) Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.	<b>Not applicable</b>	
(4) Operable controls shall not be more than 24 inches behind the reference plane.	<b>Not applicable</b>	

## Section 1194.31 Functional Performance Criteria – Detail

Criteria	Supporting Features	Remarks and Explanations
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	<b>Supported</b>	<p>Apple TV includes a built-in screen reader called VoiceOver that enables Apple TV to be used by those who are blind or visually impaired. VoiceOver is available in the prominent languages of over 25 countries. For more information about Apple TV accessibility features, see <a href="http://www.apple.com/accessibility">www.apple.com/accessibility</a></p> <p>The remote control supplied with Apple TV offers tactile buttons that allow control of and access to all Apple TV features.</p>
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	<b>Supported</b>	<p>Apple TV includes a built-in screen reader called VoiceOver that enables Apple TV to be used by those who are blind or visually impaired. VoiceOver is available in the prominent languages of over 25 countries. For more information about Apple TV accessibility features, see <a href="http://www.apple.com/accessibility">www.apple.com/accessibility</a></p> <p>The remote control supplied with Apple TV offers tactile buttons that allow control of and access to all Apple TV features.</p>
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	<b>Supported with exception</b>	Apple TV includes support for closed captioning. Apple TV features and operation menus are presented visually.
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	<b>Not applicable</b>	
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	<b>Supported</b>	
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	<b>Supported</b>	<p>Apple TV can be controlled using a physical remote control (included), a bluetooth keyboard, and the Apple TV Remote app for iPhone.</p> <p>tvOS includes Switch Control which allows you to control tvOS devices using an adaptive device such as a switch. Switch Control works with a variety of popular Bluetooth-enabled switch hardware.</p>

## **Section 1194.41 Information, Documentation and Support – Detail**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and Explanations</b>
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	<b>Supported</b>	Product and support documentation are available on the Web in an HTML and PDF format that is compatible with screen readers for the blind and visually impaired, can be displayed in large print using web browsers and software magnifiers for those with low vision at <a href="http://www.apple.com/support/">http://www.apple.com/support/</a> and can be printed using a personal computer and suitable printing device (sold separately).
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	<b>Supported</b>	Product and support documentation are available on the Web in an HTML and PDF format that is compatible with screen readers for the blind and visually impaired, can be displayed in large print using web browsers and software magnifiers for those with low vision at <a href="http://www.apple.com/support/">http://www.apple.com/support/</a> and can be printed using a personal computer and suitable printing device (sold separately).
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	<b>Supported</b>	E-mail, telephone, and support via the Web are available.

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