

The following Voluntary Product Accessibility information refers to the **Apple iPod nano** (7th generation). For more information on the accessibility features of the iPod nano and to learn more about iPod nano features, visit <http://www.apple.com/itunes/vision> and <http://www.apple.com/accessibility>.

**Summary Table
Voluntary Product Accessibility Template**

Criteria	Supporting Features	Remarks and explanation
Section 1194.21 Software applications and operating systems.	Not applicable	
Section 1194.22 Web-based intranet and internet information and applications.	Not applicable	
Section 1194.23 Telecommunications products.	Please refer to the attached VPAT	
Section 1194.24 Video and multimedia products.	Please refer to the attached VPAT	
Section 1194.25 Self contained closed products.	Please refer to the attached VPAT	
Section 1194.26 Desktop and portable computers.	Not applicable	
Section 1194.31 Functional performance criteria.	Please refer to the attached VPAT	
Section 1194.41 Information, documentation, and support.	Please refer to the attached VPAT	

Subpart B -- Technical Standards

Section 1194.23 Telecommunications products.

Criteria	Supporting Features	Remarks and explanations
(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.	Not applicable	
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Not applicable	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not applicable	
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems	Not applicable	

that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.		
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.	Not applicable	
(f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.	Not applicable	
(g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.	Not applicable	
(h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.	Not applicable	
(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.	Not applicable	
(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.	Not applicable	
(k) Products which have mechanically operated controls or keys, shall comply with the following:	Not applicable	
(1) Controls and keys shall be tactilely discernible without activating the controls or keys.		
(2) Controls and keys shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2 N) maximum.		
(3) If key repeat is supported, the delay before repeat		

shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.		
(4) The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.		

Section 1194.24 Video and multimedia products.

Criteria	Supporting Features	Remarks and explanations
(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	Not Applicable	
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not Applicable	
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	Supported with exception	Some content that can be synced from iTunes supports closed captioning.
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	Not Applicable	
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Supported with exception	iPod nano (7th generation) allows users to hear spoken menus while they navigate their content.

Section 1194.25 Self-Contained, Closed Products.

Criteria	Supporting Features	Remarks and explanations
(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.	Supported with exception	iPod nano includes a screen reader called VoiceOver than enables the iPod nano to be used without seeing the screen. VoiceOver is available in 29 languages. iPod nano also includes support for mono audio output.
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with Section 1194.23 (k) (1) through (4).	Supported with limitation	The built-in VoiceOver screen reader provides audio and visual feedback for touchscreen controls. No input method applies.
(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.	Not applicable	
(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.	Supported	iPod nano uses an industry standard 3.5mm audio headphone jack and supports interrupt, pause and restart for controlling audio output.
(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.	Not applicable	
(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.	Supported	
(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.	Supported with exception	iPod nano provides adjustable brightness and a setting to reverse video (invert colors) but does not provide user-adjustable color selections.

(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Supported	
(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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.	Not applicable	
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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.	Not applicable	
(j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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.	Not applicable	
(j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.	Not applicable	

Section 1194.26 Desktop and portable computers.

Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with Section 1194.23 (k) (1) through (4).	Not applicable	
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with Section 1194.23 (k) (1) through (4).	Not applicable	
(c) When biometric forms of user identification or control	Not applicable	

are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.		
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.	Not applicable	

Subpart C -- Functional Performance Criteria

Section 1194.31 Functional performance criteria.

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.	Supported	iPod nano includes a built-in screen reader called VoiceOver that enables iPod nano to be used by those who are blind or visually impaired. VoiceOver is available in 29 languages. For more information about iPod nano accessibility features, see www.apple.com/accessibility
(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.	Supported	iPod nano includes a built-in screen reader called VoiceOver that enables iPod nano to be used by those who are blind or visually impaired. VoiceOver is available in 29 languages. For more information about iPod nano accessibility features, see www.apple.com/accessibility
(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.	Supported	iPod nano includes a built-in screen reader called VoiceOver that enables iPod nano to be used by those who are blind or visually impaired. VoiceOver is available in 29 languages. For more information about iPod nano accessibility features, see www.apple.com/accessibility
(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.	Supported with exception	iPod nano provides a gain that can be adjusted to over 20 dB. iPod nano includes earphones (earbuds). iPod nano (7th generation) uses an industry standard 3.5mm audio headphone jack that can be used in conjunction with hearing-aid compatible neck loops that are sold separately.
(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.	Supported	The Voice Memos feature is intended for those capable of speech.
(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	Supported with exception	Using the iPod nano touchscreen requires the use of a bare finger or conductive device. Users with motor skills or other disabilities that prevent them from having direct skin contact with the touchscreen may require a

reach and strength shall be provided.		conductive stylus. In some cases, using a stylus may result in erratic touchscreen behavior and may scratch or damage the touchscreen. Caution should be taken in choosing an appropriate stylus. For more information about iPod nano accessibility features and solutions, see www.apple.com/accessibility
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Subpart D -- Information, Documentation, and Support

Section 1194.41 Information, documentation, and support.

Criteria	Supporting Features	Remarks and explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Supported	Product and support documentation are also 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 http://www.apple.com/support/ 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.	Supported	Support documentation is available on the Web in HTML at http://www.apple.com/support/
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supported	E-mail, telephone, and support via the Web are available.