

Date: August 11, 2016
Name of Product: ThinkPad E450, E550, E455, E555



Summary Table
Voluntary Product Accessibility Template®

Criteria	Supporting Features	Remarks and explanations
Section 1194.21 Software Applications and Operating Systems	Supports	Supported features are noted in the main VPAT
Section 1194.22 Web-based Internet Information and Applications	Not applicable	Section is not applicable to this product.
Section 1194.23 Telecommunications Products	Supports	Supported features are noted in the main VPAT
Section 1194.24 Video and Multi-media Products	Not applicable	Section is not applicable to this product.
Section 1194.25 Self-Contained, Closed Products	Not applicable	Section is not applicable to this product.
Section 1194.26 Desktop and Portable Computers	Supports	Supported features are noted in the main VPAT
Section 1194.31 Functional Performance Criteria	Supports	Supported features are noted in the main VPAT
Section 1194.41 Information, Documentation and Support	Supports	Supported features are noted in the main VPAT

Section 1194.21 Software Applications and Operating Systems – Detail

Criteria	Supporting Features	Remarks and explanations
(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.	Supports	A keyboard can be used to achieve all tasks in the application, allowing blind and mobility impaired users to access information without the use of the mouse.
(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	Supports	Operating systems provide accessibility features that allow disabled users to customize their preferences. This application preserves those accessibility user preference settings. For example, if Sticky Keys option is selected by a mobility-impaired user, this option will continue to be activated when used with this application.

documented by the manufacturer of the operating system and is available to the product developer.		
(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.	Supports	When using the application with a keyboard, users can tell where they are on the screen and the information is available to assistive technologies to communicate screen location to visually impaired users.
(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.	Supports	This software application allows a screen reader to describe the user interface environment and controls to a blind user. For example, if you tab through a form and find a radio button, the user would be able to determine it is a radio button and the current selection status of the button.
(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.	Supports	The meaning assigned to images used in the application is consistent and unique, minimizing confusion of the context of use for those images.
(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.	Supports	Text information is accessible so assistive technologies can communicate content, attributes and caret location to blind users.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	System settings are inherited by the application so that customized preferences will not need to be continually reset. For example, color contrast settings enhanced for a low vision user would be preserved by the application.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supports	Application provides an option to display animation in a non-animated mode, allowing users with vision impairments equal access to the same information and reliable interaction with assistive technology.
(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.	Supports	Color is used only as an enhancement, and an alternate means to convey information or indicate an action is available to users with visual impairments.
(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.	Supports	When color customization is supported, a variety of color selections and a range of contrasts improve accessibility for users with vision impairments.
(k) Software shall not use flashing or blinking	Supports	The use of blinking text, objects or

text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.		elements has been avoided, reducing risk of seizures for users with photosensitive epilepsy.
(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.	Supports	When electronic forms are used, the application design allows assistive technology access to information, field elements, and functionality required to complete and submit forms.

Section 1194.22 Web-based Internet information and applications – Detail

Criteria	Supporting Features	Remarks and explanations
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Not applicable	Product does not contain web-based applications.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not applicable	Product does not contain web-based applications.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Not applicable	Product does not contain web-based applications.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Not applicable	Product does not contain web-based applications.
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not applicable	Product does not contain web-based applications.
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	Not applicable	Product does not contain web-based applications.
(g) Row and column headers shall be identified for data tables.	Not applicable	Product does not contain web-based applications.
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Not applicable	Product does not contain web-based applications.
(i) Frames shall be titled with text that facilitates frame identification and navigation	Not applicable	Product does not contain web-based applications.
(j) Pages shall be designed to avoid causing	Not applicable	Product does not contain web-based

the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.		applications.
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Not applicable	Product does not contain web-based applications.
(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Not applicable	Product does not contain web-based applications.
(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Not applicable	Product does not contain web-based applications.
(n) When electronic forms are designed to be completed on-line, 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.	Not applicable	Product does not contain web-based applications.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Not applicable	Product does not contain web-based applications.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	Product does not contain web-based applications.

Section 1194.23 Telecommunications Products – Detail

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	Not applicable	Product is not a telecommunications product or system.



intermix speech with TTY use.		
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Not applicable	Product is not a telecommunications product or system.
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not applicable	Product is not a telecommunications product or system.
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems 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.	Not applicable	Product is not a telecommunications product or system.
(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	Product is not a telecommunications product or system.
(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	Product is not a telecommunications product or system.
(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	Product is not a telecommunications product or system.
(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	Product is not a telecommunications product or system.
(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	Product is not a telecommunications product or system.
(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation	Not applicable	Product is not a telecommunications product or system.



<p>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.</p>		
<p>(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.</p>	Supports	Touch can be used to identify and distinguish controls and keys without activating them.
<p>(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.</p>	Supports	Controls and latches can be reached and operated using one hand and require minimal dexterity for ease of use by mobility impaired users.
<p>(k)(3) Products which have mechanically operated controls or keys shall comply with the following: 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.</p>	Supports	An option to change keyboard repeat rate is provided so users can adjust the rate to accommodate their needs.
<p>(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.</p>	Supports	The status of locking and toggle controls or keys can be seen as well as distinguished by touch and/or sound when activated.

Section 1194.24 Video and Multi-media Products – Detail

Criteria	Supporting Features	Remarks and explanations
<p>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</p>	Not applicable	Product is not an analog television.



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.		
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not applicable	Product is not a television tuner.
(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.	Not applicable	Product does not contain informational videos or multimedia productions, as specified.
(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	Product does not contain informational videos or multimedia productions, as specified.
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Not applicable	There are no alternate text presentations or audio descriptions.

Section 1194.25 Self-Contained, Closed Products – Detail

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.	Not applicable	Product is not a self contained product.
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	Product is not a self contained product.
(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).	Not applicable	Product is not a self contained product.

(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	Product is not a self contained product.
(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.	Not applicable	Product is not a self contained product.
(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	Product is not a self contained product.
(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.	Not applicable	Product is not a self contained product.
(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.	Not applicable	Product is not a self contained product.
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Not applicable	Product is not a self contained product.
(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	Product is not a self contained product.
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls	Not applicable	Product is not a self contained product.

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.		
(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	Product is not a self contained product.
(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	Product is not a self contained product.

Section 1194.26 Desktop and Portable Computers – Detail

Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Supports	See 1194.23(k) 1 through 4.
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Supports	See 1194.23(k) 1 through 4.
(c) 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.	Supports	When biometric forms of user identification are used, an alternative means of identification is available.
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	Supports	The product design uses industry standard ports so that alternative equipment and assistive technologies can be accommodated.

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.	Supports	See the following for supporting features: - 1194.21 a, b, c, d, e, f, h, i, l - 1194.22 all - 1194.23 k1, k4 - 1194.24 d - 1194.25 a, b, c, e, f, g - 1194.26 b, d
(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.	Supports	See the following for supporting features: - 1194.21 c, g, i, j, l - 1194.22 n - 1194.25 h - 1194.26 d
(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	Supports	System is designed to alert applications of system sounds when needed and a visual cue is also provided.
(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.	Supports	Hardware provides a physical volume control and/or an interface so that volume can be controlled by software. See the following for other supporting features: - 1194.23 k4 - 1194.25 e, f
(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.	Supports	User speech is not required.
(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.	Supports	See the following for supporting features: - 1194.21 a, b - 1194.22 l, p - 1194.23 k1, k2, k3 - 1194.25 b, j1, j2, j3, j4 - 1194.26 d



Section 1194.41 Information, Documentation and Support – Detail

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	Supports	Product support documentation is provided in at least one accessible format, at no additional charge.
(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.	Supports	Documentation includes a description of accessibility and compatibility features that make it easier for people with disabilities to use the product. Those descriptions are available in alternate formats upon request, at no additional charge.
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	Telecommunications Relay Service (TRS) is supported for customers who are deaf or hard of hearing. For support, contact 1-855-2-LENOVO (1-855-253-6686).

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