

lenovo

ThinkVision 28
User's Guide



ThinkVision

Product numbers

28A

60B6-GAR1-WW

First Edition (January 2014)

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Safety information

General Safety guidelines

For tips to help you use your computer safely, go to:

<http://www.lenovo.com/safety>

Before installing this product, read the Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφαλείας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

Antes de instalar este produto, leia as Informações de Segurança.

Läs säkerhetsinformationen innan du installerar den här produkten.

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Pred inštaláciou tohto zariadenia si peôítajte Bezpeônostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Ennen kuin asennat t m n tuotteen, lue turvaohjeet kohdasta Safety Information

Před instalací tohoto produktu si pročtete Bezpečnostní informace.

在安装本产品之前，请仔细阅读 Safety Information (安全信息)。

安裝本產品之前，請先閱讀「安全資訊」。

مج، يجب قراءة دات السلامة

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Antes de instalar este producto lea la información de seguridad.

Antes de instalar este produto, leia as Informações de Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

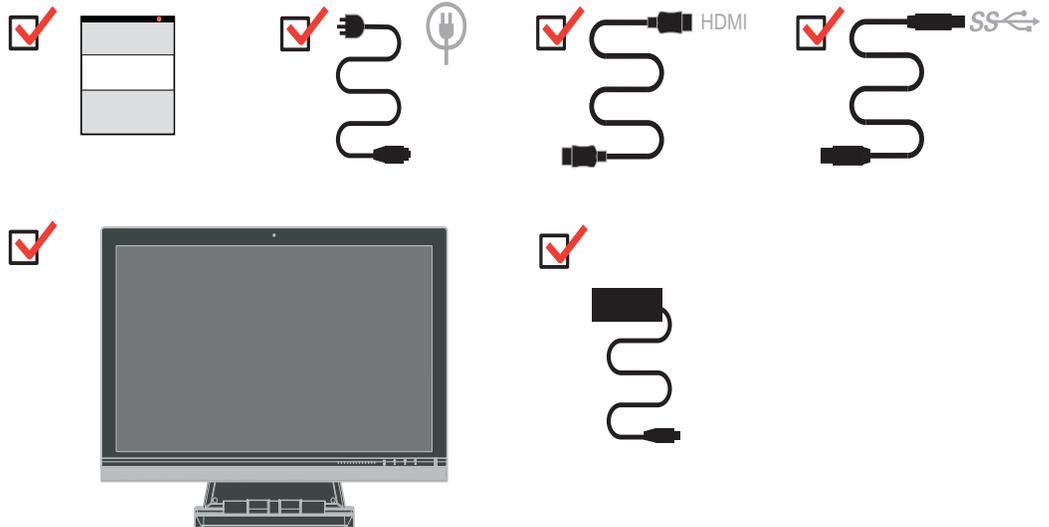
Chapter 1. Getting started

This User's Guide provides detailed operation instructions for the user. For quick instruction overview, please see the Setup Poster for brief information.

Shipping contents

The product package should include the following items:

- *Setup Poster*
- *Personal Computer*
- *Power Cord(Optional)*
- *Power Adapter*
- *HDMI Cable*
- *USB 3.0 Cable*



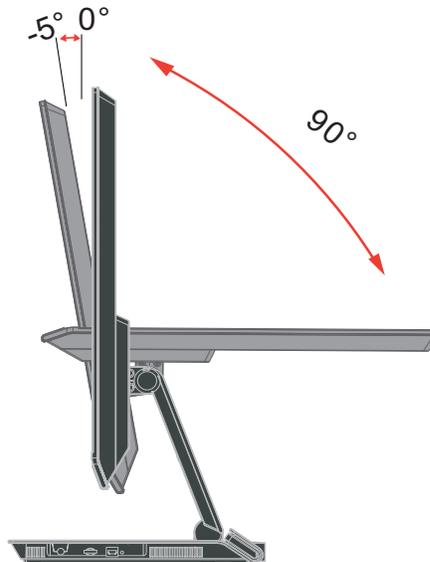
Product overview

This section will provide information on adjusting monitor positions, setting user controls, and using the Cable Lock.

Types of adjustments

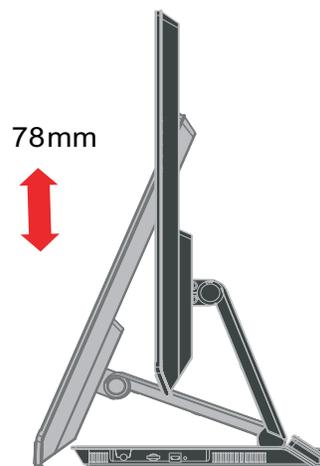
Tilt

The illustration below shows the range of Tilt adjustment available.



Height Adjustment

The illustration below shows the range of height adjustment available.



Cable Lock

A cable lock is located on the side of the monitor.



Monitor Controls

The touch controls on the monitors allows the user to access the various functions of the monitor.



For more information refer to Chapter 2 "Adjusting your monitor image" on page 2-3.

Setting up your ThinkVision 28

This section provides information on how to set up your monitor.

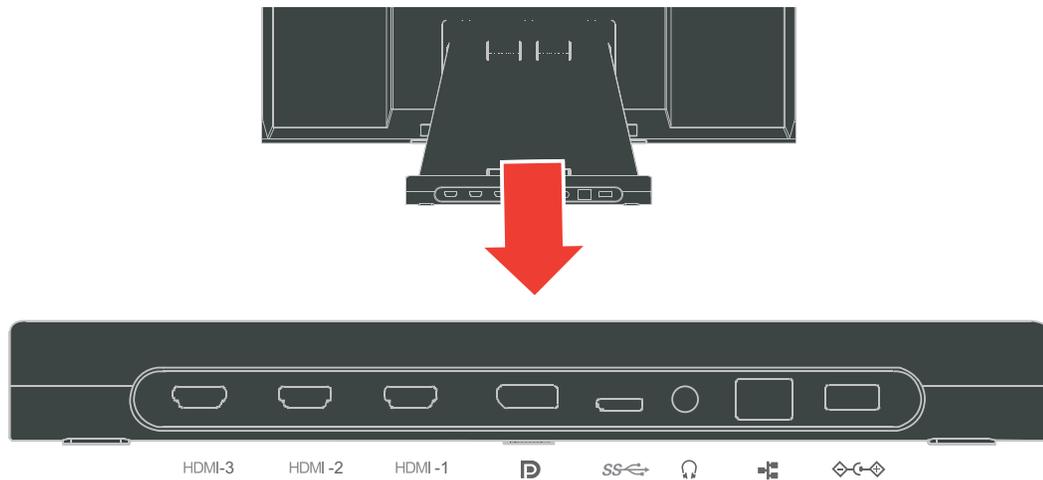
Connecting and turning on your ThinkVision 28

Note: Be sure to read the Safety information located on page iii before carrying out this procedure.

1. Power off your computer and all attached devices, then unplug the computer power cord.

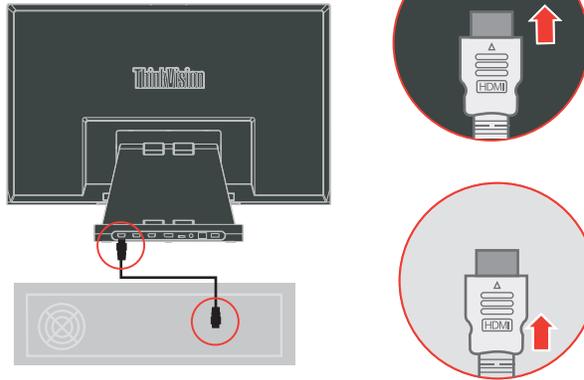


2. The monitor input connectors are detailed below.



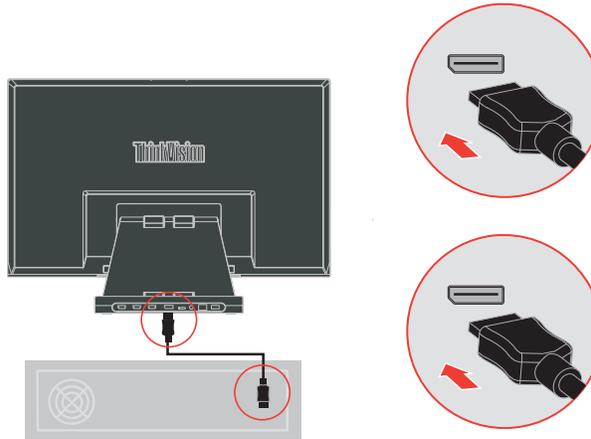
3. If your system supports HDMI then connect the HDMI cable to one of the monitor HDMI inputs and to the system HDMI output using the supplied HDMI cable.

HDMI

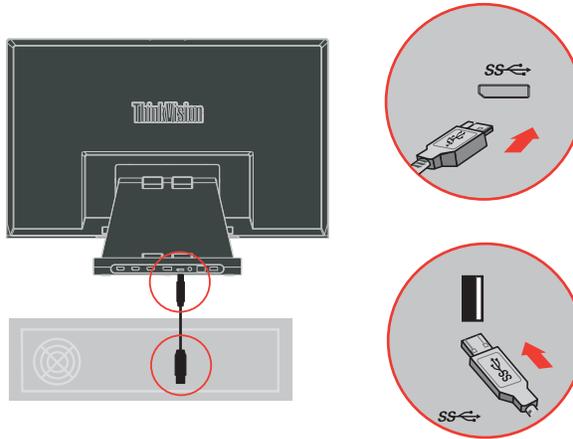


4. If your system supports DisplayPort then Lenovo recommends the user to purchase the "Lenovo DisplayPort to DisplayPort Cable 0A36537" and connect it to the DP Input of the monitor and the DP output of the system..

DP



5. Connect one end of the USB cable to the USB upstream terminal on the back of the monitor, and connect the other end of the USB cable to an appropriate USB port on your computer. In Monitor Mode, user is able to control the camera and touch features through the notebook when it's connected by Micro USB port (USB 3.0). This is applicable for systems of Windows 7 and Windows 8.

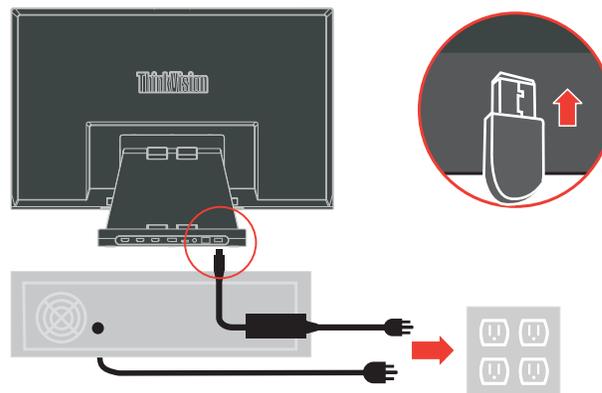


Note: The USB port will stay in function as long as the monitor is connected to power, regardless of whether the monitor is switched on or off.

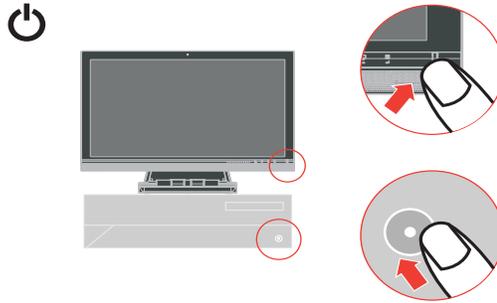
6. Insert the DC output connector from the external power supply into the power connector of the monitor and connect the power cord into the external power adapter.

Plug the power cord from the monitor external power supply and the power cord from the system into grounded electrical outlets.

Note: A certified power supply cord has to be used with this equipment. The relevant national installation and or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H05VV-F 3G 0.75mm² or H05VVH2-F2 3G 0.75mm²) shall be used. Alternative a flexible cord be of synthetic rubber according to IEC 60245 (designation H05RR-F 3G 0.75c) shall be used. Only the power cord supplied with your ThinkVision 28 should be used.



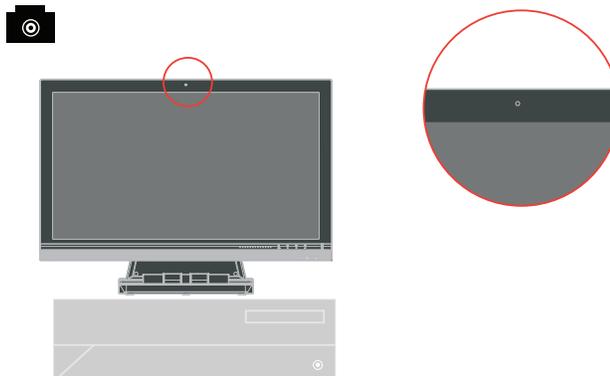
7. Power on the monitor and the system.



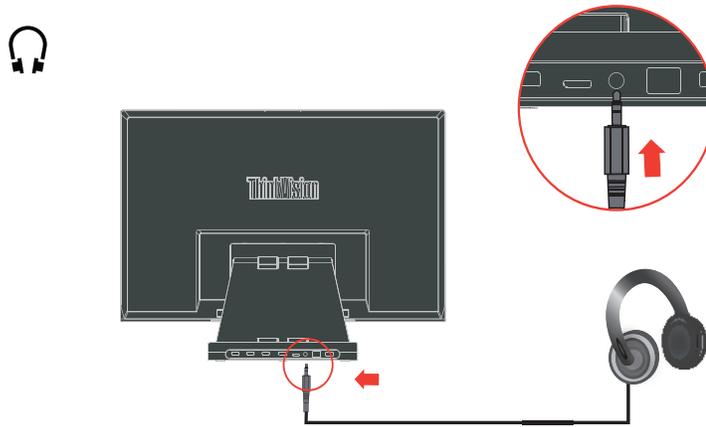
8. User is able to manage the on-screen configurations including applications, menu items and so on with the touch screen. For information on how to utilize touch screen, please see : "Smart Display" on page 2-4.



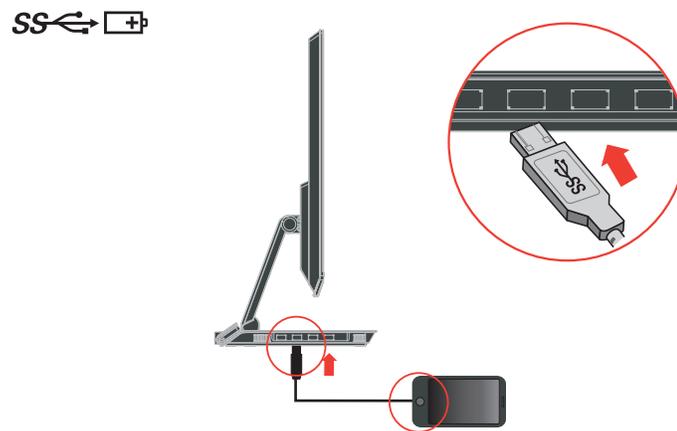
9. The integrated webcam supports typical web applications as Google Talk and Skype.



10. Connect the earphone's audio cable and audio jack of monitor to transfer audio source from Display Port, or HDMI.



11. There are 4 USB ports on the side of the monitor, the port with the yellow insert supports USB 3.0 and USB Battery Charge Standard Version 1.2 with a maximum current of 2A. The port with a blue insert is a standard USB 3.0 port and the other 2 ports support USB 2.0.



Note: The yellow insert USB is available for device battery charge as long as the monitor is connected to power, regardless of whether the monitor is switched on or off.

Registering your option

Thank you for purchasing this Lenovo™ product. Please take a few moments to register your Product and provide us with information that will help Lenovo to better serve you in the future. Your feedback is valuable to us in developing product and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the following Web site:

<http://www.lenovo.com/register>

Lenovo will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

Chapter 2. Adjusting and using your monitor

This section will give you information on adjusting and using your monitor.

Comfort and accessibility

Good ergonomic practice is important to get the most from your personal computer and to avoid discomfort. Arrange your workplace and the equipment you use to suit your individual needs and the kind of work that you perform. In addition, use healthy work habits to maximize your performance and comfort while using your computer. For more detailed information on any of these topics, visit the Healthy Computing Web site at: <http://www.lenovo.com/healthycomputing/>.

Arranging your work area

Use a work surface of appropriate height and available working area to allow you to work in comfort.

Organize your work area to match the way you use materials and equipment. Keep your work area clean and clear for the materials that you typically use and place the items that you use most frequently, such as the computer mouse or telephone, within the easiest reach.

Equipment layout and setup play a large role in your working posture. The following topics describe how to optimize equipment setup to achieve and maintain good working posture.

Positioning your monitor

Position and adjust your computer monitor for comfortable viewing by considering the following items:

- **Viewing distance:** Optimal viewing distances for monitors range from approximately 510 mm to 760 mm (20 in to 30 in) and can vary depending on ambient light and time of day. You can achieve different viewing distances by repositioning your monitor or by modifying your posture or chair position. Use a viewing distance that is most comfortable for you.
- **Monitor height:** Position the monitor so your head and neck are in a comfortable and neutral (vertical, or upright) position. If your monitor does not have height adjustments, you might have to place books or other sturdy objects under the base of the monitor to achieve the desired height. A general guideline is to position the monitor such that the top of the screen is at or slightly below your eye-height when you are comfortably seated. However, be sure to optimize your monitor height so the line of site between your eyes and the center the monitor suits your preferences for visual distance and comfortable viewing when your eye muscles are in a relaxed state.
- **Tilt:** Adjust the tilt of your monitor to optimize the appearance of the screen content and to accommodate your preferred head and neck posture.
- **General location:** Position your monitor to avoid glare or reflections on the screen from overhead lighting or nearby windows.

The following are some other tips for comfortable viewing of your monitor:

- Use adequate lighting for the type of work you are performing.
- Use the monitor brightness, contrast controls, if equipped to optimize the image on your screen to meet your visual preferences.
- Keep your monitor screen clean so you can focus on the screen's contents.

Any concentrated and sustained visual activity can be tiring for your eyes. Be sure to periodically look away from your monitor screen and focus on a far object to allow your eye muscles to relax. If you have questions on eye fatigue or visual discomfort, consult a vision care specialist for advice.

Quick tips for healthy work habits

The following information is a summary of some important factors to consider to help you remain comfortable and productive while you use your computer.

- **Good posture starts with equipment setup:** The layout of your work area and the setup of your computer equipment have a large effect on your posture while using your computer. Be sure to optimize the position and orientation of your equipment by following the tips outlined in "Arranging your work area" on page 2-1 so you can maintain a comfortable and productive posture. Also, be sure to use the adjustment capabilities of your computer components and office furniture to best suit your preferences now and as your preferences change over time.
- **Minor changes in posture can help avoid discomfort:** The longer you sit and work with your computer, the more important it is to observe your working posture. Avoid assuming any one posture for an extended period of time. Periodically make minor modifications in your posture to help deter any discomforts that might arise. Make use of any adjustments that your office furniture or equipment provide to accommodate changes in posture.
- **Short, periodic breaks help ensure healthy computing:** Because computing is primarily a static activity, it is particularly important to take short breaks from your work. Periodically, stand up from your work area, stretch, walk for a drink of water, or otherwise take a short break from using your computer. A short break from work gives your body a welcome change in posture and helps to ensure you remain comfortable and productive while you do work.

Accessibility information

Lenovo is committed to providing greater access to information and technology to people with disabilities. With assistive technologies, users can access information in the way most appropriate to their disability. Some of these technologies are already provided in your operating system; others can be purchased through vendors or accessed at:

https://lenovo.ssbartgroup.com/lenovo/request_vpat.php

Adjusting your monitor image

This section describes the control features to adjust your monitor image.

Using the direct access controls

The direct access controls can be used when the On-Screen Display (OSD) is not displayed.

	Icon	Control	Description
1		Speaker mute	Press to mute the speaker.
		DDC-CI	Press and hold for 10 seconds to enable or disable the DDC-CI function
		Exit	Exit and return to previous level
2		Smart mode source	Smart mode source.
		Decrease/Left	Left browsing key For decreasing the value on adjustment bar/tune in Press to move to last item
3		PC source	PC source.
		Increase/Right	Right browsing key For increasing the value on adjustment bar/tune in Press to move to next item
4		Menu	To access OSD menu Press to confirm selection Press and hold for 10 seconds will lock menu/un-lock menu
		Enter	Press to enter next level on main menu/sub menu status or enter previous level on adjustment bar

Smart Display

Touch Screen

Touch screen will optimize your smart monitor experience. User can gently touch the screen surface to select on-screen icons and menu items with below procedures:

Procedures	Descriptions
Touch	Select item by touching the item on the screen. Gently click the selected on-screen item using your finger. Select the the letters and symbols by clicking the on-screen keyboard.
Tap and Hold	Tap the selected on-screen item with your finger and hold until the item enlarged.
Drag	Tap and hold the item until it enlarged, then move the item to targeted position. For touch function, user can scroll through home screens, web pages, lists, entries, photo thumbnails, contacts and so on.
Swipe or Slide	Gently touch the screen with your finger, then quickly move across the screen.
Zoom Out	Touch the screen with two fingers. Move the fingers inwardly towards each other. Repeat the action several times to adjust the viewing size.
Zoom In	Touch the screen with two fingers at opposing points of the screen. Move the two fingers outwardly away from each other. Repeat the action several times to adjust the viewing size.

Home Screen

Turn the power of ThinkVision 28 on. The home screen displays as you unlock the screen. The home screen allows user to access all the features on ThinkVision 28.

The home screen is consisted by several screen panels. User can slide finger on the screen to view more items. User is encouraged to add shortcuts, widgets or applications on each screen panel.

No.	Items	Descriptions
1	Google Search	Google Search application makes info search an easier experience.
2	Navigation Area	Slide, flick and drag the screen until the desired home screen is shown.
3	Back	Return to the previous screen or option.
4	Home	Press this button to return to the main home screen.
5	Recent Applications	Press this button to see the applications that you've been recently accessed.
6	Screenshot	Press this button to capture an image of your present screen.
7	Apps	Press this button to open the APPS menu.
8	Widgets	Widgets are small applications that can provide quick access to some useful information.
9	Bluetooth/Wi-Fi	The Bluetooth/Wi-Fi icon will shown on the screen when Bluetooth/Wi-Fi function is activated.
10	Time	Shows the current time.
11	Voice Input	Use voice input as an alternative to text entry via keyboard.
12	Shortcuts	User can add application shortcut to the home screen and move it freely by touching and holding the specified icon. This icon allows you to open a shortcut item quickly.

Navigation buttons

No.	Items	Descriptions
1	Back	Press to go back to the previous screen or option. If the on-screen keyboard is displayed, the button changes. Press the changed button to close the on-screen keyboard.
2	Home	Press this button to go to the main home screen when viewing other home screens. Press this button to go back to the home screen that you previously viewed when launching other functions on the display. Press this button again to go back to main home screen.
3	Recent Apps	A short-cut way for you to open recent application you have accessed. Select and press one of the images from the list to open the application directly.
4	Screenshot	Press this button to capture an image of your present screen.

Customizing the Home Screen

User can customize the home screen by adding desired applications, shortcuts, or widgets to make the smart monitor more fitted to personal needs.

Add an item to the Home Screen

1. Tap the Application Gallery icon on the system bar to access the APPS gallery screen.
2. Select [APPS] or [WIDGETS].
3. Tap and hold the item until it enlarged. Drag the item to the place you desired on the home screen.

Remove an item from the Home Screen

1. Tap and hold the item until it enlarged.
2. Drag the item to the trash can icon to remove the item from the home screen.

Change the wallpaper

1. Tap and hold on an empty space on the home screen.
2. A [Choose wallpaper from] dialogue box will pop up on the screen.

Select the wallpaper source from one of the following options: [Gallery], [Live Wallpapers], [Select], [Wallpapers].

3. In the selected wallpaper source screen, select the image you desired, then click [Set wallpaper] to change the wallpaper. Right-click to exit the wallpaper source screen and return to home screen.
4. Some wallpapers allow changing the wallpaper color. When [Settings...] dialogue box pops up, click to access it, [Tap to change] will show on the top of the screen. Tap on the screen and configure the settings on wallpaper color.

5. Click back button to return to previous settings.

User can only set one wallpaper at each time. All the home screens will share the same wallpaper at a time.

Navigating the Applications

You can find available applications in the all Apps menu.

Open the Apps screen

You can access **Apps** menu from any home screen by pressing the **Apps** icon.

The **Apps** menu will show all the pre-loaded/downloaded applications on the display monitor.

Navigate pages of applications

Flick the **Apps** menu horizontally and press on the desired application to launch it.

Close the Apps menu

Press the Home icon on the system bar to return to the home screen.

Gesture Control

Gesture Control is an innovative function that makes the controlling experience better. This innovation marks an important milestone in the history of smart display technology, taking it to a new level. User can now send simple commands to the monitor via bodily motion created by hand gesture.

Note: Gesture Control is not the major function, please use it accordingly to your need. For any discomfort, such as stiff arm, please do take a break before continuing.

Switch-on Gesture Control

1. Press [**Home**].
2. Press [**Device**] on the system bar.
3. Turn [**Gesture Control**] to [**On**].

An introduction video will start to play when [**Gesture Control**] is turned to [**On**]. Please watch the video demonstration to learn how to use Gesture Control.

Gesture commands

Command	Description
Activate Gesture Control	When you hoist your hand in front of the display monitor, Gesture Control will be activated.
Move the mouse	You can move the position of your hand to control the mouse arrow (Please enable [Mouse] before using this function).
Confirm	Make a fist to confirm the selection.
Next page	Wave your hand to the right to switch to next page.
Previous page	Wave your hand to the left to switch to previous page.

Note: When using gesture function, please make sure there is enough light in surrounding environment, so that the gesture sensor on the display monitor can identify your hand movements. The best gesture detection distance is in 2~3 meters. Make sure your hand is positioned within the sensor's visual range.

Wi-Fi Miracast

Miracast allows user to embrace the multimedia content on the ThinkVision 28 display monitor.

This function enables user to display content from devices such as smart phones, tablets, handsets or notebooks. It does not require cable to transfer your audio and video clips over Wi-Fi to share contents using Miracast on this monitor.

Miracast function can be activated by pressing the hotkey on the ThinkVision 28 display monitor.

Activate Miracast (By hotkey)

1. Press to switch on Miracast, the Miracast welcome page will display on the screen.
2. Open the Miracast application(such as Wi-Fi Miracast and Screen mirroring...etc.) on your device to start scanning for ThinkVision 28 display monitor.
3. Browse through the scanning list to look for ThinkVision 28 display monitor.
4. Select your ThinkVision 28 display monitor on the scanning list to make connection. User can now view the device contents on ThinkVision 28 display monitor.

Miracast can also be activated by OSD menu.

Activate Miracast (By OSD)

1. Open the input menu.
2. Select Miracast as the input source and confirm the selection.
3. Open the Miracast application(such as Wi-Fi Miracast and Screen mirroring...etc.) on your device to start scanning for ThinkVision 28 display monitor.
4. Browse through the scanning list to look for ThinkVision 28 display monitor.
5. Select your ThinkVision 28 display monitor on the scanning list to make connection. User can now view the device contents on ThinkVision 28 display monitor.

Note: This Lenovo display is Wi-Fi certified Miracast. The source device must be Android 4.4 or have a more advanced version of Android to support Miracast function. If your source device fail to connect properly, please check with your device FAQ or consult your device vendor for more information.

Using the On-Screen Display (OSD) controls

To adjust the settings, the user controls can be viewed through the OSD.



To use the controls:

1. Press  to open the main OSD menu.
2. Use  or  to move among the icons. Select an icon and press  to access the selected function. If there is a sub-menu, you can move between options using  or , then press  to select that function. Use  or  to make adjustments then press  to save.
3. Press  to move backwards through the sub-menus and exit from the OSD.
4. Press and hold  for 10 seconds to lock the OSD. This will prevent accidental adjustments to the OSD. Press and hold  for 10 seconds to unlock the OSD and allow adjustments to the OSD.
5. Enables DDC/CI by default. Use OSD Exit Key, Press and hold  for 10 seconds to disable / enable DDC/CI function. The words "DDC/CI disable" shows on the screen.

Table 2-1. OSD functions

OSD Icon on Main Menu	Submenu	Description	Controls and Adjustments
 Brightness/ Contrast/DCR	 Brightness	Adjusts overall screen brightness.	All input ports
	 Contrast	Adjusts difference between light and dark areas.	
	 DCR	Enable dynamic contrast ratio.	
 Image Properties	 Color	Adjusts intensity of red, green, and blue. Preset mode <ul style="list-style-type: none"> • Neutral • SRGB • Reddish • Bluish Custom <ul style="list-style-type: none"> • Red: Increases or decreases the saturation of Red in the image. • Green: Increases or decreases the saturation of Green in the image. • Blue: Increases or decreases the saturation of Blue in the image. • Save: Saves the custom color choices. Note: Custom mode is used for TCO Certified compliance.	All input ports

Table 2-1. OSD functions

OSD Icon on Main Menu	Submenu	Description	Controls and Adjustments
 Image Properties	 Input Signal	Select input from five sources: - Smart mode - DP (Display Port) - HDMI-1 - HDMI-2 - HDMI-3	All input ports
	 Scaling	Select type of scaled image. Original AR Same Aspect Ratio with input signal. Full Screen Expand image to full screen.	
	DP Select	Selects DP input. DP 1.1 DP 1.2	
 Options	 Information	Shows resolution, refresh rate, and product details. Note: This screen offers information only, and (does) not allow for setting changes.	All input ports
	 Menu Language	Changes languages of menu. Note: The selected language only affects the language of the OSD. It has no effect on any software running on the computer.	
	 Menu Position	Adjusts menu location. Default The menu position to the default settings. Custom <ul style="list-style-type: none"> • Horizontal: Changes the horizontal position of the OSD. • Vertical: Changes the vertical position of the OSD. Save: Save the custom position choices.	

Table 2-1. OSD functions

OSD Icon on Main Menu	Submenu	Description	Controls and Adjustments
 Options	 Factory default	Reset monitor to original settings. <ul style="list-style-type: none"> • Cancel • Reset 	All input ports
	 Accessibility	Changes button repeat rate and menu time-out settings. Button repeat rate <ul style="list-style-type: none"> • Off • Default • Slow Menu time out Set the duration of time that the OSD will remain active when no operation is performed().	
	 Mode Selection	Select Monitor Mode or Smart Mode. <ul style="list-style-type: none"> • Monitor Mode: Switch the monitor to Monitor Mode. • Smart Mode: Switch the monitor to Smart Mode. For re- activating android: In Smart Mode, press left key can switch back to Smart Mode source when there is PC source. In Smart Mode, monitor would automatically switch to Smart Mode source when there is no any PC source cable connected. In Monitor Mode, set Mode Selection to Smart Mode(when there is PC source), then turn the main power off. The monitor will be in Smart Mode source when main power is put back to on. When the monitor enters power saving in Monitor Mode, press Menu key to wake the monitor up, then set Mode Selection to Smart Mode. Turn the main power off. The monitor will be in Smart Mode source when main power is put back to on.	
 Exit		Exit from menu.	

Selecting a supported display mode

The display mode of the monitor uses is controlled by the computer. Therefore, refer to your computer documentation on how to change display modes.

The image size, position and shape might be changed when the display mode changes. This is normal and the image can be re-adjusted using automatic image setup and the image controls.

Unlike CRT monitors, which require a high refresh rate to minimize flicker, LCD or Flat Panel technology is inherently flicker-free.

Note: If your system has previously been used with a CRT monitor and is currently configured to a display mode outside the range of this monitor, you may need to reattach the CRT monitor temporarily until you have re-configured the system; preferably to 3840 x 2160 at 60 Hz, which is a common display mode.

The display modes shown below have been optimized at the factory.

Table 2-2. Factory set display modes

Timing	Refresh rate(Hz)
640 x 350	70 Hz
720x400	70 Hz
640x480	60 Hz
800x600	60 Hz
1024x768	60 Hz
1152x864	75 Hz
1280x1024	60 Hz
1280x800	60 Hz
1280x720	60 Hz
1280x768	60 Hz
1360x768	60 Hz
1440x900	60 Hz
1600x900	60 Hz
1680x1050	60 Hz
1920x1080	30 Hz
1920x1080	60 Hz
1920x1200	60 Hz
2560x1600	60 Hz
3840x2160	24 Hz
3840x2160	30 Hz
3840x2160	60 Hz

Image rotation

Before rotating the monitor, you should set-up your computer to rotate the image.

Rotating the image may require special rotation software or you may find that your computer is preloaded with video graphic drivers that allows image rotation. Check the Graphic Properties setting on your computer to see if this feature is available.

Try these steps to check if image rotation is available on your computer.

1. Right-click on the desktop and click Properties.
2. Select the Settings tab and click Advanced.
3. If you have ATI, select the Rotation tab and set the preferred rotation. If you have nVidia, click the nVidia tab, in the left-hand column select NV Rotate, and then select the preferred rotation. If you have Intel, select the Intel graphics tab, click Graphic Properties, select the Rotation tab, and then set the preferred rotation.

Check with the manufacturer of your computer to see if graphic drivers with image rotation can be downloaded from their support website.

Understanding power management

Power management is invoked when the computer recognizes that you have not used your mouse or keyboard for a user-definable period. There are several states as described in the table below.

For optimal performance, switch off your monitor at the end of each working day, or whenever you expect to leave it unused for long periods during the day.

Table 2-3. Power indicator

State	Power Indicator	Screen	Restoring Operation	Compliance
On	Pure White	Normal		
Standby/Suspend	Amber	Blank	Press a key or move the mouse There may be a slight delay before the image reappears. Note: Standby also occurs if there is no image output to the monitor.	ENERGY STAR
Off	Off	Blank	Press the power button There may be a slight delay before the image reappears.	ENERGY STAR

Caring for your monitor

Be sure to turn off the power before you perform any maintenance on the monitor.

Do not:

- Apply water or liquid directly to your monitor.
- Use solvents or abrasives.
- Use flammable cleaning materials to clean your monitor or any other electrical equipment.
- Touch the screen area of your monitor with sharp or abrasive items. This type of contact may cause permanent damage to your screen.
- Use any cleaner which contains an anti-static solution or similar additives. This may harm the coating of the screen area.

Do:

- Lightly dampen a soft cloth with water and use this to gently wipe the covers and the screen.
- Remove grease or finger marks with a damp cloth and a little mild detergent.

Chapter 3. Reference information

This section contains monitor specifications, instructions to manually install the monitor driver, troubleshooting information, and service information.

Monitor specifications

Table 3-1. Monitor specifications for type-model ThinkVision 28

Dimensions	Depth	259.5 mm (10.21 in.)
	Height	105 mm (lowest) (4.13 in.) 502.8 mm (highest) (19.79 in.)
	Width	681.9 mm (26.84 in.)
Stand	Tilt	Range: -5° ~ 90°
VESA mount	Not supported	
Image	Viewable image size	711 mm (28.0 in.)
	Maximum height	620.93 mm (24.44 in.)
	Maximum width	341.28 mm (13.43 in.)
	Pixel pitch	0.16 x 0.16 mm (0.00629 in. x 0.00629 in.)
Power input	Supply voltage	90-264 V AC (100-240 V AC +/-10%)
	Max supply current	4.5 A
Power consumption Note: Power consumption figures are for the monitor and the power supply combined	Normal operation	<105W
	Standby/Suspend	<10W
	Off	<0.5W at 100Vac & 240Vac
	Note: without USB/ Webcam/external speaker	
Power adapter	lenovo	ADP-90XD B
		PA-1900-72

Table 3-1. Monitor specifications for type-model ThinkVision 28

Video input DP (Digital)	Interface	DP
	Input signal	VESA TMDS (Panel Link™)
	Horizontal addressability	3840 pixels (max)
	Vertical addressability	2160 lines (max)
HDMI	Interface	HDMI
	Horizontal addressability	3840 pixels (max)
	Vertical addressability	2160 lines (max)
	Clock frequency	300 MHz (max)
Communications	VESA DDC/CI	
Supported display modes	Horizontal frequency	30 kHz - 135 kHz (DP) 30 kHz - 68 kHz (HDMI)
	Vertical frequency	30 Hz - 75 Hz
	Native Resolution	3840 x 2160 at 60 Hz (DP max)
Temperature	Operating	0° to 40° C (32° to 104° F)
	Storage	-20° to 60° C (-4° to 140° F)
	Shipping	-20° to 60° C (-4° to 140° F)
Humidity	Operating	20% to 90% non-condensing
	Storage	10% to 90% non-condensing
	Shipping	10% to 90% non-condensing

Troubleshooting

If you have a problem setting up or using your monitor, you might be able to solve it yourself. Before calling your dealer or Lenovo, try the suggested actions that are appropriate to your problem.

Table 3-2. Troubleshooting

Problem	Possible cause	Suggested action	Reference
The words "Out of Range" are shown on the screen, and the power indicator is flashing green.	The system is set to a display mode which is not supported by the monitor.	<p>If you are replacing an old monitor, reconnect it and adjust the display mode to within the specified range for your new monitor.</p> <p>If using a Windows system, restart the system in safe mode, then select a supported display mode for your computer.</p> <p>If these options do not work, contact the Support Center.</p>	"Selecting a supported display mode" on page 2-14
The image quality is unacceptable.	The video signal cable is not connected with the monitor or system completely.	Be sure the signal cable is firmly plugged into the system and monitor.	"Connecting and turning on your ThinkVision 28" on page 1-4
	The color settings may be incorrect.	Select another color setting from the OSD menu.	"Adjusting your monitor image" on page 2-3
	The automatic image setup function was not performed.	Perform automatic image setup.	"Adjusting your monitor image" on page 2-3
The power indicator is not lit and there is no image.	<ul style="list-style-type: none"> The monitor's power switch is not switched on. The power cord is loose or disconnected. There is no power at the outlet. 	<ul style="list-style-type: none"> Be sure the power cord is connected properly. Be sure the outlet has power. Power on the monitor. Try using another power cord. Try using another electrical outlet. 	"Connecting and turning on your ThinkVision 28" on page 1-4
Screen is blank and power indicator is amber.	The monitor is in Standby/Suspend mode.	<ul style="list-style-type: none"> Press any key on the keyboard or move the mouse to restore operation. Check the Power Options settings on your computer. 	"Understanding power management" on page 2-16

Table 3-2. Troubleshooting

Problem	Possible cause	Suggested action	Reference
The power indicator is amber, but there is no image.	The video signal cable is loose or disconnected from the system or monitor.	Be sure the video cable is connected with the system properly.	"Connecting and turning on your ThinkVision 28" on page 1-4
	The monitor brightness and contrast are at the lowest setting.	Adjust the brightness and contrast setting on the OSD menu.	"Adjusting your monitor image" on page 2-3
One or more of the pixels appear discolored.	This is a characteristic of the LCD technology and is not an LCD defect.	If there are more than five pixels missing, contact the Support Center.	"Service and Support" on page A-1
<ul style="list-style-type: none"> • Fuzzy lines in text or a blurry image. • Horizontal or vertical lines through the image. 	<ul style="list-style-type: none"> • Image setup has not been optimized. • Your system Display Properties setting have not been optimized. 	Adjust the resolution settings on your system to match the native resolution for this monitor: 3840 x 2160 at 60 Hz.	"Adjusting your monitor image" on page 2-3
		Perform automatic image setup. If automatic image setup does not help, perform manual image setup.	" Selecting a supported display mode" on page 2-14
		When working in the native resolution, you may find additional improvements by adjusting the Dots Per Inch (DPI) setting on your system.	See the Advanced section of your system's display properties.

Manually installing the monitor driver

Below are steps for manually installing the monitor driver in Microsoft Windows 7, Microsoft Windows Vista.

Installing the monitor driver in Windows 7

To use the Plug and Play feature in Microsoft Windows 7, do the following:

1. Turn off the computer, all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow your computer to start the Windows 7 operating system.
4. Open the **Display Properties** window by clicking **Start, Control Panel, Hardware and Sound** icon, and then clicking the **Display** icon.
5. Click the **Change the display settings** tab.
6. Click the **Advanced Settings** icon.
7. Click the **Monitor** tab.
8. Click the **Properties** button.
9. Click the **Driver** tab.
10. Click **Update Driver**, then click **Browse the computer to find the driver program**.
11. Select **Pick from the list of device driver program on the computer**.
12. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. Lenovo recommends using either 3840 x 2160 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

Installing the monitor driver in Windows Vista

To use the Plug and Play feature in Microsoft Windows Vista, do the following:

1. Turn off the computer and all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow your computer to start the Windows Vista operating system.
4. Click **Start, Control Panel** and then click the **Hardware and Sound** icon.
5. Click the **Personalization** icon.
6. Click the **Display Settings** icon.
7. Click the **Advanced Settings** button.
8. Click the **Monitor** tab.
9. Click the **Properties** button.
10. Click the **Driver** tab.
11. Click **Update Driver**, then click **Browse the computer to find the driver program**.
12. Select **Pick from the list of device driver program on the computer**.
13. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. Lenovo recommends using either 3840 x 2160 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

Installing the monitor driver in Windows 8

To use the Plug and Play feature in Microsoft Windows 8, do the following:

1. Turn off the computer, all attached devices.
2. Ensure that the monitor is connected correctly.
3. Turn on the monitor and then the system unit. Allow your computer to start the Windows 8 operating system.
4. Open the **Display Properties** window by clicking **Start**, right-click, choose **All Application**, enter **Control Panel, Hardware and Sound** icon. and then clicking the **Display** icon.
5. Click the **Change the display settings** tab.
6. Click the **Advanced Settings** icon.
7. Click the **Monitor** tab.
8. Click the **Properties** button.
9. Click the **Driver** tab.
10. Click **Update Driver**, then click **Browse the computer to find the driver program**.
11. Select **Pick from the list of device driver program on the computer**.
12. Restart the system. The system will automatically select the maximum refresh rate and corresponding Color Matching Profiles.

Note: On LCD monitors, unlike CRTs, a faster refresh rate does not improve display quality. Lenovo recommends using either 3840 x 2160 at a refresh rate of 60 Hz, or 640 x 480 at a refresh rate of 60 Hz.

Getting further help

If you still can't solve your problem, please contact the Lenovo Support Center. For more information on contacting the Support Center, please see "Service and Support" on page A-1.

Service information

Customer responsibilities

The warranty does not apply to a product which has been damaged due to accident, misuse, abuse, improper installation, usage not in accordance with product specifications and instructions, natural or personal disaster, or unauthorized alterations, repairs or modifications.

The following are examples of misuse or abuse and not covered by warranty:

- Images burned onto the screen of a CRT monitor. Burned image is preventable by utilizing a moving screen saver or power management.
- Physical damage to covers, bezel, base and cables.
- Scratches or punctures on monitor screens.

Service parts

The following parts are for use by Lenovo service, or Lenovo authorized dealers, to support the customer warranty. Parts are for service use only. The table below shows information for model 60B6-GA*1-**.

RELEASE	Description	M/T	COLOR	GEOGRAPHY
03T8534	ThinkVision 28 - FRU Monitor (HDMI)	60B6	Raven Black	WORLDWIDE
03T8535	ThinkVision 28 USB 3.0 cable (1.8m, RoHS, type A to micro)	60B6	Raven Black	WORLDWIDE
03T8536	ThinkVision 28 HDMI cable (1.8m RoHS)	60B6	Raven Black	WORLDWIDE
03T8537	ThinkVision 28 Power adapter	60B6	Raven Black	WORLDWIDE

Appendix A. Service and Support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of your product. Refer to the Lenovo Limited Warranty for a full explanation of Lenovo warranty terms.

Registering your option

Register to receive product service and support updates, as well as free and discounted computer accessories and content. Go to: <http://www.lenovo.com/register>

Online technical support

Online technical support is available during the lifetime of a product at:
<http://www.lenovo.com/support>

Product replacement assistance or exchange of defective components also is available during the warranty period. In addition, if your option is installed in a Lenovo computer, you might be entitled to service at your location. A Lenovo technical support representative can help you determine the best alternative.

Telephone technical support

Installation and configuration support through the Customer Support Center will be available until 90 days after the option has been withdrawn from marketing. After that time, the support is cancelled, or made available for a fee, at Lenovo's discretion. Additional support is also available for a nominal fee.

Before contacting a Lenovo technical support representative, please have the following information available: option name and number, proof of purchase, computer manufacturer, model, serial number and manual, the exact wording of any error message, description of the problem, and the hardware and software configuration information for your system.

Your technical support representative might want to walk you through the problem while you are at your computer during the call.

Telephone numbers are subject to change without notice. The most up-to-date telephone list for Lenovo Support is always available at: <http://www.lenovo.com/support/phone>

Country or Region	Telephone Number
Argentina	0800-666-0011 (Spanish, English)
Australia	1-800-041-267 (English)
Austria	0810-100-654 (For local rate) (German)
Belgium	Warranty service and support: 02-339-36-11 (Dutch, French)
Bolivia	0800-10-0189 (Spanish)

Country or Region	Telephone Number
Brazil	Calls made from within the Sao Paulo region: 11-3889-8986 Calls made from outside the Sao Paulo region: 0800-701-4815 (Portuguese)
Brunei Darussalam	Dial 800-1111 (English)
Canada	1-800-565-3344 (English, French)
Chile	800-361-213 (Spanish)
China	Technical Support Line: 400-100-6000 (Mandarin)
China (Hong Kong S.A.R.)	(852) 3516-8977 (Cantonese, English, Mandarin)
China (Macau S.A.R.)	0800-807 / (852) 3071-3559 (Cantonese, English, Mandarin)
Colombia	1-800-912-3021 (Spanish)
Costa Rica	0-800-011-1029 (Spanish)
Croatia	385-1-3033-120 (Croatian)
Cyprus	800-92537 (Greek)
Czech Republic	800-353-637 (Czech)
Denmark	Warranty service and support: 7010-5150 (Danish)
Dominican Republic	1-866-434-2080 (Spanish)
Ecuador	1-800-426911-OPCION 4 (Spanish)
Egypt	Primary: 0800-0000-850 Secondary: 0800-0000-744 (Arabic, English)
El Salvador	800-6264 (Spanish)
Estonia	372-66-0-800 (Estonian, Russian, English)
Finland	Warranty service and support: +358-800-1-4260 (Finnish)
France	Warranty service and support: 0810-631-213 (hardware) (French)
Germany	Warranty service and support: 0800-500-4618 (toll-free) (German)
Greece	Lenovo Business Partner (Greek)

Country or Region	Telephone Number
Guatemala	Dial 999-9190, wait for operator, and request to reach 877-404-9661 (Spanish)
Honduras	Dial 800-0123 (Spanish)
Hungary	+36-13-825-716 (English, Hungarian)
India	Primary: 1800-419-4666 (Tata) Secondary: 1800-3000-8465 (Reliance) Email: commercialts@lenovo.com (English and Hindi)
Indonesia	1-803-442-425 62 213-002-1090 (Standard Charges Apply) (English, Bahasa Indonesia)
Ireland	Warranty service and support: 01-881-1444 (English)
Israel	Givat Shmuel Service Center: +972-3-531-3900 (Hebrew, English)
Italy	Warranty service and support: +39-800-820094 (Italian)
Japan	0120-000-817 (Japanese, English)
Kazakhstan	77-273-231-427 (Standard Charges Apply) (Russian, English)
Korea	080-513-0880 (Collect call) 02-3483-2829 (Toll Call) (Korean)
Latvia	371-6707-360 (Latvian, Russian, English)
Lithuania	370 5278 6602 (Italian, Russian, English)
Luxembourg	ThinkServer and ThinkStation: 352-360-385-343 ThinkCentre and ThinkPad: 352-360-385-222 (French)
Malaysia	1-800-88-0013 03-7724-8023 (Standard Charges Apply) (English)
Malta	356-21-445-566 (English, Italian, Maltese Arabic)
Mexico	001-866-434-2080 (Spanish)
Netherlands	020-513-3939 (Dutch)
New Zealand	0508-770-506 (English)
Nicaragua	001-800-220-2282 (Spanish)
Norway	8152-1550 (Norwegian)

Country or Region	Telephone Number
Panama	Lenovo Customer Support Center: 001-866-434 (toll-free) (Spanish)
Peru	0-800-50-866 OPCION 2 (Spanish)
Philippines	1-800-8908-6454 (GLOBE subscribers) 1-800-1441-0719 (PLDT subscribers) (Tagalog, English)
Poland	Laptops and tablets branded with logo Think: 48-22-273-9777 ThinkStation and ThinkServer: 48-22-878-6999 (Polish, English)
Portugal	808-225-115 (Standard Charges Apply) (Portuguese)
Romania	4-021-224-4015 (Romanian)
Russia	+7-499-705-6204 +7-495-240-8558 (Standard Charges Apply) (Russian)
Singapore	1-800-415-5529 6818-5315 (Standard Charges Apply) (English, Mandarin, Bahasa Malaysia)
Slovakia	ThinkStation and ThinkServer: 421-2-4954-5555
Slovenia	386-1-2005-60 (Slovenian)
Spain	34-917-147-833 (Spanish)
Sri Lanka	9477-7357-123 (Sumathi Information systems) (English)
Sweden	Warranty service and support: 077-117-1040 (Swedish)
Switzerland	Warranty service and support: 0800-55-54-54 (German, French, Italian)
Taiwan	0800-000-702 (Mandarin)
Thailand	001-800-4415-734 (+662) 787-3067 (Standard Charges Apply) (Thai, English)
Turkey	444-04-26 (Turkish)
United Kingdom	Standard warranty support: 03705-500-900 (local rate) Standard warranty support: 08705-500-900 (English)
United States	1-800-426-7378 (English)
Uruguay	000-411-005-6649 (Spanish)
Venezuela	0-800-100-2011 (Spanish)

Country or Region	Telephone Number
Vietnam	120-11072 (Toll Free) 84-8-4458-1042 (Standard Charges Apply) (Vietnamese, English)

Appendix B. Notices

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Recycling information

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. For information on recycling Lenovo products, go to:

<http://www.lenovo.com/lenovo/environment/recycling>

環境配慮に関して

本機器またはモニターの回収リサイクルについて

企業のお客様が、本機器が使用済みとなり廃棄される場合は、資源有効利用促進法の規定により、産業廃棄物として、地域を管轄する県知事あるいは、政令市長の許可を持った産業廃棄物処理業者に適正処理を委託する必要があります。また、弊社では資源有効利用促進法に基づき使用済みパソコンの回収および再利用・再資源化を行う「PC回収リサイクル・サービス」を提供しています。詳細は、<http://www.ibm.com/jp/pc/service/recycle/pcrecycle/> をご参照ください。

また、同法により、家庭で使用済みとなったパソコンのメーカー等による回収再資源化が2003年10月1日よりスタートしました。詳細は、<http://www.ibm.com/jp/pc/service/recycle/pcrecycle/> をご参照ください。

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本機器のプリント基板等には微量の重金属（鉛など）が使用されています。使用後は適切な処理を行うため、上記「本機器またはモニターの回収リサイクルについて」に従って廃棄してください。

Collecting and recycling a disused Lenovo computer or monitor

If you are a company employee and need to dispose of a Lenovo computer or monitor that is the property of the company, you must do so in accordance with the Law for Promotion of Effective Utilization of Resources. Computers and monitors are categorized as industrial waste and should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with the Law for Promotion of Effective Utilization of Resources, Lenovo Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused computers and monitors. For details, visit the Lenovo Web site at <http://www.lenovo.com/recycling/japan>. Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of home-used computers and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of charge for home-used computers sold after October 1, 2003. For details, visit the Lenovo Web site at <http://www.lenovo.com/recycling/japan>.

Disposing of Lenovo computer components

Some Lenovo computer products sold in Japan may have components that contain heavy metals or other environmental sensitive substances. To properly dispose of disused components, such as a printed circuit board or drive, use the methods described above for collecting and recycling a disused computer or monitor.

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The Lenovo logo
ThinkCenter
ThinkPad
ThinkVision

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Appendix C. -

RF Electronic emission notices – 28A Monitor

Federal Communications Commission Declaration of Conformity

28A Monitor - (FCC ID: MCLT77H462)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by using other than specified or recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:
Lenovo (United States) Incorporated
1009 Think Place - Building One
Morrisville, NC 27560
Phone Number: 919-294-5900



RF Exposure Statement:

The radiated RF energy from the 28A Monitor conforms to the FCC limit of the SAR (Specific Absorption Rate) requirement set forth in 47 CFR Part 2 section 1093.

Radio Frequency Interference Requirements:

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. Operation in the 5.15-5.25GHz band are restricted to indoor usage only.

Canada - Industry Canada (IC)

28A Monitor - (IC ID: 2878D-T77H462) Industry Canada

Class B emission compliance statement This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Low Power License-Exempt Radio Communication Devices (RSS-210)

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Permis d'émission à faible puissance - Cas des appareils de communications radio

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage, et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Exposure of humans to RF fields (RSS-102)

This 28A Monitor employs a low gain integral antenna that does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site at <http://www.hc-sc.gc.ca/>

The radiated energy from this 28A Monitor antenna conforms to the IC limit of the RF exposure requirement regarding IC RSS-102, Issue 4 clause 4.1.

Exposition des êtres humains aux champs radioélectriques (RF) (CNR-102)

La souris et le dongle utilisent des antennes intégrales à faible gain qui n'émettent pas un champ électromagnétique supérieur aux normes imposées par le Ministère de la santé canadien pour la population ; consultez le Safety Code 6 sur le site Web du Ministère de la santé canadien à l'adresse <http://www.hc-sc.gc.ca/>

L'énergie émise par les antennes de la souris et le dongle respecte la limite d'exposition aux radiofréquences telle que définie par Industrie Canada dans la clause 4.2 du document CNR-102.

EU-EMC Directive (2004/108/EC) EN 55022 class B Statement of Compliance

Deutschsprachiger EU Hinweis:

Hinweis für Geräte der Klasse B EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG (früher 89/336/EWG) zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der EN 55022 Klasse B ein.

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu betreiben. Des Weiteren dürfen auch nur von der Lenovo empfohlene Kabel angeschlossen werden. Lenovo übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt ohne Zustimmung der Lenovo verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne Empfehlung der Lenovo gesteckt/eingebaut werden.

Deutschland:

Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln

Dieses Produkt entspricht dem „Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln“EMVG (früher „Gesetz über die elektromagnetische Verträglichkeit von Geräten“). Dies ist die Umsetzung der EU-Richtlinie 2004/108/EG (früher 89/336/EWG) in der Bundesrepublik Deutschland.

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln, EMVG vom 20. Juli 2007 (früher Gesetz über die elektromagnetische Verträglichkeit von Geräten), bzw. der EMV EG Richtlinie 2004/108/EC (früher 89/336/EWG), für Geräte der Klasse B.

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraf 5 des EMVG ist die Lenovo (Deutschland) GmbH, Gropiusplatz 10, D-70563 Stuttgart.

Informationen in Hinsicht EMVG Paragraf 4 Abs. (1) 4:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse B.

European Union - Compliance to the Electromagnetic Compatibility Directive

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the installation of option cards from other manufacturers.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

Avis de conformité à la directive de l'Union Européenne

Le présent produit satisfait aux exigences de protection énoncées dans la directive 2004/108/EC du Conseil concernant le rapprochement des législations des Etats membres relatives à la compatibilité électromagnétique. Lenovo décline toute responsabilité en cas de non-respect de cette directive résultant d'une modification non recommandée du produit, y compris l'ajout de cartes en option non Lenovo.

Ce produit respecte les limites des caractéristiques d'immunité des appareils de traitement de l'information définies par la classe B de la norme européenne EN 55022 (CISPR 22). La conformité aux spécifications de la classe B offre une garantie acceptable contre les perturbations avec les appareils de communication agréés, dans les zones résidentielles.

Unión Europea - Normativa EMC

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 2004/108/EC en lo que a la legislación de los Estados Miembros sobre compatibilidad electromagnética se refiere.

Lenovo no puede aceptar responsabilidad alguna si este producto deja de satisfacer dichos requisitos de protección como resultado de una modificación no recomendada del producto, incluyendo el ajuste de tarjetas de opción que no sean Lenovo.

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar Europeo EN 55022. Los límites para los equipos de Clase B se han establecido para

entornos residenciales típicos a fin de proporcionar una protección razonable contra las interferencias con dispositivos de comunicación licenciados.

Unione Europea - Directiva EMC (Conformidad electromagnética)

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 2004/108/EC sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

Lenovo non accetta responsabilità alcuna per la mancata conformità alle normative di protezione dovuta a modifiche non consigliate al prodotto, compresa l'installazione di schede e componenti di marca diversa da Lenovo.

Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le apparecchiature di informatica Classe B ai sensi della Norma Europea EN 55022. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

Europe - EU Declaration of Conformity

Model: 28A Monitor

Products intended for sale within the European Union are marked with the Conformité Européenne (CE) Marking, which indicates compliance with the applicable Directives and European Norms, and amendments, identified below.



European Contact for regulatory topics only:

Lenovo, Digital Park, Einsteinova 21, 851 01 Bratislava, Slovakia

Telephone: +421 2 6868 3018

Fax: +421 2 6868 8031

English

Hereby, Lenovo (Singapore) Pte. Ltd., declares that the wireless equipment listed in this section are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Usage of this device is limited to indoor in the band 5150 to 5350 MHz (channels 36, 40, 44, 48, 52, 56, 60, 64).

Bulgarian

С настоящото Lenovo (Singapore) Pte. Ltd. декларира, че безжичното оборудване, посочено в този раздел, е в съответствие с основните изисквания и другите уместни условия на Директива 1999/5/EC.

Ограничение в ЕС за честотни ленти за безжичен LAN

Употребата на това устройство е ограничена на закрито в диапазона от 5150 до 5350 Mhz (канали 36, 40, 44, 48, 52, 56, 60, 64).

Croatian

Ovime, Lenovo (Singapore) Pte. Ltd., izjavljuje da oprema za bežičnu komunikaciju koja je navedena u ovom odjelu, sukladna je sa nužnim zahtjevima i drugim ograničenjima Direktive 1995/5/EC.

Ograničenje frekvencijskog pojasa za bežni LAN u EU

Korištenje uređaja je ograničeno u zatvorenim prostorima na spektar 5150 do 5350 MHz (kanali 36, 40, 44, 48, 52, 56, 60, 64).

Czech

Lenovo (Singapore) Pte. Ltd. tímto prohlašuje, že bezdrátová zařízení uvedená v této části jsou ve shodě se základními požadavky a dalšími relevantními ustanoveními směrnice 1999/5/EC.

Omezení EU pro frekvenční pásma bezdrátové sítě LAN

Použití zařízení je omezeno na vnitřní prostory a frekvenční pásmo 5150 až 5350 Mhz (kanály 36, 40, 44, 48, 52, 56, 60, 64).

Danish

Lenovo (Singapore) Pte. Ltd. erklærer hermed, at det trådløse udstyr, der er nævnt i dette afsnit, overholder de væsentlige krav og andre relevante bestemmelser i EU-direktiv 1999/5/EC.

Restriktioner for frekvensbånd i EU for trådløse LAN

Brug af denne enhed er begrænset til indendørs brug i frekvensbåndet 5150 til 5350 MHz (kanal 36, 40, 44, 48, 52, 56, 60, 64).

German

Hiermit erklärt Lenovo (Singapur) Pte. Ltd., dass die drahtlosen Geräte, die in diesem Abschnitt aufgeführt sind, die Voraussetzungen und andere relevanten Richtlinien der Direktive 1999/5/EC erfüllen.

EU-Frequenzbandeinschränkung für drahtloses LAN

Die Verwendung dieses Geräts ist im Innenbereich auf das Frequenzband von 5.150 bis 5.350 MHz (Kanäle 36, 40, 44, 48, 52, 56, 60, 64) beschränkt.

Estonian

Lenovo (Singapore) Pte. Ltd. kinnitab selles jaotises nimetatud traadita side seadmete vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele muudele asjakohastele sätetele.

EL-i sagedusvahemiku piirang traadita side LAN-ile

Seadet on lubatud kasutada siseruumides sagedusalas 5150–5350 MHz (kanalid 36, 40, 44, 48, 52, 56, 60, 64).

Spanish

En este documento, Lenovo (Singapore) Pte. Ltd., declara que el equipo inalámbrico que aparece en esta sección cumple los requisitos esenciales y otras exigencias relevantes de la Directiva 1999/5/EC.

Restricción de banda de frecuencia de la UE para una LAN inalámbrica

La utilización de este dispositivo está limitada a interiores en la banda de 5150 a 5350 MHz (canales 36, 40, 44, 48, 52, 56, 60, 64).

Greek

H Lenovo (Singapore) Pte. Ltd. δηλώνει με την παρούσα ότι ο εξοπλισμός ασύρματης σύνδεσης που αναφέρεται σε αυτήν την ενότητα συμμορφώνεται με τις ουσιώδεις απαιτήσεις και άλλες σχετικές διατάξεις της Οδηγίας 1999/5/EK της Ευρωπαϊκής Ένωσης.

Περιορισμός εύρους συχνοτήτων στην ΕΕ για το ασύρματο LAN

Η χρήση αυτής της συσκευής περιορίζεται σε εσωτερικούς χώρους, στο εύρος συχνοτήτων 5150 - 5350 MHz (κανάλια 36, 40, 44, 48, 52, 56, 60, 64).

French

Par la présente, Lenovo (Singapore) Pte. Ltd. déclare que le matériel sans fil répertorié dans cette section est conforme aux exigences essentielles ainsi qu'aux autres dispositions applicables de la Directive 1999/5/CE.

Restriction liée à la bande de fréquence pour un réseau local sans fil au sein de l'Union européenne

Ce périphérique doit être utilisé exclusivement à l'intérieur, dans la bande de fréquence de 5150 à 5350 MHz (canaux 36, 40, 44, 48, 52, 56, 60, 64).

Icelandic

Hér með lýsir Lenovo (Singapore) Pte. Ltd því yfir að þráðlausi búnaðurinn sem getið er um í þessum hluta uppfyllir allar kröfur og önnur viðkomandi ákvæði tilskipunar 1999/5/EC.

Takmarkanir ESB á tíðnisviði fyrir þráðlaust LAN net

Notkun þessa tækis er takmörkuð við innanhússnotkun á tíðnisviðinu 5150 til 5350 MHz (rásir 36, 40, 44, 48, 52, 56, 60, 64).

Italian

Con la presente, Lenovo (Singapore) Pte. Ltd., dichiara che l'equipaggiamento wireless elencato in questa sezione è conforme ai requisiti essenziali e ad altre disposizioni rilevanti della direttiva 1999/5/EC.

Restrizioni UE sulla banda di frequenza per LAN wireless

L'utilizzo di questo dispositivo è limitato ad ambienti chiusi in banda compresa tra 5150 e 5350 MHz (canali 36, 40, 44, 48, 52, 56, 60, 64).

Latvian

Ar šo uzņēmums Lenovo (Singapūra) Pte. Ltd. paziņo, ka bezvadu aparatūra, kas minēta šajā sadaļā, atbilst Direktīvas 1999/5/EK pamatprasībām un citiem ar to saistītajiem noteikumiem.

ES frekvenču joslu ierobežojums bezvadu LAN adapterim

Šī ierīce ir paredzēta izmantošanai iekšējās joslās no 5150 līdz 5350 MHz (kanālos 36, 40, 44, 48, 52, 56, 60, 64).

Lithuanian

Šiuo, „Lenovo (Singapore) Pte. Ltd.“, pareiškia, kad šiame skyriuje nurodyta belaidė įranga atitinka svarbiausius 1999/5/EB direktyvos reikalavimus ir kitas susijusias nuostatas.

Belaidžio LAN ES dažnių diapazono apribojimas

Šio prietaiso veikimas patalpoje ribojamas dažnių diapazone nuo 5150 iki 5350 MHz (kanalai: 36, 40, 44, 48, 52, 56, 60, 64).

Dutch

Hierbij verklaart Lenovo (Singapore) Pte. Ltd., dat de draadloze apparatuur die in dit gedeelte worden genoemd, voldoen aan de essentiële vereisten en andere relevante bepalingen van Directive 1999/5/EC.

EU-beperking van frequentieband voor een draadloze LAN-adapter

Gebruik van dit apparaat is beperkt tot binnenshuis gebruik in de band van 5150 tot 5350 MHz (kanalen 36, 40, 44, 48, 52, 56, 60, 64).

Norwegian

Lenovo (Singapore) Pte. Ltd. erklærer herved at det trådløse utstyret er i samsvar med de viktigste kravene og andre relevante bestemmelser i EU-direktiv 1999/5/EØF.

Begrensinger for frekvensbånd i EU for trådløst LAN

Denne enheten er begrenset til innendørs bruk i frekvensbåndet 5150 til 5350 MHz (kanal 36, 40, 44, 48, 52, 56, 60, 64).

Hungarian

A Lenovo (Szingapúr) Pte. Ltd. ezúton is kijelenti, hogy az itt feltüntetett rádiós eszköz megfelel az 1999/5/EC direktívában megfogalmazott alapvető követelményeknek és vonatkozó ajánlásoknak.

Frekvenciatartományra vonatkozó európai uniós korlátozás vezeték nélküli LAN-hálózatokhoz

Az eszköz használata beltérre korlátozódik az 5150 - 5350 MHz tartományban (36, 40, 44, 48, 52, 56, 60, 64 csatornák).

Polish

Lenovo (Singapore) Pte. Ltd. deklaruje niniejszym, że urządzenia bezprzewodowe wymienione w tej sekcji są zgodne z zasadniczymi wymaganiami i postanowieniami dyrektywy 1999/5/EC.

Ograniczenia dotyczące pasm częstotliwości w UE dla połączeń bezprzewodowych LAN

Urządzenie jest przeznaczone do używania wewnątrz budynków, w pasmach częstotliwości 5,15 do 5,35 GHz (kanały 36, 40, 44, 48, 52, 56, 60 i 64).

Portuguese

Pelo presente, Lenovo (Singapore) Pte. Ltd., declara que o equipamento sem fios listado nesta secção está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.

Restrição da banda de frequências na UE para LAN sem fios

A utilização deste dispositivo está limitada à utilização no interior, na banda de 5150 a 5350 MHz (canais 36, 40, 44, 48, 52, 56, 60, 64).

Romanian

Prin aceasta, Lenovo (Singapore) Pte. Ltd., declară că echipamentul wireless prezentat în această secțiune respectă cerințele esențiale și celelalte prevederi pertinente ale Directivei 1999/5/EC.

Restricția UE privind banda de frecvență a unei rețele LAN fără fir

Utilizarea acestui dispozitiv este limitată la spațiile interioare, în banda 5150-5350 Mhz (canalele 36, 40, 44, 48, 52, 56, 60, 64).

Slovenian

S tem Lenovo (Singapore) Pte. Ltd. izjavlja, da brezžična oprema, opisana v tem razdelku, ustreza bistvenim zahtevam in drugim določbam smernice 1999/5/EC.

Omejitve Evropske unije glede frekvenčnega pasu za brezžično omrežje LAN

Ta naprava je omejena na hišno uporabo v pasu od 5150 do 5350 Mhz (kanali 36, 40, 44, 48, 52, 56, 60, 64).

Finnish

Lenovo (Singapore) Pte. Ltd. ilmoittaa täten, että tässä jaksossa mainittu langaton laitteisto ovat direktiivin 1999/5/EY pakollisten vaatimusten ja direktiivin muiden asiaankuuluvien määräysten mukaiset.

Langattoman lähiverkon taajuusalueen rajoitus EU:n alueella

Tämä laite on tarkoitettu käytettäväksi sisätiloissa taajuusalueella 5150 - 5320

MHz (kanavat 36, 40, 44, 48, 52, 56, 60 ja 64).

Swedish

Härmed tillkännager Lenovo (Singapore) Pte. Ltd. att den trådlösa utrustningen som anges i detta avsnitt uppfyller de väsentliga kraven och andra relevanta bestämmelser i direktivet 1999/5/EC.

Frekvensområdesbegränsning inom EU för trådlöst LAN

Enheten är avsedd för inomhusbruk i frekvensområdet 5150 till 5350 MHz (kanal 36, 40, 44, 48, 52, 56, 60, 64).



Lenovo (Singapore) Pte. Ltd.
 151 Lorong Chuan,
 #02-01, New Tech Park,
 Singapore, 556741
 (Tel - 65-6827-1000 & Fax- 65-6827-1100)

EC Declaration of Conformity

Product: ThinkVision 28 personal computer
 Compliance ID: 28A
 Brand Name: Lenovo, ThinkVision
 MTM: 60B6-GA*1-** (w/ External AC/DC Adapter)

AC/DC Adapters	Lenovo P/N
Delta ADP-90XD B (90W)	SA10A33632
Lite-On PA-1900-72 (90W)	SA10A33633

We, Lenovo (Singapore) Pte Ltd., declare under sole responsibility that the above products, manufactured by:

Lenovo PC HK Limited.
23/F, Lincoln House, Taikoo Place 979 King's Road,
Quarry Bay, Hong Kong

to which this declaration relates, is in conformity with the requirements of the following EC Directives:

- Council Directive 2006/95/EC on the harmonization of the laws of the Member States relating to electronic equipment designed for use within certain voltage limits.
- Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.
- Council Directive 2009/125/EC establishing a framework for the setting of Ecodesign requirements for Energy-related products
- Council Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- Council Directive 1999/5/EC establish a regulatory framework for the placing on the market free movement and putting into service of radio equipment and telecommunications terminal equipment in the territory of the EU.

Conformity with these Directives has been assessed for this product by demonstrating compliance to the following harmonized standards:

EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013, EN 55022:2010 (Class B), EN50581:2012
 EN 61000-3-2:2006+A1:2009+A2:2009, EN 61000-3-3:2013, EN 55024:2010, EN 301 489-1 V1.9.2(2011-09),
 EN 61000-4-2:2009, EN 61000-4-3:2006+A1:2008+A2:2010, EN 61000-4-4:2012, EN 61000-4-5:2006,
 EN 61000-4-6:2014, EN 61000-4-8:2010, EN 61000-4-11:2004, EN 301 489-17 V2.2.1(2012-09),
 EN 301 893 V1.7.1(2012-06), EN 300 328 V1.8.1(2012-06), EN 278/2009 – ErP – External Power Supplies,
 EU 617/2013 - ErP - Class B Product, EN 62311:2008

Signed:  Date: 26 Aug 2014
 Joseph Chua (Director)

Last two digits of the year in which the CE marking was affixed: 14
 Place of issue: Lenovo (Singapore) Pte.Ltd.

European Contact for regulatory topics only:
 Lenovo, Digital Park, Einsteinova 21, 851 01 Bratislava, Slovakia
 Tel: +421 2 6868 3018 Fax: +421 2 6868 8031

日本国内で無線 LAN アダプターおよびアダプターをご使用になる場合の注意

本製品が装備する無線アダプターは、電波法および電気通信事業法により技術基準認証を下記のとおり取得しています。本製品に組み込まれた無線設備を他の機器で使用する場合は、当該機器が上記と同じく認証を受けていることをご確認ください。認証されていない機器での使用は、電波法の規定により認められていません。

表 1. 無線LANアダプター

認証申請者名	認証製品名	認証番号
Wisron Corporaion	28A	D130152003 011-130070

(5 GHz の場合)

ご使用の ThinkVision に IEEE802.11a/n 準拠の無線機器が搭載されている場合は、5.15-5.35GHz 周波数帯での使用は、電波法の規定により屋内に限られます(屋外での使用は禁じられています)。

(2.4 GHz の場合)

連絡先: レノボ・スマートセンター(スマートセンターのご利用方法は、次のホームページでご確認頂けます。 <http://www.lenovo.com/jp/lsmartctr/>)



無線 LAN アダプター (IEEE802.11b/g 準拠) の場合

この機器が、2.4GHz 周波数帯 (2400 から 2483.5 MHz) を使用する直接拡散 (DS) 方式および直交周波数分割多重方式 (OFDM) の無線装置で、干渉距離が約 40m (定格出力 10mW/MHz) であることを意味しています。

以上の内容は、「社団法人電波産業会」 ARIBSTD - T66 の趣旨に基づくものです。

無線 LAN 製品ご使用時におけるセキュリティに関するご注意

無線 LAN では、LAN ケーブルを使用する代わりに、電波を利用してパソコン等と無線アクセスポイント間で情報のやり取りを行うため、電波の届く範囲であれば自由に LAN 接続が可能であるという利点があります。その反面、電波はある範囲内であれば障害物（壁等）を越えてすべての場所に届くため、セキュリティに関する設定を行っていない場合、以下のような問題が発生する可能性があります。

- ・ 通信内容を盗み見られる 悪意ある第三者が、電波を故意に傍受し、
 - ID やパスワード又はクレジットカード番号等の個人情報
 - メールの内容等の通信内容を盗み見られる可能性があります。
- ・ 不正に侵入される 悪意ある第三者が、無断で個人や会社内のネットワークへアクセスし、
 - 個人情報や機密情報を取り出す（情報漏洩）
 - 特定の人物になりすまして通信し、不正な情報を流す（なりすまし）
 - 傍受した通信内容を書き換えて発信する（改ざん）
 - コンピュータウイルスなどを流しデータやシステムを破壊する（破壊）などの行為をされてしまう可能性があります。

本来、無線 LAN カードや無線アクセスポイントは、これらの問題に対応するためのセキュリティの仕組みを持っていますので、無線 LAN 製品のセキュリティに関する設定を行って製品を使用することで、その問題が発生する可能性は少なくなります。

セキュリティの設定を行わないで使用した場合の問題を充分理解した上で、お客様自身の判断と責任においてセキュリティに関する設定を行い、製品を使用することをお奨めします。

使用環境および快適に使用するために

ワイヤレス LAN カード、ほかの無線装置のように無線周波数電磁波を発します。しかしながら、これらの無線装置が発する電磁波が人体へ与える影響は、頭部等へ直接接触して使用される携帯電話などの機器とは異なり、とても弱いレベルのものです。

ワイヤレス LAN カード、無線周波数に関する安全基準や勧告などのガイドラインに従って動作するもので、Lenovo® は、消費者が内蔵ワイヤレス・カードを使用しても安全であると考えます。これらの標準および勧告は、科学者団体の

合意や広範な研究文献を頻繁に検討、調査している科学者のパネルや委員会の審議の結果を反映しています。

状況や環境によって、建物の所有者や組織の代表責任者がワイヤレス LAN カード、カードの使用を制限することがあります。たとえば、次のような場合や場所です。

- ・ 飛行機の搭乗中、病院内、あるいはガソリンスタンド、(電気式発火装置のある)爆発の危険のある場所、医療用インプラント、またはペースメーカーなどの装着式医療用電子機器の近くで、内蔵ワイヤレス・カードを使用すること。
- ・ 他の装置や機能に対して有害と認識または確認されている妨害を起こす危険性がある場合。

特定の場所で(たとえば空港や病院など)ワイヤレス・デバイスの使用が許可されているかどうか分からない場合は、ThinkVisionの電源を入れる前に、ワイヤレス LAN カード、カードを使用してもよいかどうかをお尋ねください。

商標

以下は、Lenovo の商標です。

Lenovo
ThinkVision

Intel は Intel Corporation またはその子会社の米国およびその他の国における商標または登録商標です。

他の会社名、製品名およびサービス名等はそれぞれ各社の商標です。

Taiwan 警語

第十二條→經型式認證合格之低功率射頻電機，非經許可，公司，商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條→低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

無線傳輸設備 (UNII)

在 5.25-5.35 赫赫頻帶內操作之無線資訊傳輸設備，限於室內使用。(4.7.5)

無線資訊傳輸設備忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。(4.7.6)

無線資訊傳設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。(4.7.7)

■ Notice for users in Thailand

For model: 28A

This wireless communication equipment has the electromagnetic field strength in compliance with the Safety Standard for the Use of Wireless Communication Devices on Human Health announced by the National Telecommunications Commission.

■ Notice for users in the UAE

For model: 28A

TRA	
REGISTERED	No:
ER0119670/13	
DEALER	No:
DA0119274/13	

■ Notice for users in Morocco

For Models: 28A

The operation of this product in the radio channel 2 (2417 MHz) is not authorized in the following cities: Agadir, Assa-Zag, Cabo Negro, Chaouen, Goulmima, Oujda, Tan Tan, Taourirt, Taroudant and Taza.

The operation of this product in the radio channels 4, 5, 6 and 7 (2425 - 2442 MHz) is not authorized in the following cities: Aéroport Mohamed V, Agadir, Aguelmous, Anza, Benslimane, Béni Hafida, Cabo Negro, Casablanca, Fès, Lakbab, Marrakech, Merchich, Mohammédia, Rabat, Salé, Tanger, Tan Tan, Taounate, Tit Mellil, Zag.

Due to the channel restrictions above, the operation of this product using the fat channel mode (40MHz of channel bandwidth) is not allowed at the 2.4GHz frequency band.

■ Notice for users in Pakistan

The following are Pakistan Telecommunication Authority (PTA) approved: 28A

■ Notice for users in Saudi Arabia

For model: 28A

CITC Certificate



هيئة الاتصالات وتقنية المعلومات
Communications and Information Technology Commission
(٢٣٩)



شهادة مطابقة

Conformity Certificate

Certificate No: 20140501401

رقم الشهادة: ٢٠١٤٠٥٠١٤٠١

Applicant Information		معلومات مقدم الطلب
Applicant:	Hon Hai PRECISION IND.CO.,LTD	
Order Date:	25/04/2014	
Contact Info:	P.O.BOX/البريد	E-Mail/البريد الإلكتروني
	BVCPS Taoyuan Branch, No., 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kweishan, Taoyuan, Taiwan R.O.C. 333	silvia.huang@tw.bureauveritas.com
Device Details		بيانات الجهاز
Product Name:	802.11abgn+BT4.0 module	
Product Model:	T77H462	
Manufacturer:	Hon Hai PRECISION IND.CO.,LTD	
Additional Details		معلومات إضافية
Operating Frequency Range:	WLAN: 2412-2472MHz, 5180-5320MHz, 5500-5700MHz, 5745-5828MHz; BT:2402-2480MHz	
Maximum Output Power allowed (EIRP):	2.4GHz: 19.37dBm, 5GHz: 21.83dBm, BT:9.95dBm	
Certificate Details		بيانات الشهادة
Issue Date:	01/05/2014	
Validity Period:	One Year	
Device comply with CITC technical Specification No.:	RI045, RI103	
Additional Requirement	الالتزام بضوابط استخدام الشبكات اللاسلكية المحلية (WLAN / Wifi)	

بناءً على نظام الاتصالات الصادر بالمرسوم الملكي ذي الرقم (١٢/م) والتاريخ ١٢/٠٣/١٤٢٢هـ ولانحته التنفيذية، وبموجب تنظيم هيئة الاتصالات وتقنية المعلومات بقرار مجلس الوزراء رقم (٧٤) والتاريخ ٠٣/٠٥/١٤٢٢هـ، فقد أصدرت الهيئة هذه الوثيقة بخصوص مطابقة الجهاز المشار إليه اعلاه. علماً بأن هذه الوثيقة لا تعتبر موافقة على فسخ الأجهزة المشار إليها اعلاه أو الترخيص باستخدامها، بل هي شهادة مطابقة للمواصفات الفنية المعمول بها بالهيئة. كما أن هذه الشهادة قد صدرت عن الهيئة بناءً على المعلومات المتاحة لها والتي وفرتها الجهة المستوردة أو المصنعة وقت صدور هذه الشهادة، ولا يجوز استخدام أو حيازة الأجهزة أو المتاجرة بها بصورة تخالف أحكام وأنظمة هيئة الاتصالات وتقنية المعلومات والأنظمة الأخرى ذات العلاقة المعمول بها في المملكة، وتحمل الجهة المستوردة أو المصنعة وحدها المسؤولية عن أية أضرار أو خسائر أو إصابات قد تنشأ عن حيازة أو استخدام هذه الأجهزة أو المتاجرة بها. وفي حال كون الأجهزة مصنعة خارج المملكة فإنه يجب التقدم إلى الهيئة من قبل المستورد بطلب لفسح الأجهزة قبل وقت وصولها إلى أحد المنافذ الجمركية.

اعتماد الشهادة

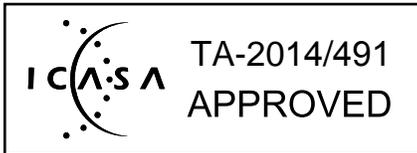
صدرت من قبل قطاع الشؤون الفنية - إدارة المعايير الفنية واعتماد النوعية



ص.ب ٧٥٦٠٦ الرياض ١١٥٨٨ - المملكة العربية السعودية - هاتف ٤٦١٨ ٠٠٠ (١١-٩٦٦) - فاكس: ٤٦١٨١٢٠ (١١-٩٦٦) - الموقع الإلكتروني www.citc.gov.sa
P.O.Box:75606 Riyadh11588 Kingdom of Saudi Arabia - Tel:(966-11)4618000 - Fax:(966-11)4618120 - Web Site: www.citc.gov.sa

■ Notice for users in South Africa

For models: 28A



Russia FAC

Подтверждение соответствия Минкомсвязи России:

Декларация соответствия № Д-РД-2817 от 28.04.2014 года, действительна до 28.04.2020 года, зарегистрирована в Федеральном агентстве связи 08.05.2014 года

