

User's Guide


Dell SE2416HM


Model No.: SE2416HM

Regulatory model: SE2416HMc



Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your computer.

 **CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury or death.

Information in this document is subject to change without notice.

© 2016-2017 Dell Inc. All rights reserved.

Reproduction of these materials in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: *Dell* and the *DELL* logo are trademarks of Dell Inc.; *Microsoft* and *Windows* are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries, *Intel* is a registered trademark of Intel Corporation in the U.S. and other countries; and *ATI* is a trademark of Advanced Micro Devices, Inc.

ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. As an ENERGY STAR partner, Dell Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

Contents

| | |
|--|-----------|
| About your monitor | 5 |
| Package contents | 5 |
| Product features | 6 |
| Identifying parts and controls | 7 |
| Plug and play capability..... | 10 |
| Maintenance guidelines..... | 10 |
| Setting up the monitor | 11 |
| Connecting the stand | 11 |
| Connecting your monitor | 11 |
| Organizing cables | 12 |
| Removing the stand | 13 |
| Operating your monitor | 14 |
| Power on the monitor..... | 14 |
| Using the front panel controls | 14 |
| Using the on-screen display (OSD) menu | 16 |
| Setting up your monitor | 29 |
| Using tilt..... | 31 |

Troubleshooting 32

- Self-Test.....32
- Built-in diagnostics 33
- Common problems.....34
- Product-specific problems 36
- Appendix..... 37
- Contacting Dell 37



Monitor specifications 38

- Flat panel specifications 38
- Resolution specifications 38
- Supported video modes 39
- Preset display modes..... 39
- Electrical specifications 39
- Physical characteristics 40
- Environmental characteristics..... 41
- Power management modes..... 41
- Pin assignments 43

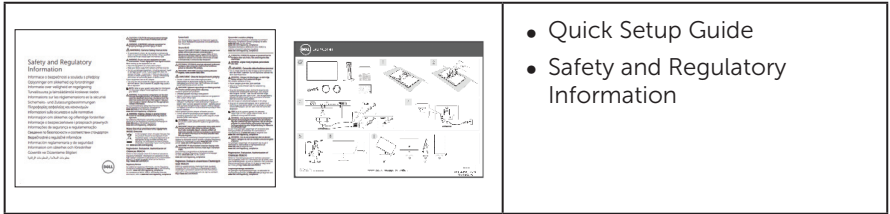
About your monitor

Package contents

Your monitor ships with the components shown below. Ensure that you have received all the components and see [Contacting Dell](#) for more information if something is missing.

-  **NOTE:** Some items may be optional and may not ship with your monitor. Some features or media may not be available in certain countries.
-  **NOTE:** To set up with any other stand, please refer to the respective stand setup guide for setup instructions.

| | |
|---|---|
|  | <ul style="list-style-type: none">• Monitor |
|  | <ul style="list-style-type: none">• Stand riser |
|  | <ul style="list-style-type: none">• Stand base |
|  | <ul style="list-style-type: none">• Power Cable (Varies by Countries) |
|  | <ul style="list-style-type: none">• VGA Cable |



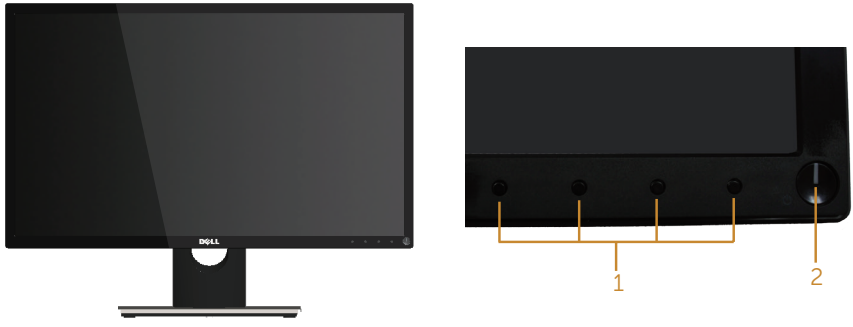
Product features

The **Dell SE2416HM** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD), anti-static, and LED backlight. The monitor features include:

- **SE2416HM:** 60.47 cm (23.8 inch) viewable area display (measured diagonally). 1920 x 1080 resolution, plus full-screen support for lower resolutions.
- Wide viewing angle to allow viewing from a sitting or standing position, or while moving from side-to-side.
- VGA and DVI-D connectivity makes it simple and easy to connect with legacy and new systems.
- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Energy Saver feature for Energy Star compliance.
- Security-lock slot.
- BFR/PVC-reduced.
- TCO-Certified Displays.
- Arsenic-Free glass and Mercury-Free for the panel only.
- High Dynamic Contrast Ratio (8,000,000:1).
- 0.3 W standby power when in the sleep mode.
- Energy Gauge shows the energy level being consumed by the monitor in real time.


Identifying parts and controls

Front view



Front panel controls

| Label | Description |
|-------|--|
| 1 | Function buttons (For more information, see Operating your monitor) |
| 2 | Power On/Off button |

 **NOTE:** For displays with glossy bezels the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

Back view



Back View without monitor stand

Back View with monitor stand

| Label | Description | Use |
|-------|---|--|
| 1 | Security-lock slot | Secures monitor with security lock (security lock not included). |
| 2 | Barcode serial number and Service Tag label | Refer to this label if you need to contact Dell for technical support. The Dell service tag is used for Dell warranty and customer service management purposes and for records of the base system. |
| 3 | Cable management slot | Uses to organize cables by placing them through the slot. |
| 4 | Stand release button | Releases stand from monitor. |

Side view



Bottom view



Bottom view without monitor stand

| Label | Description | Use |
|-------|------------------|---|
| 1 | Power port | Connect the power cable. |
| 2 | DVI-D port | Connect your computer with DVI-D cable. |
| 3 | VGA port | Connect your computer with VGA cable. |
| 4 | Regulatory label | Lists the regulatory approvals. |

Plug and play capability

You can install the monitor in any Plug and Play-compatible system. The monitor automatically provides the computer system with its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the system can configure itself and optimize the monitor settings. Most monitor installations are automatic, you can select different settings if desired. For more information about changing the monitor settings, see [Operating your monitor](#).

LCD monitor quality and pixel policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state which are hard to see and do not affect the display quality or usability. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at www.dell.com/support/monitors.

Maintenance guidelines

Cleaning your monitor

 **WARNING:** Before cleaning the monitor, unplug the monitor power cable from the electrical outlet.


 **CAUTION:** Read and follow the [Safety Instructions](#) before cleaning the monitor.

For best practices, follow the instructions in the list below while unpacking, cleaning or handling your monitor:

- To clean your screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the anti-static coating. Do not use benzene, thinner, ammonia, abrasive cleaners or compressed air.
- Use a lightly-dampened cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as the black-colored monitor may get scratched and show white scuff marks.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn Off your monitor when not in use.

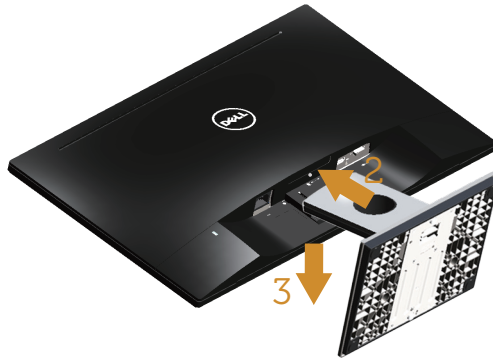
Setting up the monitor

Connecting the stand

 **NOTE:** The stand is detached when the monitor is shipped from the factory.


To attach the monitor stand:

1. Place the monitor on a soft cloth or cushion.
2. Insert the tabs on the upper part of the stand in to the grooves on the back of the monitor.
3. Press down the stand till it snaps into place.



Connecting your monitor

 **WARNING:** Before you begin any of the procedures in this section, follow the [Safety Instructions](#).

 **NOTE:** Do not connect all cables to the computer at the same time. It is recommend to route the cables through the cable-management slot before you connect them to the monitor.

To connect your monitor to the computer:

1. Turn Off your computer and disconnect the power cable.
Connect the VGA/DVI-D cable from your monitor to the computer.

Connecting the VGA cable




Connecting the DVI-D cable (sold separately)



Organizing cables

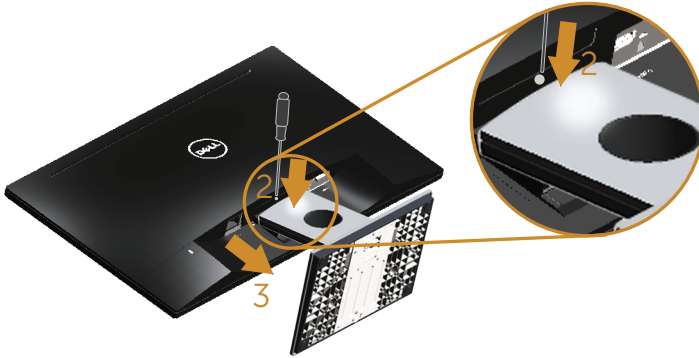


Removing the stand

 **NOTE:** To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a soft and clean surface.

To remove the stand:

1. Place the monitor on a soft cloth or cushion.
2. Use a long and thin screwdriver to push the release latch.
3. Once the latch is released, remove the base away from the monitor.



Operating your monitor

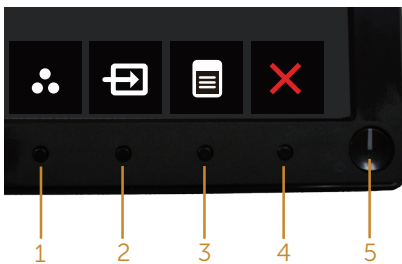
Power on the monitor

Press the  button to turn on the monitor.








Using the front panel controls

Use the control buttons on the front of the monitor to adjust the image being displayed.



The following table describes the front panel buttons:





| Front Panel Button | Description |
|--|---|
| 1  Shortcut key/Preset Modes | Use this button to choose from a list of preset modes. |
| 2  Shortcut key/Input source | Use the input source menu to select between the different video signals that may be connected to your monitor. |
| 3  Menu | Use the menu button to launch the On-Screen Display (OSD) and select the OSD Menu. See Accessing the OSD menu . |

| | | |
|---|---|--|
| 4 |  Exit | Use this button to go back to the main menu or exit the OSD main menu. |
| 5 |  Power (with power light) | Use the power button to turn the monitor on and off. Solid white light indicates the monitor is On and fully functional. Blinking white light indicates the power save mode. |

OSD controls


Use the buttons on the front of the monitor to adjust the image settings.




| | Front Panel Button | Description |
|---|---|--|
| 1 |  Up | Use the Up button to increase values or move up in a menu. |
| 2 |  Down | Use the Down button to decrease values or move down in a menu. |
| 3 |  OK | Use the OK button to confirm your selection in a menu. |
| 4 |  Back | Use the Back button to go back to the previous menu. |

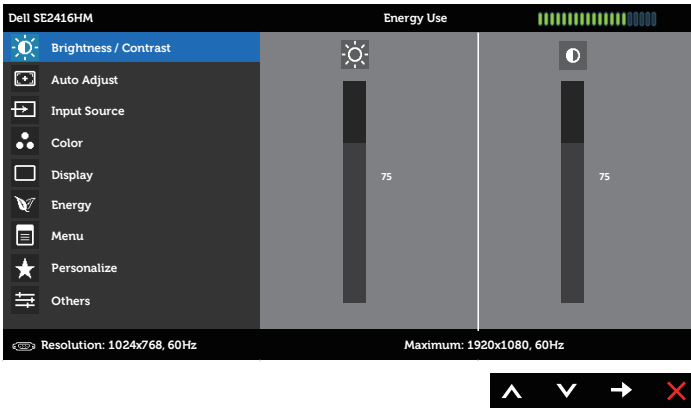
Using the on-screen display (OSD) menu

Accessing the OSD menu

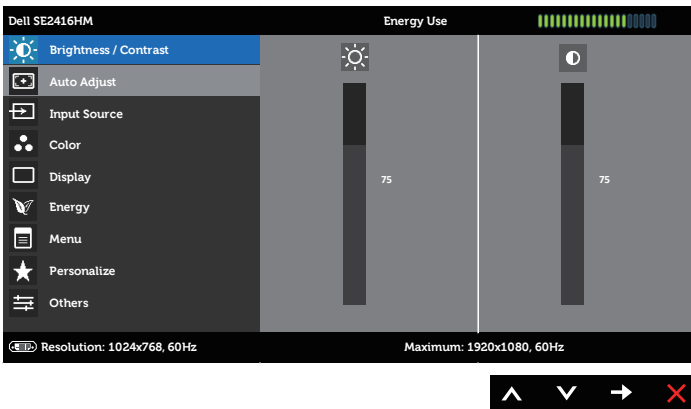
 **NOTE:** Any changes you make are automatically saved when you move to another menu, exit the OSD menu, or wait for the OSD menu to automatically close.










1. Press the  button to display the OSD main menu.


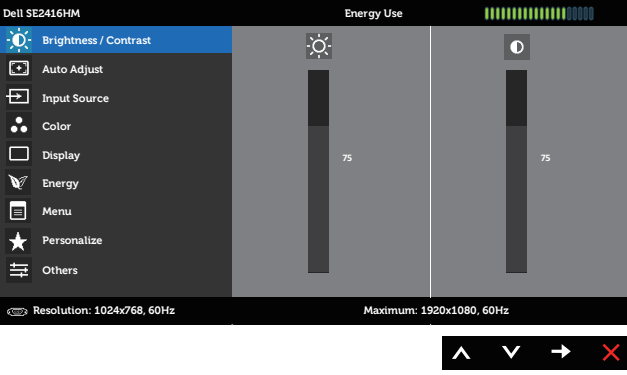




Main Menu for analog (VGA) input



Main Menu for digital (DVI-D) input



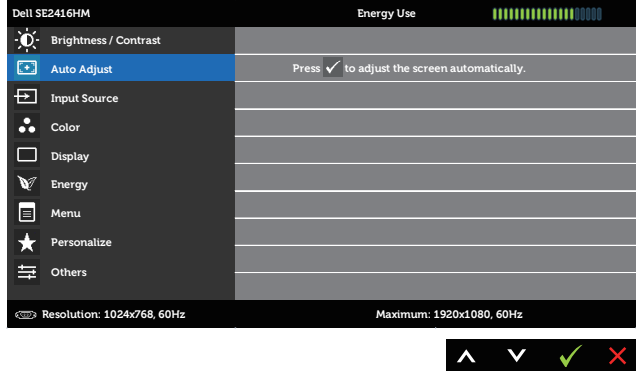
2. Press the  and  buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.
3. Press the  button once to activate the highlighted option.
4. Press  and  button to select the desired parameter.
5. Press  and then use the  and  buttons, according to the indicators on the menu, to make your changes.
6. Select the  button to return to the main menu.

| Icon | Menu and Submenus | Description |
|--|-----------------------------|---|
|  | Brightness/ Contrast | <p>Use this menu to activate Brightness/Contrast adjustment.</p>  |
| | Brightness | <p>Brightness adjusts the luminance of the backlight.</p> <p>Press the  button to increase the brightness and press the  button to decrease the brightness (min. 0 / max. 100).</p> <p>NOTE: Manual adjustment of Brightness is disabled when Dynamic Contrast is switched On.</p> |
| | Contrast | <p>Adjust the Brightness first, and then adjust the Contrast only if further adjustment is necessary.</p> <p>Press the  button to increase the contrast and press the  button to decrease the contrast (min. 0 / max. 100).</p> <p>The Contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.</p> |

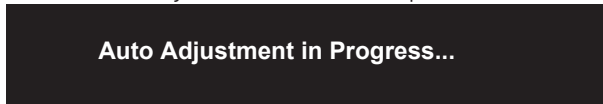


Auto Adjust

Use this key to activate automatic setup and adjust menu.



The following dialog appears on a black screen as the monitor self-adjusts to the current input:



Auto Adjustment allows the monitor to self-adjust to the incoming video signal. After using Auto Adjustment, you can further tune your monitor by using the Pixel Clock (Coarse) and Phase (Fine) controls under Display Settings.

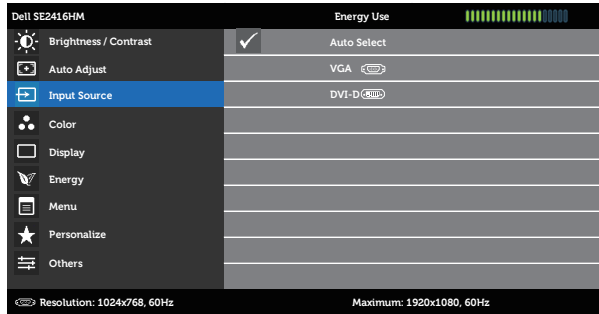
NOTE: Auto Adjust does not occur if you press the button while there are no active video input signals or attached cables.

This option is only available when you are using the analog (VGA) connector.



Input Source

Use the Input Source menu to select between the different video signals that may be connected to your monitor.



VGA

Select the VGA input when you are using the VGA connector. Press to select the VGA input source.



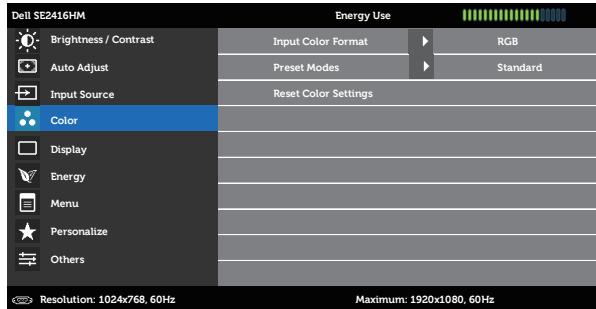
DVI-D

Select the DVI-D input when you are using the DVI-D connectors. Press to select the DVI-D input source.



Color

Use Color to adjust the color setting mode.

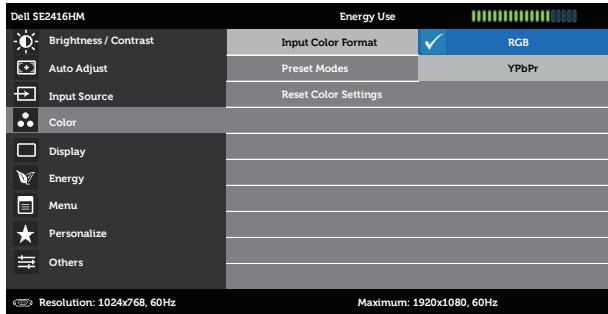


Input Color Format

Allows you to set the video input mode to:

RGB: Select this option if your monitor is connected to a computer (or DVD player) using the VGA cable or DVI-D cable.



YPbPr: Select this option if your monitor is connected to a DVD player by YPbPr using the VGA cable or DVI-D cable, or if the DVD color output setting is not RGB.

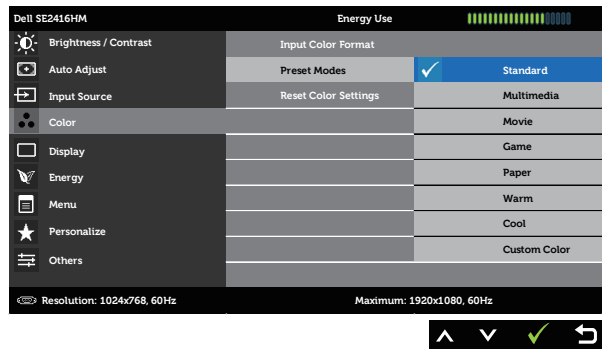


Preset Modes





When you select Preset Modes, you can choose Standard, Multimedia, Movie, Game, Paper, Color Temp. or Custom Color from the list.

- Standard: Loads the monitor's default color settings. This is the default preset mode.
- Multimedia: Loads color settings ideal for multimedia applications.
- Movie: Loads color settings ideal for movies.
- Game: Loads color settings ideal for most gaming applications.
- Paper: Loads brightness and sharpness settings ideal for viewing text. Blend the text background to simulate paper media without affecting color images. Applies to RGB input format only.
- Warm: Increases the color temperature. The screen appears warmer with a red/yellow tint.
- Cool: Decreases the color temperature. The screen appears cooler with a blue tint.
- Custom Color: Allows you to manually adjust the color settings.



Press the  and  buttons to adjust the three colors (R, G, B) values and create your own preset color mode.



Hue

This feature can shift the color of the video image to green or purple. This is used to adjust the desired flesh tone color. Use  or  to adjust the hue from 0 to 100. Press  to increase the green shade of the video image. Press  to increase the purple shade of the video image. **NOTE:** Hue adjustment is available only when you select Movie or Game preset mode.

Saturation

This feature can adjust the color saturation of the video image. Use  or  to adjust the saturation from '0' to '100'.

Press  to increase the monochrome appearance of the video image.

Press  to increase the colorful appearance of the video image.

NOTE: Saturation adjustment is available only when you select Movie or Game preset mode.

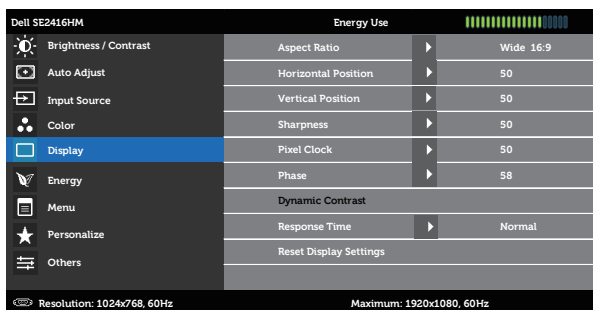
Reset Color Settings

Resets your monitor color settings to the factory settings.



Display



Change image settings.



Aspect Ratio

Adjusts the image ratio to Wide 16:9, 4:3 or 5:4.

Sharpness


This feature can make the image look sharper or softer. Use  or  to adjust the sharpness from 0 to 100.

Response Time

User can select between Fast or Normal.

Dynamic Contrast

Allows you to increase the level of contrast to provide sharper and more detailed image quality.

Press the  button to select the Dynamic Contrast "On" or "Off".

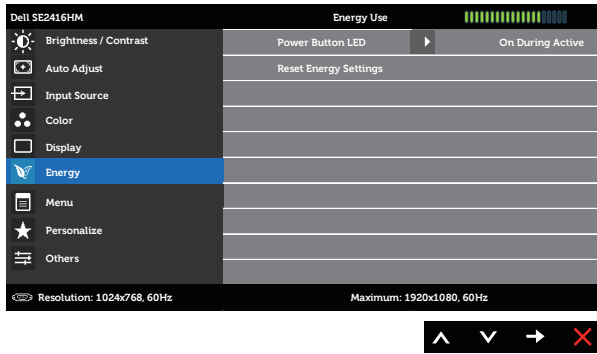
NOTE: Dynamic Contrast provides higher contrast if you select Game or Movie preset mode.

Reset Display Settings

Select this option to restore default display settings.



Energy



Power Button LED

Allows you to set the power LED indicator On During Active or Off During Active to save energy.

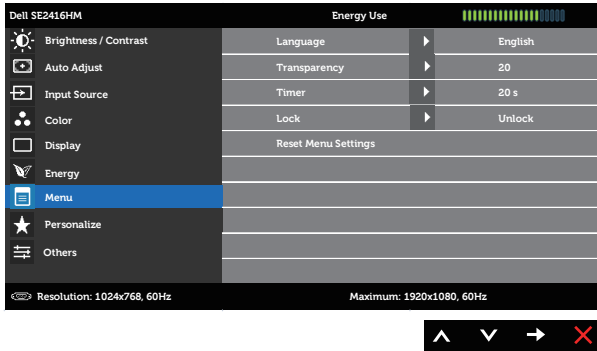
Reset Energy Settings

Select this option to restore default Energy Settings.



Menu

Select this option to adjust the settings of the OSD, such as, the languages of the OSD, the amount of time the menu remains on screen and so on.



Language

Language options set the OSD display to one of the eight languages (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese).

Transparency

Select this option to change the menu transparency by pressing the and buttons from 0 to 100.

Timer

OSD Hold Time: Sets the length of time the OSD will remain active after the last time you pressed a button. Use or to adjust the slider in 1 second increments, from 5 to 60 seconds.

Lock

Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All keys are locked except **⏪** key.

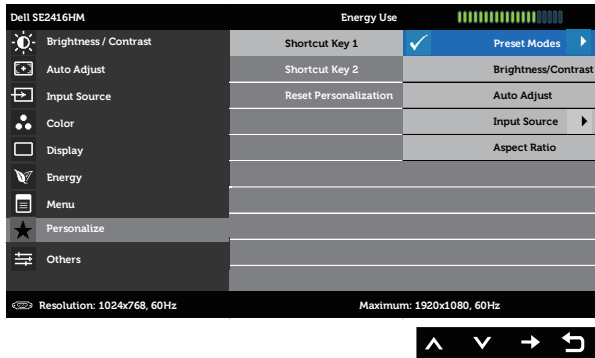
NOTE: When the OSD is locked, pressing the menu key takes you directly to the OSD settings menu, with 'OSD Lock' pre-selected on entry. Press and hold **⏪** key for 10 seconds to unlock and allow user access to all applicable settings.

Reset Menu Settings

Reset all OSD settings to the factory preset values.

**Personalize**

Users can choose a feature from Preset Modes, Brightness/Contrast, Auto adjust, Input Source or Aspect Ratio and set it as a shortcut key.



Shortcut Key 1

User can select one of the followings: Preset Modes, Brightness/Contrast, Auto adjust, Input Source and Aspect to set the Shortcut Key 1.

Shortcut Key 2

User can select one of the followings: Preset Modes, Brightness/Contrast, Auto adjust, Input Source and Aspect to set the Shortcut Key 2.

Reset Personalization

Allows you to restore shortcut key to the default setting.



Others

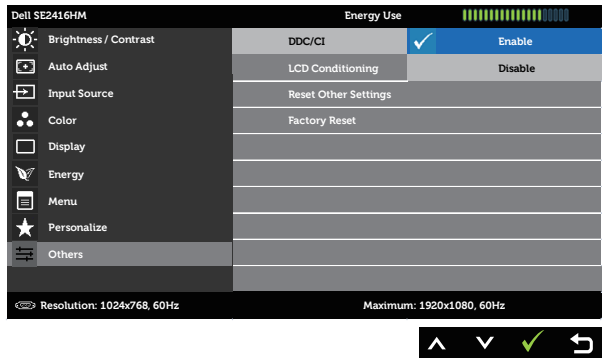


DDC/CI

DDC/CI (Display Data Channel/Command Interface) allows your monitor parameters (brightness, color balance and etc.) to be adjustable via the software on your computer.

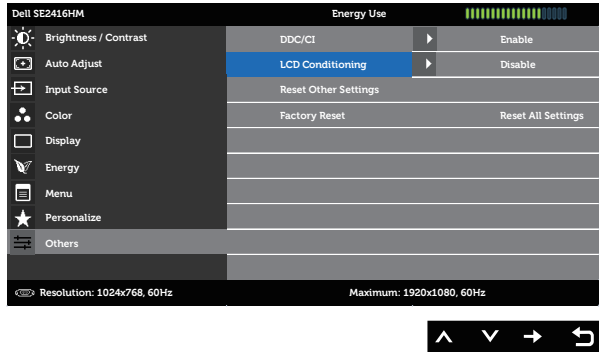
You can disable this feature by selecting Disable.

Enable this feature for best user experience and optimum performance of your monitor.



LCD Conditioning

Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. To start LCD conditioning, select Enable.



Reset Other Settings

Reset all settings under the Others setting menu to the factory preset values.

Factory Reset

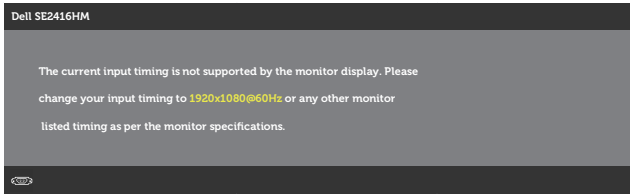
Reset all settings to the factory preset values.



NOTE: Your monitor has a built-in feature to automatically calibrate the brightness to compensate for LED aging.

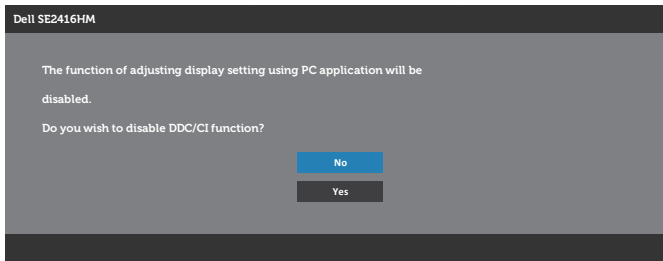
OSD warning messages

When the monitor does not support a resolution, the following message is displayed:



This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See [Monitor specifications](#) for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 1920 x 1080.

The following message is displayed before the DDC/CI function is disabled:

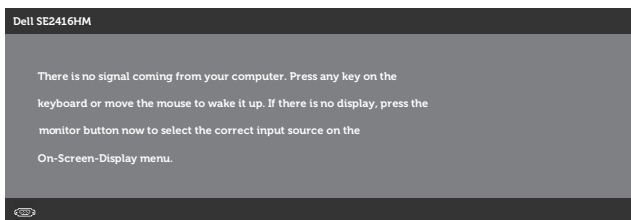


When the monitor enters the Power Save Mode, the following message is displayed:

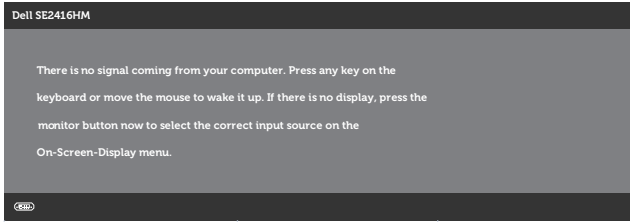


If you press any button other than the power button, one of the following messages is displayed depending on the selected input:

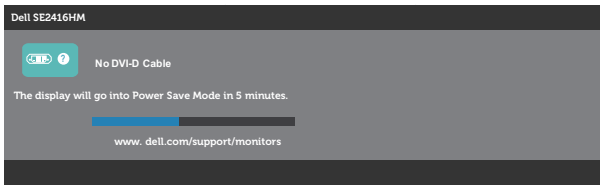
VGA input



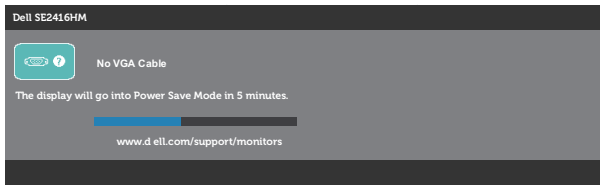
DVI-D input



If either VGA, DVI-D input is selected and the corresponding cable is not connected, a floating dialog box as shown below appears.



OR



See [Troubleshooting](#) for more information.

Setting up your monitor

Setting the maximum resolution

To set the maximum resolution for the monitor:

In Windows 7, Windows 8, Windows 8.1 and Windows 10:

1. For Windows 8 and Windows 8.1, select the Desktop tile to switch to classic desktop.
2. Right-click on the desktop and click **Screen Resolution**.
3. Click the Dropdown list of the Screen Resolution and select **1920 x 1080**.
4. Click **OK**.

If you do not see 1920 x 1080 as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

If you have a Dell desktop or portable computer:

- Go to **www.dell.com/support**, enter your computer's Service Tag, and download the latest driver for your graphics card.

If you are using a non-Dell computer (portable or desktop):

- Go to the support site for your computer and download the latest graphic drivers.
- Go to your graphics card website and download the latest graphic drivers.

If you have a Dell desktop or a Dell portable computer with internet access

1. Go to **www.dell.com/support**, enter your service tag, and download the latest driver for your graphics card.
2. After installing the drivers for your graphics adapter, attempt to set the resolution to **1920 x 1080** again.



NOTE: If you are unable to set the resolution to **1920 x 1080**, please contact Dell to inquire about a graphics adapter that supports these resolutions.

If you have a non Dell desktop, portable computer, or graphics card


In Windows 7, Windows 8, Windows 8.1 and Windows 10:

1. For Windows 8 and Windows 8.1 only, select the Desktop tile to switch to classic desktop.
2. Right-click on the desktop and click **Personalization**.
3. Click **Change Display Settings**.
4. Click **Advanced Settings**.
5. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
6. Refer to the graphic card provider website for updated driver (for example, <http://www.ATI.com> OR <http://www.NVIDIA.com>).
7. After installing the drivers for your graphics adapter, attempt to set the resolution to **1920 x 1080** again.




NOTE: If you are unable to set the recommended resolution, contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution.

Using tilt

 **NOTE:** This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.

Tilt

 **NOTE:** The stand is detached when the monitor is shipped from the factory.



Troubleshooting

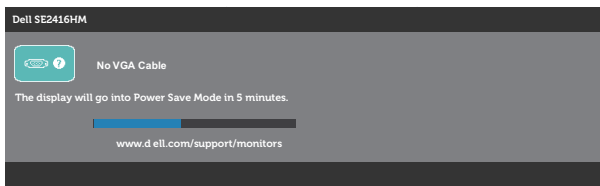
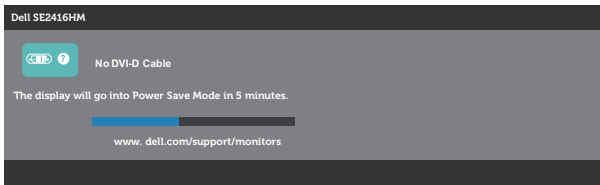
⚠ WARNING: Before you begin any of the procedures in this section, follow the [Safety Instructions](#).

Self-Test

Your monitor provides a self-test feature that allows you to check if your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Disconnect all video cables from the monitor. This way, the computer doesn't have to be involved.
3. Turn on the monitor.

If the monitor is working correctly, it detects that there is no signal and one of the following message appears. While in self-test mode, the power LED remains white.




✎ NOTE: This box also appears during normal system operation, if the video cable is disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on your computer and the monitor.

If your monitor remains dark after you reconnect the cables, check your video controller and computer.

Built-in diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if any screen abnormality you experience is an inherent problem with your monitor, or with your computer and video card.

 **NOTE:** You can run the built-in diagnostics only when the video cable is unplugged and the monitor is in self-test *mode*.



To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold Button 1 and Button 4 simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press Button 4 on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white and text screens.

The test is complete when the text screen appears. To exit, press Button 4 again.

If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common problems

The following table contains general information about common monitor problems you might encounter and the possible solutions:

| Common Symptoms | Possible Solutions |
|------------------------|---|
| No Video/Power LED off | <ul style="list-style-type: none">• Ensure that the video cable connecting the monitor and the computer is properly connected and secure.• Verify that the power outlet is functioning properly using any other electrical equipment.• Ensure that the power button is pressed.• Ensure that the correct input source is selected via the Input Source menu. |
| No Video/Power LED on | <ul style="list-style-type: none">• Increase brightness and contrast controls using the OSD.• Perform monitor self-test feature check.• Check for bent or broken pins in the video cable connector.• Run the built-in diagnostics.• Ensure that the correct input source is selected via the Input Source menu. |
| Poor Focus | <ul style="list-style-type: none">• Eliminate video extension cables.• Reset the monitor to Factory Settings (Factory Reset).• Change the video resolution to the correct aspect ratio. |
| Shaky/Jittery Video | <ul style="list-style-type: none">• Reset the monitor to Factory Settings (Factory Reset).• Check environmental factors.• Relocate the monitor and test in another room. |
| Missing Pixels | <ul style="list-style-type: none">• Cycle power On-Off.• Pixel that is permanently Off is a natural defect that can occur in LCD technology.• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/support/monitors. |
| Stuck-on Pixels | <ul style="list-style-type: none">• Cycle power On-Off.• Pixel that is permanently off is a natural defect that can occur in LCD technology.• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/support/monitors. |
| Brightness Problems | <ul style="list-style-type: none">• Reset the monitor to Factory Settings (Factory Reset).• Adjust brightness & contrast controls via OSD. |

| | |
|---|---|
| Geometric Distortion | <ul style="list-style-type: none"> ● Reset the monitor to Factory Settings (Factory Reset). ● Adjust horizontal & vertical controls via OSD. |
| Horizontal/Vertical Lines | <ul style="list-style-type: none"> ● Reset the monitor to Factory Settings (Factory Reset). ● Perform monitor self-test feature check and determine if these lines are also in self-test mode. ● Check for bent or broken pins in the video cable connector. ● Run the built-in diagnostics. |
| Synchronization Problems | <ul style="list-style-type: none"> ● Reset the monitor to Factory Settings (Factory Reset). ● Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode. ● Check for bent or broken pins in the video cable connector. ● Restart the computer in the <i>safe mode</i>. |
| Safety Related Issues | <ul style="list-style-type: none"> ● Do not perform any troubleshooting steps. ● Contact Dell immediately. |
| Intermittent Problems | <ul style="list-style-type: none"> ● Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. ● Reset the monitor to Factory Settings (Factory Reset). ● Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode. |
| Missing Color | <ul style="list-style-type: none"> ● Perform monitor self-test feature check. ● Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. ● Check for bent or broken pins in the video cable connector. |
| Wrong Color | <ul style="list-style-type: none"> ● Change the Color Setting Mode in the Color Settings OSD to Graphics or Video depending on the application. ● Try different Preset Modes in Color settings OSD. Adjust R/G/B value in Custom Color in Color settings OSD. ● Change the Input Color Format to RGB or YPbPr in the Color settings OSD. ● Run the built-in diagnostics. |
| Image retention from a static image left on the monitor for a long period of time | <ul style="list-style-type: none"> ● Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power management modes). ● Alternatively, use a dynamically changing screensaver. |
| Video Ghosting or Overshooting | <ul style="list-style-type: none"> ● Change the Response Time in the Display OSD to Fast or Normal depending on your application and usage. |

Product-specific problems

| Specific Symptoms | Possible Solutions |
|--|---|
| Screen image is too small | <ul style="list-style-type: none">• Check the Aspect Ratio setting in the Display settings OSD.• Reset the monitor to Factory Settings(Factory Reset) . |
| Cannot adjust the monitor with the buttons on the side panel | <ul style="list-style-type: none">• Turn Off the monitor, unplug the power cord, plug it back, and then turn On the monitor.• Check if the OSD menu is locked. If yes, press and hold the menu button for 10 seconds to unlock. (For more information, see Lock). |
| No Input Signal when user controls are pressed | <ul style="list-style-type: none">• Check the signal source. Ensure the computer is not in standby or sleep mode by moving the mouse or pressing any key on the keyboard.• Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary.• Reset the computer or video player. |
| The picture does not fill the entire screen | <ul style="list-style-type: none">• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen.• Run the built-in diagnostics. |

Appendix


WARNING: Safety Instructions

-  **WARNING: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.**

For information on safety instructions, see the *Product Information Guide*.

Contacting Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

-  **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.


Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area.

To get online Monitor support content:

1. Visit www.dell.com/support/monitors.

To contact Dell for sales, technical support, or customer service issues:

1. Visit www.dell.com/support.
2. Verify your country or region in the **Choose A Country/Region** drop-down menu at the bottom of the page.
3. Click **Contact Us** on the left side of the page.
4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

-  **WARNING: For displays with glossy bezels the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.**

Monitor specifications

Flat panel specifications

| | |
|-------------------------|--|
| Model | SE2416HM |
| Screen type | Active matrix-TFT LCD |
| Panel type | In-Plane Switching |
| Viewable image | |
| Diagonal | 604.70 mm (23.81 in) |
| Horizontal, Active Area | 527.04 mm (20.75 in) |
| Vertical, Active Area | 296.46 mm (11.67 in) |
| Area | 1562.46 cm ² (242.15 in ²) |
| Pixel pitch | 0.2745 mm |
| Viewing angle | 178 degrees (vertical) typical 178 degrees (horizontal) typical |
| Luminance output | 250 cd/m ² (typical) |
| Contrast ratio | 1000 to 1 (typical) 8,000,000 to 1 (Dynamic Contrast) |
| Faceplate coating | Anti-glare with 3H hardness |
| Backlight | LED light bar system |
| Response time | 6 ms typical (G to G) |
| Color depth | 16.7 million colors |
| Color gamut | CIE 1976 (84%), CIE 1931 (72%) |

Resolution specifications

| | |
|---------------------------|------------------------------|
| Model | SE2416HM |
| Horizontal scan range | 30 kHz to 83 kHz (automatic) |
| Vertical scan range | 56 Hz to 76 Hz (automatic) |
| Maximum preset resolution | 1920 x 1080 at 60 Hz |

Supported video modes

| | |
|---|--|
| Model | SE2416HM |
| Video display capabilities (DVI-D playback) | 480p, 480i, 576p, 720p, 1080p, 576i, 1080i |

Preset display modes

| Display Mode | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (Horizontal / Vertical) |
|-------------------|----------------------------|-------------------------|-------------------|---------------------------------------|
| VESA, 720 x 400 | 31.5 | 70.1 | 28.3 | -/+ |
| VESA, 640 x 480 | 31.5 | 60.0 | 25.2 | -/- |
| VESA, 640 x 480 | 37.5 | 75.0 | 31.5 | -/- |
| VESA, 800 x 600 | 37.9 | 60.3 | 40.0 | +/+ |
| VESA, 800 x 600 | 46.9 | 75.0 | 49.5 | +/+ |
| VESA, 1024 x 768 | 48.4 | 60.0 | 65.0 | -/- |
| VESA, 1024 x 768 | 60.0 | 75.0 | 78.8 | +/+ |
| VESA, 1152 x 864 | 67.5 | 75.0 | 108.0 | +/+ |
| VESA, 1280 x 1024 | 64.0 | 60.0 | 108.0 | +/+ |
| VESA, 1280 x 1024 | 80.0 | 75.0 | 135.0 | +/+ |
| VESA, 1600 x 1200 | 75.0 | 60.0 | 162.0 | +/+ |
| VESA, 1920 x 1080 | 67.5 | 60.0 | 148.5 | +/+ |

Electrical specifications

| | |
|------------------------------------|---|
| Model | SE2416HM |
| Video input signals | <ul style="list-style-type: none"> Analog RGB, 0.7 Volts +/-5%, positive polarity at 75 ohm input impedance Digital DVI-D TMDS, 600mV for each differential line, positive polarity at 50 ohm input impedance |
| AC input voltage/frequency/current | 100 VAC to 240 VAC / 50 Hz or 60 Hz \pm 3 Hz / 1.5 A (typical) |
| Inrush current | <ul style="list-style-type: none"> 120 V: 40 A (Max.) at 0°C (cold start) 240 V: 80 A (Max.) at 0°C (cold start) |

Physical characteristics

| | |
|---|---|
| Model | SE2416HM |
| Signal cable type | <ul style="list-style-type: none">• Digital: detachable, DVI-D, Solid pins• Analog: detachable, D-Sub, 15 pins |
| Dimensions (with stand) | |
| Height | 423.10 mm (16.66 in) |
| Width | 556.60 mm (21.91 in) |
| Depth | 179.90 mm (7.08 in) |
| Dimensions (without stand) | |
| Height | 330.10 mm (13.00 in) |
| Width | 556.60 mm (21.91 in) |
| Depth | 55 mm (2.17 in) |
| Stand dimensions | |
| Height | 177.00 mm (6.97 in) |
| Width | 250.00 mm (9.84 in) |
| Depth | 179.90 mm (7.08 in) |
| Weight | |
| Weight with packaging | 6.26 kg (13.80 lb) |
| Weight with stand assembly and cables | 4.30 kg (9.48 lb) |
| Weight without stand assembly (no cables) | 3.34 kg (7.36 lb) |
| Weight of stand assembly | 0.66 kg (1.45 lb) |
| Front-frame gloss (minimum) | Black frame - 85 gloss units |

Environmental characteristics

| | | | |
|-------------------------|-----------|-----------------------------|-------------------------------|
| Model | | SE2416HM | |
| Temperature | | | |
| Operating | | 0°C to 40°C (32°F to 104°F) | |
| Non-operating | | • Storage | -20°C to 60°C (-4°F to 140°F) |
| | | • Shipping | |
| Humidity | | | |
| Operating | | 10% to 80% (non-condensing) | |
| Non-operating | | • Storage | 10% to 90% (non-condensing) |
| | | • Shipping | |
| Altitude | | | |
| Operating (maximum) | | 5,000 m (16,400 ft) | |
| Non-operating (maximum) | | 12,192 m (40,000 ft) | |
| Thermal dissipation | (maximum) | • 85.32 BTU/hour | |
| | (typical) | • 68.26 BTU/hour | |

Power management modes

If you have VESA's DPM compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. This is referred to as Power Save Mode*. If the computer detects input from the keyboard, mouse or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature.

* Zero power consumption in off mode can only be achieved by disconnecting the power cable from the monitor.

| VESA Modes | Horizontal Sync | Vertical Sync | Video | Power Indicator | Power Consumption |
|------------------|-----------------|---------------|---------|------------------|------------------------------------|
| Normal operation | Active | Active | Active | White | 25 W (maximum)** 20 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (Glowing) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

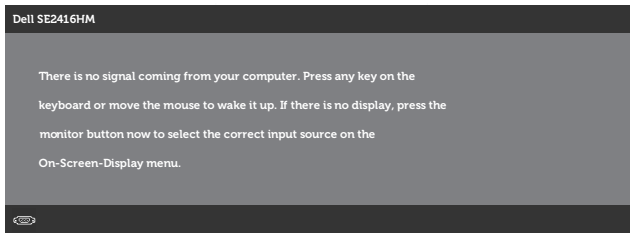
| Energy Star | Power Consumption |
|-------------|-------------------|
| On Mode | 20 W *** |

** Maximum power consumption with max luminance.

*** Energy consumption (On Mode) is tested at 230 Volts / 50 Hz.

This document is informational only and reflects laboratory performance. Your product may perform differently, depending on the software, components and peripherals you ordered and shall have no obligation to update such information. Accordingly, the customer should not rely upon this information in making decisions about electrical tolerances or otherwise. No warranty as to accuracy or completeness is expressed or implied.

The OSD functions only in the normal operation mode. When any button is pressed in the Active-off mode, one of the following messages will be displayed:



Activate the computer and the monitor to gain access to the OSD.

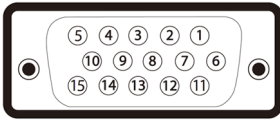


NOTE: This monitor is **ENERGY STAR**-compliant.



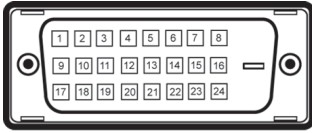
Pin assignments

D-SUB connector



| Pin Number | 15-pin Side of the Connected Signal Cable |
|------------|---|
| 1 | Video-Red |
| 2 | Video-Green |
| 3 | Video-Blue |
| 4 | GND |
| 5 | Self-test |
| 6 | GND-R |
| 7 | GND-G |
| 8 | GND-B |
| 9 | Computer 5V/3.3V |
| 10 | GND-sync |
| 11 | GND |
| 12 | DDC data |
| 13 | H-sync |
| 14 | V-sync |
| 15 | DDC clock |

DVI-D connector



| Pin Number | 24-pin Side of the Connected Signal Cable |
|------------|---|
| 1 | TMDS RX2- |
| 2 | TMDS RX2+ |
| 3 | TMDS Ground |
| 4 | Floating |
| 5 | Floating |
| 6 | DDC Clock |
| 7 | DDC Data |
| 8 | Floating |
| 9 | TMDS RX1- |
| 10 | TMDS RX1+ |
| 11 | TMDS Ground |
| 12 | Floating |
| 13 | Floating |
| 14 | +5 V/+3.3 V power |
| 15 | Self test |
| 16 | Hot Plug Detect |
| 17 | TMDS RX0- |
| 18 | TMDS RX0+ |
| 19 | TMDS Ground |
| 20 | Floating |
| 21 | Floating |
| 22 | TMDS Ground |
| 23 | TMDS Clock+ |
| 24 | TMDS Clock- |