23.8-inch color management monitor

ColorEdge® CG248-4K

The 23.8-inch ColorEdge CG248-4K monitor with 4K UHD resolution (ultra high definition, 3840 x 2160) is especially designed for creative minds who work with high-resolution content for print media, photography and video production. The display provides our sharpest image yet at an excellent 185 PPI (pixels per inch). This allows professional users to enjoy superb image quality that can deliver highly detailed 4K images. The brilliant precision of contours and alphanumeric characters also benefits the print workflow. The ColorEdge CG248-4K is equipped with an integrated measurement device that allows self-calibration and therefore color calibration of the monitor without any problems. Furthermore, the special ColorNavigator calibration software from EIZO is included in the delivery of the monitor. This enables users to define target values for brightness, gamma and white balance as well as create an ICC profile. The impressive ColorEdge CG248-4K features an LCD panel with IPS (in-plane switching) and a wide gamut, which covers 99% of the Adobe RGB color space.

- 4K UHD, 23.8-inch LCD with quad full HD resolution for clear, sharp images with 185 PPI
- Wide gamut LCD with LED technology, contrast 1000:1, brightness 350 cd/m²
- Versatile gamut covering 93% of the DCI color gamut and 99% of the Adobe RGB color gamu
- Integrated sensor and fully automatic self-calibration
- 3D LUT for exact hardware calibration of brightness, white balance and gamma
- Digital Uniformity Equalizer for perfect luminance distribution and color purity
- Color precision with 16-bit look-up-table and up to 10-bit color reproduction
- Temperature-controlled adjustment of color drift and brightness
- Two DisplayPorts (version 1.2) and two HDMI inputs
- ColorNavigator software included

5 YEARS WARRANTY

EIZO CG248-4K
Features

Outstanding image quality The CG248-4K gleams with clear graphics and structures as well as sharp text contours. Its IPS-LCD module guarantees contrast and hues that are independent of the viewing angle. The backlight is achieved by using state-of-the-art, energy-saving LED technology.

Wide gamut The gamut of the CG248-4K includes significantly more colors than traditional LCD screens. Among others, it covers 100% of the colors used for offset printing (ISO Coated V2) a,d AdobeRGB up to more than 99% as well as DCI up to more than 98%. Highly saturated colors are therefore fully visible on the screen during creative work.

High-resolution look-up table Thanks to its 16-bit look-up-table, the CG248-4K resolves image signals with an accuracy of 1/65 thousandths. Color nuances and image structure are not lost, particularly in the case of dark hues. This reliable and precise reproduction reduces calibration steps, saving valuable production time. For particularly precise calibration, EIZO combines the color allocation with a 3D look-up table (3D LUT) in the CG248-4K. This feature guarantees the precise addition of the basic colors for each hue – a key technology for the ideal grayscale image and highly accurate color reproduction.

Consistent hue curve and color The brightness level of LCDs varies from module to module in relation to the image signal and the addition of red, green and blue. This can only be recorded and controlled using special measurement devices. EIZO therefore configures each CG248-4K at the factory with its colors and hue curve at 343 grid points and in every primary color. Therefore, a consistent color temperature is attained on the entire grayscale range. The result: The color reproduction is balanced, precise and reliable for the CG248-4K.

Integrated sensor The CG248-4K achieves maximum color accuracy thanks to its built-in sensor. This is positioned for calibration automatically and remains concealed in the bezel until the next measurement. EIZO optimally aligns each CG248-4K and the associated integrated measurement device. This way, the measuring location on the upper section of the image is correlated with the centre of the image so that the sensor measures as if it were in the centre. This integrated solution eliminates production spreads, as can occur with external measurement devices.

Digital Uniformity Equalizer (DUE) The DUE in the CG248-4K ensures color purity and even brightness distribution across the entire display surface. A chip automatically adjusts for irregularities. While conventional LCDs are optimised at best for homogeneity of a white surface, every hue looks the same across the entire screen with EIZO. The DUE ensures precisely matching colors from the centre right to the outermost edge of the screen, where the integrated sensor travels to measure and carries out the adjustment for the entire surface and all tonal values. The DUE Priority function allows the user to freely choose whether to prioritise maximum homogeneity or maximum brightness.

Exact calibration The ColorNavigator software (included in the delivery of the CG248-4K) has direct access to the monitor's look-up table during calibration. This enables the user to set color temperature, brightness, blackness and hue curve to suit their requirements. Calibration is based on the default set during production and is therefore unique in terms of precision and speed.

Self-calibration The CG248-4K calibrates itself without requiring any user input. The computer does not even have to be turned on. Once programmed, the CG248-4K starts the adjustment at night, during lunch or at any other specified time. Programming takes place conveniently via the ColorNavigator or the on-screen menu.

Brightness stabilisation Balanced brightness is crucial for brilliant color reproduction. The patented electronics of the CG248-4K regulate the backlight. They ensure constant brightness – regardless of the operating times and temperature.

Color drift correction Temperature deviations can lead to imprecise color reproduction. Color deviations of more than 2 ΔE often arise, especially when the room temperature is unstable. The CG248-4K has an internal thermometer to eliminate these inaccuracies. It controls and reduces the unwanted color drift fully automatically.

RGB and CMYK emulation 3D LUT profiles from film production or CMYK profiles from printing processes can be uploaded to the monitor and used for stable color reproduction.

True Black Dark tones on LCD monitors in poorly lit rooms can appear blurry or too light depending on the viewing angle. True Black ensures a high contrast ratio at all times, meaning that dark tones do not lose their depth on the CG248-4K.

Digital inputs Two DisplayPorts and two HDMI ports enable up to four computers to be connected at the same time. Users can switch between the interfaces automatically or manually. HDMI signals from HD cameras can be viewed directly with the CG248-4K via HDMI or DisplayPort.

USB hub 3.0 An integrated USB hub (version 3.0) is provided for the connection of peripheral devices. For example, a keyboard and mouse can be connected to the monitor on your desk. One of the three downstream ports can be used as a high-speed battery charging port.

HDMI The monitor offers conventional resolutions and image refresh rates for video production. HDMI signals (YUV and RGB) are supported with refresh rates of 60, 50, 30, 25 and 24 Hz (see specifications). The monitor also features I/P conversion. The CG248-4K can be conveniently used in video editing and animation systems, too.

4K x 2K signals The CG248-4K can process 4K x 2K resolutions with 3840 x 2160 pixels at up to 60 Hz using the DisplayPort (version 1.2, SST). This makes the CG248-4K ideal for editing 4K x 2K content from the television and film industry.

Zoom The CG248-4K features a zoom function that can be used to check the sharpness of a 4K video signal, for example. It enlarges one of the four image quadrants or the centre of the image by a factor of two at the click of a button on the monitor.

Button Guide The CG248-4K displays a function overview on the screen at the touch of a button for easy and convenient operation. This way, the function of the respective button is shown next to the control panel.

10-bit color depth The CG248-4K features two HDMI ports in addition to two DisplayPort interfaces. The port has a 10-bit color resolution in combination with the frame rate control (FRC). The monitor can therefore display even the smallest of tonal gradations with a billion colors. However, you need to have the corresponding application software and graphics board that provide 10-bit support.

Approved for softproofing : The EIZO CG248-4K conforms to the very strict softproofing rules that are based on the ISO/CD 12646 regulation. Thanks to this the Fogra certification for monitor proofing was granted. That is why the CG248-4K monitor holds the Fogra certification "FograCert Softproof Monitor".

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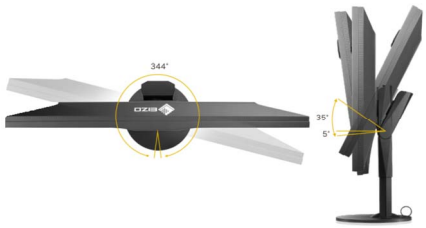
EIZO CG248-4K
Specifications

Diagonal	60 cm (23.8”) 16:9 format
Visible image size	527 mm (width) x 296.5 mm (height)
Visible diagonal	604 mm
Ideal and recommended resolution	3840 pixels x 2160 lines
Dot pitch/density	0.1373 mm x 0.1373 mm/185 PPI
Displayable colors	1 billion (10-bit) DisplayPort and HDMI
Displayable grayscale tones	1024 (10-bit) DisplayPort and HDMI
Color control	16-bit look-up-table 48-bit (3 x 16-bit) Approx. 278 trillion colors /Approx. 65,000 grayscale levels
Max. color range	Adobe RGB: >99% DCI: 93% ISO Coated V2: >99% sRGB: 100% Rec709: 100% Rec2020: 77% EBU: 100% SMPTE-C: 100%
Max. brightness	350 cd/m², typical
Max. dark room contrast	1000:1
Max. viewing angle	Horizontal: 178°; vertical: 178°
LCD technology	IPS
Typical mid-tone reaction time	14 ms
Features	Hardware calibration of brightness, white balance and gamma adjustment, wide gamut, True Black, integrated measurement device for self-calibration, 16-bit look-up-table (48-bit R+G+B), Digital Uniformity Equalizer, temperature-controlled color drift adjustment, 3D LUT film emulation (10-bit log), image format, safe area marker (HDMI), I/P conversion (HDMI), signal range extension (HDMI), Super White, noise reduction (HDMI), RGB and CMYK gamut emulation, Color Universal Design mode (simulating color blindness), USB V3.0, powered hub
Configuration options	Brightness, contrast, gamma 1 to 2.6, step size 0.1, color saturation for RGBCMY, color temperature 4,000 to 10,000 K, gamut clipping, DUE priority, image format, 4K zoom, HDP control, OSD language (DE, UK, FR, SE, ES, IT)
Resolutions	Max. 3840 x 2160 full image 1:1, HDMI 60 Hz: VGA, 480i, 480p, 1080i, 720p, 1080p HDMI 50 Hz: 576i, 576p, 1080i, 720p, 1080p HDMI 30 Hz/25 Hz/24 Hz: 1080p
Horizontal frequency	24.5 – 137.5 kHz, 24.5 – 135.5 kHz (HDMI)
Vertical frequency	22.5 – 71.5 Hz
Video bandwidth	DisplayPort 1.2: 598 MHz, HDMI: 300 MHz
Graphic signals	DisplayPort, HDMI (YUV and RGB)
Signal inputs	2 x DisplayPort V1.2, 2 x HDMI
Plug & Play	VESA DDC CI
Power management	VESA DPMS, DVI-DMPM
Power consumption	Max.* 136 watts Typical power consumption of 52 watts, max. 9 watts in standby mode, 0 watts when power switch is OFF
Energy efficiency category	D
Annual energy consumption	80 kWh
Dimensions (W x H x D)	553 x (394 to 544) x 245 mm
Weight	8.5 kg
Test marks	CE, TÜV GS, TÜV certified ergonomics, FograCert softproof monitor, ISO 9241-307 Class 1**
Flexibility	172° right/left, 30° to the back, 5° to the front, 90° tiltable, 15 cm high
USB hub	One upstream/three downstream, rev. 3.0
Accessories included	Included: Manual in English, German and French; ColorNavigator; power, USB 3.0 and signal cable for Mini DisplayPort and DisplayPort; light protection shields
Service	Five-year on-site replacement service***
Errors excepted 9/15	



FlexStand
This enables turning and tilting as well as operation in portrait and landscape format. The continuous height adjustment starts very low on the stand and has a range of 15 centimetres. This guarantees optimal ergonomics, regardless of whether the user is sitting or standing in front of the screen. The FlexStand base is always fully stable, despite its maximum range of movement.

* At maximum brightness and when both signal inputs and USB hub are in operation
** Free of pixel faults (full sub pixel ISO 9241-307). Validity 6 months after purchase.
*** The duration of the warranty for the LCD module is five years from the date of purchase or a monitor usage time of 30,000 hours, whichever occurs first. The warranty also extends to normal wear and tear of the backlight if this is operated at a recommended brightness level of 120 cd/m² and a white balance of between 5,000 K and 6,500 K. EIZO guarantees this brightness for three years from the date of purchase or a monitor usage time of 10,000 hours, whichever occurs first.

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