



24-inch Color Management Monitor ColorEdge® CG2420



The EIZO CG2420 impresses by operating on a simple principle: It shows things as they are. This is done by the EIZO microprocessor, which was specifically developed for precise color reproduction and calibration. The excellent electronics of the CG2420 make optimum use of the wide gamut LCD's potential. The device covers 99% of the Adobe RGB gamut. The ColorEdge screen displays the finest textures and color nuances and differentiates them from one another. The screen's integrated calibration sensor is perfectly calibrated to the screen and ensures that it displays the right hues. Scheduling makes it possible to carry out fully automatic calibration overnight or during the weekend. This way, the CG2420 is always 'freshly' calibrated and continually displays the desired colors – just as they are.

- ♦ Wide gamut LCD with LED technology, contrast 1500:1, brightness 400 cd/m²
- ♦ 99% Adobe RGB and 98% DCI-P3 color range
- ♦ Integrated measurement device and fully automatic self-calibration
- ♦ Precise 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
- ♦ DisplayPort, DVI-D, and HDMI ports
- ♦ ColorNavigator calibration software and light protection shields included in delivery



EIZO CG2420

Features

Outstanding image quality The CG2420 makes graphics and structures as well as sharp text contours visible. Its IPS-LCD panel guarantees a view of contrast and hues that are independent of the viewing angle. The backlight is composed of state-of-the-art, energy-saving LED technology.

EIZO microchip for ideal color reproduction The CG2420 is equipped with a high-quality microchip (ASIC, or Application-Specific Integrated Circuit) that EIZO developed specifically for the special requirements involved in work demanding high color accuracy. The EIZO ASIC ensures precise, consistent, and lasting color display thanks to its special algorithms.

Compact, space-saving design

The sophisticated LCD panel has a very narrow border and is designed for a compact housing. Power supply and signal interfaces are unobtrusively integrated into the unit.

Wide gamut The gamut of the CG2420 includes up to 99.9% of the Adobe RGB colors – significantly more colors than traditional LCD screens. For example, it covers colors in offset printing at 100%. For this reason, the screen visibly shows which saturation has been achieved with cyan and yellow tones.

High-resolution look-up-table Thanks to its 16-bit look-up-table, the CG2420 can resolve 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.

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 corrected using special measurement devices. For this reason, EIZO configures each CG2420 at the factory with its colors and hue curve. Therefore, a consistent color temperature is attained on the entire grayscale range. The result: The color reproduction is balanced, precise, and reliable across all CG2420 monitors.

Integrated measuring device The CG2420 achieves maximum color accuracy thanks to its integrated measurement device. This is positioned for calibration automatically and is concealed in the bezel until the next measurement. EIZO optimally aligns each CG2420 and the associated integrated measurement device. This integrated solution eliminates production spreads, as can occur with external measurement devices. The fact that the measurement is carried out at the upper edge of the screen makes no difference, because the CG2420 is equipped with DUE and the sensor is correlated with the center of the screen.

Digital Uniformity Equalizer (DUE) The DUE in the CG2420 ensures color purity and even brightness distribution across the entire display surface. A chip automatically adjusts for irregularities. While conventional LCDs are optimized 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 center 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.

Exact calibration The ColorNavigator software (included in the delivery of the CG2420) 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 setting from production and is one-of-a-kind in terms of precision and speed.

Self-calibration The CG2420 calibrates itself without requiring any user input. The computer does not even have to be turned on. Once programmed, the CG2420 starts the adjustment at night, during lunch, or at any other defined time. Programming conveniently takes place via the ColorNavigator or the on-screen menu.

Color drift correction Temperature deviations in LCDs can also lead to imprecise color reproduction, for example, when warming up the monitor. Color deviations of more than 2 ΔE often arise, especially when the room temperature can fluctuate. The CG2420 has an internal thermometer to eliminate these inaccuracies. It reduces the unwanted color drift fully automatically.

Brightness stabilization Balanced brightness is crucial for brilliant color reproduction. Traditional LCD monitors need one to two hours to even out their brightness. However, even then, they are still sensitive to temperature deviations. The patented electronics of the CG2420 therefore regulate the backlight. They ensure constant brightness, regardless of the operating times and temperature.

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 CG2420.

Digital inputs DisplayPort, HDMI, and DVI-D ports allow up to three 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 on the CG2420 using the HDMI and DisplayPort ports.

USB hub An integrated 3.0 USB hub enables 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 quick charge port for battery-powered devices, such as a smartphone.

HDMI The monitor offers the standard resolutions and image refresh rates for video production. HDMI signals (YUV and RGB) are supported with the refresh rates of 60, 50, 30, 25, and 24 Hz. The monitor also features I/P conversion. The CG2420 can be conveniently used in video editing and animation systems.

10-bit color depth The CG2420 has a Mini DisplayPort and a HDMI port, in addition to the DVI interface. The ports have 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.

Warranty Like all other EIZO products, the CG2420 is manufactured in our own factory, which means we can monitor and ensure the quality of our production activities from start to finish. Therefore, we are also unequivocally convinced of the CG2420's reliability. To that end, we offer an extended warranty that covers all components of the monitor, including the LCD panel. Five years is a long time.

Validated for softproofing

Eizo's CG2420 complies with the severe softproof requisites based on ISO/CD 12646. This was the requirement from Fogra Forschungsgesellschaft Druck for monitor proofing. This is why EIZO's CG2420 has the mark "FograCert Softproof Monitor".

Test marks



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EIZO CG2420

Specifications

Diagonal	61 cm (24 inches) 16:10 aspect ratio
Visible image size	518 mm (width) x 324 mm (height)
Visible diagonal	611 mm
Ideal and recommended resolution	1920 pixels x 1200 lines
Dot pitch	0.27 mm x 0.27 mm
Displayable colors	1 billion (10-bit) DisplayPort and HDMI 16.7 million (8-bit) DVI
Color control	16-bit look-up-table 48-bit (3 x 16-bit) Approx. 278 billion hues
Max. color range	AdobeRGB: 99% ISO Coated V2:100% sRGB: 100%, Rec709: 100%, EBU: 100%, SMPTE-C: 100%, DCI: 98%
Max. brightness	400 cd/m ²
Max. dark room contrast	1500:1
Max. viewing angle	Horizontal: 178°; vertical: 178°
LCD technology	IPS
Typical reaction time	10 ms, gray-gray changeover
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, safe area marker (HDMI), I/P conversion (HDMI), pseudo-interlaced (HDMI), signal range extension (HDMI), noise reduction (HDMI), RGB and CMYK gamut emulation, Color Universal Design mode (simulating color blindness), HDCP decoder, USB V3.0, powered hub
Configuration options	Brightness, contrast, gamma 1 to 2.6, step size 0.1, color saturation for RGBCMY, color temperature 4000 to 10,000 K, gamut clipping, DUE priority, OSD language (DE, UK, FR, SE, ES, IT)
Resolutions	Max. 1920 x 1200 full image 1:1, HDMI 60 Hz: VGA, 480i, 480p, 1080i, 720p, 1080p, 1200p HDMI 50 Hz: 576i, 576p, 1080i, 720p, 1080p, 1200p HDMI 30 Hz/25 Hz/24 Hz: 1080p
Horizontal frequency (digital)	26–78 kHz (DisplayPort and DVI) 15–68 kHz (HDMI)
Vertical frequency (digital)	47.5–86 Hz (DisplayPort and DVI) 24–61 Hz (HDMI)
Video bandwidth	Digital: 164.5 MHz/149 MHz (HDMI)
Graphic signals	DisplayPort, DVI (TMDS), HDMI (YUV and RGB)
Signal inputs	DisplayPort, DVI-D, HDMI
Plug & Play	VESA DDC 2b
Power management	DisplayPort, DVI-DMPM

Power consumption	Max.* 79 watts Typical power consumption of 20 watts, Max. 0.6 watts in standby mode 0 watts when power switch is OFF
Energy efficiency category	A
Annual energy consumption	33 kWh
Dimensions (W x H x D)	55 x (40–55) x 25 cm
Weight	7.8 kg
Test marks	CE, TÜV GS, TÜV certified ergonomics, ISO 9241-307 pixel fault class 1**, FograCert Softproof Monitor
Flexibility	172° right/left, 35° to the back, -5° to the front, 90° rotatable, 15 cm height adjustment
USB hub	One upstream/three downstream, rev. 3.0
Accessories included	Included: Manual in German, English and French, ColorNavigator, power, USB and signal cable for Mini DisplayPort and DVI-D, light protection shields
Service	Five-year on-site replacement service***
Errors excepted 10/16	

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 centimeters. 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
 ** Zero pixel error guarantee for fully illuminated sub-pixels (partial image elements ISO 9241-307). Valid: six months from the date of purchase.
 *** The duration of the warranty for the LCD panel 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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