27“ Color Management Monitor

ColorEdge® CG277

The CG277 inspires users with the best image quality and unique accuracy wherever subtle colour nuances and exact colour tone reproduction are a must. Therefore, the 27-inch ColorEdge monitor is ideal for professionals in pre-press and image processing. The screen features an extra large gamut and a 3D look-up-table to control colour reproduction. The integrated sensor for hardware adjustment ensures precise and automatic configuration of brightness, white balance and hue curve. Once set up, the CG277 only has to be profiled once a year. In the meantime, the automatic self-calibration function ensures stable colours. The user does not need to worry about an interruption to work or losses in quality because the monitor was not calibrated, saving time and money. The integrated Digital Uniformity Equalizer (DUE) guarantees perfect brightness and colour purity on the entire display.

- Wide gamut LCD with LED technology, contrast 1000:1, brightness 300 cd/m²
- Wide gamut covering 99 % of the AdobeRGB colour gamut
- Integrated sensor and fully automatic self-calibration
- Colour precision with 16-bit look-up-table and up to 10-bit colour reproduction
- Digital Uniformity Equalizer for perfect luminance distribution and colour purity
- Temperature-controlled adjustment of colour drift and brightness
- 3D LUT for exact hardware calibration of brightness, white balance and gamma
- DisplayPort, DVI-D and HDMI inputs
- ColorNavigator software and light protection shields included in delivery

5 YEARS WARRANTY

EIZO CG277
Features

Outstanding image quality The CG277 gleams with clear graphics and structures as well as sharp text contours. Its IPS-LCD module guarantees contrast and colour tones 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 CG277 includes significantly more colours than traditional LCD screens. It covers 100 per cent of colours in offset printing (ISO Coated V2) and AdobeRGB by over 99 %. For this reason, the screen visibly shows which saturation has been achieved with cyan, green and yellow tones.

High-resolution look-up table Thanks to its 16-bit look-up-table, the CG277 can resolve image signals with an accuracy of 1/65 thousandths. Colour 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 colour allocation with a 3D look-up-table (3D LUT) in the CG277. This feature guarantees the precise addition of the basic colours for each hue – a key technology for the ideal grayscale image and highly accurate colour reproduction.

Consistent hue curve and colour 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 precisely recorded and controlled using special measurement devices. EIZO therefore configures each CG277 ex works with its colours and hue curve at 343 grid points and in every primary colour. Therefore, a consistent colour temperature is attained across the entire grey scale. Colour deviations usually amount to just 0.34 ΔE on average.
The result is that the colour reproduction is balanced, precise and reliable among different CG277s.

Integrated measuring device The CG277 achieves maximum colour accuracy thanks to its integrated measurement device. It automatically positions itself for calibration and is concealed in the housing until the next measurement. EIZO optimally aligns each CG277 and the associated integrated measurement device. This way, the measuring location on the lower 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. Even ambient light influences are calculated during sensor initialisation and taken into account during calibration.

Digital Uniformity Equalizer (DUE) The DUE in the CG277 ensures colour purity and even brightness distribution across the entire display surface. A chip automatically adjusts irregularities. While conventional LCDs are optimised at best for homogeneity of a white surface, with EIZO every hue looks the same across the entire screen. The DUE ensures precise matching colours from the centre 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 CG277) has direct access to the monitor's look-up-table during calibration. This enables the user to set colour temperature, brightness, blackness and hue curve to suit their requirements. Calibration is based on the default set during production and is therefore unique in its precision and speed.

Self-calibration The CG277 carries out the calibration without any action on the part of the user. The computer does not even have to be turned on. Once programmed, the CG277 starts the calibration at night, during lunch or at any other defined time. Programming takes place conveniently via the ColorNavigator or the on-screen menu.

Brightness stabilisation Balanced brightness is crucial for brilliant colour reproduction. The patented electronics of the CG277 regulate the backlight. They ensure constant brightness – regardless of the operating times and temperature.

Colour drift correction Temperature deviations can lead to imprecise colour reproduction. Colour deviations of more than 2 ΔE often arise, especially when the room temperature is unstable. The CG277 has an internal thermometer to eliminate these inaccuracies. It controls and reduces the colour 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 colour reproduction.

True Black Dark tones can become too pale or too bright on LCD monitors in dark environments when the viewing angle changes. . Thanks to True Black a high contrast ration is maintained. In this way dark tones keep their depth on the CG277.

Overdrive The CG277 processes moving images by projection and overdrive in such a way that fast video sequences are displayed without any annoying delays.

Digital inputs DisplayPort, HDMI and DVI-I 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 displayed directly on the CG277 via HDMI and DisplayPort.

USB hub An integrated USB hub enables the connection of peripheral devices. For example, a keyboard and mouse can be connected to the monitor sitting on your desk.The CG277 has two upstream ports, enabling devices connected to the monitor to be used alternately with two computers.

HDMI The monitor offers conventional 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 CG277 can conveniently be used in video editing and animation systems.

4K x 2K signals The CG277 processes 4K x 2K resolutions in 4096 x 2160 and 3840 x 2160 pixels at up to 30 frames per second via DisplayPort and scales image reproduction to its native resolution of 2560 x 1440. This makes the CG277 ideal for editing 4K x 2K materials from the television and film industry.

Reliable and energy-efficient Power-off timer and PowerManager are among the energy-saving features. This helps users save energy and protect the environment when the computer is not in use. The power-off timer and PowerManager are particularly useful as they reduce the aging of the LCD backlight and luminance distribution. Brightness and homogeneity can be maintained for longer.

10-bit colour depth Besides the DVI connector, the CG247 offers a Mini Display Port and an HDMI connector. The port has a 10-bit colour resolution in combination with the frame rate control (FRC). The screen can therefore display even the smallest of tonal gradations with a billion colours. However, you need to have the corresponding software and graphics board with 10-bit support.

Softproof-compatible The EIZO CG277 corresponds to strict Softproof provisions based on the ISO/CD 12646 standard. The Fogra Forschungsgesellschaft Druck e.V. came to this conclusion as part of the monitor validation. The CG277 was then given the Fogra 'FograCert Softproof Monitor' seal of approval.

Test marks

EIZO Europe:

Austria ♦ www.eizo.at
Belgium and Luxembourg ♦ www.eizo.be
Czech Republic ♦ www.eizo.cz
Germany ♦ www.eizo.de
Hungary ♦ www.eizo.hu
Italy ♦ www.eizo.it
Slovakia ♦ www.eizomonitor.sk
The Netherlands ♦ www.eizo.nl
United Kingdom ♦ www.eizo.co.uk

EIZO CG277
Specifications

Diagonal	68 cm (27 inches) 16:9 aspect ratio
Visible image size	597 mm (width) x 336 mm (height)
Visible diagonal	685 mm
Ideal and recommended resolution	2560 pixels x 1440 lines
Dot pitch	0.233 mm x 0.233 mm
Displayable colours	1 billion (10-bit) DisplayPort and HDMI 16.7 million (8-bit) DVI
Colour control	16-bit look-up table 48-bit (3 x 16-bit) approx. 278 billion colour tones
Max. colour range	AdobeRGB: 99% ISO Coated V2: 100% sRGB: 100%, Rec709: 100%, EBU: 100%, SMPTE-C: 100%, DCI: 93%
Max. brightness	300 cd/m², typical
Max. dark room contrast	1000:1
Max. viewing angle	Horizontal: 178°; vertical: 178°
LCD technology	IPS
Typical mid-tone reaction time	6 ms
Typical reaction time, rise/fall	6/6 ms, black-white change
Features	Hardware calibration of brightness, white balance and gamma adjustment, wide gamut, True Black, integrated sensor for self-calibration, 16-bit look-up table (48-bit R+G+B), Digital Uniformity Equalizer, temperature-controlled colour drift adjustment, overdrive, 3D LUT film emulation (10-bit log), safe area marker (HDMI), I/P conversion (HDMI), signal range extension (HDMI), noise reduction (HDMI), RGB and CMYK gamut emulation, Color Universal Design mode (simulatin colour blindness), HDCP decoder, USB V2.0, powered hub
Configuration options	Brightness, contrast, gamma 1 to 2.6, step size 0.1, colour saturation for RGBCMY, colour temperature 4,000 to 10,000 K, gamut clipping, DUE priority, power-off timer, OSD language (DE, UK, FR, SE, ES, IT)
Resolutions	Max. 2560 x 1440 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 HDMI 30 Hz: 2560 x 1440
Horizontal frequency	Digital: 26–89 kHz 15–78 kHz (HDMI)
Vertical frequency	23.75–63 Hz (Digital: 23.75–63 Hz)
Video bandwidth	DVI/DisplayPort: 242 MHz, HDMI: 164.5 MHz
Graphic signals	DisplayPort, DVI (TMDS), HDMI (YUV and RGB)
Signal inputs	DisplayPort, DVI-D, HDMI
Plug & Play	VESA DDC CI
Power management	VESA DPMS, DVI-DMPM
Power consumption	Max.* 99 watts Typical power consumption of 43 watts, max. 0.7 watts in OFF mode 0 watts when power switch is OFF
Dimensions (WxHxD)	65 cm x (43–58) x 28 cm
Weight	12.7 kg
Test marks	CE, TÜV GS, TÜV certified ergonomics, FograCert Softproof Monitor, ISO 9241-307 pixel fault class I**
Flexibility	172° right/left, 30° to the back, 90° rotatable, 15 cm height adjustment
USB hub	Two upstream/two downstream, rev. 2.0
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 10/14

FlexStand

This enables turning and tilting as well as operation in portrait and landscape format. The continuous height adjustment starts very low on the base 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 RGB pixel group) for 12 months from the date of purchase according to ISO 9241-307, pixel fault class 1.
*** 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.