



CG319X

Your advantages



Thanks to a resolution of 4096 x 2160 pixels, the CG319X is the ideal monitor for processing DCI 4K content and displaying it natively. Featuring a built-in calibration sensor and HDR presets for HLG and PQ gamma, this new monitor is the perfect choice for professional use in video postproduction, photography and other graphics applications. The CG319X boasts 98% DCI P3 colour range coverage and impressively deep black levels, making it the ideal choice for precise colour grading of 4K content. DCI 4K material can be viewed at 60 Hz via two DisplayPorts as well as two HDMI ports. As a result, the CG319X can be integrated into PC-based workflows as well as used with HDMI feeds.

- ✓ DCI 4K with 4096 x 2160 pixels (149 ppi), four-times Full HD resolution
- ✓ Wide gamut LCD, versatile gamut covering 98% of the DCI P3 and 99% of the AdobeRGB colour gamut
- ✓ Integrated sensor and fully automatic self-calibration
- ✓ 3D look-up-table (LUT) for precise hardware calibration of brightness, white balance and gamma
- ✓ 10-bit display (over a billion colours simultaneously) based on a 24-bit look-up-table for precise colours
- ✓ Digital Uniformity Equalizer for perfect luminance distribution and colour purity
- ✓ Temperature-controlled adjustment of colour drift and brightness
- ✓ Two 1.2 DisplayPorts and two HDMI ports (4K DCI with 60 Hz)
- ✓ ColorNavigator calibration software and light protection shields included in delivery

Features

DCI 4K resolution

The CG319X features DCI 4K 4096 x 2160 (4K), which corresponds to four times the pixel count of Full HD (1920 x 1080). This monitor is therefore the ideal tool for 2D and 3D CGI or visual effects, from compositing to colour grading.



Wide gamut – vivid colours in line with industry standards

The wide-gamut monitor reliably reproduces 98% of the DCI P3 standard used in digital cinema and also supports the Rec. 2020 standard. The CG319X also covers 99% of the Adobe RGB gamut. When images recorded in RAW format are converted to AdobeRGB, the monitor reproduces these with absolute colour fidelity. The EIZO monitor also offers great advantages for printing: It covers almost the entire CMYK gamut (ISO coated and U.S. Web Coated, for example). You see the later print result on screen and save yourself the proof stage.



Adobe RGB



sRGB

True Black: Color depth for plastic images

Dark tones often appear faint or washed-out on LCD screens. True Black improves the contrast ratio and dark tones appear deeper – particularly when looking at the monitor from the side.



ColorEdge monitor



Conventional monitor

Excellent image quality for sharp images

The monitor has the maximum resolution (4096 x 2160 (4K) Pixel), an excellent contrast ratio of 1500:1, and brightness of 350 cd/m². This means that you can edit graphics and images to the smallest pixel, for example. And what's more: the text contours are clear and precise. The LCD module with IPS (Wide Gamut) panel provides 178 viewing angle, meaning that the user will see colors and contrasts as stable.



EIZO monitor



Conventional monitor



EIZO monitor



Conventional monitor

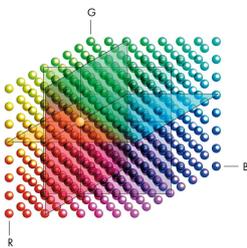
Features

HDR-Gamma-Support

In terms of the HLG and PQ tone curves, the CG319X meets the relevant standards for the display and processing of content in HDR (High Dynamic Range). The optimised gamma curves enable the content to closely resemble natural, human colour perception. Production and post-production professionals can count on a reliable representation with HDR tone curves for editing and colour grading.

Precise color rendering thanks to high-resolution 3D look-up table

The 3D LUT provides for the most precise tone value allocation possible and extremely exact color tone rendering, which is shown amongst other things in the gray scale. Brightness levels in relation to the image signal vary from module to module in LCDs and the color mixture (addition) of red, green, and blue also varies. This can be exactly determined and controlled only with the aid of specific measuring devices. EIZO therefore configures all of its monitors in the CG series and its colors and tone value curve in the factory. This results in a consistent color temperature over the entire gray scale. The result: The color reproduction is equal, precise, and reliable across each individual CG319X monitor.



The 3D look-up table also has the following benefits when working with films: Thanks to the ColorNavigation software included, you can emulate the colors of film material. This means you can see how the image will look when it is played. The 3D LUT also improves the additive mixture of color in the monitor (mixture of red, green, and blue). This is a key factor for displaying neutral gray tones correctly.

Integrated sensor for self-calibration

You can achieve maximum color accuracy thanks to the integrated sensor. This is perfectly tailored to the monitor, takes into account environmental influences like light, and correlates the

middle and edge of the image. That is how you achieve even results over the entire monitor. The sensor is located in the housing frame and only comes out when taking measurements. This renders a separate calibration device redundant and your calibration effort is greatly reduced.



It does not get any simpler than this: You can use the supplied ColorNavigator software or the on-screen menu to determine when you want monitor calibration to take place automatically. For example, you can schedule calibration to take place during your lunch break or overnight, with no PC connection required.

Exact color reproduction ex works

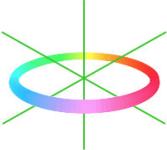
Brightness levels in relation to the image signal vary from module to module in LCDs and therefore the color mixture of red, green, and blue also varies. This can be exactly determined and controlled only with the aid of specific measuring devices. Therefore, EIZO configures the CG319X and its colors and tone curves with a widespread network of grid points and in each primary color. This results in a consistent color temperature over the entire gray scale.



Features

Professional hardware calibration

Good image processing is only possible on well-calibrated monitors. The usual software calibration takes a long time and requires the user to have a certain level of technical expertise. The CG319X is supplied with ColorNavigator 6 hardware calibration software. With ColorNavigator, you can perform calibration quickly, easily, and with excellent colour precision: During calibration, the software directly accesses and saves to the look-up-table in the monitor hardware. You determine the relevant components such as white balance, gamma, brightness, and tone value curve according to your requirements. Calibration then runs automatically based on the default set during production and is therefore unique in terms of precision and speed. This also means that calibration can be performed by users in just a few steps, with no need for in-depth technical knowledge. Because the calibration takes place via the monitor hardware, it is performed without loss and independently of the computer and graphics board. The CG319X can also be smoothly integrated into an existing system.



ColorNavigator

The ColorNavigator software is used to simply and accurately calibrate ColorEdge monitors

[More about ColorNavigator](#)



ColorNavigator NX

ColorNavigator NX offers quality assurance and asset management functions for ColorEdge monitors.

[More about ColorNavigator NX](#)



ColorNavigator Network

ColorNavigator Network enables centralized quality assurance for ColorEdge monitors

[More about ColorNavigator Network](#)

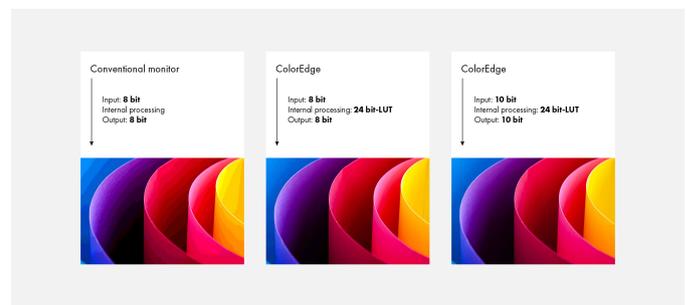
Constant tone value over the entire screen

Digital Uniformity Equalizer (DUE) controls all tone values over the entire monitor, pixel by pixel. The effect: color tones appear identical at each point on the screen, without the brightness fluctuations you experience in conventional LCDs. The DUE function also balances out the effects of fluctuations in ambient temperature on the color temperature and brightness. You will enjoy con-

sistently even luminance distribution and perfect color purity. A real plus when touching-up images.

10 bit colour depth: a billion colours in the finest grades

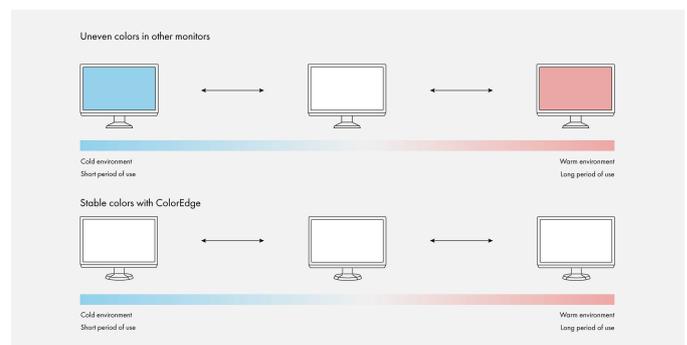
Thanks to the 10 bit colour display based on a 24 bit LUT, you can utilize a huge colour spectrum. This is made possible by the rapid DisplayPort and HDMI connections in combination with the frame rate control. A billion colours at your fingertips simultaneously. That is 64 times more colours than with an 8 bit display. The colour gradations are finer and the colour differences between adjacent colours are smaller. The enhanced grayscale range is equally important for post-production. With the 10 bit grayscale range activated, between 6% and 14% more grayscales are visible.



8 bit and 10 bit display

Stable brightness, no color deviation

The alpha and omega for exact image editing: constant brightness and color temperature. Patented electronics balance out brightness fluctuations that may arise due to extended periods of use and increased environmental and operating temperature. Thanks to a built-in thermometer, color deviations caused by fluctuations in room temperature are eliminated and automatically reduced. The color rendering remains absolutely constant over a long period of use, right from the start: because the warm-up time until brightness, color, and tone values have completely stabilized is just three minutes.



Features

Flicker-free working

The monitor is flicker-free at every brightness setting. The benefit: Your eyes do not get tired as quickly. You can work on the screen for an extended period.

For film production: 3D LUT profiles

Film emulation with 3D LUT ColorNavigator and ColorNavigator NX can use 3D LUT files from the color grading of films to generate data for emulation on the monitor. This film emulation is available for up to five color modes of the monitor and is suited to simulating the coloring of films.

Aspect Marker

The Aspect Marker enables the display of DCI 4k image areas (4096 x 2160 pixels) or 2K video material (2048 x 1080 pixels) that are displayed in varying ways when reproduced on different devices with differing aspect ratios.

4K Zoom

Users can quickly and easily make selections directly in the monitor menu to zoom in on various areas of the monitor image so as to assess details and sharpness.



Safely in sight thanks to the safe area marker

Ideal for captions and critical images: Thanks to the safe area marker, you will know which area of the screen is displayed on another output device. You will therefore see immediately

whether subtitles, text, or other important image elements are in the visible area. So that the marker can be clearly seen in all images, you can change the marker color.



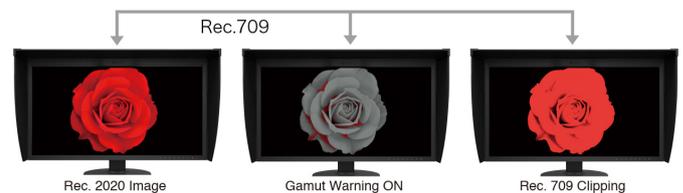
Luminance Warning

The Luminance Warning allows areas that exceed a certain brightness (300, 500, 1000, or 4000 cd/m²) when PQ mode is used to be highlighted. These areas can be highlighted in the user's choice of yellow or magenta.



Gamut Warning

The Gamut Warning operates in two modes: Rec. 2020 image content that can't be displayed in the Rec. 709 gamut is displayed in grayscale. Alternatively, clipping mode is simulated in Rec. 709 to show how Rec. 2020 material would look on HDTV devices.



Ideal for video and film production: HDMI

HDMI signals with refresh rates of 60, 50, 30, 25 and 24 Hz are supported, ensuring you can view and edit your film material in the same format in which it was recorded. The monitor also features I/P conversion.

Features

Gamut presets for film and video production

Presets for the gamuts DCI P3, Rec. 709 and Rec. 2020 are precisely calibrated in the factory and ensure you work with the correct gamma values. Colour modes for PQ (DCI and Rec. 2100) and HLG (Rec. 2100) for the display of HDR content are also preset as factory defaults. Colour modes on the monitor can be easily changed at the touch of a key, and recalibrated when necessary using ColorNavigator.



Abbildung beispielhaft

Quick operation – even in dark rooms

Operation is easy and clear. The Button Guide, an overview function on the monitor, will show you the respective function keys above the control panel. The backlight keys mean that the monitor can even be used in dark environments. This is particularly helpful in dark post-production studios.

Ergonomic and stable: the adjustable base

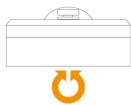
The CG319X has a flexible base to adjust the height, tilt, and rotation. The monitor can be tailored to the user's needs. For example, he can set a sitting position that is ergonomic for him (e.g. lowered to the bottom) or a position to show clients and colleagues something on the screen.



154 mm



Tilt up 35°, tilt down 5°



172°

Perfect anti-reflection coating

The IPS panel has optimal anti-reflection coating. Glare from the spread of the reflected light is minimized. This also protects

your eyes from excess strain. In addition, this means the monitor provides a wide viewing angle without annoying reflections. This is particularly advantageous when several people are sitting in front of the screen.



Protection against glare thanks to the monitor hood

The monitor hood reduces reflection and brightness on the screen and helps protect your eyes. It is easy to attach and reduces the amount of light that hits the screen from above and from the sides.



One monitor, many ports

It doesn't get simpler than this: Most end devices, such as PCs, laptops or cameras, can be connected directly to the monitor, thanks to its wide range of interfaces. The CG319X supports a wide variety of video formats up to 10-bit 4:4:4 at 50/60 p via DisplayPort and 10-bit 4:2:2 at 50/60 Hz via HDMI. As a result, the CG319X can be integrated into PC-based workflows as well as used with HDMI feeds.

Features

Five-year warranty

In addition to the high demands placed on production and materials, EIZO also places the emphasis on quality assurance in all areas.



Color and brightness warranty

The monitor has a color and brightness warranty from the purchase date for a maximum of 10,000 hours of operation at a maximum brightness of 120cd/sq m and a color temperature of between 5,000 and 6,500 K.



Specification

General

Item no.	CG319X
Case colors	Black
Solutions	Photography, design & media
Product line	ColorEdge
EAN	4995047053088

Display

Screen size [in inches]	31.10
Screen size [in cm]	79.00
Format	17:9
Viewable image size (width x height)	698 x 368
Ideal and recommended resolution	4096 x 2160 (4K)
Pixel Pitch Horizontal [mm]	0.17 x 0.17
Pixel density [ppi]	149
Resolution Supported	4096 x 2160 (4K), 3840 x 2160 (4K UHD), 2560 x 1600, 2560 x 1440, 1920 x 1200, 1600 x 1200, 1680 x 1050, 1280 x 1024, 1024 x 768, 800 x 600, 720 x 400, 640 x 480, 1080p (@ 60 Hz), 1080i (@ 60 Hz), 576p (@ 60 Hz), 480i (@ 60 Hz), 720p (@ 60 Hz), 1080p (@ 50 Hz), 1080i (@ 50 Hz), 720p (@ 50 Hz), 576p (@ 50 Hz), 1080p (@ 30/25/24 Hz), 2560 x 1440 (@ 30 Hz)
Panel technology	IPS (Wide Gamut)
Max. viewing angle horizontal	178 °
Max. viewing angle vertical	178 °
Number of colors or grayscale	1.07 billion colors (display port, 10 Bit), 1.07 billion colors (HDMI, 10 Bit), 16.7 million colors (display port, 8 Bit), 16.7 million colors (HDMI, 8 Bit), 16.7 million colors (DVI, 8 Bit)
Max. color space	AdobeRGB (>99%), DCI P3 (>98%), sRGB (100%), ISO Coated V2 (99%), Rec709 (100%), EBU (100%), SMPTE-C (100%)
Max. brightness (typical) [in cd/m ²]	350
Recommended brightness [in cd/m ²]	120
Max. dark room contrast (typical)	1500:1
Typical response time [gray/gray alternation]	9 ms
Typical response time [black/white/black alternation]	11 ms / 9 ms
Max. refresh rate [in hertz]	60
Backlight	LED

Electric data

Power consumption (typical) [in watt]	52.00
Maximum Power Consumption [in watt]	140
Power Save Mode [in watt]	1.20
Power Consumption Off [in watt]	0.00
Energy-efficiency class	C
Annual Energy Consumption [in kWh]	80.00
Power Supply	AC 100-120 V / 200-240 V, 50/60 Hz
Power Management	VESA DPMS, DisplayPort Version 1.2
Integrated power unit	✓

Dimensions & Weights

Dimensions [mm]	735 x 434 - 588 x 290
Weight [in kilograms]	12.40
Swivel (right/left)	172 °
Incline forward/backward	5 ° / 35 °
Height Adjustment Range [mm]	154
Hole Spacing	VESA standard 100 x 100 mm

Certification & Standards

Certification	CE, TÜV/GS, TÜV/Ergonomics, cTÜVus, FCC-B, ICES-003-B (CAN), VCCI-B, TÜV/Color Accuracy (Quick Stability), RCM, RoHS, WEEE, CUDO-Zertifizierung, China RoHS, CCC, ISO 9241-307 Pixelfehlerklasse 1**
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Features

Hardware calibration of brightness, white point, and gamma correction	✓
Integrated sensor for self-calibration	✓
Scheduler function for self-calibration	✓
Color palette / look-up table	More than 278 trillion color tones / 24 Bit 3D-LUT
Temperature color drift correction	✓
Digital Uniformity Equalizer	✓
True Black	✓
3D LUT film emulation (10 bit log)	✓
Safe Area Marker (HDMI)	✓
I/P conversion (HDMI)	✓
Signal range amplifier (HDMI)	✓
Noise suppression (HDMI)	✓
RGB and CMYK color space emulation	✓
HDCP Decoder	✓
Gamut Clipping	✓
Preset color/grayscale modes	Rec. 2020, Rec. 709, DCI, PQ DCI, PQ REC2100, HLG REC2100, Adobe RGB, sRGB, 2x free modes for user selection
OSD language	de, en, fr, es, it, se, ja, zh
Adjustment options	Brightness, Contrast, Gamma, Color saturation, Color temperature, Gammut clipping, REC709 gamut warning, Brightness warning, Zoom, Markers (safe area marker, safe area size, format marker, format adjustment, bezel color), Color tone, Signal input, Resolution, OSD language, Interpolation, DUE priority
Button Guide	✓
Signal inputs	2x DisplayPort, 2x HDMI
Video Signal	DisplayPort, HDMI (YUV und RGB)
Input Signal Identification	✓
USB hub	1 Up-/ 3 Down-Stream, Rev. 3.0

Software & Accessories

Accompanying software and other accessories are available for download or on a CD	ColorNavigator, ColorNavigator NX (as a download), ColorNavigator Network (upon request), ICC colour profile
Additional Supply	Network cable, Signal cable HDMI - HDMI, Signal cable Mini DisplayPort - DisplayPort, Signal cable DisplayPort - DisplayPort, USB 3.0 cable, Quick guide, Light protection cover
Accessory	EIZO ScreenCleaner (EIZO recommends the Screen-Cleaner kit for the best possible clean without scratching the monitor)

Warranty

Warranty and service	5 years including on-site replacement service*
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Terms

*) The duration of the warranty for the LCD panel is five years from the date of purchase or a monitor usage time of 30000 hours, whichever occurs first. EIZO guarantees a brightness of 120 cd/m² and a white balance of 5000 K to 6500 K for a monitor usage time of 10000 hours from the date of purchase.
 **) Zero pixel error guarantee for completely lit sub-pixels (partial pixels ISO 9241-307). Valid: six months from the purchase date.