World's First True HDR Reference Monitor with a Built-In Calibration Sensor

Hardware Calibration

The ColorEdge PROMINENCE CG3146 is the first HDR reference monitor in the world to be equipped with a built-in sensor which calibrates the monitor to stay color accurate. This eliminates the need for a third-party calibration device and streamlines color management so you can stay more focused on the creative process. Calibration information is saved directly to the monitor, so you do not need to recalibrate if connecting to more than one PC.

Color Management

EIZO's proprietary ColorNavigator 7 calibration and quality control software is also supported to make calibration simple, with predictable results.
True HDR

This HDR (High Dynamic Range) monitor approximates the human perception of color and light, accurately displaying both very bright and very dark areas without sacrificing the integrity of either. It achieves 1000 cd/m² high brightness (typical) and 1,000,000:1 contrast ratio for accurately displaying light and dark scenes.

EIZO HDR Technology

ColorEdge PROMINENCE monitors are the first LCD monitors to overcome the severe drawbacks of other HDR technologies, so they can be used reliably for post production work.

Auto Brightness Limiter (ABL) equipped in other HDR OLED monitors limits the monitor’s ability to display lighter scenes with tones over a specific range. This causes those light areas to appear dimmer and the color duller as a result.

ColorEdge PROMINENCE CG3146 achieves a true HDR visual experience without ABL or Local Dimming to ensure consistently accurate color and brightness in every pixel.

Gamma Curves

The ColorEdge PROMINENCE CG3146 supports hybrid log-gamma (HLG) and the perceptual quantization (PQ) curve for HDR video.
The Ideal Monitor for HDR Video Creation

DCI 4K Resolution

DCI-4K (4096 × 2160) is more than four times that of full HD (1920 × 1080), making this monitor ideal for creating, editing, and referencing with 2D and 3D CGI, VFX, compositing, and color grading.

SDI Connectivity

The monitor is equipped with a Single-Link 12G/6G/3G/HD-SDI and Dual- or Quad-Link 3G*/HD-SDI connections for seamless transmission of 4K video data. It also has an HDMI and DisplayPort input for flexible connection to a range of video devices.

VPID Support

With VPID (Video Payload ID) for SDI, the monitor’s settings are automatically adjusted to the correct color parameters for consistency during production.

Video Compatibilities

The monitor supports various video formats including HDMI compatible with 10-bit 4:2:2 at 50/60p. DisplayPort supports up to 10-bit 4:4:4 at 50/60p.
Stable and Accurate Display

Wide Color Gamut

The wide gamut reproduces 99% of the DCI-P3 standard for faithful reproduction of color.

10-Bit Simultaneous Display

10-bit simultaneous display* from a 24-bit look-up-table (LUT) allows the monitor to display more than one billion colors simultaneously for smooth color gradations and reduced Delta-E between two adjacent colors.

* A graphics board and software which support 10-bit output are necessary for 10-bit display.

3D LUT for Accurate Color

The monitor’s 3D LUT adjusts colors individually on an RGB cubic table. This also improves the monitor’s additive color mixture, which is key to displaying neutral gray tones.

Commitment to Quality

- 5-Year manufacturer’s warranty
- Brightness and color warranty up to 10,000 hours
- Zero bright pixels 6 months from purchase date

See www.eizoglobal.com for details.

Stable Display Using Industry-First AI

A temperature sensor accurately measures the temperature inside the monitor, as well as estimates the temperature of the surrounding environment as the monitor adjusts in real-time so gradations, color, brightness, and other characteristics continue to be displayed accurately. Furthermore, EIZO uses AI (artificial intelligence)* in the estimation algorithm so it can distinguish between various temperature changing patterns to calculate even more accurate correction.

* Patent pending.

Uniformity Across the Screen

ColorEdge monitors are equipped with EIZO’s patented digital uniformity equalizer (DUE) technology which corrects deviations in every tone across the screen to ensure stable display.

*Patent pending.
HDR Video Workflow

In addition to the ColorEdge PROMINENCE CG3146 HDR reference monitor, EIZO offers HLG and PQ curves with many of its CG Series monitors. The optimized gamma curves render images to appear more true to how the human eye perceives the real world compared to SDR. These products will support the HDR workflow from shooting to color grading.

<table>
<thead>
<tr>
<th>Shooting</th>
<th>VFX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compositing</td>
<td>Color Grading</td>
</tr>
</tbody>
</table>

Color Management Monitors with HDR Gamma

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Native Resolution</th>
<th>Brightness (typical)</th>
<th>Contrast Ratio (typical)</th>
<th>Color Gamut (typical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG247X HDR</td>
<td>24.1”</td>
<td>1920 × 1200</td>
<td>400 cd/m²</td>
<td>1500:1</td>
<td>DCI-P3: 98%</td>
</tr>
<tr>
<td>CG279X HDR</td>
<td>27”</td>
<td>2560 × 1440</td>
<td>350 cd/m²</td>
<td>1300:1</td>
<td>DCI-P3: 98%</td>
</tr>
</tbody>
</table>
Color Grading

Compositing

Shooting

VFX
Compositing
Color Grading

CG319X **HDR 4K**

- **31.1”**
- 4096 x 2160
- 350 cd/m²
- 1500:1
- DCI-P3: 98%

CG3146 **HDR 4K**

HDR Reference Monitor

- **31.1”**
- 4096 x 2160
- 1000 cd/m²
- 1,000,000:1
- DCI-P3: 99%
Specifications

Panel
- Type: IPS
- Backlight: Wide-Gamut LED
- Size: 31.1” / 78.9 cm
- Native Resolution: 4096 x 2160 (17:9 aspect ratio)
- Viewable Image Size (H x V): 698 x 368.1 mm
- Pixel Pitch: 0.170 x 0.170 mm
- Pixel Density: 149 ppi
-Gray Scale Tones: SDI, DisplayPort, HDMI: 1,024 tones (palette of 65 thousand)
- Brightness (typical): 1,000 cd/m²
- Contrast Ratio (typical): 1,000:1
- Flicker (typical): 0.5 Hz (gray-to-gray)
- Color Gamut (typical): DCI-P3: 99%

Video Signals
- Input Terminals: BNC (12G/6G/3G/HD-SDI), BNC (3G/HD-SDI) x 3, DisplayPort (HDCP 1.3), HDMI (Deep Color, HDCP 2.2 / 1.4)
- Output Terminals: BNC (12G/6G/3G/HD-SDI), BNC (3G/HD-SDI), through-out (active), DisplayPort (HDCP 1.3), HDMI (Deep Color, HDCP 1.4)
- Digital Scanning Frequency (H / V): DisplayPort: 25 - 137 kHz, 23 - 61 Hz, HDMI: 15 - 135 kHz, 23 - 61 Hz

USB
- Upstream: USB 3.1 Gen 1, Type-B
- Downstream: USB 3.1 Gen 1: Type-A x 3 (Battery Charging 10.5 W max. x 1)

Power
- Power Requirements: AC 100 - 240 V, 50 / 60 Hz
- Typical Power Consumption: 290 W
- Maximum Power Consumption: 485 W
- Power Save Mode: 1.2 W or less
- Standby Mode: 1.2 W or less

Features & Functions
- Built-In Calibration Sensor: Yes
- Brightness Stabilization: Yes
- Digital Uniformity Equalizer: Yes
- Preset Modes: BT.2020, BT.709, D65, PQ_BT.2100, PQ_BT.709, PQ_DCI, DCI, Calibration, Sync Signal

Physical Specifications
- Dimensions (Landscape, W x H x D): 757 x 488 x 208 mm
- Dimensions (Landscape with Hood, W x H x D): 778 x 498.5 x 327 mm
- Net Weight (With Hood): 27.8 kg
- Net Weight (Without Hood): 26.9 kg
- Hole Spacing (VESA Standard): 200 x 200 mm
- Operating Temperature: 0 - 30 °C
- Operating Humidity (R.H., non-condensing): 20 - 80%

Certifications & Standards
- CB, CE, TUVus, cTUVus, FCC-B, CAN ICES-3 (B), TUV/S, PSE, VCCI-B, RCM, EAC, RoHS, WEEE, TUV/Ergonomics

Warranty
- Five Years

Notes:
1. HDCP 2.2 is not supported with DisplayPort.
2. Usage time is limited to 30,000 hours (10,000 for the LCD panel).
3. A brightness level of 800 cd/m² or more and a color temperature of 6500K are warranted.
4. Free from bright sub-pixels for 6 months from the date of purchase.
5. With current LCD technology, a panel may contain a limited number of missing or flickering pixels.