Images on screen are simulated

2017 LG Medical Imaging Displays

8MP Clinical Review Monitor (27HJ712C-W) | 8MP Surgical Monitor (27HJ710S-W)

8MP CLINICAL REVIEW MONITOR

A Display compliant with DICOM Part 14 for Clinical Review Applications

Easily multi-task while performing clinical reviews from various clinical review applications, such as items from the department of radiology and efficiently study on-screen information.
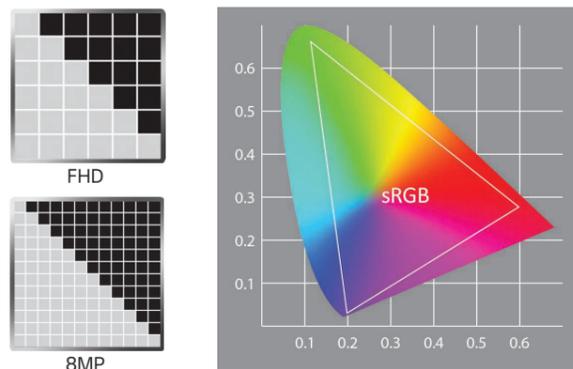
27HJ12C-W

Images on screen are simulated

IPS

sRGB OVER 99%

Wide Viewing Angle

Hardware Calibration Ready

True Color Pro

DICOM

Flicker Safe

PBP

Reader Mode

8MP IPS Display & 350 nits with sRGB over 99%

The 27-inch 8MP display with IPS technology offers an outstanding picture quality along with wide viewing angles. With its 178 wide viewing angles, images can be viewed simultaneously by several people with the highest quality reproduction and minimal color shift. Furthermore, a wide range of colors represented by sRGB over 99% of the color space guarantee vivid color expression without any color shift for a more precise clinical review.

FHD

8MP

*8MP(Mega Pixel): 4K, 3840x2160

DICOM 14 Compatible

In the medical field, monitors must display images accurately and consistently, especially for the grayscale tone that may vary even between two monitors of the same model. To ensure the most accurate and consistent shading possible for medical images, LG measures and sets every grayscale tone on the production line to produce a monitor compliant with DICOM Part 14.

DICOM Part 14, published by the National Electrical Manufacturers Association (NEMA) and the American College of Radiology (ACR), provides strict guidelines for how grayscale display function calibration and quality assurance tests should be performed on displays used in medical imaging applications.
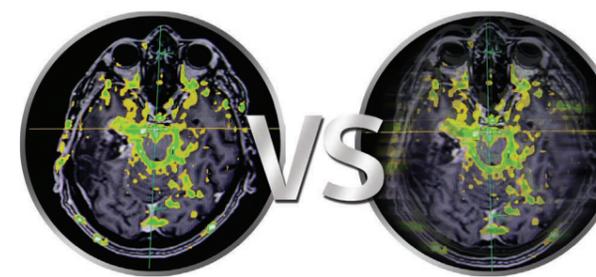
DICOM 14   Conventional

*DICOM (Digital Imaging and Communications in Medicine): Standard applied to the grayscale tone characteristics of monitors used in the medical field.

Dynamic Sync Mode

Whenever scanning is performed after checking up, a lot of heavy information is created and it can be difficult to clearly get all of this information at once.

Since the LG clinical review monitor supports a low input lag and quick response time, it allows the monitor to receive a signal quickly and display a clear image with no distortion, for precise decoding information to achieve an efficient review.
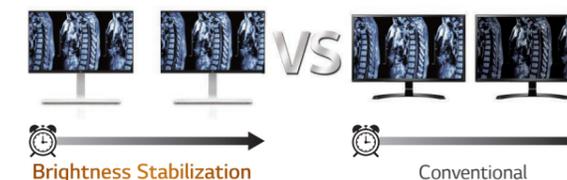
VS

Low Input Lag & Quick Response Time   Conventional

*Dynamic Sync Mode is only available to 60Hz input source.

Brightness Stabilization

A sensor measures the backlight brightness stability and automatically compensates for brightness fluctuations caused by aging, for a consistently stable display during the usage time.

VS

Brightness Stabilization   Conventional

Eye-comfort features

Flicker Safe reduces on-screen flickers, which helps minimize eye strain and eye fatigue. By combining flicker-safe with the proven picture quality of IPS technology, users can comfortably work throughout the day.
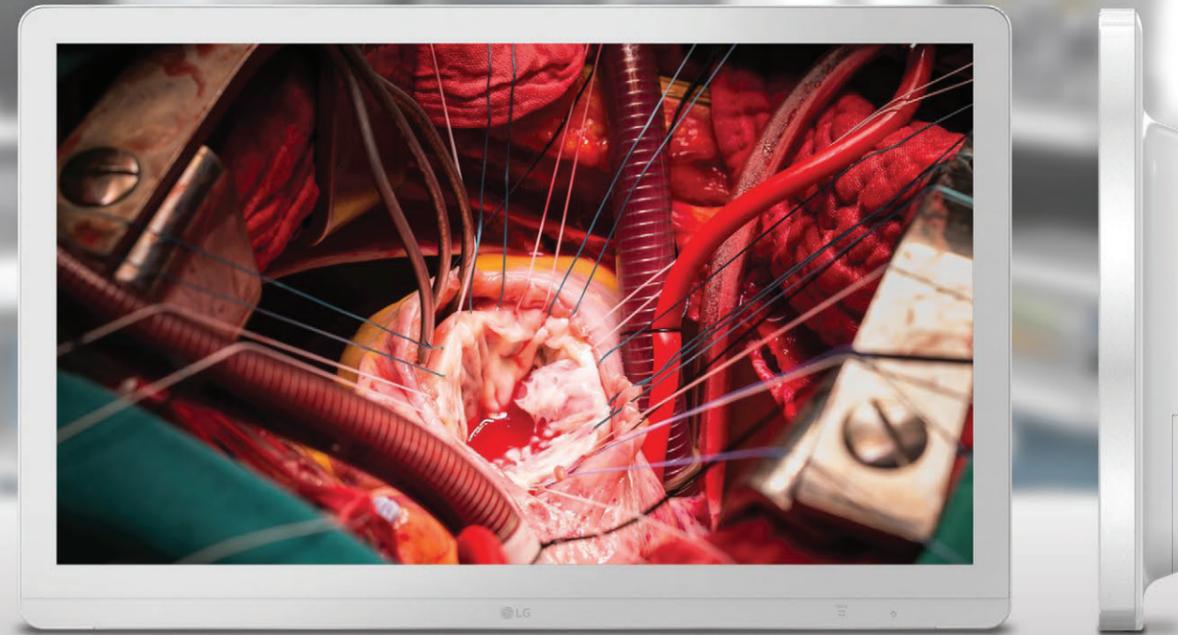
Additionally, **Reader Mode** provides optimal conditions for clinical use. LG's Reader Mode technology reduces blue light, protecting doctors' eyes from fatigue.
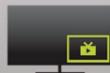
8MP SURGICAL MONITOR

27HJ710S-W

A Display Optimized for the Operating Room

The superior detailed picture quality of the LG surgical monitor meets operating room requirements. With its 27-inch IPS 8MP display, the LG surgical monitor improves work efficiency not only by enabling detailed observation but also by displaying multiple imaging applications.
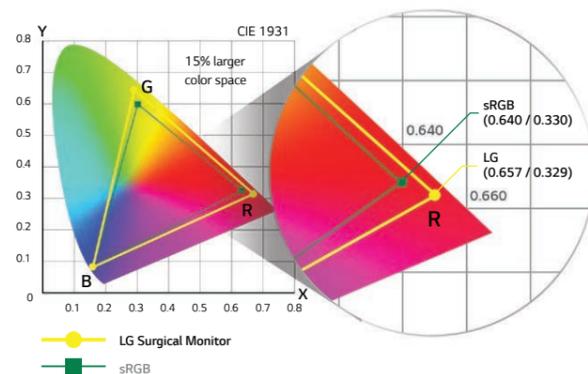
Images on screen are simulated

IPS | **Wide Viewing Angle** 178° | **Hardware Calibration Ready** | **True Color Pro** | **DICOM** | **Flicker Safe** | **PIP / PBP**

IPS & 115% of sRGB Enhancing Deep Red

The 8MP IPS display not only enables detailed observation of previously hard-to-see regions but also displays multiple imaging applications. In particular, the LG surgical monitor provides brightness and sRGB over 99% to ensure accurate color reproduction in the surgery room. Moreover, by adding a deep red color spectrum, the LG surgical monitor assures color expression of the red spectrum.

CIE 1931

15% larger color space

sRGB (0.640 / 0.330)
0.640
LG (0.657 / 0.329)
0.660

── LG Surgical Monitor
■ sRGB

*8MP(Mega Pixel): 4K, 3840x2160

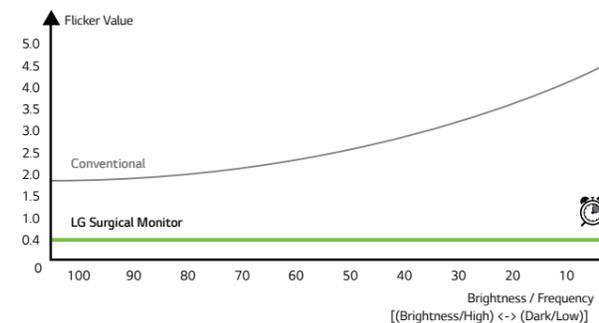## DICOM Part 14 & Brightness Stabilization

With various features to stabilize and adjust the brightness to meet standard viewing requirements, the LG surgical monitor carefully measures and sets every grayscale tone to create a monitor compliant with DICOM Part 14 to ensure visual accuracy and consistency. Furthermore, LG's surgical monitors offer stabilized brightness settings that quickly adapt during the surgical procedure to correspond to local lighting conditions.

DICOM Part 14, published by the National Electrical Manufacturers Association (NEMA) and the American College of Radiology (ACR), provides strict guidelines for performing grayscale display function calibration and quality assurance tests on displays used in medical imaging applications.

*DICOM (Digital Imaging and Communications in Medicine): Standard applied to the grayscale tone characteristics of monitors used in the medical field.
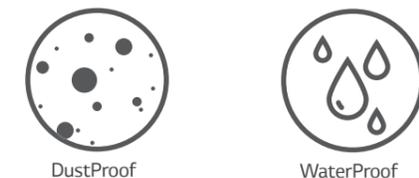
Flicker Safe

Flicker Safe reduces on-screen flickers, which helps minimize eye strain and eye fatigue. By combining Flicker Safe with the proven picture quality of IPS technology, users can comfortably work throughout the day.

Flicker Value

5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.4
0

Conventional

LG Surgical Monitor

100 90 80 70 60 50 40 30 20 10

Brightness / Frequency
[(Brightness/High) <-> (Dark/Low)]
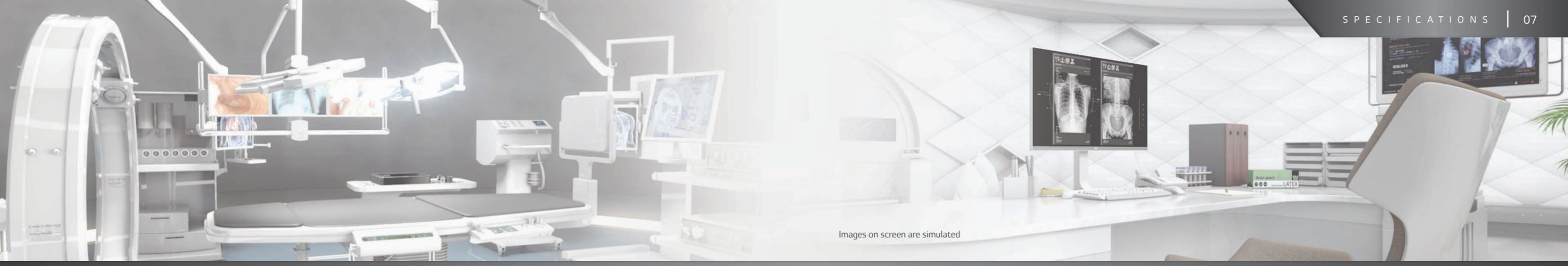
*This result based on internal LGE lab tests.

Dustproof & Waterproof

The LG's multi-coated glass is highly durable and scratch-resistant and protects the panel during surgical procedures. The front panel is IP35 rated and the back panel is IP32 rated, protecting against dust, water or fluids that may contact it during an operation. In addition to the waterproofing safeguards, its flat surface allows for easy cleaning of the 8MP panel and control buttons.
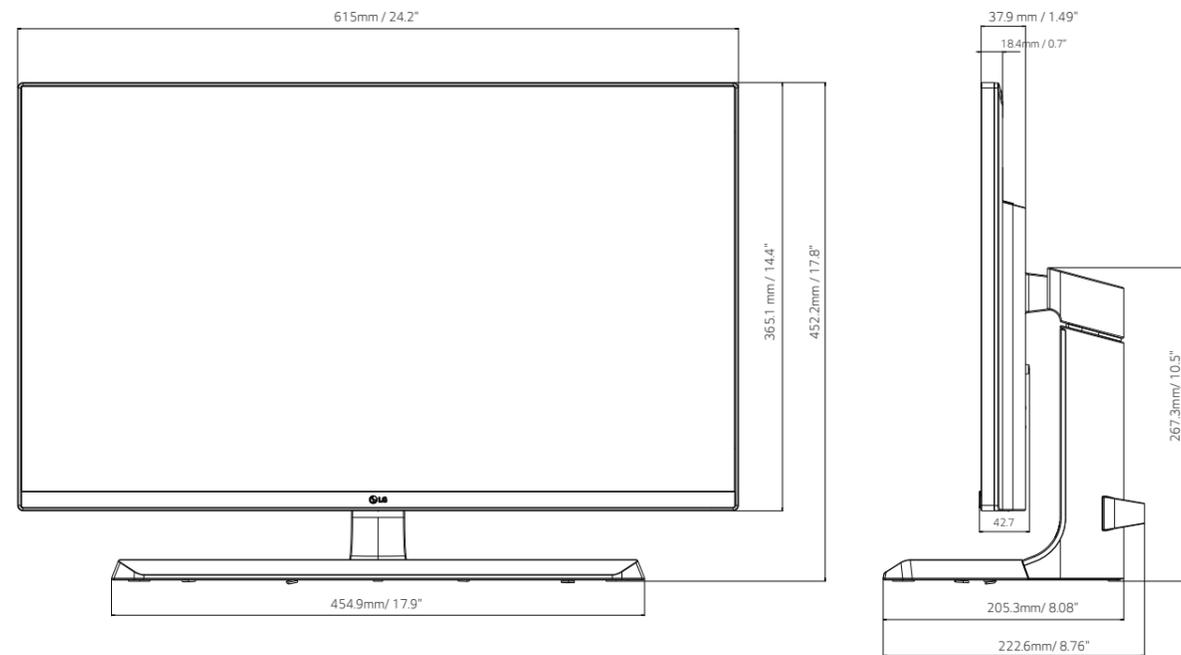
DustProof | WaterProof

Anti-reflection & Optical Bonding Glass

An LG surgical monitor with optically bonded glass significantly reduces internal reflection between the cover glass and the LCD to enhance accuracy. Improved anti-reflection ability enables displays to look brighter and sharper for the highest image quality. Now you can accurately judge what you see on-screen with high legibility and definition during the operation without eyestrain.
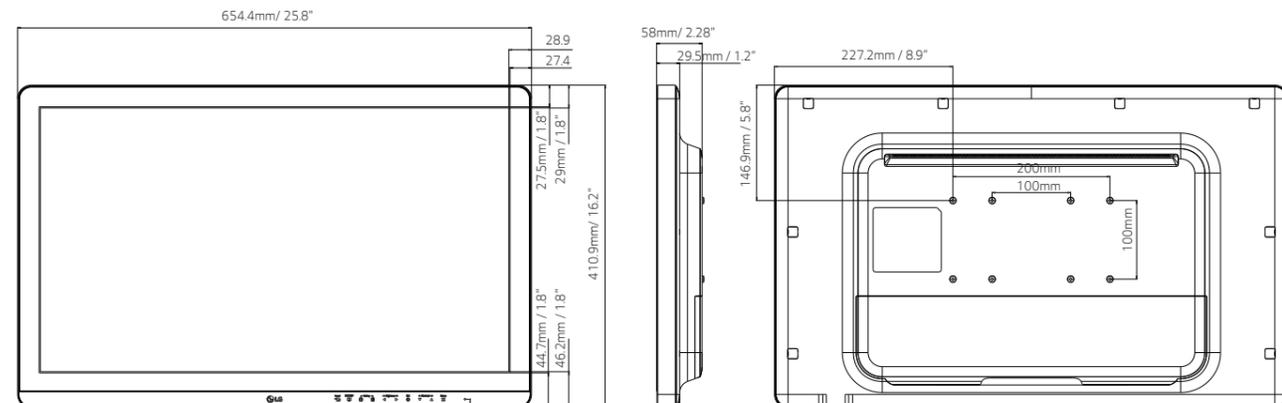
Images on screen are simulated

8MP Clinical Review Monitor   Dimension (mm / inches)

615mm / 24.2"

37.9 mm / 1.49"
18.4mm / 0.7"

365.1 mm / 14.4"
452.2mm / 17.8"

267.3mm/ 10.5"

42.7

454.9mm/ 17.9"

205.3mm/ 8.08"

222.6mm/ 8.76"

8MP Surgical Monitor

654.4mm/ 25.8"

28.9
27.4

58mm/ 2.28"
29.5mm / 1.2"

227.2mm / 8.9"

275mm / 1.8"
29mm / 1.8"

146.9mm / 5.8"

410.9mm / 16.2"

200mm
100mm

100mm

44.2mm / 1.8"
46.2mm / 1.8"

Specifications

ITEMS		LG 8MP Clinical Review Monitor	LG 8MP Surgical Monitor
		27HJ712C-W	27HJ710S-W
Panel	Type	IPS	IPS + Glass
	Size	27" (16:9)	27" (16:9)
	Native Resolution	3840 x 2160	3840 x 2160
	Pixel Pitch	0.1554mm x 0.1554mm	0.1554mm x 0.1554mm
	Display Colors	10bit(8bit+ FRC)/sRGB 99%	10bit(8bit+ FRC)/ sRGB99% + Deep Red
	Viewing Angles	178/178	178/178
	Brightness	350cd/m2	800cd/m2
	Surface Treatment	Anti-Glare 3H	Optical Bonding Glass (1.3T)
	Contrast Ratio (typical)	1000:1	1000:1
	Response Time (typical)	14ms (Typ.)	14ms (Typ.)
Video Signals	Input Terminals	HDMI(2.0) x 2, DP(1.2) x 1	HDMI(2.0) x 1, DP(1.2) x 1, DVI-D x 1, 3G-SDI x 1
	Output Terminals	Headphone Out	DP(1.2) x 1, DVI-D x 1, 3G-SDI x 1
	Digital Scanning Frequency (H/V)	30~135kHz / 56~61Hz	HDMI, DP: 30~135kHz / 56~61Hz DVI-D: 30~83kHz / 56~61Hz
	Sync Formats	Dynamic Sync Mode (Thru Mode)	Dynamic Sync Mode (Thru Mode)
USB	Function	1upstream, 2downstreams	1upstream, 1downstream (For calibration)
	Standard	USB3.0	USB3.0
Power	Power Requirements	100-240Vac, 50/60Hz	100-240Vac, 50/60Hz
	Maximum Power Consumption	65W	120W
	Power Save Mode	0.5W	-
	Power Management	0.3W	0.3W
Sensor		Brightness Stabilization	Brightness Stabilization
Environmental Requirements		-	IP35 Rated (Front) / IP32 Rated (Back)
Certifications & Standards		IEC(IEC60601-1 / IEC60601-1-2), FCC(FCC part 15 Class A), CB, UL(UL60601-1), C-UL-US, KC, RoHS, REACH, WEEE, CISPR, EN, ANSI, AAMI, CE MDD(Class 1) FDA(US) (FDA Class1)	
Supplied Accessories		Power cord, HDMI Cable, DP Cable, USB Cable, Adapter, CD/Book Manual	Power cord, HDMI Cable, DP Cable, Adapter, CD/Book Manual
Physical Specifications	Weight(Without Stand)	4.7kg/10.4lb	7.7kg/17.0lbs
	Weight(With Stand)	6.2kg/13.7lb	-
Other	UPC	7 19192 60960 0	7 19192 60919 8
Warranty		3 Year Limited Warranty (Parts and Labor)	

*The monitor stand is not included with the surgical monitor.