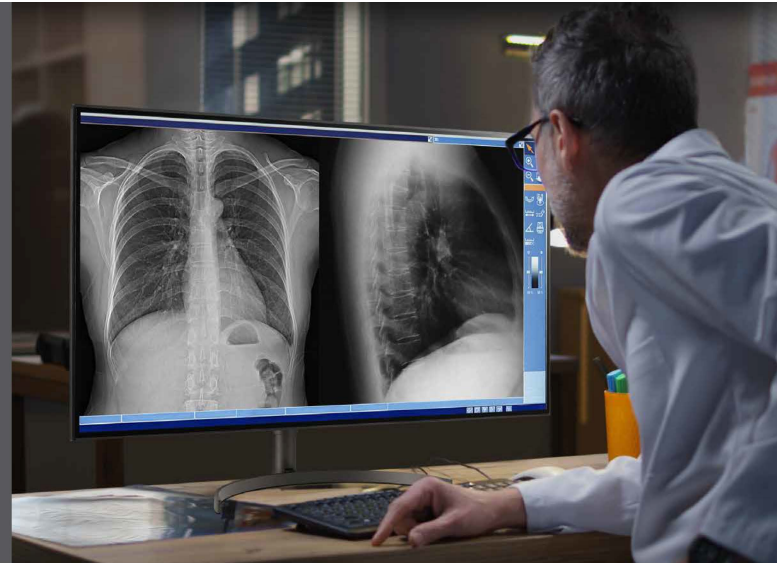


# Teleradiology with LG Medical Displays During the COVID-19 Pandemic

Radiology is proving to be of significant value in the care of COVID-19 patients, with chest X-rays and CT scans revealing patterns that are specific to COVID-19 infection. Because of this, the importance of teleradiology has emerged.

Teleradiology involves scans from one location being read by a specialist in another. This is especially important right now as doctors can't always be present due to lockdowns or self-isolation. In the midst of this global pandemic, medical staff are also overworked and in short supply. The sharing of information, and the ability to call upon a radiologist in a different state or on the other side of the world is a major life-saving benefit.



## The Challenges of Teleradiology

### ▶ Image Accuracy Issues

Consumer-grade monitors do not meet the clinical standards needed for viewing subtle differences in contrast, color, and brightness. Diagnoses are made by looking at monitors, so even small differences and defects in image quality must be avoided to reduce miscommunication among staff.

### ▶ Difficulty with Maintenance

In hospitals, monitors are calibrated by specialist companies that frequently visit to take measurements and make adjustments. It's a demanding task that would be difficult without the help of experts and specialized equipment.

### ▶ Undeveloped Working Environment

During this unprecedented time, many medical professionals are working long hours at home in order to keep everyone healthy. But when ergonomic working conditions are lacking, repetitive behavior causes chronic pain and poor eyesight and also reduces work efficiency.

## LG Medical Displays Are the Solution

### ▶ Excellent Image Quality for Reliable Reading

FDA-approved LG Medical Displays comply with DICOM Part 14 for optimal grayscale images and also support a wide color gamut. This allows more reliable and accurate reading of X-ray, MRI, and CT scans than non-medical displays. An IPS panel also provides wide viewing angles and enhanced image quality.

### ▶ Easy Maintenance

LG Medical Displays measure the backlight brightness stability and automatically compensate for brightness fluctuations caused by product aging, for consistently stable images.

Monitors can be calibrated and maintained with software. And the 21 HK512D model has a built-in front sensor for auto calibration — there's no separate manpower or machine needed.

### ▶ Comfortable Workstation

The LG Diagnostic Monitor has an Auto Luminance Sensor that detects ambient light and optimizes brightness to reduce eye strain.

The ergonomic design allows the user to work in a comfortable position for long hours at home.

# Specification

## LG Clinical Review Monitors

Resolution		8MP (3840x2160)		1.3 MP (1280x1024)
Inches (Aspect Ratio)		27-inch (16:9)		19-inch (5:4)
Model		27HJ713C	27HJ712C	19HK312C
Panel	Panel Type	IPS	IPS	IPS
	Color Gamut (Typ.)	sRGB over 99% (Coverage)	sRGB over 99% (Coverage)	NTSC 72% (Coverage)
	Viewing Angles (CR≥10)	178° (Right/Left), 178° (Up/Down)	178° (Right/Left), 178° (Up/Down)	178° (Right/Left), 178° (Up/Down)
	Brightness (Typ.)	350 cd/m²	350 cd/m²	330 cd/m²
	Surface Treatment	Anti-glare, 3H	Anti-glare, 3H	Anti-glare, 3H
	Contrast Ratio (Typ.)	1000:1	1000:1	900:1
	Response Time (GtG)	14ms (Off- setting), 5ms (Faster- setting)	14ms (Off- setting), 5ms (Faster- setting)	14ms (Off- setting), 5ms (Faster- setting)
Features	DICOM Compliant	Yes	Yes	Yes
	HW Calibration	Yes (True Color Pro)	Yes (True Color Pro)	Yes (True Color Pro)
Video Signals	Input Terminals	HDMI x2, DisplayPort x1	HDMI x2, DisplayPort x1	HDMI x1, DisplayPort x1
Connectivity	USB	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream
Power	AC Input	100-240Vac, 50/60Hz	100-240Vac, 50/60Hz	100-240Vac, 50/60Hz
	Power Consumption (Max.)	65W	65W	50W
	Power Consumption (DC Off)	Less than 0.3W	Less than 0.3W	Less than 0.5W
Certifications & Standards		IEC(IEC 60601-1 / IEC 60601-1-2), EN(EN 60601-1 / EN 60601-1-2), IEC(IEC 60950-1 / IEC 55032, 55024), EN (EN 60950-1 / EN 55032, 55024) cUL (ANSI/AAMI ES 60601-1, CSA CAN/CSA-C22.2 NO. 60601-1) FCC (FCC part 15 Class A), FDA (Registration (Class I)), RoHS, REACH, WEEE	IEC(IEC 60601-1 / IEC 60601-1-2), EN(EN 60601-1 / EN 60601-1-2), IEC(IEC 60950-1 / IEC 55032, 55024), EN (EN 60950-1 / EN 55032, 55024) cUL (ANSI/AAMI ES 60601-1, CSA CAN/CSA-C22.2NO. 60601-1) FCC (FCC part 15 Class A), FDA (Registration (Class I)), RoHS, REACH, WEEE	IEC(IEC 60601-1 / IEC 60601-1-2), EN(EN 60601-1 / EN 60601-1-2), IEC(IEC 60950-1 / IEC 55032, 55024), EN (EN 60950-1 / EN 55032, 55024) cUL (ANSI/AAMI ES 60601-1, CSA CAN/CSA-C22.2NO. 60601-1) FCC (FCC part 15 Class A), FDA (Registration (Class I)), RoHS, REACH, WEEE
User Convenience	PBP / Dual Controller	Yes (2PBP) / Yes	PBP (2PBP) / Yes	No / Yes
	Reader Mode / Flicker Safe	Yes / Yes	Yes / Yes	Yes / Yes
Physical Specifications	Weight (without Stand)	4.7 kg (10.4 lb)	4.7 kg (10.4 lb)	2.9 kg (6.4 lb)
	Weight (with Stand)	7.5 kg (16.5 lb)	6.2 kg (13.7 lb)	5.1 kg (11.2 lb)
	Borderless Design	3-Side Virtually Borderless Design	3-Side Virtually Borderless Design	Normal
	Adjustable Stand	Tilt: -5-25°, Swivel: ±45°, Height Range: 150mm, Pivot: ±90°	Tilt: -3-20°, Height Range: 110mm, Pivot: +90°	Tilt: -5-35°, Swivel: ±177.5°, Height Range: 130mm, Pivot: ±90°

## LG Diagnostic Monitors

Resolution		8MP (3840x2160)	3MP (2048x1536)
Inches (Aspect Ratio)		31.5-inch (16:9)	21.3-inch (4:3)
Model		32HL512D	21HK512D
Panel	Type	IPS	IPS
	Surface Treatment	Anti-glare, 3H	Anti-glare
	Color Gamut (Typ.)	DCI-P3 98% (CIE1976)	NTSC 72% (Coverage)
	Viewing Angles (CR≥10)	178° (Right/Left), 178° (Up/Down)	178° (Right/Left), 178° (Up/Down)
	Brightness (Typ.)	450 cd/m²	1000 cd/m²
	Contrast Ratio (Typ.)	1300:1	1400:1
	Response Time	GtG 14ms (Off - setting), GtG 5ms (Faster - setting)	On/Off 30ms(Typ.)
Features	DICOM Compliant	Yes	Yes
	HW Calibration	Yes (PerfectLum)	Yes (PerfectLum) with Internal Front Sensor
	HDR	HDR 10	No
	Display Mode	Multi-resolution Mode (8/6/4MP), Pathology Mode	No
Video Signals	Input Terminals	HDMI x1, DisplayPort x2	DVI x1, DisplayPort x1
Connectivity	USB	1 upstream, 2 downstream	1 upstream, 2 downstream
Power	AC Input	100-240Vac, 50-60Hz	100-240Vac, 50-60Hz
	Power Consumption (Max.)	65W	85W
	Power Consumption (DC Off)	Less than 0.3W	Less than 6.5W
Certifications & Standards		IEC (IEC 60601-1 / IEC 60601-1-2), EN (EN 60601-1 / EN 60601-1-2), IEC (IEC 60950-1 / IEC 55032, 55024), EN (EN 60950-1 / EN 55032, 55024), cUL (ANSI/AAMI ES 60601-1, CSA CAN/CSA-C22.2 NO. 60601-1), FCC (FCC part 15 Class A), FDA (510(k) (Class II)), RoHS, REACH, WEEE	IEC (IEC 60601-1 / IEC 60601-1-2), EN (EN 60601-1 / EN 60601-1-2), IEC (IEC 60950-1 / IEC 55032, 55024), EN (EN 60950-1 / EN 55032, 55024), cUL (ANSI/AAMI ES 60601-1, CSA CAN/CSA-C22.2 NO. 60601-1), FCC (FCC part 15 Class A), FDA (510(k) (Class II)), RoHS, REACH, WEEE
User Convenience	PBP	Yes (2PBP)	No
	Reader Mode / Flicker Safe	Yes / Yes	No / No
Physical Specifications	Weight (without Stand)	5.6 kg (12.4 lb)	7 kg (15.4 lb)
	Weight (with stand)	7.0 kg (15.4 lb)	9.8 kg (21.6 lb)
	Borderless Design	4-side Virtually Borderless Design	Normal
	Adjustable Stand	Tilt: -5-20°, Height Range: 110mm, Pivot: ±90°	Tilt: -5-25°, Swivel: ±45°, Height Range: 150mm, Pivot: ±90°

<https://www.lg.com/us/business/medical-monitors>

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