

Nio 3MP LED (MDNG-3220)

3MP diagnostic grayscale display system



- **Grayscale medical display with 2048 x 1536 resolution**
- **Excellent fit for the value segment**
- **Front sensor for on-demand image quality checks**

Nio 3MP LED is a cost-effective display system for high-quality imaging of diagnostic grayscale modalities. It comes with LED backlights and a unique front-of-screen sensor for excellent image quality at all times. These and other innovative features make your image look the best it can - at the best value for money in the market.

Improved reading productivity

Thanks to its high-bright LED backlights and high contrast ratio, Nio 3MP LED delivers excellent brightness and more shades of gray to detect subtle details more quickly, requiring less windowing and leveling.

Its unique front sensor technology, combined with LED specific uniformity correction and ambient light compensation, as well as interruption-free QA and calibration help radiologists read more studies each day.

Pre-programmed, automated features, such as DimView™ and SmartCursor™, enable a more intuitive workflow so you can work smarter, not harder.

On-demand image quality checks

The front-of-screen sensor on Nio 3MP LED, which works seamlessly with Barco's online MediCal QAWeb solution for automated Quality Assurance and on-demand calibration, makes sure you are viewing perfect DICOM images.

An excellent investment

Nio 3MP LED is as low in power consumption as it is high in brightness. Because it uses less power, the display produces less heat and requires less cooling, which impacts maintenance and operational costs. Barco's MediCal QAWeb service for automated QA and calibration further drives down operational costs.

A one-stop-shop solution



Barco medical displays include proprietary display controllers that are validated with the latest workstations and with all major PACS applications. They also include seamlessly integrated technologies and features to boost functionality and performance.

PRODUCT SPECIFICATIONS**NIO 3MP LED (MDNG-3220)**

Screen technology	IPS
Active screen size (diagonal)	520 mm (20.8")
Active screen size (H x V)	318 x 424 mm (12.52" x 16.69")
Aspect ratio (H:V)	4:3
Resolution	3MP (2048 X 1536)
Pixel pitch	0.207
Color imaging	No
Gray imaging	Yes
Number of grayscales (LUT in/LUT out)	1024 gray levels (10/12)
Viewing angle (H, V)	176°
Uniform Luminance Technology (ULT-LED)	Yes
Per Pixel Uniformity (PPU-LED)	No
Ambient Light Compensation (ALC)	No
Backlight Output Stabilization (BLOS)	Yes
Front sensor	Yes
Maximum luminance	1200 cd/m ² typical
DICOM calibrated luminance (ULT off)	500 cd/m ²
Contrast ratio (ULT off)	1200 typical
Response time (Tr + Tf)	30 ms (typical)
Scanning frequency (H; V)	15-129 kHz; 25-98 Hz
Housing color	Black / White
Video input signals	DVI-D Dual Link / DisplayPort
Video output signals	DisplayPort
Video inout terminals	NA
USB ports	1 upstream , 2 downstream
USB standard	2.0
Power requirements (nominal)	100-240V
Power consumption (nominal)	30W
Power save mode	Yes
Power management	DVI-DMPM
Dot clock	280 MHz
OSD languages	English, German, French, Dutch, Spanish, Italian, Chinese (Simplified), Japanese, Korean
Dimensions with stand (W x H x D)	Portrait: (w x hmax x d): 378 x 628 x 235 mm. (w x hmin x d): 378 x 528 x 235 mm Landscape: (w x hmax x d): 491 x 572 x 235 mm. (w x hmin x d): 491 x 472 x 235 mm
Dimensions w/o stand (W x H x D)	378 x 491 x 84 mm
Dimensions packaged (W x H x D)	495 x 388 x 655 mm
Net weight with stand	13 kg
Net weight w/o stand	8 kg
Net weight packaged with stand	17 kg
Net weight packaged w/o stand	12 kg

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Height adjustment range	100 mm
Tilt	-10° / +30°
Swivel	-45° / +45°
Pivot	90°
Mounting standard	VESA (100 mm)
Screen protection	Protective, non-reflective glass cover
Recommended modalities	CT, MR, US, DR, CR, NM, Film
Certifications	CE (MDD 93/42/EEC class II b product), CE -2014/30/EU, IEC 60601-1:2005+A1:2012, EN 60601-1-2:2015, ANSI/AAMI ES60601-1 (2005/(R)2012 +A1:2012+C1:2009/(R)2012 + A2:2010/(R)2012), CAN/CSA-C22.2 No. 60601-1:14, DEMKO -EN 60601-1:2006/A1:2013, GB9254-2008,GB4943.1-2011, GB17625.1-2012, KC, VCCI, FCC class B, ICES-001 Level B, FDA 510 (k), RoHS.
Supplied accessories	User Guide Quick-Installation Sheet Video cables (1 x DVI Dual Link + 1 x DisplayPort) Mains cables (UK, European (CEBEC/KEMA), USA (UL/ CSA; adaptor plug NEMA 5-15P), Chinese (CCC)) USB 2.0 cable External power supply (Manufacturer : BridgePower Corporation, Model : BPM060S24F09; Input : 100-240 Vac, 50-60 Hz, 1.5 A; Output : + 24Vdc , 2.7 A) This adapter(s) is a forming part of the medical device.
Optional accessories	None
QA software	MediCal QAWeb
Units per pallet	NA
Pallet dimensions (W x H)	NA
Warranty	5 years
Operating temperature	0°C to 35°C (15°C to 30°C within specs)
Storage -transport temperature	-20°C to 60°C
Operating humidity	8% -80% (non-condensing)
Storage -transport humidity	5% -85% (non-condensing)
Operating altitude	2000 m
Storage -transport pressure	7500 m

Last updated: 06 Feb 2018

Technical specifications are subject to change without prior notice. Please check www.barco.com for the latest information.