

Nio Gray 5.8MP (MDNG-6221)

Updated 5.8MP high-bright grayscale display



- Designed for radiology and 2D/3D mammography
- High-bright, adjustable tint grayscale
- I-Guard and QAWeb Enterprise for always-on compliance
- One-touch KVM switching
- Enhanced ambient light sensing and control

Are you a radiologist specializing in reading breast cases in mainly grayscale modalities, such as 2D mammography and 3D tomosynthesis? If the answer is yes, then the Nio Gray 5.8MP is cut out just for you. It's fully up to date with capabilities and innovations for today's breast imaging, making this a modern display system that is efficient and easy for you to use.

Bigger image, more details

Why 5.8MP? Well, in contrast to conventional 5.2MP display systems, you get 12% more pixels on your screen, which means that you can see more details at any given moment. Combine this with the tall 4:3 aspect ratio, which offers more room to view images in their entirety.

Reliable reading

The Nio Gray 5.8MP offers you more Just Noticeable Differences, thanks to its high brightness and contrast ratio. Our integrated stability, calibration and uniformity technologies make sure that image quality, light output and DICOM compliance remain consistent over the years. The ambient light measurement sensor helps you stay in control of the environment you work in.

Efficient workflow

The Nio Gray 5.8MP is more than a grayscale display alone. It offers many ways to personalize settings to your liking, such as preferred tints of white or viewing angle. The KVM option helps you switch between workstations at the touch of a button. On top of that, the display can help you improve your efficiency and speed, thanks to the set of Intuitive Workflow Tools included with our MXRT medical display controllers.



Did you know that SpotView, for example, makes it possible to make an area you choose twice as bright as it was originally? It's been proven to help radiologists reduce their reading time by as much as 15.5%.

Long lifetime, clear view

Install our free and secured QAWeb Enterprise application, and rely on intervention-free, remote quality assurance.

To summarize, your Nio Gray 5.8MP is a functional, easy-to-use diagnostic display system, fully up to date with today's innovations in general grayscale radiology, as well as 2D and 3D mammography. It comes with a 5-year warranty on all its components.

Ensuring diagnostic confidence with MDR Class IIa

Our radiology displays are MDR-certified as Class IIa. Their product information has been reviewed and cleared by independent medical and technical experts, and is audited yearly. In other words, we ensure diagnostic confidence and peace of mind for our users.

Technologies that enhance image quality:

- More detail on your screen, with 5.8MP resolution
- Designed to show breast images entirely, with 3:4 aspect ratio
- Increased contrast, with 1400:1 contrast ratio and 600 to 1000 cd/m² calibrated luminance
- Consistent brightness and grays, with Uniform Luminance Technology and SteadyGray
- Always stable DICOM images and auto QA, with I-Guard front sensor and optionally, QAWeb Enterprise
- Possibility to boost luminance, with I-Luminate and SpotView
- Optional settings and tools to adjust the display to your workflow, with Intuitive Workflow Tools

Ecolabel for Nio Gray 5.8MP

The Nio Gray 5.8MP has been subjected to Barco's ecoscoring protocol. Some key factors that contributed to this rating are:

- Energy efficient power supply, energy efficient standby and off modes
- Possibility to automatically switch to standby mode when device is not in use
- Halogen-free cables and plastics
- Use of recycled cardboard in packaging (>85% recycled content)
- Product design optimized for disassembly with common tools

Product specifications**NIO GRAY 5.8MP (MDNG-6221)****General Specifications**

Screen technology	LCD
Active screen size (diagonal)	541 mm (21.3")
Active screen size (H x V)	324 x 433 mm (12.77" x 17")
Aspect ratio (H:V)	3:4 for each display in portrait mode, 3:2 overall
Resolution	5.8 MP (2100 x 2800 pixels)
Pixel pitch	0.1545 mm
Color imaging	No
Gray imaging	Yes
Bit depth	10 bit
Viewing angle (H, V)	178°
Uniformity correction	ULT
SteadyGray	Yes
I-Luminate	Yes
Ambient light presets	Yes, reading room selection
Ambient light sensor	Yes
Front sensor	Yes, I-Guard
Maximum luminance (panel typical)	1560 cd/m ²
DICOM calibrated luminance	Warrantied maximum: 1000 cd/m ² Factory default: 600 cd/m ²
Contrast ratio (panel typical)	1400:1
Response time ((Tr + Tf)/2) (typical)	12.5 ms
Housing color	Black (RAL 9004) / White (RAL 9003)
Video input signals	2x DisplayPort 1.4
USB ports	2 x USB-B 2.0 upstream (endpoint) 5 x USB-A 2.0 downstream (of which 1 charge port)
KVM switch	Yes
Power rating	24 VDC, 5 A
Power requirements	This device shall only be powered by the medical approved power supply of AdapterTech., type ATM160T-P240 Input: 100-240 Vac, 50-60 Hz, 1.8-0.9 A Output: 24 Vdc, 6.6 A
Power consumption	60 W (nominal) 0.4 W (hibernate) 0.4 W (switched off)
Dimensions with stand (W x H x D)	Portrait: 378 x 528~628 x 235 mm Landscape: 491x 472~572 x 235 mm
Dimensions w/o stand (W x H x D)	Portrait: 378 x 491 x 84 mm Landscape: 491 x 378 x 84 mm
Dimensions packaged (W x H x D)	500 x 280 x 670 mm
Net weight with stand	With protective cover: 11.9 kg Without protective cover: 10.6 kg

Product specifications**NIO GRAY 5.8MP (MDNG-6221)**

Net weight w/o stand	With protective cover: 6.9 kg Without protective cover: 5.6 kg
Net weight packaged	With protective cover: 16.9 kg (without optional accessories) Without protective cover: 15.6 kg (without optional accessories)
Tilt	-10° to +30°
Swivel	-45° to +45°
Pivot	90°
Height adjustment range	100 mm
Mounting standard	VESA (100 mm)
Screen protection	Protective, anti-reflective glass (optional)
Recommended modalities	All digital images, including digital mammography.
Certifications	FDA 510(K) K170476 for General Radiology, Digital Mammography and Breast Tomosynthesis CE0123 (Medical Device) CCC (China), KC (Korea), INMETRO (Brazil), BIS (India) Safety specific: IEC 62368-1:2018 EN IEC 62368-1:2020+A11:2020 IEC 60601-1:2005+A1:2012+A2:2020 EN 60601-1:2006+A1:2013+A12:2014+A2:2021 AAMI ES 60601-1:2005+A1:2012+A2:2021 CAN/CSA C22.2 No. 60601-1:2014 (Reaffirmed 2022) EMI specific: IEC 60601-1-2:2014+A1:2020 (Ed.4.1) EN 60601-1-2:2015+A1:2021 (Ed.4.1) FCC part 15 Class B ICES-001 Level B VCCI (Japan) Environmental EU RoHS, China RoHS, REACH, Canada Health, WEEE, Packaging Directive
Supplied accessories	User Guide Documentation disc System sheet Video cable (1x DisplayPort) Mains cable(s) USB cable External power supply
Optional accessories	Graphics board
QA software	QAWeb Enterprise
Warranty	5 years, including 40000 hours backlight warranty
Operating temperature	0 °C to 40 °C (15 °C to 30 °C within specs)
Storage temperature	-20 °C to 60 °C
Operating humidity	8 % to 80 % (non-condensing)
Storage humidity	5 % to 85 % (non-condensing)
Operating pressure	70 kPa
Storage pressure	50 to 106 kPa

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