Nio Color 3MP (MDNC-3521)

Your 21" 3MP companion for general radiology today





- A trusted display with a long and stable lifetime
- A complete solution, up to speed with radiology today
- Intervention-free QA with QAWeb Enterprise
- A++ ecolabel thanks to high energy efficiency

Our Nio Color 3MP display is part of a range of modern radiology monitors that gives you what you need. No fluff, no overload of functionalities. But a sleek thin bezel design and just those tools and technologies that help you process cases effortlessly and efficiently.

A radiology monitor that fits your daily reading like a glove

Nio 3MP offers you exactly those tools that will make a difference. It boasts no less than 701 JNDs, so you can read detailed images with confidence. Its high luminance, I-Guard and Uniform Luminance technologies offer you a bright and stable screen quality. And the display also contains our SteadyColor and SteadyGray technologies for stable colors and grays. In any imaging modality.

Clean desk, clear head

All of the above is built into an elegant design with thin bezels that fits both your hospital, and your home office desks. Moreover, you can rotate your Nio 3MP monitor between portrait and landscape format. Combine it in multi-head arrangements, two or three or four heads, neatly arranged in an arc embracing you.

A bright future

With Nio 3MP, you get a stable performance and a complete, industry-leading 5-year warranty that guarantees 20,000 backlight hours. Furthermore, our unique set of Intuitive Workflow Tools offers you a series of productivity hacks for more focus, flexibility and comfort. For example, did you know that SpotView has been proven to decrease reading time with no less than 15.5%? In short: you can rest easy with this young companion. For many years to come.

Always a clear view with QAWeb Enterprise

QAWeb Enterprise helps you manage quality and assure compliance of your expanding healthcare enterprise with less effort, lower cost, and complete confidence. This fully automated and secure system supports consistent image





QAWeb Enterprise helps you manage quality and assure compliance of your expanding healthcare enterprise with less effort, lower cost, and complete confidence. This fully automated and secure system supports consistent image quality, stable performance and uptime for all PACS display systems across your enterprise. You can install QAWeb Enterprise for free on all our diagnostic and clinical review displays.

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.

A++ ecolabel for Nio Color 3MP

The Nio Color 3MP has been subjected to Barco's ecoscoring protocol and has received an A++ rating. Some key factors that contributed to this rating are:

- High energy efficiency: 29% better than predecessor
- 100% halogen-free cables, PCBs & plastic parts >25g
- Cardboard packaging with 84% recycled content
- Unpainted housing
- Enclosure uses polymers compatible for recycling

Product specifications	NIO COLOR 3MP (MDNC-3521)
General specifications	
Screen technology	IPS-SFT Color LCD
Active screen size (diagonal)	541 mm (21.3°)
Active screen size (H x V)	433 x 325 mm (17.1 x 12.8")
Aspect ratio (H:V)	4:3
Resolution	3MP (2048 x 1536 pixels)
Pixel pitch	0.2115 mm
Color imaging	Yes
Gray imaging	Yes
Bit depth	30 bit
Viewing angle (H, V)	178°
Uniformity correction	ULT
SteadyGray	Yes (in MXRT display controller), when used as a system with MXRT display controller & QAWeb Enterprise
SteadyColor	Yes (in MXRT display controller), when used as a system with MXRT display controller & QAWeb Enterprise
RapidFrame	Yes
Ambient light presets	Yes, reading room selection
Ambient light sensor	Yes
Front sensor	Yes, I-Guard
Presence sensor	Yes
Maximum luminance (panel typical)	1050 cd/m ²
DICOM calibrated luminance	600 cd/m ²
Contrast ratio (panel typical)	2000:1
Response time ((Tr + Tf)/2) (typical)	12 ms (gray-to-gray average)
Housing color	Black (RAL 9004) / White (RAL 9003)
Video input signals	2x DisplayPort 1.4
Video output signals	N/A
USB ports	2x USB-B 2.0 upstream (endpoint) 5x USB-A 2.0 downstream (of which 1 charge port)
KVM switch	Yes
Power rating	24 VDC, 4 A
Power requirements	This device shall only be powered by the medical approved power supply of Adapter Technology Co., Ltd., type ATM160T-P240. Ratings marked on the power supply: Input: 100-240 VAC, 1.8-0.9 A, 50-60 Hz Output: 24 VDC, 6.6 A
Power consumption	45 W (nominal) < 0.35 W (hibernate) < 0.30 W (switched off)
Dimensions with stand (W x H x D)	Portrait: 351 x 531~631 x 225 mm Landscape: 491 x 462~562 x 225 mm
Dimensions w/o stand (W x H x D)	Portrait: 351 x 491 x 64 mm Landscape: 491 x 351 x 64 mm
Dimensions packaged (W x H x D)	455 x 210 x 770 mm
Net weight with stand	MDNC-3521 xPxx: 8.8 kg MDNC-3521 xNxx: 7.7 kg
Net weight w/o stand	MDNC-3521 xPxx: 5.8 kg MDNC-3521 xNxx: 4.7 kg
Net weight packaged	MDNC-3521 xPxx: 12.2 kg (without optional accessories) MDNC-3521 xNxx: 11.2 kg (without optional accessories)
Tilt	-10° to +30°
Swivel	-30° to +30°
Pivot	90°
	100 mm
Mounting standard	VESA (100 mm)
Screen protection	MDNC-3521 SPES/SPES DE: Protective, anti-reflective front glass MDNC-3521 SNES: N/A
Recommended modalities	All digital images, except digital mammography

Product specifications	NIO COLOR 3MP (MDNC-3521)
Certifications	CE0123 (Medical Device) FDA 510(k) K230520 CCC (China), KC (Korea), BSMI (Taiwan), INMETRO (Brazil -Product numbers K9300390A1X, K9300391A1X), BIS (India), EAC (Russia, Kazakhstan, Belarus, Armenia and Kyrgyzstan) Safety specific: IEC 60950-1:2005+A1:2009+A2:2013 EN 60950-1:2006+A1:2010+A11:2009+A12:2011+A2:2013 IEC 62368-1:2018 EN IEC 62368-1:2012+A11:2020 IEC 60601-1:2005+A1:2012+A2:2020 EN 60601-1:2005+A1:2012+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)
Supplied accessories	Environmental: EU RoHS, China RoHS, REACH, Canada Health, WEEE, Packaging Directive User Guide Documentation disc System sheet Video cables Mains cable(s) USB cable External power supply
Optional accessories	Display controller
QA software	QAWeb Enterprise
Warranty	5 years, including 20000 hours backlight warranty
Operating temperature	0 °C to 35 °C (20 °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

Last updated: 11 Sep 2024

© 2024 Barco nv. All rights reserved. Reproduction in whole or in part without written permission is prohibited. All brand names and product names are trademarks, registered trademarks or tradenames of their respective holders. Due to continued innovation, information and technical specifications are subject to change without prior notice. Please check www.barco.com for the latest specifications.

BARCO