

# Nio Color 3MP (MDNC-3421)

3MP high-bright color display



- **Best image quality on the market for 3MP color**
- **Automated Quality Assurance and calibration for stable DICOM images**
- **Fully-tested system solution from a single source, for ultimate peace of mind**

Nio Color 3MP is a 3-megapixel high-bright color display system with LED backlights, providing excellent image quality for confident diagnoses. Its exceptional brightness (calibrated at 500 cd/m<sup>2</sup>) helps you discern even the tiniest detail - even after many years of use.

## **The best 3MP color solution on the market**

The new Nio Color 3MP offers the best image quality in the market for a 3MP color solution. Its high brightness and high contrast ratio enable you to unveil even the subtlest details. With the integrated smart features, you can easily take control and improve your productivity. SpotView™, for example, allows you to focus on an area of interest to unveil even more details. And with DimView™, any auxiliary displays can be automatically dimmed. The Nio Color 3MP is also an excellent solution for radiologists who want to angle their desktop: it lets you choose your preferred viewing angle and offers highly ergonomic display configuration.

## **Stable image quality, durable investment**

Using Barco's integrated front sensor, the Nio Color 3MP works perfectly with Barco's QAWeb Enterprise solution for automated Quality Assurance and calibration. QAWeb Enterprise guarantees stable DICOM images throughout the display's lifetime. By default, Barco displays are equipped with a protective cover to safeguard your investment. Thanks to the high-performance LED backlights, the Nio Color 3MP requires less power, even at higher calibrated luminance. This has a positive impact on both maintenance and operational costs.

## **Ultimate peace of mind**

Barco is the only company that provides complete system solutions, from display and controllers to workflow tools and calibration via QAWeb Enterprise. All



Barco is the only company that provides complete system solutions, from display and controllers to workflow tools and calibration via QAWeb Enterprise. All components are covered by our full 5-year warranty. At product release, Barco extensively tests the displays compatibility with all major PACS applications.

### 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.

Please consult your Barco representative or distributor in your country or territory to confirm availability. A reference to any product or service on this site does not imply that such product is or will be available in your location.

- High-bright and power-efficient LED backlights
- Accurate grayscale and color rendering
- Front sensor and QAWeb Enterprise for easy DICOM conformance
- High-performance 3D rendering with full 3D, OpenGL and DirectX support

**Product specifications****NIO COLOR 3MP (MDNC-3421)****General specifications**

|                                       |                                                                                                                                                                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Screen technology                     | IPS-TFT Color LCD                                                                                                                                                                                                                                          |
| Active screen size (diagonal)         | 540 mm (21.3")                                                                                                                                                                                                                                             |
| Active screen size (H x V)            | 432 x 324 mm (17.0 x 12.8")                                                                                                                                                                                                                                |
| Aspect ratio (H:V)                    | 4:3                                                                                                                                                                                                                                                        |
| Resolution                            | 3MP (2048 x 1536 pixels)                                                                                                                                                                                                                                   |
| Pixel pitch                           | 0.2109 mm                                                                                                                                                                                                                                                  |
| Color imaging                         | Yes                                                                                                                                                                                                                                                        |
| Gray imaging                          | Yes                                                                                                                                                                                                                                                        |
| Bit depth                             | 30 bit                                                                                                                                                                                                                                                     |
| Viewing angle (H, V)                  | 178°                                                                                                                                                                                                                                                       |
| Uniformity correction                 | ULT                                                                                                                                                                                                                                                        |
| Ambient light presets                 | Yes, reading room selection                                                                                                                                                                                                                                |
| Backlight Output Stabilization (BLOS) | No                                                                                                                                                                                                                                                         |
| Front sensor                          | Yes                                                                                                                                                                                                                                                        |
| Maximum luminance (panel typical)     | 900 cd/m <sup>2</sup>                                                                                                                                                                                                                                      |
| DICOM calibrated luminance            | 500 cd/m <sup>2</sup>                                                                                                                                                                                                                                      |
| Contrast ratio (panel typical)        | 1400:1                                                                                                                                                                                                                                                     |
| Response time (Tr + Tf) (typical)     | 20 ms                                                                                                                                                                                                                                                      |
| Housing color                         | RAL 9003 / RAL 9004                                                                                                                                                                                                                                        |
| Video input signals                   | DVI-D Dual Link<br>DisplayPort                                                                                                                                                                                                                             |
| USB ports                             | 1x USB 2.0 upstream (endpoint)<br>3x USB 2.0 downstream                                                                                                                                                                                                    |
| Power rating                          | 24 VDC, 4 A                                                                                                                                                                                                                                                |
| Power requirements                    | This device shall only be powered by the following medical approved power supply:<br>Sinpro Electronics, type CPU110-201<br>Ratings marked on the medical power supply:<br>■ Input rating: 100–240 VAC, 1.5 A, 47–63 Hz<br>■ Output rating: 24 VDC, 4.58 A |
| Power consumption                     | 50 W (nominal)<br>< 0.5 W (standby)                                                                                                                                                                                                                        |
| Dimensions with stand (W x H x D)     | Portrait: 378 x 528~628 x 235 mm<br>Landscape: 491 x 472~572 x 235 mm                                                                                                                                                                                      |
| Dimensions w/o stand (W x H x D)      | Portrait: 378 x 491 x 84 mm<br>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: 11.2 kg<br>Without protective cover: 10.7 kg                                                                                                                                                                                        |
| Net weight w/o stand                  | With protective cover: 6.2 kg<br>Without protective cover: 5.7 kg                                                                                                                                                                                          |
| Net weight packaged                   | With protective cover: 15.7 kg (without accessories)<br>Without protective cover: 15.2 kg (without accessories)                                                                                                                                            |

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|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 cover (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Recommended modalities  | All digital images, except digital mammography                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Certifications          | <p>CE0123 (Medical Device)<br/>FDA 510(K) K170837 for General Radiology<br/>CCC (China), KC (Korea), PSE (Japan), INMETRO (Brazil -Product Numbers: K9300340B, K9300341B, K9300342B), BIS (India), EAC (Russia, Kazakhstan, Belarus, Armenia and Kyrgyzstan)</p> <p>Safety specific:<br/>IEC 60950-1:2005 + A1:2009<br/>EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013<br/>IEC 60601-1:2005 + A1:2012<br/>EN 60601-1:2006 + A1:2013 + A12:2014<br/>ANSI/AAMI ES 60601-1:2005 + R1:2012<br/>CAN/CSA C22.2 No. 60601-1:14</p> <p>EMI specific:<br/>IEC 60601-1-2:2014 (ed4)<br/>EN 60601-1-2:2015 (ed4)<br/>FCC part 15 Class B<br/>ICES-001 Level B<br/>VCCI (Japan)</p> <p>Environmental:<br/>China Energy Label, EU RoHS, China RoHS, REACH, Canada Health, WEEE, Packaging Directive</p> |
| Supplied accessories    | <p>User guide<br/>Documentation disc<br/>System sheet<br/>Video cable (1 x DisplayPort)<br/>Mains cable(s)<br/>USB 2.0 cable<br/>External power supply</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Optional accessories    | Graphics board                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| QA software             | QAWeb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Warranty                | 5 years, including 20000 hrs backlight warranty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operating temperature   | 0 °C to 40 °C (15 °C to 35 °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 minimum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Storage pressure        | 50 to 106 kPa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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