

NEC MD21GS-2MP



• Medical-image tested

NEC MD Series Digital Display Systems

Display Systems for Primary Diagnostics of Medical Images

The NEC MD21GS-2MP flat panel display systems are suitable for displaying and viewing of digital images for diagnosis by trained physicians. Applications include diagnostics image reporting in radiography as well as CT, MRI and other medical imaging techniques. To guarantee the display performance as specified, a MD21GS-2MP display must only be used in conjunction with NEC approved display controller boards.

Key Features:

- 21.3" SA-SuperFine Greyscale TFT glass
- 2.0 Megapixel image resolution (1200 x 1600 pixels in portrait orientation)
- Unique XLight® Backlight System for long lasting stable white point and simple matching in the field
- Up to 1024 simultaneous shades of grey out of a palette of 3061
- Individual factory calibrated DICOM gamma correction curve
- Precise DICOM GSDF calibration using internal 10-bit look-up table
- 16.0 mm bezel width for multi-screen applications
- Height adjustable stand (Range: 46 mm)
- VESA standard mount capable for arms and walls
- Kensington Lock ready for theft security
- Optional protective screen (click-on option)

GammaCompMD Client Software included:

- ▷ Calibration of white luminance and white point
- ▷ Matching of multi-head display systems for luminance and white point
- ▷ Precise DICOM part 14 calibration, including ambient light offset
- ▷ Supports AAPM TG18 and DIN 6868-57 Quality Assurance routines
- ▷ Supports several calibration instrument models, both attachable colorimeter types as well as spot luminance meter types
- ▷ Client Part of the NEC GammaCompMD Administration Suite - fully scalable for QA of up to 1000 PACS Workstations



NEC MD21GS-2MP

Panel technology	SA-SuperFine Greyscale TFT
Screen diagonal [inch/cm]	21.3 / 54.0
Active screen area [cm]	43.2 x 32.4
Native resolution [Megapixel]	2.0
Landscape / Portrait mode [Pixel]	1600 x 1200 / 1200 x 1600 at 60 Hz
Pixel pitch [mm]	0.270 x 0.270
Contrast ratio (typ.)	700 :1
Viewing angle (H / V @ CR > 10:1)	176°/ 176°
Luminance (maximum Native)	900 cd/m ²
Luminance (calibrated)	400 cd/m ² , recommended
Response time (typ.) [ms]	35 (t _r + t _p)
Greyscale reproduction [Bit-Depth]	Max. 1024 grey tones out of a pallet of 3061 (11.5 bit)
Programmable gamma correction	8 bit (256 grey tones) or 10 bit (1024 grey tones)
Factory calibration	Gamma correction according to DICOM GSDF at 400 cd/m ²
Signal inputs	Digital: 1 x DVI-D Single Link, Packed Pixel; 1 x Mini D-Sub 15 pin
Horizontal frequency [kHz]	31.5-91.1
Vertical frequency [Hz]	50.0 - 85.0
Power consumption (max.) [W]	65
Power saving mode [W]	<3.0
Power requirements	100-120V / 220-240V AC 0.7 A / 0.35 A ; integrated power supply
Dimensions (W x H x D) [mm]	359 x 514 - 560 x 200 in portrait orientation; 467 x 460 - 506 x 200 in landscape orientation
Weight (including stand) [kg]	11.7
Stand features	46 mm height adjust range, Tilt, Swivel, Screen rotation
Safety and ergonomics	CE-MDD (EN60601-1, EN60601-1-2); TÜV Approved Medical Device (TÜV GM); TÜV Medical-Image tested, DIN 6868-57, FDA510(k), CCC
Ambient temperature (operating) [°C]	+5 to +40
Ambient humidity (operating) [%]	30 to 80 (non-condensing)
VESA mounting interface [mm]	100 x 100 (4 points)
Kensington Lock (Theft security)	yes
Other advanced features	X-Light® Backlight System for stable white luminance and white point; Individual factory calibrated DICOM gamma correction curve; Precise DICOM GSDF calibration using internal 10-bit look-up table; Control buttons on cabinet back side, with virtual keypad on screen; Multiple OSD lock-out modes to prevent tampering with calibrated screen
Approved Display Controllers	Choice of Matrox and nVIDIA models for best imaging performance and compatibility with GammaCompMD software
Warranty	3 years warranty incl. backlight
Shipping contents	Display; Continental and UK power cord; Signal Cable DVI-D to DVI-D; Multiple language quick reference guide; CD-ROM with User Guides, GammaCompMD Client QA Software and approved display controller drivers
Options	Calibration instrument (MDSVSENSOR), Protective screen (click-on option)

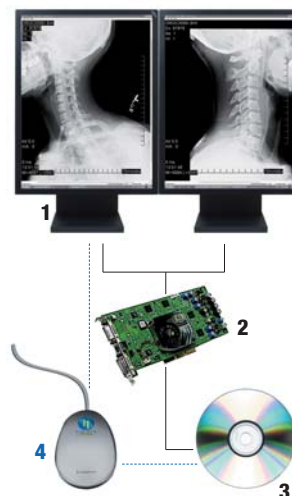
NEC MD SERIES GREYSCALE DISPLAY SYSTEM CONFIGURATIONS*

Display Model variety	2 Megapixel Single or Dual Display Blue Base or Clear Base
Display controller board variety	8 Bit or 10 Bit PCI or PCI Express Bus
Software	GammaCompMD QA Software

CE-MDD declaration for model MD21GS-2MP is in accordance with the European Directive 93/42/EEC (Medical Device Directive). NEC MD Series Display Systems are registered as medical devices at DIMDI and succeeded pre-qualification for the German X-ray ordinance acceptance tests according to DIN V6868-57.

For further informationen please contact us at: med-info@nec-displays.com
www.medical.nec-display-solutions.com

The data in this publication is for illustration purposes only and does not necessarily represent standards or specifications which must be met by NEC Display Solutions. All hardware and software names are brand names and/or registered trademarks of the respective owners. All rights reserved, in particular for the case of granting of patent or petty patent. Availability and technical specifications are subject to change without notice. Issue: March 2007.



A typical NEC MD Series Display System configuration

- 1 Single or Dual head displays
- 2 Display Controller Board
- 3 GammaCompMD Quality Assurance Software
- 4 Calibrator (optional)