

NEC MultiSync® MD Series

High-bright LCD diagnostic displays ideal for color and grayscale medical imaging applications

Designed exclusively for the demanding needs of radiology, medical imaging, PACS and mammography, the NEC MultiSync MD Series diagnostic displays embody the precision, high performance and intelligence you'd expect from a trusted leader in display technology. The series includes 2- and 3- Megapixel (MP) color displays, and 3MP and 5MP grayscale displays.

Model	Size	Type
MD210C2 / MD211C2	21.3"	2MP Color
MD210C3 / MD211C3	21.3"	3MP Color
MD212G3	21.3"	3MP Grayscale
MD211G5	21.3"	5MP Grayscale
MD302C4	30"	6MP Color



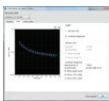
Highlights

- Each MD Series monitor is factory-calibrated to the DICOM grayscale display function for luminance and every model features an integrated front sensor for stable luminance
- Outstanding image quality for both color and grayscale images due to NEC's LCD technologies that offer high brightness without compromising contrast or viewing
- Color displays feature brightness and contrast performance rivaling grayscale displays while grayscale displays feature long life, high resolution and high brightness
- Most models feature Digital Uniformity Correction reduces differences in color, grayscale and luminance across the entire screen
- Most color models feature an integrated, tri-stimulus (three-color) sensor is more accurate and stable than standard luminance sensors
- More finely detailed and accurate display of even the most delicate shadings and color differences due to lookup tables (LUTs) as large as 16-bit
- Select models feature quick startup and a human presence sensor to save energy when not in use
- FDA 510(k) cleared for use in digital radiology applications (select models)

Specifications

MODEL	MD210C2	MD211C2	MD210C3	MD211C3	MD212G3	MD211G5	MD302C6
DISPLAY							
Viewable Image Size	21.3"						30"
Color Type	Color				Grayscale		
MegaPixels	2MP	2MP	3MP		5MP		6MP
Native Resolution	1600 x 1200	1600 x 1200	2048 x 1536		2048 x 2560		3280 x 2048
Pixel Pitch	0.27mm		0.21mm		0.17mm		0.197mm
Pixels Per Inch	94@ native resolution	94 @ native resolution	120 @ native resolution		154 @ native resolution		129@ native resolution
Brightness (typical)	400 cd/m ² calibrated / 760 cd/m ² max.	400 cd/m ² calibrated / 900 cd/m ² max.	400 cd/m ² calibrated / 740 cd/m ² max.	400 cd/m ² calibrated / 800 cd/m ² max.	400 cd/m ² calibrated / 1700 cd/m ² max.	500 cd/m ² calibrated / 1200 cd/m ² max.	400 cd/m ² calibrated / 800 cd/m ² max.
Contrast Ratio (typical)	1400:1				1400:1		1000:1
Viewing Angle	176° Vert., 176° Hor. (88U/88D/88L/88R) @ CR>10					176° Vert., 176° Hor. (88U/88D/88L/88R) @ CR>50	
Response Time	20ms	40ms	40ms	40ms	20ms (white to black)	25ms	15ms (black to white)
Lookup Table	14-bit				16-bit		13.5-bit
Displayable Colors	16.8 million colors out of a 4.398 trillion color palette (8-bit)	16.8 million colors out of a 4.398 trillion color palette (8-bit) / 1.074 billion colors out of a 4.398 trillion color palette (10-bit) / 16,384 levels of grayscale	16.8 million colors out of a 4.398 trillion color palette (8-bit)	16.8 million colors out of a 4.398 trillion color palette (8-bit) / 1.074 billion colors out of a 4.398 trillion color palette (10-bit) / 16,384 levels of grayscale	1024 shades of gray out of 48,961 (256 shades of gray out of 48,961 [DVI-D])	1024 levels of gray out of a palette of 12277	1.07 billion colors out of 4.3 trillion or 1024 shades of gray out of 4096 (10-bit); 16.7 million colors out of 1.05 billion color palette or 256 shades of gray out of 4096 (DVI-D input)
Sensors	Tri-stimulus front				Front		
Synchronization Range							
Horizontal (Analog/Digital)	31.5-74.54/99.4kHz	31.5-74.5/99.4 kHz	31.5-94.8/126.3 kHz	31.5-94.8/126.3 kHz	31.5-126.3 kHz	30-135 kHz	31.5-126.5 kHz
Vertical	50-85 Hz	50-85 Hz	30, 50-85 Hz	30, 50-85 Hz	30-70 Hz	25-75 Hz	30-70Hz
CONNECTIVITY							
Input Connectors	DVI-D, DisplayPort						
POWER CONSUMPTION							
On (typical)	80W		85W	85W	50W	80W	173.5W
Power Savings Mode (typical)	<2W				2W	7W	16W
PHYSICAL SPECIFICATIONS							
Dimensions (WxHxD)							
Net (with stand)	14.7 x 19.3-23.4 x 9.3 in. / 373.4 x 490.6-593.4 x 235.5mm				18.7 x 14.9-20.9 x 9.0 in. / 474 x 380-530 x 228 mm	18.7 x 15.9-21.3 x 9 in. / 474.5 x 403.3-541.8 x 227.6mm	27.4 x 19.2 x 11.9 in. / 695.6 x 486.5 x 301.6 mm
Net (without stand)	18.6 x 14.7 x 4.1 in. / 473 x 373.4 x 104.1mm				18.7 x 14.4 x 3.6 in. / 474 x 367 x 93 mm	18.7 x 15.4 x 3.9 in. / 474.5 x 390 x 98.2mm	27.4 x 18.4 x 3.9 in. / 695.6 x 467.1 x 100.0 mm
Weight							
Net (with stand)	26 lbs. / 11.8 kg				23.8 lbs. / 10.8 kg	26 lbs. / 11.8 kg	38.8 lbs / 17.6 kg
Net (without stand)	17 lbs. / 7.8 kg				17.0 lbs / 7.7 kg	19.0 lbs. / 8.6 kg	25.1 lbs / 11.4 kg
VESA Hole Configuration	100 x 100mm				100 x 100mm		200 x 100mm
ENVIRONMENTAL CONDITIONS							
Operating Temperature	41-95°F / 5-35°C						
Operating Humidity	20 - 80%						
Operating Altitude	10,000 ft. / 3048m				9843 ft. / 3000m	10,000 ft. / 3048m	9843ft / 3000m
Storage Temperature	14-140°F / -10-60°C				-4-140°F / -20-60°C	14-140°F / -10-60°C	-4-140°F / -20-60°C
Storage Humidity	10 - 85%				20 - 80%	10 - 85%	
Storage Altitude	40,000 ft. / 12,192m				9843 ft. / 3000m	40,000 ft. / 12,192m	32808ft / 10000m
Tropical Environment	Yes				No		
LIMITED WARRANTY	5 years, including Advanced Overnight Exchange*						
ADDITIONAL FEATURES	DICOM GSDF calibrated; Digital uniformity correction; USB hub; Quick QA feature (MD210C2, MD211C2, MD210C3, MD211C3); GammaComp MD QA software; Analog/digital CableComp; Pivot; Tilt; Swivel; Height-adjustable stand						
SHIPS WITH	Power cord; DVI cable (Dual Link for several models); Setup sheet; CD-ROM (GammaCompMD QA software); DisplayPort cable; USB cable						
OPTIONAL ACCESSORIES	NVIDIA Quadro 2000D dual DVI PCIe video card (MDN-Q2000D); AMD V5800 dual DVI PCIe video card (MDA-V5800D); Matrox Xenia Pro triple-head video card (MDM-XENPRO); NVIDIA Quadro K2000 2GB PCIe video card (MDN-K2000), NVIDIA Quadro K2200 4GB PCIe video card (MDN-K2200); AMD W5000 2GB PCIe video card (MDA-W5000); AMD W5000 Quad DisplayPort 4GB PCIe video card (MDA-W5100); AMD W4100 Quad mini DisplayPort 2GB PCIe video card (MDA-W4100); Color calibration sensor (MDSSENSOR2); Standalone calibration sensor (MDSSENSOR3); Traceable calibration sensor (CC-I1PR02)						

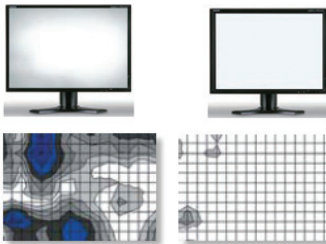
* Backlight replacement limited to 44,000 hours of usage at 400 cd/m² or less at the native white point (MD212C and MD213C limited to 30,000 hours at 400 cd/m² or less)



GammaCompMD™ QA software, included with each display, ensures consistent image quality. The software provides a simple interface for conformance to the DICOM standard, while providing an easy-to-use QA environment for medical imaging. The optional GammaCompMD QA Server provides centralized control and management of multiple display systems across the healthcare facility.



For consistent image quality the built-in front sensor constantly monitors and maintains brightness for optimal DICOM GSDF calibration and for non-assisted conformance, calibration and reporting functions, the sensor is capable of measuring monitor brightness, white-point and contrast response.



Achieve complete color and brightness uniformity. By nature, LCD panels contain uniformity errors, which are visible as slightly brighter or darker areas on the screen. To combat this inherent trait, each MD Series display is individually characterized during production and digital uniformity correction is applied. This technology, called ColorComp, reduces the non-uniformity to virtually unnoticeable levels and applies a digital correction to each pixel on the screen to compensate for differences in color and luminance.