

Orchestrating a brighter world

**NEC**

NEC Medical Display Solutions

# Hospital Wide Display Solutions



# The ideal visual interfaces for all hospital departments

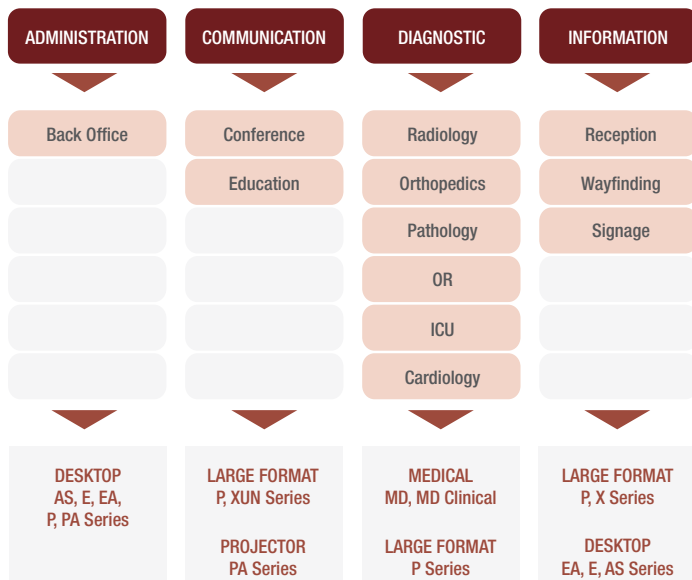
NEC stands for product quality and design perfection with a reputation for reliability and an enviable North American support infrastructure to back it up. Installing an NEC display means you can trust in our equipment and our company culture. Designed for long term operation, NEC displays and projectors incorporate innovative designs, high quality panels and components and go through demanding quality assurance levels; displays ready for the most demanding mission critical applications, out of the box.



## SETTING NEW STANDARDS FOR HEALTHCARE DISPLAY SOLUTIONS

As the leading manufacturer of innovative medical displays NEC Display Solutions is your partner to deal with the challenges of hospital wide digitalization process as we are able to offer the widest range of display products for any application.

Select from our Medical Displays, Desktop Displays, Large Format Displays or Projectors, in the knowledge that you have one point of support and the highest standards of cross-departmental integration to a common standard. Solutions that your facility needs to excel at what it does best – providing excellent healthcare.



## THE WIDEST PORTFOLIO OF DISPLAY SOLUTIONS OF ANY SUPPLIER

Today NEC boasts a comprehensive range of Desktop Displays, Large Format Displays and Projectors, with a model for almost any application from the largest venues or public places to offices and smaller classrooms. NEC is one of the world's largest IT companies, with regional headquarters in North America, Europe and Japan.

NEC offers a wide-range of healthcare solutions that can help establishments improve performance and diagnostic accuracy and streamline care delivery through sophisticated mobile and point-of-care communications systems.



## NEC MultiSync® MD SERIES DIAGNOSTIC DISPLAYS

The MD Series of high end diagnostic displays ensure the highest level of image quality due to excellent luminance uniformity, contrast and full DICOM Part 14 compliance. Backed by years of experience in the research and development of medical LCD displays, NEC offers a high quality range of true 10 bit grayscale diagnostic monitors such as the MD212G3 (3MP) with an exceptional maximum luminance level of 1700 cd/m<sup>2</sup> and the MD211G5 (5MP) grayscale display, which delivers optimal image quality and performance for digital mammography.

Wide format panels such as those found in the MD302C6 diagnostic and MD242C2, MD302C4, and MD322C8 clinical displays have created new opportunities for medical imaging. Those models support the Split Screen mode, where you can display two screens on a single monitor. The MD302C6 can therefore replace two 3MP displays, saves space and also decreases eye fatigue by looking at only one display.

The latest series of high luminance color diagnostic displays MD210C2, MD211C2 (2MP), MD210C3 and MD211C3 (3MP), incorporating Ultra- Advanced Super Fine TFT technology, offer the highest diagnostic image quality for 3D reconstruction applications, as well as for conventional X-ray images without compromise on luminance, DICOM conformance or contrast.

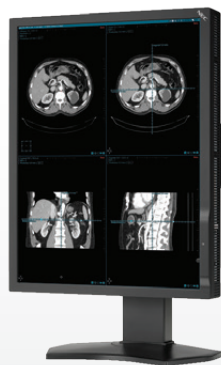
The NEC MD Series can be easily integrated into NEC's GammaCompMD QA standalone or Network Administration software, performing asset management and lifetime Quality Assurance (DICOM conformance and assistance with Quality Assurance routines – AAPM TG-18 (2005) and (2012), DIN V 6868-57 and IEC62563-1.

MD Series displays are offered including 5 years standard warranty with Advanced Overnight Exchange service. NEC Display Solutions Healthcare warranty always includes LCD panel and backlight, as well as the same service level during the complete warranty period.



### Diagnostic Displays

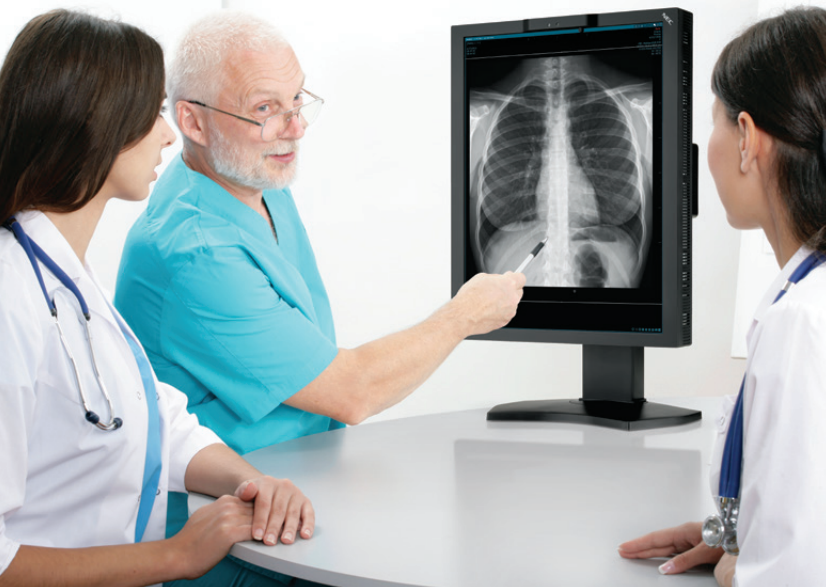
MD210C2	MD211C2
MD210C3	MD211C3
MD211G3	MD211G5
MD302C6	



### NEC GammaCompMD QA

Quality assurance is increasingly demanded for assessing display image quality with a reliable recording and documentation at varying time intervals. Particularly for those larger installations in a modern multi-disciplinary hospital, featuring numerous diagnostic workstations, keeping track of what has been measured and on which display and when, can become a full-time task.

The NEC GammaCompMD QA Quality Assurance solution meets all challenges and demands heads on by providing either an entry-level QA solution for small practices and clinics or a comprehensive solution for an entire hospital establishment, meeting either AAPM TG-18 (2005) or (2012), DIN V 6868-57 / DIN 6868-157 or IEC 62563-1.



## NEC LARGE FORMAT REVIEW DISPLAYS

### FULL HD AND ULTRA HD DICOM PRESET

NEC offers a wide portfolio of Large Format Displays with DICOM preset. This enables them to display medical images in staff meeting rooms with the required grayscale levels and exceptional image quality. Full HD Resolution (2MP) displays are available in sizes from 40" to 80", 8MP (4K UHD) displays are available in 84". All are ideal for viewing and discussing multiple X-ray images, MR scans, CT scans, etc., side by side. A built-in expansion slot to support OPS PCs, HDBaseT™, and WiDi accessories is also available.

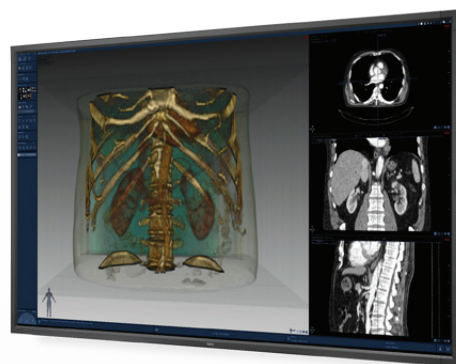
The NEC Large Format DICOM Displays exceed clinical requirements by displaying high quality real lifesize images of the part of the patient to be treated. The new 8MP (4K UHD) resolution is improving the picture quality, following the trend of increased screen sizes with the same viewing-distance. That means a full lifesize leg or spine can be displayed without compromising on quality on our X841UHD screen in landscape or portrait format, to the DICOM standard. NEC displays are non-reflective ensuring a clear view of the images, close up, from a distance and in high ambient light conditions.

## NEC MultiSync® MD SERIES CLINICAL DISPLAYS

The MD Series clinical displays are DICOM Preset color displays which have been designed with both reliable quality and affordability in mind. Unique built-in firmware features (which you will not find in off-the-shelf or system-bundled LCDs) make MD Series clinical displays, which are factory calibrated to the DICOM Grayscale Display Function.

The use of high quality LCD-panel technology combined with the factory DICOM calibration ensures that the MD Series clinical displays exceed the highest reviewing expectations of departments like orthopedics, pneumology or intensive care. The MD Series clinical displays can be easily integrated into NEC's GammaCompMD QA client or server software.

NEC MD Series are offered including 5 years standard warranty with Advanced Overnight Exchange service. NEC Display Solutions' warranty always includes LCD panel and backlight, as well as the same service level during the complete warranty period.



P403

P703

P463

X651UHD

P553

X841UHD

X981UHD

## Clinical Displays

MDC212C2

MD242C2

MD302C4

MD322C8



Administration and DICOM Simulation

DESKTOP E / EA SERIES

These fully featured monitors with outstanding ecological performance and display quality are the ideal choice for balancing performance with environmental and budget considerations. Whether for accessing medical databases, downloading necessary information for patients, keeping medical files organized and updated or the daily record of financial transactions, NEC Desktop Solutions have the perfect solution for every administrative need

DESKTOP P / PA SERIES

The MultiSync® P and PA Series are DICOM capable, professional performance desktop displays. By selecting the DICOM Preset gamma curve in the display On Screen Display (OSD) menu, these multi-purpose displays are an excellent value upgrade to standard office monitors, offering hospital wide DICOM compliant reviewing.

The MultiSync® P and PA Series are ideally suited as modality monitor (touch integration optional), for Hospital / Radiology Information System (HIS / RIS) applications or as (third) navigation display on workstations.



EA193Mi
EA274WMi
EA294WMi
EA304WMi

P212	PA242W
P232W	PA272W
P242W	PA302W
	PA322UHD



PA622U
PA522U
M402H
PX602UL/PX602WL

DICOM SIMULATION PROJECTORS

M / PA SERIES

These installation projectors with DICOM Simulation mode offer medical educators and training professionals the ability to display medical images in meeting rooms or larger conference rooms with the required grayscale levels and with exceptional detail and clarity.

With it's brightness of 6200 ANSI Lumen and 1920 x 1200 High Resolution Image the PA622U offers exceptionally high quality imaging that allows clear analysis of images in a Conference or Training application. NEC PA Series Projectors allow supersized viewing for non-diagnostic purposes.

Displays for Conferencing and Training

NEC MultiSync® LARGE FORMAT DISPLAYS

As a leader in the field, NEC produces a wide range of large format displays that are ideal for conference applications, video-conferencing and group viewing. Our leading X Series and P Series Displays deliver Full HD high quality images backed by 24/7 performance and with a multitude of features that ensure easy integration and upgrade, including an NEC OPS and Interface Extension Slot. Displays with DICOM Simulation are also ideal for use in PACS Demonstration Rooms.

P403	X401S
P463	X462S
P553	X552S
P703	X464UN-2
	X554UN



# Hospital Information Signage



## LARGE FORMAT INFORMATION DISPLAYS

Traditional wayfinding in healthcare has involved static signage. Hospitals are now able to provide wayfinding digitally, allowing more dynamic directional messaging. Digital wayfinding allows for orientation or to highlight exits in an emergency, or simply to entertain and inform to alleviate the inconvenience of long waiting times.

### P SERIES

NEC MultiSync P Series are ideal for signage applications around a hospital. Displays can be connected via a network for distribution of hospital information or with an OPS Computer installed they can be a stand-alone source of information. Advanced heat management and exceptional image quality means these displays are the ideal visual solution for patient, wayfinding and alert information.

### X AND UN SERIES VIDEOWALL DISPLAYS

Featuring the same standards for performance and reliability, but specifically tailored for large videowall applications the MultiSync X UN Series can create a high visibility showcase point for any hospital.

NEC offer a wide range of Mounting, Framing, Protective and Expansion solutions for all of our Large Format Displays.

### TOUCH ENABLED INFORMATION DISPLAYS

Interactive touch screens are increasingly useful in hospitals enabling a simplified process for the patient, and can be used to reduce care and administration resources. Touch Displays can assist with queue management and direction and allow the patient to customise the information they receive during a visit. Various NEC Large Format Displays are available with Multi-Touch overlays.



For further information please visit:  
[www.necdisplay.com/medical](http://www.necdisplay.com/medical)

## Specifications

MD Series Diagnostic Displays							
	MD210C2	MD211C2	MD210C3	MD211C3	MD211G3	MD211G5	MD302C6
<b>Panel technology</b>	UA-SFT Color LED Backlight	UA-SFT Color LED Backlight	UA-SFT Color LED Backlight	UA-SFT Color LED Backlight	SA-SFT Grayscale	IPS Grayscale LED Backlight	IPS TFT Color with W-LED backlight
<b>Screen diagonal [inch/cm]</b>	21.3 / 54.0	21.3 / 54.0	21.3 / 54.0	21.3 / 54.0	21.3 / 54.0	21.3 / 54.0	30 / 76.2
<b>Native resolution [Megapixel]</b>	2.0	2.0	3.0	3.0	3.0	5.0	6.7
<b>Resolution</b>	1200 x 1600 Portrait	1200 x 1600 Portrait	1536 x 2048 Portrait	1536 x 2048 Portrait	1536 x 2048 Portrait	2048 x 2560 Portrait	3280 x 2048 Landscape
<b>Contrast ratio (typ.)</b>	1400:1	1400:1	1400:1	1400:1	900:1	1200:1	1000:1
<b>Viewing angle (H / V @ CR &gt; 10:1)</b>	176° / 176°	176° / 176°	176° / 176°	176° / 176°	176° / 176°	176° / 176° at 50:1 CR	170° / 170°
<b>Luminance (Max)</b>	760 cd/m <sup>2</sup>	900 cd/m <sup>2</sup>	750 cd/m <sup>2</sup>	800 cd/m <sup>2</sup>	1450 cd/m <sup>2</sup>	1200 cd/m <sup>2</sup>	800cd/m <sup>2</sup>
<b>Grayscale reproduction [Bit-Depth]</b>	8-bit	10-bit	8-bit	10-bit	10-bit	10-bit	10-bit
<b>Programmable gamma correction</b>	14-bit	14-bit	14-bit	14-bit	15.5-bit	13.5-bit	16-bit
<b>Factory pre-set</b>	400 cd/m <sup>2</sup> DICOM GSDF	400 cd/m <sup>2</sup> DICOM GSDF	400 cd/m <sup>2</sup> DICOM GSDF	400 cd/m <sup>2</sup> DICOM GSDF	400 cd/m <sup>2</sup> DICOM GSDF	500 cd/m <sup>2</sup> DICOM GSDF	400cd/m <sup>2</sup> DICOM GSDF
<b>Signal inputs</b>	1x DVI-D, 1x DisplayPort	1x DVI-D, 1x DisplayPort	1x DVI-D, 1x DisplayPort	1x DVI-D, 1x DisplayPort	1x DVI-D, 1x DisplayPort	1x DVI-D, 1x DisplayPort	2x DVI-D, 2x DisplayPort
<b>Power consumption (max.) [W]</b>	80	80	85	85	105	80	114
<b>Dimensions (W x H x D) [mm]</b>	374 x 491 x 236 (Portrait)	374 x 491 x 236 (Portrait)	374 x 491 x 236 (Portrait)	374 x 491 x 236 (Portrait)	361x 483 x 227 (Portrait)	390 x 488 x 228 (Portrait)	695.6 x 486.5 x 301.6
<b>Warranty</b>	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange

MD Series Clinical Displays				
	MDC212C2	MD242C2	MD302C4	MD322C8
<b>Panel technology</b>	IPS Color LED Backlight	IPS Color LED Backlight	AH-IPS Color LED backlight	IPS Type TFT Color with W-LED backlight
<b>Screen diagonal [inch/cm]</b>	21.3 / 54.0	24.1 / 61.1	29.8 / 75.6	31.5 / 80.1
<b>Native resolution [Megapixel]</b>	2.0	2.3	4.0	8.3
<b>Resolution</b>	1600 x 1200 Landscape	1920x 1200 Landscape	2560 x 1600 Landscape	3840 x 2160 Landscape
<b>Contrast ratio (typ.)</b>	1500:1	1000:1	1000:1	1000:1
<b>Viewing angle (H / V @ CR &gt; 10:1)</b>	178° / 178°	178° / 178°	178° / 178°	176° / 176°
<b>Luminance (Max)</b>	350 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>	350cd/m <sup>2</sup>
<b>Grayscale reproduction [Bit-Depth]</b>	10-bit	10-bit	10-bit	10-bit
<b>Programmable gamma correction</b>	14-bit	14-bit	14-bit	14-bit
<b>Factory pre-set</b>	180cd/m <sup>2</sup> DICOM GSDF	180cd/m <sup>2</sup> DICOM GSDF	180cd/m <sup>2</sup> DICOM GSDF	200cd/m <sup>2</sup> DICOM GSDF
<b>Signal inputs</b>	1x DVI-D, 1x DisplayPort, 1x VGA	1x DVI-D, 1x DisplayPort, 1x HDMI, 1x VGA	1x DVI-D, 1x DisplayPort, 1x Mini-DisplayPort, 1x HDMI	2x DVI-D, 2x DisplayPort, 4x HDMI
<b>Power consumption (max.) [W]</b>	54	30	87	95
<b>Dimensions (W x H x D) [mm]</b>	466 x 374 x 228 (Landscape)	557 x 378 x 228 (Landscape)	688 x 466 - 616 x 302 (Landscape)	744.8 x 468.4 x 301.6
<b>Warranty</b>	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange	5 years standard with Advanced Overnight Exchange

## NEC Medical Display Solutions

# Hospital Wide Display Solutions

### NEC Display Solutions Europe GmbH – HQ

Landshuter Allee 12-14  
80637 München, Germany  
Phone: +49 (0) 89 99 699-0  
Fax: +49 (0) 89 99 699-500  
infomail@nec-displays.com  
www.nec-display-solutions.com

### NEC Display Solutions Europe GmbH

**Representative Office Austria**  
Mooslackengasse 17, 1190 Wien, Austria  
Phone: +43(1)23060 3685  
Fax: +43(1)23060 3686  
infomail@nec-displays.com  
www.nec-display-solutions.at

### NEC Display Solutions Europe GmbH Representative Office Czech and Slovak

Tábor 44 A  
602 00, Brno  
Czech Republic  
Phone: +420 733 396 861  
www.nec-display-solutions.cz

### NEC Scandinavia AB Display Solutions Division Finland

Ahventie 4, FIN-02170  
ESPOO  
Finland  
Phone: +358 9 348 70204  
www.nec-display-solutions.fi

**NEC France S.A.S**  
**Display Solutions Division**  
29 rue des Hautes Pâtures  
92737 Nanterre Cedex, France  
Phone: +33 (0) 1 46 49 46 49  
Fax: +33 (0) 1 47 69 92 86  
www.nec-display-solutions.fr

### NEC Italia Spa – Display Solutions Division

Viale Enrico Forlanini 23  
20134 – Milano, Italy  
Phone: +39.02.48415.1  
Fax: +39.02.48414.409  
info.necdisplay-it@emea.nec.com  
www.nec-display-solutions.it

### NEC Display Solutions Middle East & Africa

Office 0205, 2nd Floor JAFZA View 18, Jebel Ali  
Dubai, U.A.E. PO Box 262314  
Phone: +971 4 88 49 452  
Fax: +971 4 88 49 453  
info@nec-displays.ae  
www.nec-display-solutions.com

### NEC Display Solutions of North America

500 park Boulevard, Suite 1100  
Itasca, IL 60143  
Phone: 866 632 6673  
Fax: 630.467.3010  
http://www.necdisplay.com/

### NEC Display Solutions Europe GmbH Representative Office Poland

ul. Bociana 22A  
31-231 Kraków, Poland  
Phone: +48 (0) 12 614 53-53  
Fax: +48 (0) 12 614 53-54  
www.nec-display-solutions.pl

### NEC Display Solutions Europe GmbH Representative Office Russia

Vavilov Str. 47a  
117312 Moscow, Russia  
Phone/Fax: +7 495 989 80 51  
info@nec-displays-ru.com  
www.nec-display-solutions.ru

### NEC Display Solutions South Africa

P. O. Box 7243, Westwood, 1477  
Johannesburg, South Africa  
Phone: +27 (0) 11 918 6449  
Fax: +27 (0) 11 894 2973  
www.nec-display-solutions.co.za

### NEC Iberica - Display Solutions Division

C/ Anabel Segura, 7 – Planta 2a  
28108 Alcobendas (Madrid)  
Spain  
Phone: +34 (0) 91 203 29 00  
Fax: +34 (0) 91 650 11 00  
www.nec-display-solutions.es

### NEC Scandinavia AB Display Solutions Division Sweden

Kronborgsgränd 1, S-16487 Kista  
Sweden  
Phone: +46 (0) 10 214 86 00  
Fax: +46 (0) 8 635 93 50  
www.nec-display-solutions.se

### NEC UK Ltd. – Display Solutions Division

Athene Building, Odyssey Business Park  
West End Road, South Ruislip, Middlesex  
HA4 6QE  
Phone: +44 (0) 20 8836 2000  
Fax : +44 (0) 20 8836 2001  
www.nec-display-solutions.co.uk