

NEC Medical Display Solutions

HOSPITAL WIDE DISPLAY SOLUTIONS

MEDICAL DISPLAYS | LARGE FORMAT DISPLAYS | DESKTOP DISPLAYS | PROJECTORS



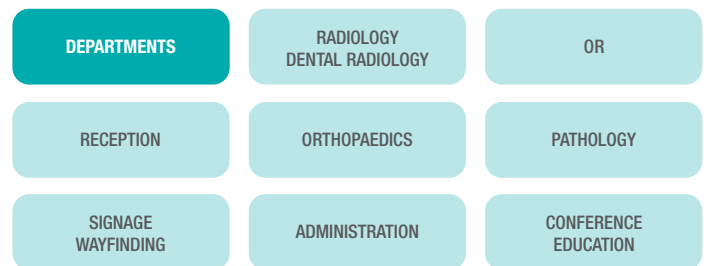
NEC Healthcare Display Solutions

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NEC 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 pan-European 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.



THE WIDEST PORTFOLIO OF DISPLAY SOLUTIONS OF ANY SUPPLIER

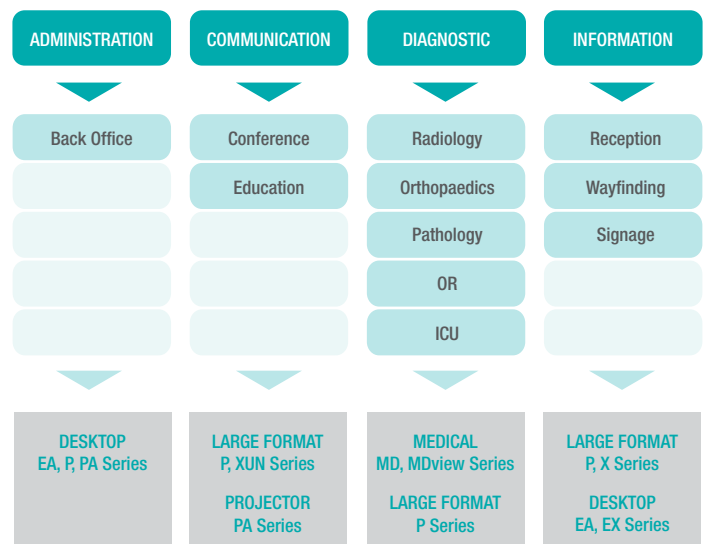
Today NEC boasts a comprehensive range of Desktop Displays, Public Displays and Projectors, with a model for almost any application from the largest venues or public places to offices and smaller classrooms. NEC is one of the world's largest IT Companies, with the display division operating 13 local sales and support offices across Europe, Middle East and Africa.

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.

SETTING NEW STANDARDS FOR HEALTHCARE DISPLAY SOLUTIONS

As the leading Manufacturer of innovative medical displays NEC is your partner to deal with the challenges of hospital wide digitalisation processes. NEC Display Solutions is able to offer the widest range of display products for any application. In addition, solutions such as integrated bio-metric systems ensure only authorised users have access to secure areas, medical devices and patients.

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.



MEDICAL

OR
Radiology
Pathology
Orthopaedics



NEC MD SERIES DIAGNOSTIC DISPLAYS

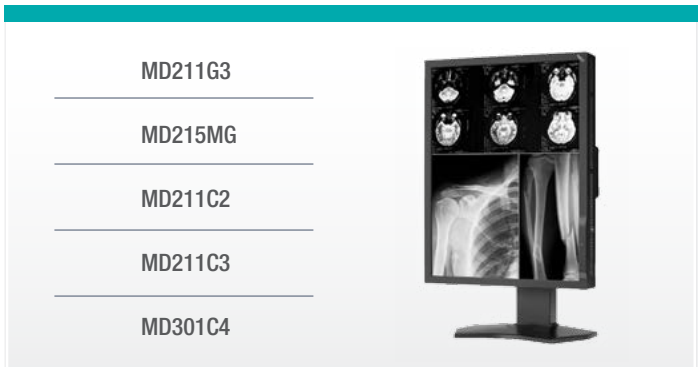
The NEC MD Series of high end diagnostic displays ensure the highest level of image quality due to the very high brightness, uniformity, contrast and full DICOM Part 14 compliance.

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 MD211G3 (3MP) with an exceptional maximum brightness level of 1,450 cd/m² and the MD215MG (5MP) grayscale display, which guarantees optimal image quality and performance for digital mammography.

The latest series of high brightness colour diagnostic displays MD211C2 (2MP) 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 brightness, 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, DIN V 6868-57 and IEC62563-1). Automated DICOM conformance checks and calibrations using the X-Light³ front sensor result in worry-free DICOM compliance.

NEC MD Series are offered including 3 years standard warranty. A 5 years or 30,000 hours, whichever comes first, warranty extension is offered as an option. NEC Display Solutions Healthcare warranty always includes LCD panel and backlight, as well as same service level during the complete warranty period.



NEC MDview SERIES CLINICAL REVIEW DISPLAYS



The NEC MDview Series are DICOM Preset colour 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 MDview displays, which can be calibrated to the DICOM Grayscale Display Function using NEC's GammaCompMD QA software, ideal for all hospital-wide PACS referral/reviewing.

The use of high quality LCD-panel technology combined with additional dead-pixel screening assure that NEC's MDview Series exceeds the highest reviewing expectations of departments like orthopaedics, pneumology or intensive care. The NEC MDview Series can be easily integrated into NEC's GammaCompMD QA standalone or Network Administration software.

NEC MDview Series is offered including 3 years standard warranty. A 5 years or 30,000 hours, whichever comes first, warranty extension is offered as an option. NEC Display Solutions Healthcare warranty always includes LCD panel and backlight, as well as same service level during the complete warranty period.

MDview202	
MDview213	
MDview232	
MDview241	
MDview271	

NEC LARGE FORMAT REVIEW DISPLAYS

P SERIES FULL HD DICOM PRESET LARGE FORMAT DISPLAYS

The NEC Large Format Displays with DICOM Preset offer medical professionals the ability to display medical images in staff meeting rooms with the required grayscale levels and exceptional image quality. The large format from 40" to 70" makes them ideal for viewing and discussing multiple X-ray images, MR scans, CT scans, etc., side by side. A built-in slot PC is also available.

NEC Large Format Displays are the ideal replacement for traditional film light boxes throughout the hospital. In collaboration with solution partners, Large Format displays are integrated into high-end hygienic and medical grade (EN60601-1) cabinet with PC systems for Operation Rooms. NEC's display solutions are easy and quick to install, reducing OR downtime during installation, and improve the efficiency in the operating theatres.

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. Display full life size leg and spine images without compromising on quality on our Full HD screens 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

All hospital information for patients as well as visitors can be made easily available via the NEC Digital Signage Solutions. NEC public displays (up to 70") allow you to inform and communicate information crystal clear in 1080p high definition resolution.

MD4610R OPERATING THEATRE DEDICATED DISPLAY

Of particular note is the new MD4610R, a large format operating room display with DICOM calibration, optional integrated single-board computer and full CE-MDD compliance, bringing a much-needed digital display enhancement to the operating room.

P402	
P462	
P552	
P702	
MD4610R	



DICOM SIMULATION DESKTOP DISPLAYS

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.

NEC Display Solutions' desktop LCDs have been designed to a high ergonomic standard. Fatigue-free working is guaranteed with award winning ergonomics and excellent picture quality.

90 SERIES / P SERIES / PA SERIES

The MultiSync® LCD 90, 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® LCD 90 Series 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.

DICOM SIMULATION PROJECTORS

PA SERIES

The NEC PA Series 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 5000 ANSI Lumen and 1920 x 1200 High Resolution Image the PA500U 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.



PA500X
PA600X
PA550W
PA500U

NEC CONFERENCE DISPLAYS

NEC MULTISYNC LARGE FORMAT DISPLAYS

As a leader in the field, NEC produce 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 STv2 (OPS Ready) Expansion Slot. Displays with DICOM Simulation are also ideal for use in PACS Demonstration Rooms.



LCD2090UXI
LCD2190UXp



P232W	PA232W
P242W	PA241W
	PA271W
	PA301W

P402	X461S
P462	X551S
P552	X463UN
P702	X551UN

HOSPITAL INFORMATION SIGNAGE



LARGE FORMAT INFORMATION DISPLAYS

P SERIES AND XS SERIES

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 entertain and inform to alleviate the inconvenience of long waiting times.

NEC MultiSync P and XS Series Displays are also 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 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. An alternative X UNV Model is available for building videowalls for non-24/7 applications.

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 Single Touch and Multi-Touch overlays.

DST SINGLE TOUCH DISPLAYS

TM MULTI-TOUCH DISPLAYS

MEDICAL TRAINING ACADEMY



NEC Display Solutions provide professional training sessions for NEC Medical Displays including configuration, administration and DICOM calibration. The NEC Training Academy can be used by an individual, applying to become a certified medical device consultant (in accordance with § 31 of the German and Austrian Medical Devices Act - MPG), as satisfying the Manufacturer's certification requirement.

For further information please visit: www.medical.nec-display-solutions.com

MEDICAL QUALITY ASSURANCE



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 with the QAXRAY™, module developed by diraal*, meets all challenges and demands head on by providing either an entry-level QA solution for small practices and clinics or a comprehensive solution for an entire hospital establishment, meeting AAPM TG-18, DIN V 6868-57 and IEC62563-1.

	MD211C2	MD211C3	MD211G3	MD215MG	MD301C4	MD4610R
Panel technology	UA-SFT TFT LED Backlit	UA-SFT TFT LED Backlit	SA-SFT TFT	Grayscale IPS	P-IPS (Horizontal IPS)	S-PVA
Screen diagonal [inch/cm]	21.3 / 54.0	21.3 / 54.0	21.3 / 54	21.3 / 54.0	29.8 / 75.6	46 / 116.8
Native resolution [Megapixel]	2	3	3.1	5	4	2
Landscape / Portrait mode [Pixel]	1600 x 1200 1200 x 1600 at 60 Hz	2048 x 1536 1536 x 2048 at 60 Hz	2048 x 1536 1536 x 2048 at 60 Hz	2560 x 2048 2048 x 2560 at 50 Hz	2560 x 1600 at 60 Hz	1920 x 1080 at 60Hz
Contrast ratio (typ.)	1400:1	1400:1	900:1	850:1	1000:1	3500:1
Viewing angle (H / V @ CR > 10:1)	176° / 176°	176° / 176°	176° / 176°	170° / 170°	178° / 178°	178° / 178°
Luminance (Calibrated)	400 cd/m ²	400 cd/m ²	400 cd/m ²	400 cd/m ²	220 cd/m ²	400 cd/m ²
Grayscale reproduction [Bit-Depth]	10-bit (1024 grey tones per R G B input) with 1.073 billion total colours	10-bit (1024 grey tones per R G B input) with 1.073 billion total colours	256 levels from possible 48961 grey tones / 1024 levels from possible 48961 grey tones	Max. 1024 (10-bit) out of 3826 (11.9-bit)	Max. 1024 (10-bit) out of 3826 (11.9-bit)	8-bit (256 grey tones per R G B input) with 16,777, 216 total colors
Programmable gamma correction	14-bit	14-bit	15.5-bit	10-bit	14-bit	10-bit
Factory pre-set	Gamma correction according to DICOM GSDF at 400 cd/m ²	Gamma correction according to DICOM GSDF at 400 cd/m ²	Gamma correction according to DICOM GSDF at 400 cd/m ²	Gamma correction according to DICOM GSDF with autoadjust	Gamma correction according to DICOM GSDF at 200 cd/m ²	Gamma correction according to DICOM GSDF at 400 cd/m ²
Signal inputs	Digital: 1 x DVI-D; 1 x DisplayPort	Digital: 1 x DVI-D; 1 x DisplayPort	Digital: 1 x DVI-D; 1 x DisplayPort	Digital: 1 x DVI-D	Digital: 2 x DVI-D; 2 x DisplayPort	Digital: 1 x DVI-D; 1 x DisplayPort, 1x HDMI, Analog: S-Video, RGB/HV, Composite Video
Power consumption (max.) [W]	80	85	105	90	155	170
Dimensions (W x H x D) [mm]	374 x 491 - 594 x 236 (Portrait); 473 x 394 - 544 x 236 (Landscape)	374 x 491 - 594 x 236 (Portrait); 473 x 394 - 544 x 236 (Landscape)	361.6 x 483.4 - 580.7 x 227.6 (Portrait); 467.8 x 377.6 - 527.6 x 227.6 (Landscape)	390 x 488 - 584 x 228 (Portrait); 475 x 403 - 542 x 228 (Landscape)	688 x 466-616 x 302 (Landscape mode)	1153 x 820 x 180 (Landscape mode)
Warranty	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years

	MDview202	MDview213	MDview232	MDview241	MDview271
Panel technology	S-IPS TFT glass	S-PVA glass	IPS with LED Backlight	IPS	P-IPS
Screen diagonal [inch/cm]	20.1 / 51.0	21.3 / 54.0	23.0 / 50.9	24.1 / 61.1	27.0 / 59.7
Native resolution [Megapixel]	2.0	2.0	2.0	2.3	3.7
Landscape / Portrait mode [Pixel]	1600 x 1200 / 1200 x 1600 at 60 Hz	1600 x 1200 / 1200 x 1600 at 60 Hz	1920 x 1080 / 1080 x 1920 at 60 Hz	1920 x 1200 / 1200 x 1920 at 60 Hz	2560 x 1440 / 1440 x 2560 at 60 Hz
Contrast ratio (typ.)	700:1	1000:1	1000:1	1000:1	1000:1
Viewing angle (H / V @ CR > 10:1)	178° / 178°	178° / 178°	178° / 178°	178° / 178°	178° / 178°
Luminance (Calibrated)	140 cd/m ²	140 cd/m ²	170 cd/m ²	170 cd/m ²	170 cd/m ²
Grayscale reproduction [Bit-Depth]	8	8	8	8	10
Programmable gamma correction	12-bit	12-bit	14-bit	14-bit	14-bit
Factory pre-set	DICOM gamma correction, Digital Uniformity Control active, Backlight stabilisation active	DICOM gamma correction, Digital Uniformity Control active, Backlight stabilisation active	DICOM gamma correction, Digital Uniformity Control active, Backlight stabilisation active	DICOM gamma correction, Digital Uniformity Control active, Backlight stabilisation active	DICOM gamma correction, Digital Uniformity Control active, Backlight stabilisation active
Signal inputs	Digital: 1 x DVI-D, 1 x DVI-I; Analog: 1 x Mini D-Sub 15 pin	Digital: 1 x DVI-D, 1 x DVI-I; Analog: 1 x Mini D-Sub 15 pin	1x DisplayPort, 1x DVI-D, 1x HDMI, 1x VGA	Digital: 1 x DisplayPort; Digital: 2 x DVI-D; Analogue: 1xVGA	Digital: 1 x DisplayPort; Digital: 2 x DVI-D
Power consumption (max.) [W]	50	60	29	95	117
Dimensions (W x H x D) [mm]	439 x 416 - 566 x 248; (Landscape)	465 x 425 - 575 x 248; (Landscape)	543.6 x 337.4 - 487.4 x 227.6 (Landscape)	556.8 x 378-528 x 227.6 (Landscape)	640.4 x 396.2 - 546.2 x 235.5 (Landscape)
Warranty	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years	3 years standard optional 5 years

* Diraal is a leading supplier of specialised medical quality assurance software. More information about diraal can be obtained by visiting their website www.diraal.com

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Medical device registration plays an important role in complying with mandatory EU regulations on the medical vigilance system. In addition, product registration ensures you receive the best after-sales support and warranty conditions.

Please register your NEC medical device at <http://medical.nec-display-solutions.com/medregistration>

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