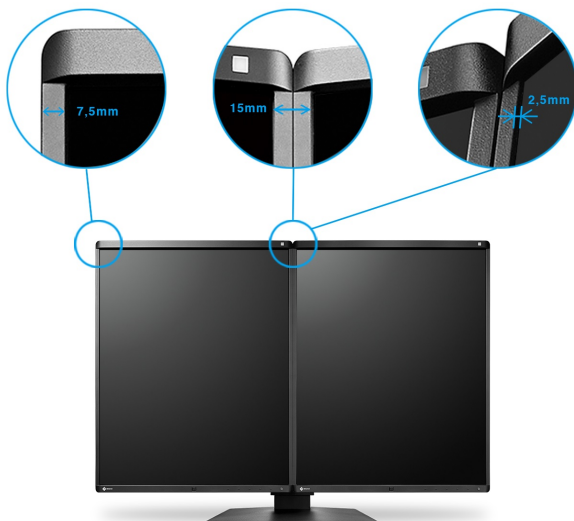# RX560-MD

## Your advantages

Mammography is increasingly being used in combination with ultrasound for breast cancer screenings on patients with high breast density. More in-depth checks include biopsies as well as breast MRIs and CTs. This range of options requires colour monitors for image reproduction. The RadiForce RX560 is the world's first medical colour monitor that uses an LCD on an LTPS (low-temperature polysilicon) basis. This is why it fulfills the brightness requirements applicable for mammograms, which are usually only achieved by greyscale monitors. This monitor achieves a brightness of up to 1100 cd/m². It reproduces top-quality images from the various types of diagnostic methods. Its high contrast ratio of 1500:1 is close to that of a monochrome monitor. Moreover, it displays deep black tones without a 'washed-out' effect.

- ✓ Two 5-megapixel colour LCD screens with consistently high and stable brightness for clear mammogram imaging

- ✓ Clear perceptibility of microstructures through high contrast and Sharpness Recovery technology

- ✓ Palette with 543 billion hues for precise colour reproduction (10-bit resolution max.)

- ✓ Hybrid gamma PXL functionality for precise display, down to the pixel, of greyscale and colour images with the required luminance characteristic curve

- ✓ Homogenous display surface with automatic luminance distribution control (Digital Uniformity Equalizer)

- ✓ Set up for calibration, acceptance, and consistency testing in accordance with DIN 6868-157 and QS-RL

- ✓ Effortless quality control and built-in calibration sensor

- ✓ Light sensor to measure ambient light at the diagnostic station

- ✓ Compact dual-screen solution through a shared stand with narrow bezels and ergonomic design

# Features

## A new level of observation, without disruptive factors

With a bezel only 7.5 mm in width – the world's smallest bezel width for 5-megapixel monitors – the distance between the display areas of the two monitors is merely 15 mm. Moreover, the panel frame is only 2.5 mm above the screen, which means it sits nearly flush with the screen. This means viewers' vision goes undisrupted when looking back and forth between the monitors.



The MammoDuo consists of two monitors that are combined next to one another in a specially designed stand.

## Space-saving arrangement

The RX560-MD saves a great deal of space. This solution saves 67 mm horizontally, 36 mm vertically, and 20.5 mm in depth, compared to conventional structures built from individual monitors with this resolution arranged next to one another. In summary, this means a 22 % reduction of the total required surface. This frees up valuable space to make for a roomier working environment.
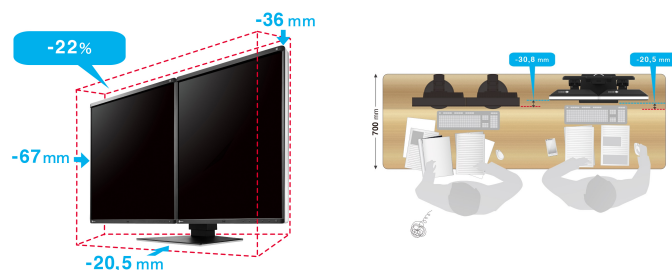


## Easily Adjustable

You can conveniently adjust the height, tilt, and rotation of the monitors with the dual stand, without creating gaps between the monitors.

## Perfectly Designed for Diagnostic Use

Narrow black frontal bezels make this device ideal for use in dark environments. They make it easy to visually concentrate on the display. Meanwhile, a white bezel at the sides of the monitors creates a fresh, clean look.



## Evolve your image reading: the Work-and-Flow technology

Radiologists face an increasing amount of information on their screens, as modalities become increasingly digitalized. But imaging procedures now no longer need to be so complex, thanks to the unique Work-and-Flow technology from EIZO, featuring new functions developed specially to meet the requirements of radiologists. The RadiForce RX560-MD and RadiCS-LE software solution enable you to benefit from the Work-and-Flow functions.

More information about the Work-and-Flow functions

## Point-and-Focus: all eyes on the analysis

The Point-and-Focus function allows you to select and focus on relevant image areas quickly using your mouse or keyboard. By adjusting the brightness and greyscale, the interesting parts of an image are highlighted by dimming the surrounding areas.

# Features

## Full Colour Support for Ultrasound, Breast CTs, and MRIs

Mammography is increasingly being combined with ultrasound scans in early breast cancer detection, particularly for patients with a high breast density. Moreover, in cases of suspected breast cancer, additional methods such as biopsies, breast MRIs, and computer tomography are used.

The RadiForce RX560 is the world's first medical monitor that uses an LCD on an LTPS (low-temperature polysilicon) basis. This allows the colour monitor to achieve a brightness of up to 1100 cd/m2, comparable to that of a monochrome monitor. As a result, the RX560 is able to display high-resolution breast tomosynthesis images as well as mammograms with deep, non-faded black tones as well as colour images from ultrasound scans and pathology examinations.

A high contrast ration of 1500:1, close to that of a monochrome monitor, means that deep black tones can also be reproduced without a 'washing out' effect.
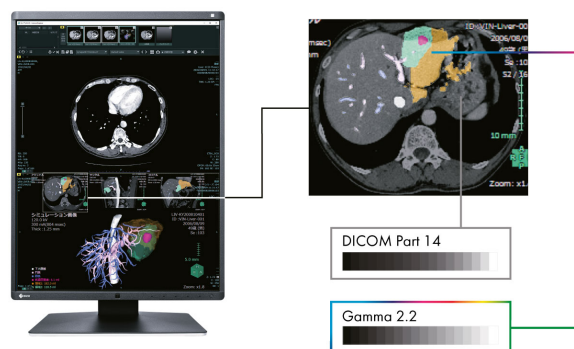


Full Colour Support for Ultrasound, Breast CTs, and MRIs

## Observe monochrome and colour images on a single monitor

The hybrid gamma PXL functionality automatically differentiates between monochrome and colour images, pixel by pixel. This creates a hybrid display on which each pixel is displayed with the ideal tone value. In turn, this achieves a greater degree of precision and reliability than for conventional planar detection methods.

The RX560-MD faithfully reproduces complex monochrome images from mammography and tomosynthesis along with co-lour images from MRI, CT, ultrasound and pathology. The re-sult is a significant increase in efficiency since images produced using different imaging techniques can be viewed on a single monitor.



The hybrid gamma PXL functionality automatically differentiates between monochrome and colour images, pixel by pixel.

## Multi-monitor solutions without problems

Thanks to the signal input and output, you can link several Radi-Force monitors through their DisplayPort interface. This means that you can realise multi-monitor solutions with the greatest of ease – without labourious and excessive cabling.
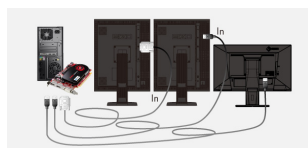


Conventional solution: messy cabling
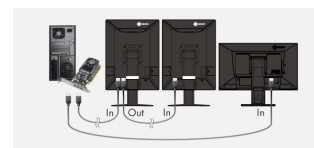
Daisy-chain compatibility via DisplayPort interface: tidied-up cables

## Blur reduction

LCD panels with a high brightness level tend to have more blurry image rendering thanks to over-framing than would be possible in comparison with an acquired exposure. Therefore, EIZO offers blur reduction anchored in monitor hardware. It retrieves details lost in the contours on the screen, meaning that the image is rendered as clearly as possible.
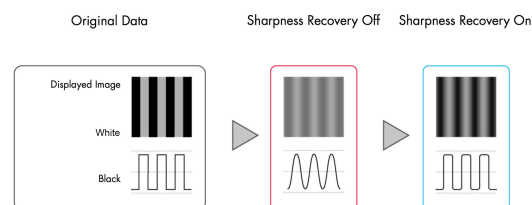


## Sharp, High-resolution Images

The monitor has a pixel width of 0.165 mm and thereby reprodu-ces even, high-resolution, sharp, and high-depth images without any kind of granularity.

# Features

## Secure image quality thanks to AAPM/Euref/DIN compliance

The display properties, in particular brightness and contrast, are suited to the creation of image rendering systems compliant with DIN 6868-157. The DICOM® GSDF characteristic is already precisely configured in the factory. This means that greyscales are consistent, which is vital for diagnostics.

Overview RadiCS application classes I to VIII
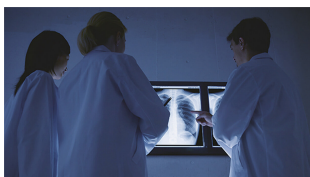
## Balanced image quality thanks to an integrated front sensor

The precise calibration of white point and tone value characteristic curve is provided by an integrated front sensor (IFS). This measures the brightness and grayscales and calibrates the monitor autonomously according to the DICOM standard. The sensor works automatically, without restricting the field of vision of the monitor. You can save the costs, time, and effort of maintenance and rely on a consistently balanced image quality.

Without IFS                                    With IFS

## One Billion Hues, Thanks to the 13-bit Look-up-table

Precise colour reproduction is controlled via a 13-bit look-up table (LUT). A maximum of 10-bit resolution, or up to one billion hues, is available via DisplayPort. This ensures flawless colour reproduction of MRI, ultrasound, and pathology images. As such, the recording curve and microstructures required for diagnosis can be precisely detected.

## Constant brightness during operation

A sensor for the backlight permanently determines the luminance of the monitor. The benefit: The defined and calibrated values

are rendered exactly just seconds after the monitor is turned on and remain constant during the entire period of use. The sensor is invisibly integrated in the monitor.

Back of the monitor

Backlight sensor
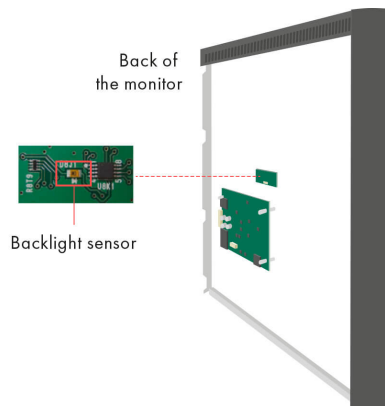
## Uniform brightness over the entire screen

The monitor shines thanks to its uniform illumination. This is down to the Digital Uniformity Equalizer (DUE), which corrects imbalances automatically, pixel by pixel. Grey tones of radiological and other medical images are correctly rendered over the entire display. This is vital for diagnostics.

Without DUE                                    With DUE

## Presence sensor: Save electricity when you are not in front of the monitor

Thanks to the presence sensor, you can save electricity and help protect the environment. The sensor registers whether someone is sitting in front of the screen or not. As soon as the person leaves the workstation, the monitor turns off automatically. When the person comes back, it turns back on – fully automatically, without touching the mouse or keyboard. It is always ready for use without a waiting period.
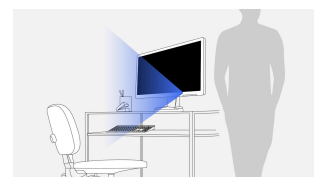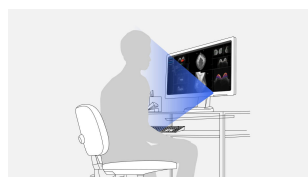
# Features

## Select the Optimal Display Mode for Different Modalities

The CAL Switch functionality enables you to select from among many different display modes for different modalities, such as mammography, breast MRIs, ultrasound, or pathology examinations, without having to recalibrate each time.

Shipped with the monitor, the RadiCS LE software allows users to set modes in such a way that the optimal observation conditions are automatically activated, either via mouse click or through the monitor's display mode.
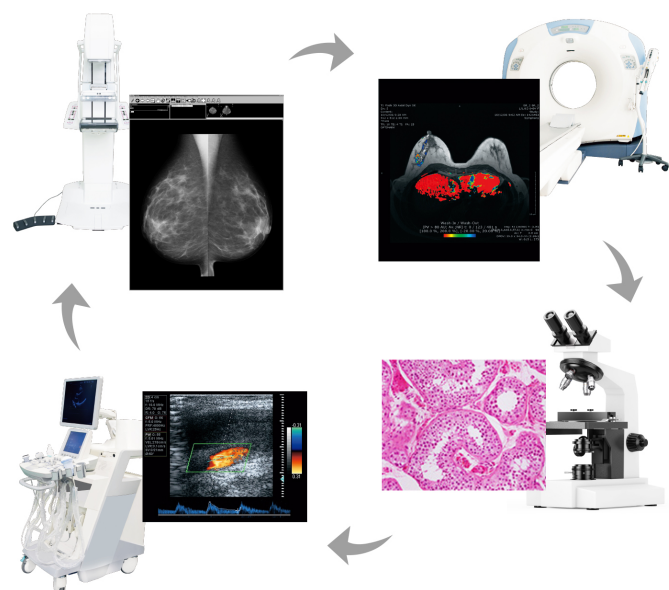
## Reliable brightness

EIZO is convinced of the quality of its products. The warranty for the monitors, therefore, also covers the brightness stability.

## Eye-friendly Comfort Light

EIZO offers a brand-new, easy-to-operate comfort light for radiologists who work in dark diagnosis rooms. The soft illuminance in the background of the screen reduces the strain on the eyes that frequently occurs due to constant light-dark changes between bright screens and objects in a dark environment.

learn more about RadiLight

## Consistently secure image quality

The optional EIZO RadiCS software to secure image quality enables extensive maintenance and testing of monitors and includes calibration, acceptance and constancy testing, and the archiving of all areas. If you are working on multiple stations, the use of the RadiNET Pro is recommended. This can be used to centrally control the calibration of all monitors, including data history. This saves you a significant amount of time and ensures consistently high image quality across the entire setup. The basic version RadiCS LE is already included with the RadiForce GX, RX, and MX/MS models.

Learn more about the RadiCS application classes

Learn more about RadiCS LE software (included in the delivery)

Learn more about RadiCS software (optionally available)

Learn more about RadiNet Pro software (optionally available)
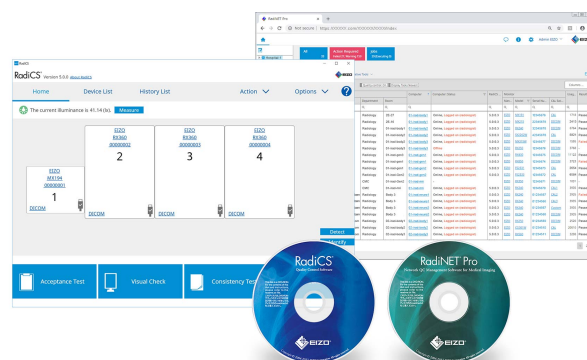
# Features

**For precise diagnoses: EIZO MED-XN92 graphics card**

The EIZO MED-XN92 graphics card supports the properties, functions, and settings of the RadiForce RX560-MD optimally. It enables precise diagnostics and can control several monitors simultaneously. EIZO offers technical support and a warranty service for all graphics cards. Therefore, we recommend using EIZO graphics cards.

Display the specifications of the MED-XN92



**Five-year warranty**

EIZO grants a five-year warranty.* This is possible thanks to the highly developed production process based on a simple principle of success: sophisticated and innovative monitor technology, made from high-end materials.

* in Belgium: including on-site replacement service

# Specification

## General

| | |
|---|---|
| Item no. | RX560-MD |
| Case colors | Bicolor, black and white |
| Areas of application | Medicine |
| Product line | RadiForce |
| EAN | 4995047051404 |

## Display

| | |
|---|---|
| Screen size [in inches] | 21.3 |
| Screen size [in cm] | 54.1 |
| Format | 4:5 |
| Viewable image size (width x height) | 338 x 422 |
| Resolution in MP | 5 Megapixels (colour) |
| Ideal and recommended resolution | 2048 x 2560 |
| Pixel pitch [mm] | 0.165 x 0.165 |
| Panel technology | IPS |
| Max. viewing angle horizontal | 178 ° |
| Max. viewing angle vertical | 178 ° |
| Number of colours or greyscale | 1.07 billion colours (display port, 10 Bit), 16.7 million colours (display port, 8 Bit), 16.7 million colours (DVI, 8 Bit) |
| Colour palette/look-up table | 543 billion colour tones / 13 Bit |
| Max. brightness (typical) [in cd/m²] | 1100 |
| Recommended brightness warranty | 500 |
| Factory-calibrated brightness [in cd/m²] | 500 |
| Max. dark room contrast (typical) | 1500:1 |
| Backlight | LED |

## Features & control

| | |
|---|---|
| Preset colour/greyscale modes | DICOM, CAL1, CAL2, Text, Custom, sRGB |
| DICOM tone curve | ✔ |
| RadiCS application classes | I, II, III, IV, V, VI, VII, VIII |
| Hardware calibration of brightness and light density characteristic curve | ✔ |
| Digital Uniformity Equalizer | ✔ |
| Hybrid Gamma PXL | ✔ |
| Blur reduction | ✔ |
| Sensors | Presence sensor, Ambient Light Sensor, Integrated front sensor |
| OSD language | de, en, fr, es, it, se, ja, zh |
| Adjustment options | Brightness, Gamma, DICOM tonal value, OSD language, Interpolation, Off Timer |
| Integrated power unit | ✔ |

## Ports

| | |
|---|---|
| Signal inputs | 1x DisplayPort, 1x DVI-D |
| Signal outputs/Daisy chain compatibility | 1x DisplayPort 1.2 |
| USB specification | USB 2.0 |
| USB upstream ports | 1 x type B |
| USB downstream ports | 2 x type A |
| Video signal | DisplayPort, DVI dual link (TMDS) |
| Control port | USB |

## Electric data

| | |
|---|---|
| Power consumption (typical) [in watt] | 43 |
| Maximum Power Consumption [in watt] | 87 |
| Power Save Mode [in watt] | 1 |
| Power consumption off [in watt] | 0 |
| Power supply | AC 100-120 V / 200-240 V, 50/60 Hz |

## Dimensions & weights

| | |
|---|---|
| Dimensions [mm] | 709 x 476-566 x 225 |
| Weight [in kilograms] | 17.3 |
| Weight without stand [in kilograms] | 5.3 |
| Swivel | 70 ° |
| Incline forward/backward | 5 ° / 25 ° |
| Pivot | ✔ Ja |
| Height adjustment range [mm] | 90 |
| Hole spacing | VESA standard 100 x 100 mm |

## Certification & standards

| | |
|---|---|
| Certification | CE (Medical Device Directive), EN 60601-1, ANSI/AAMI ES60601-1, CSA C22.2 Nr. 601-1, IEC60601-1, VCCI-B, FCC-B, CAN ICES-3 (B), RCM, RoHS, China RoHS, WEEE, CCC, EAC, FDA 510(k) release for chest-tomosynthesis and mammography |

## Software & accessories

| | |
|---|---|
| Accompanying software and other accessories are available for download | RadiCS LE |
| Additional supply | Power cord, 2x signal cable DisplayPort - DisplayPort, Short DisplayPort signal cable – DisplayPort, 2x signal cable DVI-D - DVI-D (dual link), USB 2.0 cable, EIZO LCD Utility Disk (incl. PDF manual) |
| Accessories | RadiCS (The RadiCS software provides extensive validations and automatic adjustment to ensure constant and consistent image reproduction on all RadiForce screens.), RadiNET Pro (EIZO software for network-based quality management in large facilities – with remote functionality for monitors), RadiLight (Comfort Light for Reading Rooms - Easily attachable light for RadiForce medical LCD monitors. ) |
| Recommended graphics card | MED-XN92 |

## Warranty

| | |
|---|---|
| Warranty and service | 5 years warranty* |

### Terms

*) The length of the warranty for the product is five years from the date of purchase. In addition, the warranty includes the normal wear and tear of the backlight if it is operated at a recommended brightness of 500 cd/sq m and a white point of 8,000 K. EIZO guarantees this brightness for a term of 5 years from the date of purchase or for 20,000 operating hours, depending on which happens sooner.