



Product Website

### 5-megapixel medical monitor

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 (lowtemperature 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/m<sup>2</sup>. 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
- Substrate the sensor of the se
- Light sensor to measure ambient light at the diagnostic station
- Compact dual-screen solution through a shared stand with narrow bezels and ergonomic design





### **Improved comfort** Efficiency in diagnostics

## A new level of observation, without disruptive factors

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

With a bezel only 7.5 mm in width 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.



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.





## SAVE ELECTRICITY WHEN YOU ARE NOT IN FRONT OF THE MONITOR **Presence sensor**

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.

#### RadiLight: 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.



#### DAISY CHAIN METHOD Efficient multi-display solution

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





Daisy chain method

Conventional solution

# 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. With the supplied RadiCS LE software, the modes can be preset so that the screen automatically switches to the optimal image viewing condition.



### Software and ease of use Features for greater comfort

#### The Work-and-Flow technology

With the increasing digitisation of modalities, radiologists are confronted with a growing amount of information on their screens. EIZO's unique work-and-flow technology, with new features designed to meet the needs of radiologists, effectively counters the complexity of data. 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.

#### 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 - without acceptance and constancy testing - is already included with the RadiForce monitors.

- 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)





### Image quality

### Precise, high-contrast, bright and crisp screen

## Full color 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-MD uses an LCD on an LTPS (lowtemperature polysilicon) basis. This allows the color monitor to achieve a brightness of up to 1100 cd/m<sup>2</sup>, comparable to that of a monochrome monitor. As a result, the RX560-MD is able to display high-resolution breast tomosynthesis images as well as mammograms with deep, non-faded black tones as well as color 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.



# Observe monochrome and color 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 this way, a high level of precision and reliability is achieved.

The RX560-MD displays sophisticated monochrome images just as reliably as color images from various modalities. In practice, this means a significant increase in efficiency, as images from different imaging procedures can be displayed on just one monitor.



#### **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.





Sharpness recovery on

Sharpness recovery off

#### **FDA clearance**

The monitor holds the FDA-510(k)- clearance for breast tomosynthesis, mammography and general radiography.



## Consistent image quality thanks to integrated luminance sensor

The precise calibration of white point and tone value characteristic curve is provided by an integrated luminance sensor. This measures the brightness and grayscales and calibrates the monitor autonomously according to the DICOM<sup>®</sup> 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.







#### **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.

Illustration exemplary

## One billion color tones thanks to 13 bit LUT

Color rendering is controlled by a 13 bit look-up table (LUT), up to 10 bits of which are available in the Display-Port connection. This produces a resolution with a maximum of 1 billion color tones. The rendering characteristic and fine structures required for diagnostics can therefore be precisely identified.





Back of the monitor

With 13 bit LUT



#### Uniform brightness and high color purity

The monitor shines thanks to its high color purity and uniform illumination. This is down to the Digital Uniformity Equalizer (DUE), which corrects imbalances automatically, pixel by pixel. Gray and color tones of radiological and other medical images are correctly rendered over the entire display. This is essential for precise image reproduction.



With DUE

Without DUE

### Sustainability Environmentally and socially conscious production

#### Socially responsible production

The RX560-MD is produced in a socially responsible way. It is free of child labour and forced labour. Suppliers along the supply chain have been carefully selected and they have also committed themselves to produce in a socially responsible way. This applies in particular to conflict minerals. We present a detailed report about our social responsibility annually and voluntarily.



### **Environmentally and climate friendly**

Each RX560-MD is manufactured in our own factory, which implements an environmental and energy mana-

gement system in accordance with ISO 14001 und ISO 50001. This includes measures to reduce waste, wastewater and emissions, resource and energy consumption, as well as to encourage environmentally conscious behavior among employees. We publicly report on these measures on an annual basis.



#### Sustainable and durable

The RX560-MD is designed to have a long service life and normally outlasts the warranty period by some distance. Replacement parts are available many years after production has ceased. The entire lifecycle takes into account the impact on the environment as the longevity of the product and the fact it can be repaired saves resources and protects the environment. When designing the RX560-MD, we took a minimalistic approach to our resources by using high-quality components and materials, as well as a careful production process.





### Warranty Highest investment security

#### **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 technology, made from high-end materials.





### **Graphics board recommendation** For precise diagnostics

#### **EIZO Graphics card MED-XN83**

The EIZO graphics card supports the properties, functions, and settings of the RadiForce RX560-MD optimally. It enables precise diagnosis and can control several monitors simultaneously. EIZO offers technical support and warranty service for the graphics card.

To the graphics card overview



### **Technical Data**

GENERAL	
Item no.	RX560-MD
Case color	Bicolor, black and white
Areas of application	Healthcare
Product line	RadiForce
Areas of application	Mammography, Nuclear medicine and radiotherapy, Non-destructive-testing
EAN	4995047051404
SCREEN	
Screen size [in inches]	21,3
Screen size [in cm]	54,1
Format	4:5
Viewable image size (width x height) [in mm]	338 x 422
Resolution in MP	5 Megapixels (colour)
Ideal and recommended resolution	2048 x 2560
Pixel pitch [in mm]	0,165 × 0,165
Panel technology	IPS
Max. viewing angle horizontal	178
Max. viewing angle vertical	178
Number of colors or greyscale	1.07 billion colors (DisplayPort, 10 Bit), 16.7 million colors (DVI, 8 Bit), 16.7 million colors (DisplayPort, 8 Bit)
Color palette/look-up table	543 billion colour tones / 13 bit
Max. brightness (typical) [in cd/m²]	1100
Recommended brightness [in cd/m²]	500
Max. dark room contrast (typical)	1500:1
Backlight	LED
FEATURES & OPERATION	
Preset color/greyscale modes	2x manual memory locations, Text, sRGB, DICOM
DICOM tone curve	✓
Hardware calibration of brightness and light density characteristic curve	✓
Digital Uniformity Equalizer (homoge- neity correction)	✓
Hybrid Gamma PXL	✓
Blur reduction	✓
Sensors	Ambient Light Sensor, Presence sensor
On-screen menu languages	de, en, fr, es, it, se
Adjustment options	DICOM tonal value, Brightness, Gamma, Scaling, OSD language
Integrated power unit	✓

CONNECTIONS	
Signal inputs	DisplayPort (HDCP 1.3), DVI-D (HDCP 1.4)
USB specification	USB 2
USB upstream ports	1 x type B
USB downstream ports	2x type A
Graphic signal	DisplayPort, DVI Dual Link (TMDS)
Control port	USB-Protocol
ELECTRICAL DATA	
Frequency	Digital: 31-135 kHz/23-61 Hz; Sync Mode: 23,5-25,5 Hz/ 47-51 Hz
Power consumption (typical) [in watts]	43
Maximum Power Consumption [in watts]	87 (at maximum brightness with all signal inputs and USB ports in use)
Max. Power consumption in stand-by mode [in watts]	1
Power consumption with power switch off [in watts]	0
Power supply	AC 100-120 V / 200-240 V, 50/60 Hz
DIMENSIONS & WEIGHT	
Dimensions (incl. stand) (width x height x depth) [in mm]	709 x 476-566 x 225
Weight (incl. stand) [in kg]	17.3
Weight (without stand) [in kg]	5.3
Dimension drawing (PDF)	Dimension drawing (PDF)
Rotatability of the stand [in °]	70
Tiltability forwards/backwards [in °]	5 / 25
Pivot between portrait / landscape	clockwise
Height adjustment range [in mm]	90
Hole spacing	100 × 100
CERTIFICATION & STANDARDS	
Certification	CE (Medical Device), FDA 510(k) release for chest-to- mosynthesis and mammography, ANSI/AAMI ES60601 1, CSA C22.2 Nr. 601-1, EN60601-1, IEC60601-1, RCM, FCC-B, CAN ICES-3 (B), VCCI-B, RoHS, WEEE, China RoHS, CCC, EAC
SOFTWARE & ACCESSORIES	
Accompanying software and other accessories are available for down- load	RadiCS LE
Other box contents	2x Signal cable DVI-D - DVI-D (dual link), 2x Signal ca- ble DisplayPort - DisplayPort, 1x short signal cable Dis playPort – DisplayPort, USB cable (Type A - Type B), Manual via download, Power cord
Accessories	RadiNET Pro, RadiCS (UX2-Kit), RadiLight
Recommended graphics card	MED-XN83



WARRANTY	
Warranty periode	5 years
Warranty type	Swiss Edition Warranty
Included warranty	The warranty additionally covers normal wear and tear of the backlight when operated at a recommended maximum brightness of 500 cd/sqm and a white point of 7,500 K. EIZO guarantees this brightness for a period of 5 years from the date of purchase or for 20,000 hours of operation, whichever comes first.

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