# RadiForce **RX1270**

**→ Product Website**

A resolution of 12 megapixels allows the RX1270 to effectively replace conventional dual-monitor solutions at diagnostic stations with one single device. Because it facilitates virtually any hanging protocol, users enjoy the utmost ergonomics during diagnostics. As a universal device for greyscale and colour images, its fine dot pitch of 0.155 mm offers a detailed view of radiological images, such as mammograms and microstructures. It clearly and simultaneously depicts a wide variety of images on its 78.4 cm screen diagonal – thus streamlining and optimising work processes in radiological diagnostics. The large monitor requires far less desk space than several individual devices. Fewer head movements means an increase in comfort when viewing the display. The individually controllable, comfort lighting at the back of the monitor and the spotlight at the front ensure greater ergonomics in an otherwise dark reading room.

- Compact and convenient all-rounder in radiological diagnostics with 12 megapixels
- High contrast levels and Sharpness Recovery technology enable imaging of microstructures with clarity
- Palette with 543 billion hues for precise colour reproductio n(max.10-bit)
- Hybrid Gamma PXL functionality for precise display, down to the pixel, of greyscale and colour images with the required luminance characteristic curve
- Homogenous displaysurface with automatic luminance distribution control(DUE)
- Setup for calibration, acceptance, and consistency testinginaccordancewithDIN6868-157andQS-RL
- Flexible hanging protocols for maximum convenience during diagnostics
- Effortless quality control and built-in calibration sensor
- Convenient background light and spotlight for ideal illumination during diagnostics

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

## Stable display using AI

The color and brightness of an LCD monitor can shift due to changes in ambient temperature and the tempe- rature of the monitor itself. Medical Imaging RadiForce monitors are equipped with a temperature sensor for ac- curately measuring the temperature inside the monitor, as well as estimating the temperature of the surrounding environment. With this technology, the monitor adjusts in real-time so gradations, color, brightness, and other cha- racteristics continue to display accurately.

Furthermore, EIZO uses AI (artificial intelligence) in the estimation algorithm of the RX1270 so it can distinguish between changing temperature patterns to calculate an even more accurate correction.

## Consistent image quality thanks to integrated luminance sensor

The precise calibration of white point and tone value cha- racteristic curve is provided by an integrated luminance sensor. This measures the brightness and grayscales and calibrates the monitor autonomously according to the DICOM® standard. The sensor works automatically, wi- thout 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.

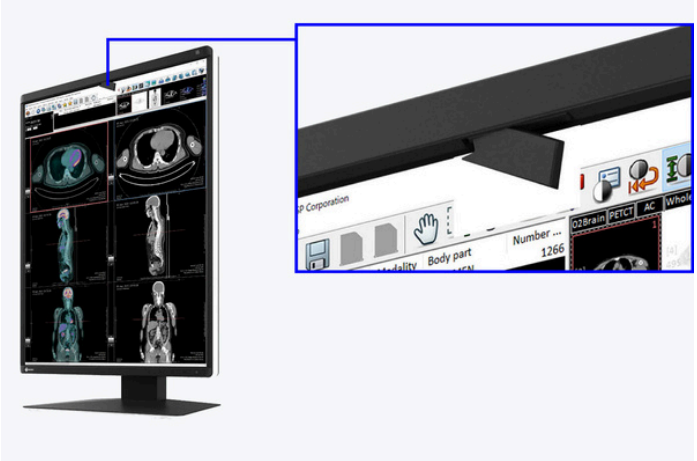
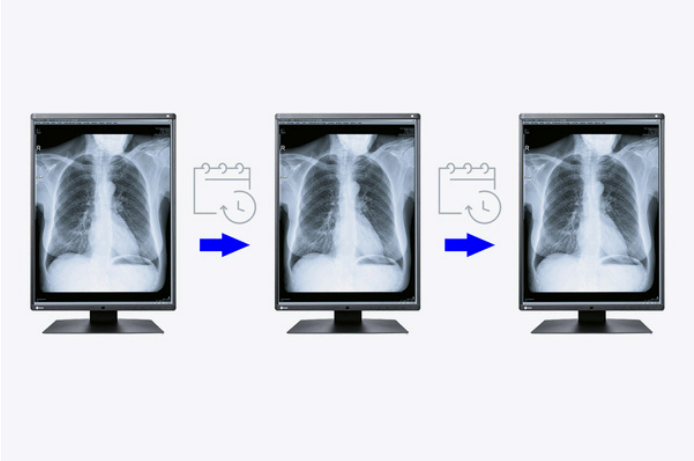



Illustration exemplary

## Reliable brightness

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



## Uniform brightness and high color purity

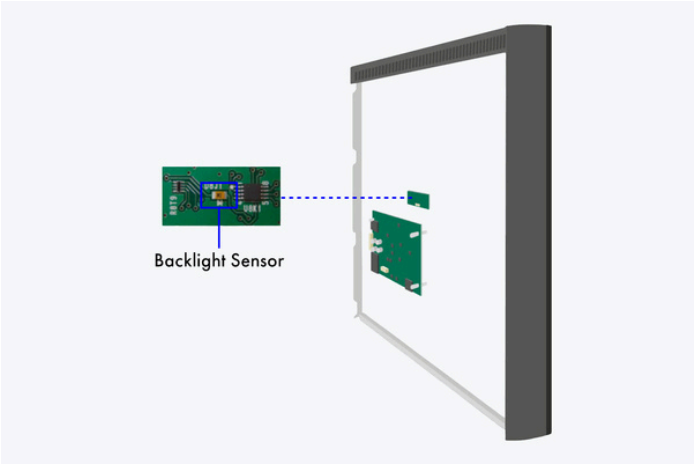
The monitor shines thanks to its high color purity and uni- form illumination. This is down to the Digital Uniformity Equalizer (DUE), which corrects imbalances automatically, pixel by pixel. Gray and color tones of radiological and other medical images are correctly rendered over the entire display.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

**With DUE**

**Without DUE**

## Constant brightness during operation

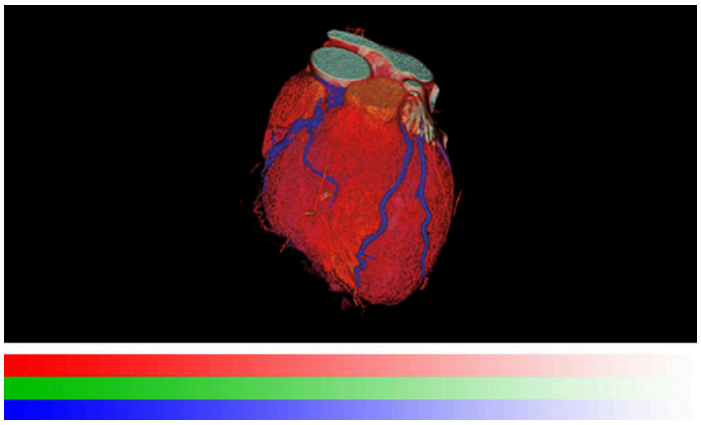
A sensor for the backlight permanently determines the luminance of the monitor. The benefit: The defined and calibrated values are rendered exactly just seconds after the monitor is turned on and remain constant during the entire period of use. The sensor is invisibly integrated in the monitor.



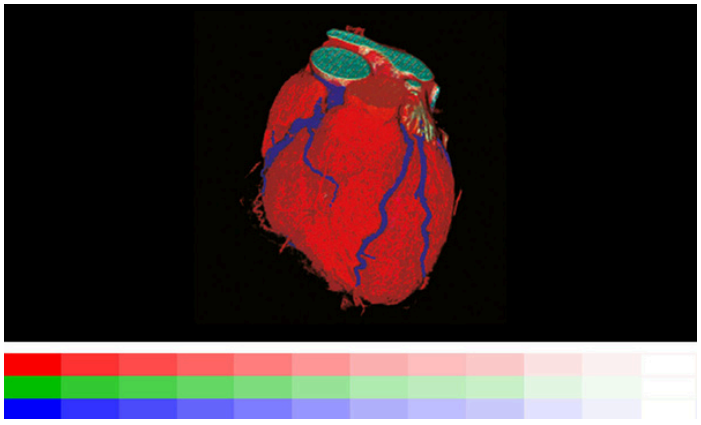

Back of the monitor

## 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 maxi-mum of 1 billion color tones. The rendering characteristic and fine structures required for diagnostics can there- fore be precisely identified.



With 13 bit LUT



Without 13 bit LUT

## FDA clearance

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

# Imroved comfort
# Efficiency in diagnostics

## Shape of comfort

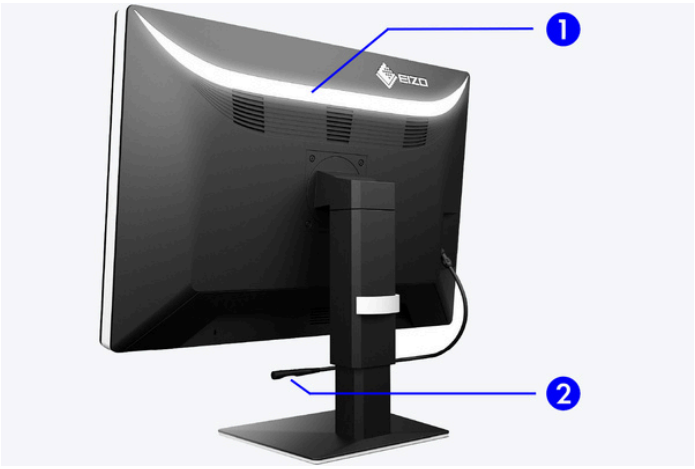
Compact 12 megapixel monitor packed full of features to improve comfort and work efficiency.

**1. Eye relief with comfort light**

The indirect lighting produced by the comfort light on the monitor's back panel allows for glare-free work in low-light reading rooms. The light source does not shine directly in the radiologist's eyes while the images on the monitor remain visible. In addition, minor adjustments made to the brightness of the monitor to align it to ambient light levels reduce eye strain.

**2. Easily navigate your workspace**

It is also equipped with a spotlight which allows you to see printed documents or your keyboard. The position can be easily adjusted in order to achieve the ideal lighting.




## Perfectly designed for diagnostic use

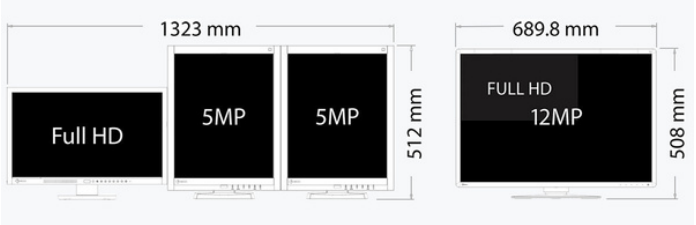
Narrow black frontal bezels make this device ideal for use in dark environments. They make it easy to visually concentrate on the display. Meanwhile, a white bezel at the sides of the monitors creates a fresh, clean look.

## More efficient diagnostics

The RX1270 provides streamlined visibility compared with multi-monitor environments, leading to greater efficiency.


## Compact and feature-packed

The monitor realizes the ultra-high resolution of 12 megapixels on a 30.9-inch screen. The new design is more compact compared to two conventional 5 megapixel monitors used side by side. This all while including a built-in comfort light and internal power supply that do not impose on the workspace.



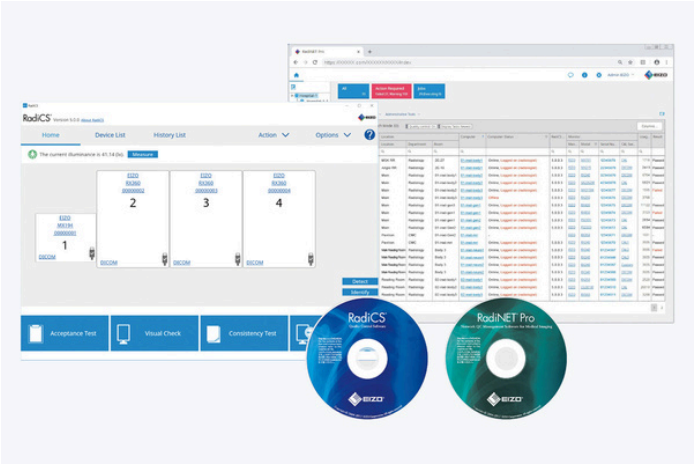
# Software and ease of use

## Features for greater comfort

### 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 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)



## 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 RX1270 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.

## Hide-and-Seek: fast retrieval of information

Hide-and-Seek adds the benefit of making it possible to access reports, patient files and other information on the display quickly and efficiently without needing an additional monitor. When you move your cursor towards or away from the edge of the screen, a PinP window hides and displays information.

## Switch-and-Go: just one keyboard and mouse for two systems

Switch-and-Go makes it possible to work using just one keyboard and mouse at diagnostic imaging stations that make use of two computers. You can switch between the two systems simply by moving your cursor from one screen to the other. This ensures greater work efficiency and allows you to maintain a clear overview of your workstation.

## Instant-Backlight-Booster: Higher brightness for better differentiability

The Instant Backlight Booster feature temporarily increases the brightness of the monitor for faster recognition of detailed medical images. With a single hotkey, users can activate the function for multiple monitors simultaneously, allowing them to easily view multiple screens under the same high brightness conditions. The brightness automatically returns to the original setting after a short time so the screen can continue to be used under typical diagnostic conditions.

DICOM® Part 14 is not supported while Instant Backlight Booster is on.

# Sustainability

# Environmentally and socially conscious production

## Socially responsible production

The RX1270 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 RX1270 is manufactured in our own factory, which implements an environmental management system in accordance with ISO 14001. This includes measures to reduce waste, wastewater and emissions, resource and energy consumption, as well as to encourage environmentally conscious behaviour among employees. We publicly report on these measures on an annual basis.


## Sustainable and durable

The RX1270 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 RX1270, 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

The EIZO graphics card supports the properties, functions, and settings of the RadiForce RX1270 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.** | |
| **Case colour** | RX1270 Bicolour, black and white |
| **Solution area** | Healthcare, Industry |
| **Product line** | RadiForce |
| **Areas of application** | Mammography, Pojection radiography, Pathology, Nuclear medicine and radiotherapy, Non-destructive-testing |

## DISPLAY

| | |
|---|---|
| **Screen size [in inches]** | 30,9 |
| **Screen size [in cm]** | 78,4 |
| **Format** | 3:2 |
| **Format Viewable image size (width x height)** | 652,7 x 435,1 |
| **Resolution in mega pixel** | 12 Megapixels (colour) |
| **Ideal and recommended resolution** | 4200 x 2800 |
| **Pixel pitch [mm]** | 0,1554 x 0,1554 |
| **Panel technology** | IPS |
| **Max. viewing angle horizontal** | 178 |
| **Max. viewing angle vertical** | 178 |
| **Number of colours or greyscale** | 1.07 billion colours (DisplayPort, 10 Bit), 16.7 million colours (DisplayPort, 8 Bit), 16.7 million colours (HDMI, 8 Bit |
| **Colour palette/look-up table** | 543 billion colour tones / 13 bit |
| **Max. brightness (typical) [in cd/m²]** | 1200 |
| **Recommended brightness [in cd/m²]** | 500 |
| **Max. dark room contrast (typical)** | 1500:1 |
| **Backlight** | LED |

## FEATURES & OPERATION

| | |
|---|---|
| **Preset colour/greyscale modes** | Text, sRGB, DICOM, additional memory spaces through calibration |
| **DICOM tone curve** | |
| **Hardware calibration Healthcare** | |
| **Digital Uniformity Equalizer (homoge-neity correction)** | |
| **Hybrid Gamma PXL** | |
| **Blur reduction** | |
| **Sensors (Healthcare)** | |
| **OSD language** | Ambient Light Sensor |
| **OSD setting options** | de, en, fr, es, it, se |
| **Integrated power unit** | DICOM tonal value, Brightness, Gamma, OSD language |

## CONNECTIONS Video

| | |
|---|---|
| **Input USB** | 2x DisplayPort (HDCP 1.3), HDMI (HDCP 1.4) |
| **specification USB** | USB2 |
| **upstream ports USB** | 2 x type B |
| **downstream ports** | 3 x type A |
| **Video signal Control** | DisplayPort, HDMI (RGB, YUV) |
| **port** | USB-Protocol |

## ELECTRICAL DATA

| | |
|---|---|
| **Frequency** | Digital: 31-175 kHz/29-61 Hz |
| **Power consumption (typical) [in watt]** | 77 |
| **Maximum Power Consumption [in watt]** | 188 (at maximum brightness with all signal inputs and USB ports in use) |
| **Power Save Mode [in watt] Power** | 2 0 AC |
| **consumption off [in watt] Power** | 100-240V, 50/60Hz |
| **supply** | |

## DIMENSIONS & WEIGHT

| | |
|---|---|
| **Dimensions [mm]** | 689,8 x 508-608 x 225 |
| **Weight [in kilograms]** | 15.6 |
| **Weight without stand [in kilograms]** | 11.5 |
| **Link technical drawing** | Dimension drawing (PDF) |
| **Swivel** | 70 |
| **dimensionTilt** | 5/25 |
| **Height adjustment range [mm]** | 90 |
| **Hole spacing** | 100 x 100 |

## CERTIFICATION AND 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

| | |
|---|---|
| **Software** | RadiCS LE |
| **Additional supply** | 1x short signal cable HDMI - HDMI, 2x Signal cable DisplayPort - DisplayPort, Manual via download, Power cord |
| **Accessories** | RadiNET Pro, RadiCS, MED-XN92 |
| **Graphics Boards** | MED-XN92 |

## WARRANTY

| | |
|---|---|
| **Warranty duration** | 5 years |
| **Included warranty service** | 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 8,000 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. |