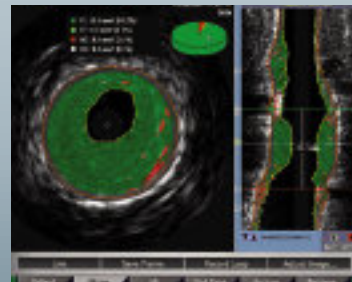
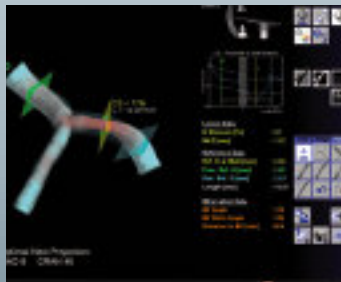
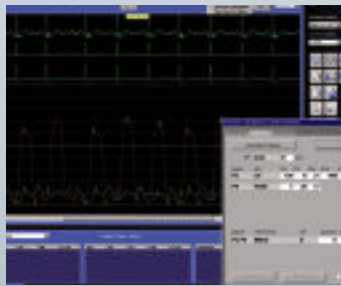
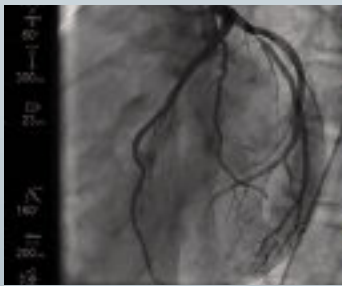




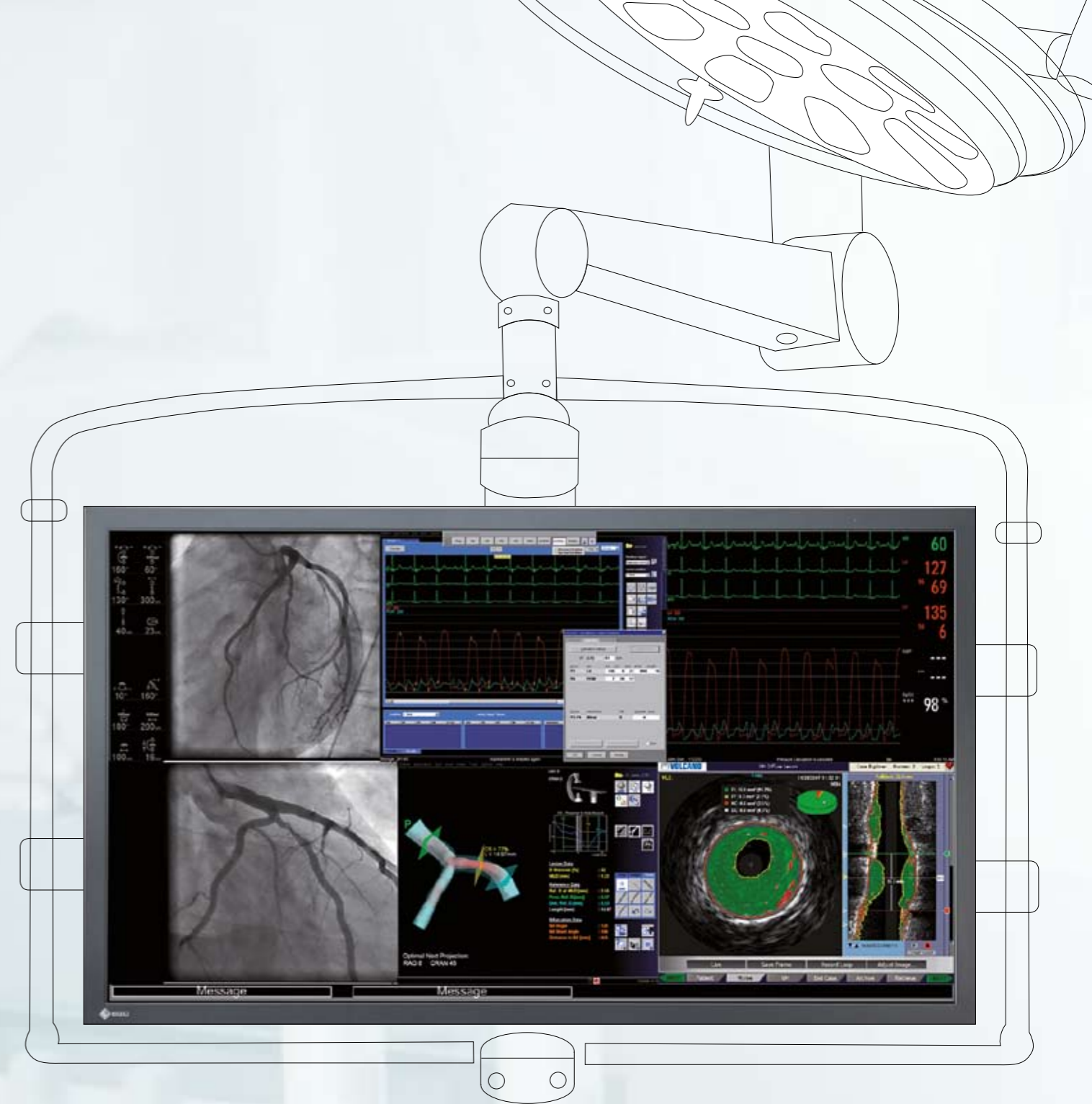
RadiForce®  
Surgical Monitor Solutions



Viewing without limits

LARGE MONITOR SYSTEM

# ... with the new RadiForce® Large Monitor System



## Finally: all data on one screen.

Thanks to today's image-guided procedures, modern medicine offers several options for smoother, safer surgical operations. However, displaying individual data and picture sources on different monitors still requires a high degree of concentration on the part of

the surgical team – and that's just for monitoring the procedure. How much easier it would be if all of the data could be presented clearly and simultaneously on one large screen while possibly still including adjustable viewing sizes...

## The new dimension in screen diagnosis The RadiForce® Large Monitor System:

- 8 MP 56" widescreen monitor – RadiForce® LS560W
- Large Monitor Manager – LMM56800

# RadiForce® LS560W

8 MP widescreen monitor

# LMM56800

Large Monitor Manager

## One look for a clear decision.

A large, clearly laid out screen with variable viewing functions, instead of several monitors, provides a whole range of advantages:

- The 56" (143 cm) diagonal 8 MP widescreen monitor features a flat screen for displaying all relevant data.
- Realtime, reference and static pictures are all captured precisely and quickly at the same time.
- Depending on priority, the viewing size of each picture can be adjusted individually – enlarged or hidden from view.
- The picture can be viewed at its highest quality by several people at once thanks to the large viewing angle.
- Automatic luminance correction provides for a uniform luminous effect across the entire screen.

## The complete manager behind the scenes.

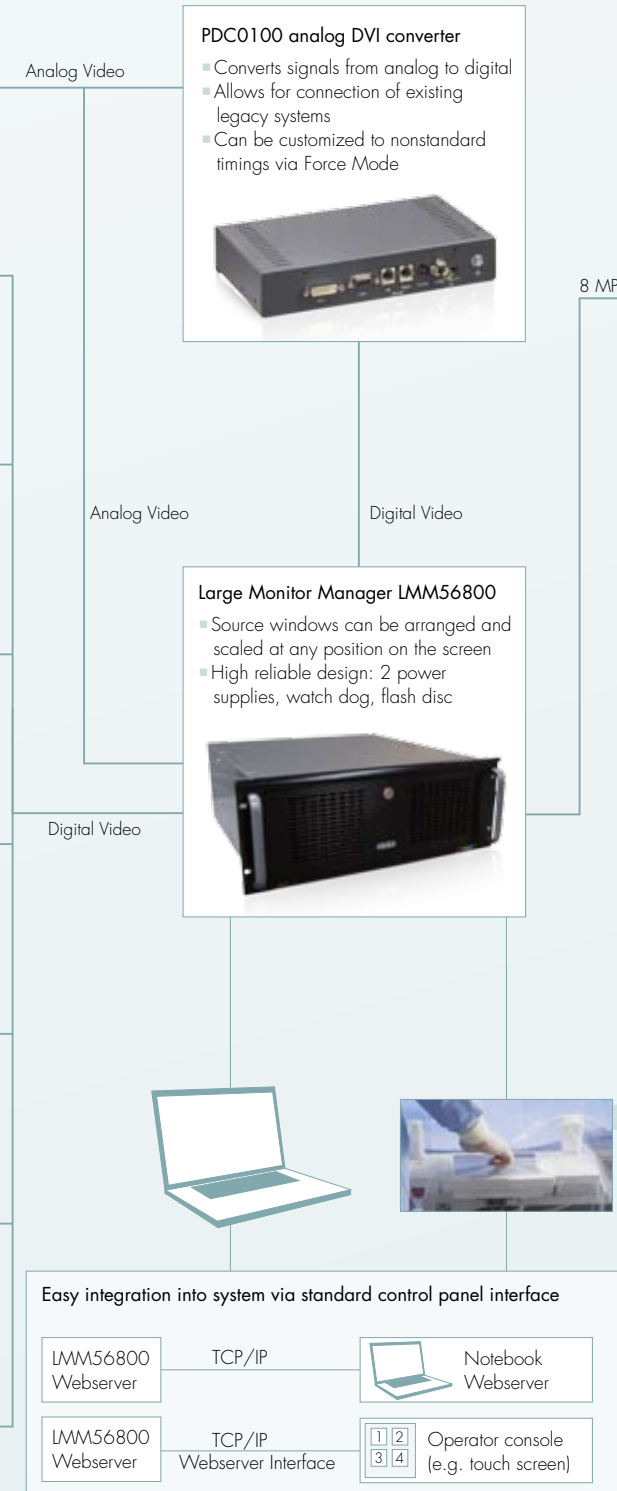
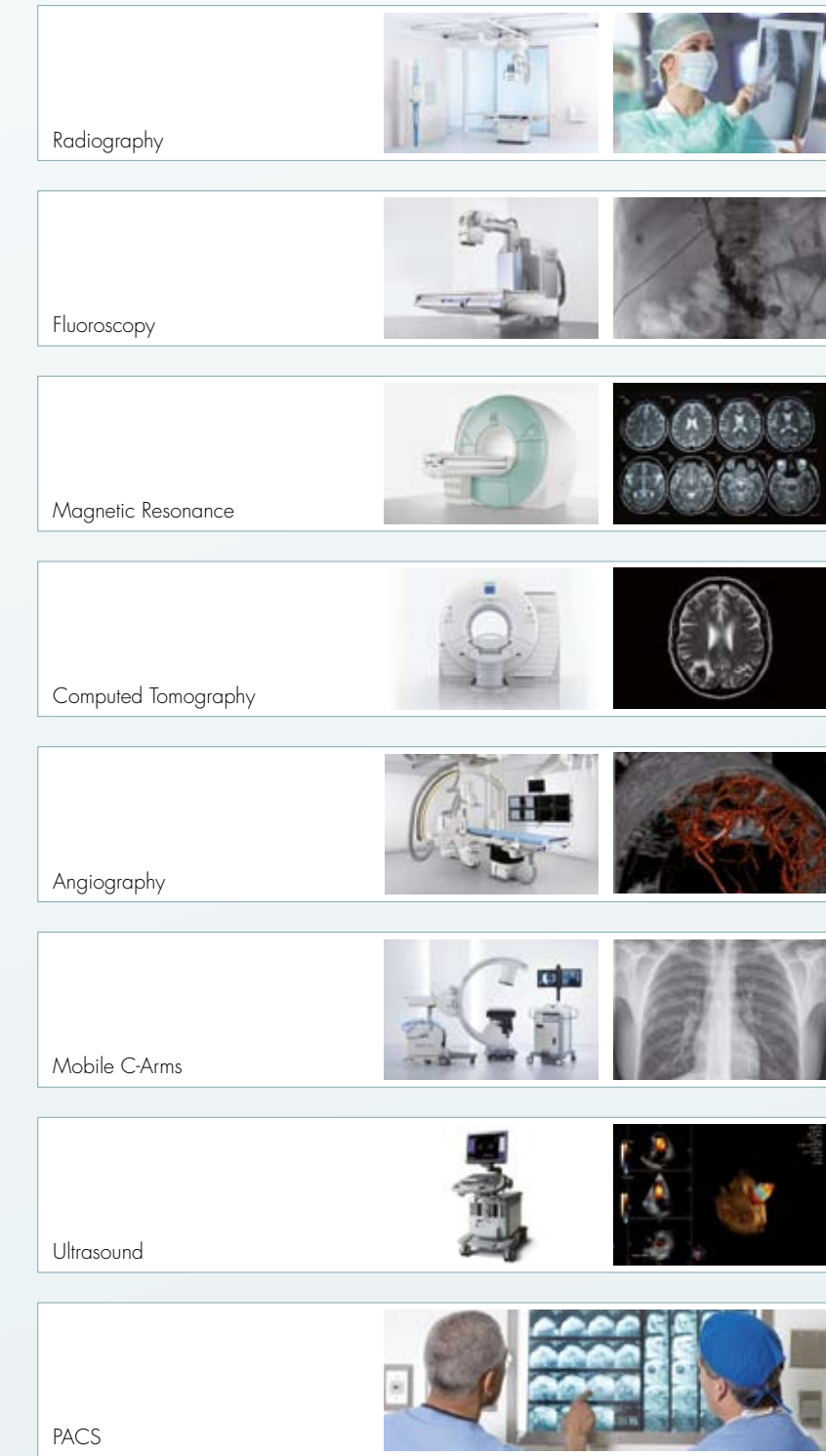
To appreciate all of the advantages of the 8 MP widescreen monitor, the data has to be collected from the various sources and prepared for variable viewing. This is handled by the Large Monitor Manager.

- All of the data from the patient database is bundled together with live recordings and reference pictures in the Large Monitor Manager.
- The data is prepared for variable viewing at any time.
- System integration is easy using data interfaces and hardware add-ons.
- Administration is handled using a browser interface via Ethernet.

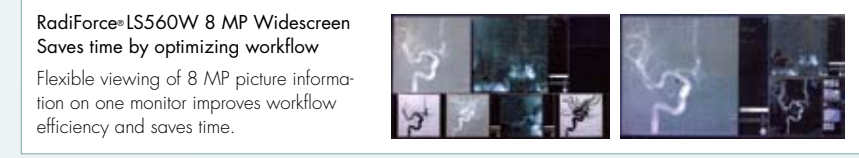
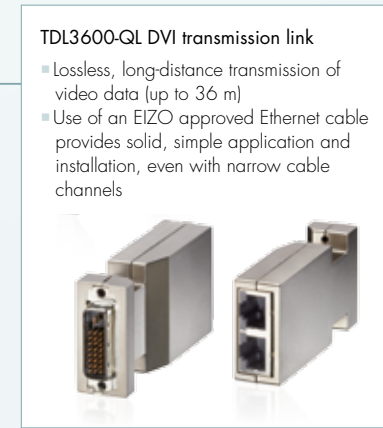
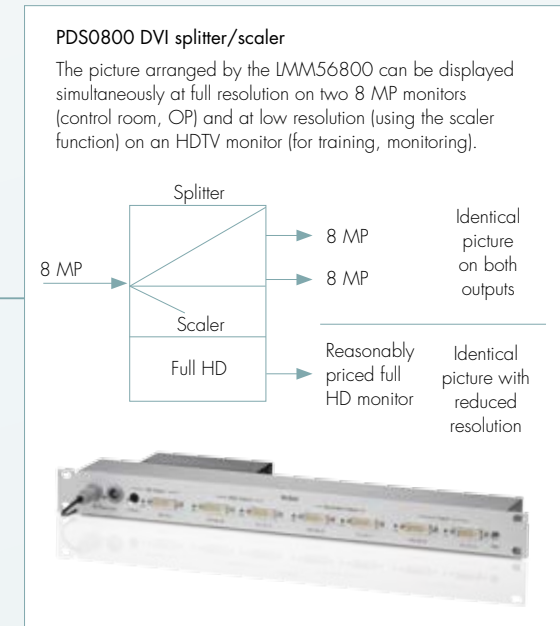


# LARGE MONITOR SYSTEM

# Picture sources



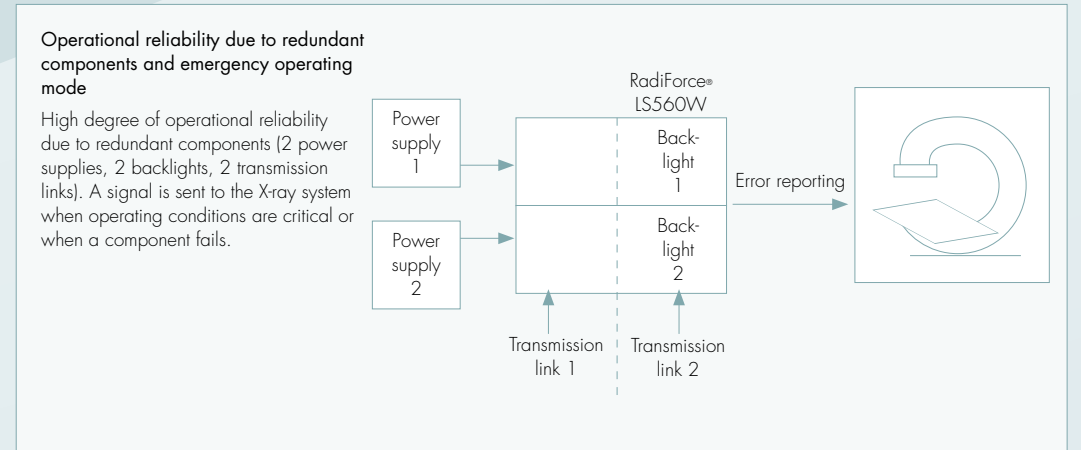
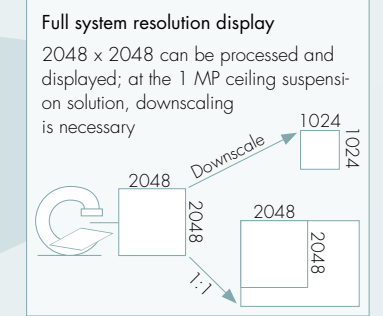
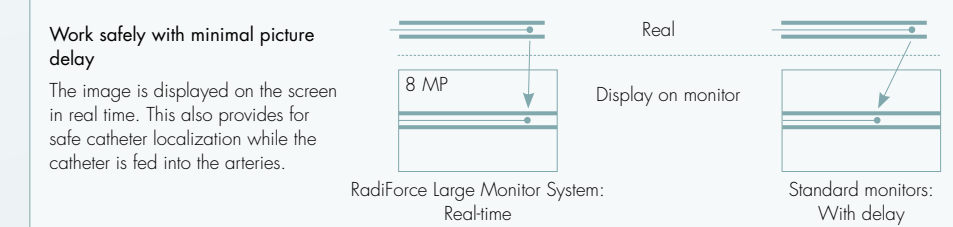
# Control room



# Monitoring/training



# Operating room

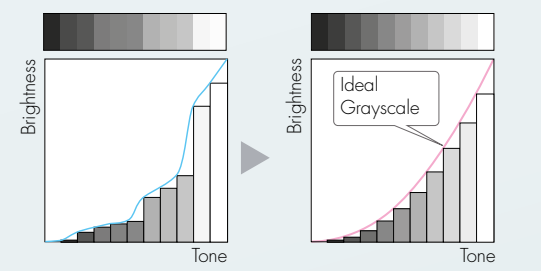


# EIZO quality standards

Everything is included for clear decision-making and the highest diagnostic precision:

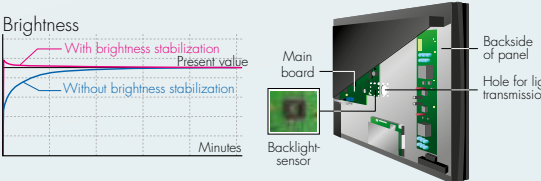
**Diagnostic precision**

DICOM picture display: 8-bit (256 grayscale levels) from an 11-bit lookup table (2041 grayscale levels) can be displayed simultaneously.



**ISS luminance stability (Integrated Stability System)**

Right after the monitor is switched on, the screen's brightness is stabilized via the Integrated Stability System (ISS). A sensor also measures the backlight brightness and stabilizes the brightness separately from its temperature and aging.



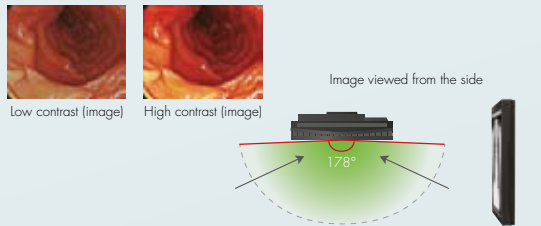
**Luminance Uniformity Correction**

The Digital Uniformity Equalizer (DUE) provides a uniform brightness distribution across the entire screen, thus making it possible to meet the requirements of all picture quality standards (DIN, AAPM, EUREF, JESRA, etc.)



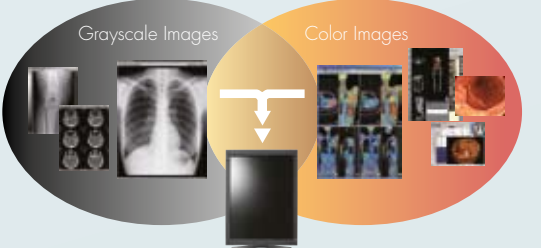
**Contrast and viewing angle**

Due to its high contrast, pictures with a dark background have a more vivid appearance – even the minor differences between similar shades are emphasized – and the color intensity is maintained even in extremely bright rooms. The large viewing angle makes it possible to view pictures from the side with only slight variations in color.



**Grayscale and color pictures can be viewed simultaneously**

With a brightness of 450 cd/m<sup>2</sup> and a 1200:1 contrast ratio, the LS560W satisfies future demands in medical engineering for the ability to display both grayscale and color pictures on one monitor.



# Specifications

## RadiForce® LS560W

### 8 MP Wide Screen Monitor



56 inch viewing area enables a new dimension in medical imaging allowing high flexibility in arranging different screen layouts. Important pictures can be scaled to the desired size, less important information can be moved out of the main focus area.

<b>Monitor Performance</b>	
Cabinet Color	Anthracite Gray
Panel	Color, TFT (MVA)
Active Display Size (H x V)	1244 x 700 mm
Viewable Image Size	Diagonal: 1430 mm
Native Resolution	3840 x 2160
Pixel Pitch (H x V)	0.324 x 0.324 mm
Display Colors	16.77 million from a palette of 8.5 billion colors
Viewing Angles (H, V)	176°, 176° (typical)
Brightness	450 cd/m <sup>2</sup> (typical)
Calibrated Brightness	300 cd/m <sup>2</sup> including Luminance Uniformity Correction
Brightness Uniformity	DIN V 6868-57
Contrast Ratio	1200:1 (typical)
Response Time	6.5 ms (typical)
LUT	11 Bit
Sensor	Two independent ISS (Integrated Stability System)
<b>Signal Properties</b>	
Scanning Frequency	59.7 - 60.3 Hz
Dot Clock	257 MHz
<b>Signal Inputs</b>	
Connectors	DVI-D 24 pin (Dual Link) x 2
Supported Signals	DVI Standard 1.0
<b>Data Interface</b>	
Connectors	Integrated in DVI

<b>Power Requirements</b>	
Input Voltage	100 - 240 VAC, ±10%
Power Frequency	50 - 60 Hz, ±5%
Power Consumption	500 watts (maximum)
Power Management	DVI DMPM
<b>Mechanical Specifications</b>	
Tilt / Swivel	n.a.
Orientation	Landscape
Mechanical Adaption	VESA 400 mm x 400 mm
Degree of Protection	IP20
Net Weight	Without Stand: 49 kg
Dimensions (W x H x D)	Without Stand: 1316.7 x 774.2 x 144.4 mm
<b>Climatic Conditions</b>	
Operating Temperature	5 to +40 °C ( +41 to +104 °F)
Storage Temperature	-20 to +55 °C ( -4 to +131 °F)
<b>Approvals</b>	
Certifications and Standards	EN60601-1, CSA C22.2 No.601.1, UL60601, EN60601-1-2 Class A, FCC Class A
<b>Accessories</b>	
Supplied Accessories	AC Power Cord, Dual Link DVI Cable, Documentation on CD
<b>Warranty</b>	
Standard Warranty	Two Years
<b>Model Variations</b>	
LS560W (without Stand)	6GF6200-8AA01

## PDC0100

### Analog-DVI Converter



The PDC0100 converts analog video to DVI format. The integrated Force Mode function supports even unique analog input signals. Several additional accessories as well as high compatibility opens maximum flexibility to be integrated into current systems.

<b>Signal Inputs</b>	
Resolution	Up to 1600 x 1200
Force Mode Adjustment	Yes
Controls	Remote key pad for OSD
Scanning Frequency	Analog: 30 – 100 kHz, 50 – 100 Hz
Impedance	75 Ω
Connectors	DVI-I, 15pin-SubD, 1x BNC, 4pin-MiniDIN
Supported Signals	RGB (DVI-I, 15pin-SubD), DVI-D (digital, single link), CVBS, S-VHS
Supported Formats	VGA, SVGA, XGA, SXGA, UXGA, PAL, NTSC
<b>Data Interface</b>	
Connectors	2x RJ11 (Upstream, Downstream)
Supported Signals	RS 232-Bus
<b>Signal Output</b>	
Connector	DVI-D
Supported Signal	DVI (digital only)
Supported Format	SXGA (1280 x 1024, 60 Hz)
<b>Power Requirements</b>	
Input Voltage	100 – 240 VAC, ±10%
Power Frequency	50 – 60 Hz, ±5%
Power Consumption	< 10 W
Power Management Analog Digital	DPMS DVI-DMPM
<b>Mechanical Specifications</b>	
Mechanical Adaption	2x injection nut M3 on each side (distance 31.8 mm)
Degree of Protection	IP20
Net Weight	Converter: 850 g Remote key pad: 90 g
Dimensions (W x H x D)	Converter: 220 x 43 x 170 mm Remote key pad: 100 x 24.5 x 43 mm
<b>Climatic Conditions</b>	
Operating Temperature	+5 to +40 °C ( +41 to +104 °F)
Storage Temperature	-20 to +70 °C ( -4 to +158 °F)
<b>Approvals</b>	
Certifications and Standards	EN60950, UL60950, CAN/CSA C22.2 No.950, EN 60601-1-2 Class B, FCC Class A
<b>Accessories</b>	
Supplied Accessories	Documentation on CD, power supply, VGA cable, DVI cable, remote key pad with 30 m cable
<b>Supported Software</b>	
SMfit® Total Care	Virtual OSD functionality, calibration
<b>Warranty</b>	
Standard Warranty	Two Years
<b>Model Variations</b>	
PDC0100	6GF6010-0BA02

## PDS0800

### DVI-Splitter/Scaler



Two independent DVI dual link inputs are repeated and doubled to connect two RadiForce LS560W to one LMM56800. The optional HD output (PDS0800-HD) generates a downscaled signal of the shown content.

<b>Signal Properties</b>	
DVI signals Inputs	2 x 1920 x 2160 (60Hz)
Outputs (Splitter Functionality) HD DVI output HD YPbPr output	4 x 1920 x 2160 (60Hz) 1920 x 1080 (60Hz), PDS0800-HD only 1920 x 1080 (60Hz), PDS0800-HD only
Dot Clock	Digital:130 MHz per input / output (Dual Link)
<b>Signal Inputs</b>	
Connectors	2 x DVI dual link, digital only
Supported Signals	DVI dual link
<b>Signal Outputs</b>	
Connectors	4 x DVI dual link, digital only 1 x DVI single link (PDS0800-HD only) 1 x mini DIN (PDS0800-HD only)
Supported Signals	DVI dual link DVI single link / YPbPr (PDS0800-HD only)
<b>Data Interface</b>	
DDC (integrated in DVI)	DDC (switchable between connected monitors)
<b>Power Requirements</b>	
Input Voltage	100 - 240 VAC, ±10%
Power Frequency	50 - 60 Hz, ±5%
<b>Mechanical Specifications</b>	
Mechanical Adaption	19", 1U high (23.6 mm)
Degree of Protection	IP20
Dimensions (W x H x D)	482.6 x 23.6 - 604.5 x 120 mm
<b>Climatic Conditions</b>	
Operating Temperature	5 to +40 °C ( +41 to +104 °F)
Storage Temperature	-20 to +60 °C ( -4 to +140 °F)
<b>Approvals</b>	
Certifications and Standards	EN60950, EN55022 Class B, EN55024, FCC Class A
<b>Accessories</b>	
Supplied Accessories	Adapter miniDIN to 3 x cinch, external power supply
<b>Warranty</b>	
Standard Warranty	2 Years
<b>Model Variations</b>	
PDS0800	6GF6020-0AA00-1AA0
PDS0800-HD (including scaler to HD output)	6GF6020-0AA00-1AA1

## TDL3600-QL

### DVI Transmission Link (Quad Link)



Digital graphics interconnection enables data transmission of high-quality video data. With the TDL3600-QL it is possible to transmit these data up to 36 m distance without any loss of quality. Transmitting the data over Ethernet cable allows robust handling, simple setting and easy running through small pipes.

## Accessories

<b>Performance</b>	
DVI Transmission	<ul style="list-style-type: none"><li>Transmitter module at PC side</li><li>Ethernet cable</li><li>Receiver module at monitor side</li></ul>
Max. Resolution	3840 x 2160
DDC-Übertragung	DDC
Recognition of Flat Panel Monitors	EDID is transmitted
Power Supply	through DVI interface (PC and monitor side)
<b>Signal Input/Output</b>	
PC and Monitor Connector	2x DVI dual link, digital only
Cable Connector (Transmitter and Receiver Module)	RJ45
<b>Mechanical Specifications</b>	
Dimensions (B x H x T) <ul style="list-style-type: none"><li>Transmitter Module (2x)</li><li>Receiver Module (2x)</li></ul>	83 x 40 x 18 mm (each) 83 x 40 x 18 mm (each)
Diameter of Cable	6 mm
<b>Climatic Conditions</b>	
Operating Temperature	+5 to +50°C (+41 to +122 °F)
Storage Temperature	-20 to +60°C (-4 to +140 °F)
<b>Approvals</b>	
Certifications and Standards	EN60601-1, CSA C22.2 No.601.1, UL60601-1, EN60601-1-2 Class B, FCC Class A
<b>Accessories</b>	
Supplied Accessories	Documentation on CD
<b>Supported Software</b>	
SMfit® Total Care	Full supported
<b>Warranty</b>	
Standard Warranty	Two Years
<b>Model Variations</b>	
TDL3600-QL (2x Transmitter, 2x Receiver, mounting set for LS560W, mounting set for LMM56800 and 4 x 36 m Cable)	6GF6010-4DB36

<b>Cables</b>	
Dual Link DVI Cable, 2m	6GF6980-1TA10
DVI Cable, Single Link, 3m	6GF6980-1TA07
DVI-HDMI Cable, 5m	6GF6980-1HA00
<b>Adapter</b>	
DVI to HDMI Adapter	6GF6980-1HA01
BNC to VGA Adapter	6GF6980-1TB04

# LMM56800

## Large Monitor Manager



Flexible management of the wide screen monitor RadiForce® LS560W by collecting different video sources, combining and arranging this information and displaying on the monitor. Composed picture arrangements can be stored and recalled to simplify the surgeon's workflow.

<b>Input Performance</b>	
Total Number of Inputs	21
Digital	6
Analog	6
Number of Simultaneous Visible Inputs	21
Digital Input Performance	DVI-D single link max. 1920 x 1200, 60 Hz (max. 165 MHz pixelclock, max. horizontal size 2048)
High Speed Analog Input Performance (3 Ports)	max. 1600 x 1200, 60Hz
Standard Analog Input Performance (3 Ports)	max. 1280 x 1024, 75 Hz
Connectors	
Digital	18 HDMI connectors (DVI signals only)
Digital/Analog	3 DVI-D/1
Analog	3 sub-D 15
<b>Input Options</b>	
Cropping	Incoming signals can be cropped on bottom, top, left or right
Scaling	Each incoming signal can be scaled by factor 0.5 to 2
Screen Dubbing	An input signal can be shown twice (e.g. cropped and full size)
Naming	Each screen can be named, a window border can be selected in a predefined color
Input Status	Enable, disable, and valid signal is stated
Overview Function	All incoming signals can be shown simultaneously at a time for diagnosis or overview
Synchronizing	All input signals can be synchronized to one master channel
Output delay	Programmable from 0 frame to 2 frame delay
Event Handling Layout	Automatic layout change when enabled input signal goes active or inactive
Event Handling Screen	Automatic switch of screen content when enabled input signal goes active or inactive
<b>Output Performance</b>	
Connectors	2 x DVI dual link
Supported Signals	DVI-D dual link
Supported Formats	up to QFHD
<b>Data Interface</b>	
Connectors	DVI
Supported Signals	DDC

<b>Controls</b>	
Controls	Software control interface for layout, status and diagnosis
Indicators	LED for power supplies
<b>Network Interface</b>	
Type	1 Ethernet interface
Connectors	RJ45
<b>Power Requirements</b>	
Input Voltage	100 – 240 VAC, ±10%
Power Frequency	50 – 60 Hz, ±5%
Input Current	5.0 – 2.5 A
Redundancy	2 independent power supplies, hot swap capable
<b>Mechanical Specifications</b>	
Mechanical Adaption	19" rack design, 4 U high
Degree of Protection	IP20
Net Weight	< 20 kg
Dimensions (W x H x D)	482.6 x 177 x 470 mm
<b>Climatic Conditions</b>	
Operating Temperature	0 to +40 °C (+32 to +104 °F)
Storage Temperature	-20 to +55 °C (-4 to +131 °F)
<b>Approvals</b>	
Certifications and Standards	EN60950-1, CAN/CSA C22.2 No.60950, UL60950, EN55022 Class B
<b>Accessories</b>	
Supplied Accessories	AC Power Cord, Documentation on CD
<b>Warranty</b>	
Standard Warranty	Two Years
<b>Model Variations</b>	
LMM56800-1E	6GF6020-1AB00

Retailer stamp

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[www.eizo.eu](http://www.eizo.eu)

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