



EIZO SMD 19102

1 megapixel black and white LCD monitor

Optimum solution for the field of medicine, particularly for surgery and similar areas. The newest technology with a large viewing angle and high brightness of up to 1000 cd/m² guarantees the necessary picture quality. Preselections with high picture quality, determined to be applied in practice, are stored in five integrated Look-Up-Tables (LUT's). The large number of signal inputs together with EIZO's unique "Force Mode" enables the adaptation of SMD 19102 to the most uncommon conditions. This is significant in cases where the intention of this modern LCD panel is to replace the common cathodic tube.

- u Displaying shades of gray via DICOM, CIE or Gamma tone curves at a brightness of 400 cd/m²
- u Contrast 900:1, brightness 1000 cd/m²
- u Various digital and analogue inputs
- u The Force Mode adapts to various picture formats, resolutions and frequencies
- u High level of safety for the field of medicine

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Main features

The SMD 19102 black and white monitor is equipped with a 19" active TFT LCD module with a very large viewing angle. This panel provides maximum contrast for shades of gray (entire tone curve) in a very wide viewing angle. This is thanks to IPS-LCD technology (In-Plane Switching). The optimum picture resolution is 1280 x 1024 pixels. Video signals with different resolutions, which are commonly used in medical devices, are optimally increased or decreased to the entire panel. They can be alternatively displayed in their original size (1:1).

Shades of gray can adapt to the eyes of the physician when applying medical devices, primarily using black and white images (e.g. X-ray or magnetic resonance). This monitor enables selecting amongst a linear, logarithmic, DICOM, CIE and CRT Gamma curve. Together with the defined brightness range, these curves can then be stored into one of five integrated LUT memories. Switching between memories is possible in the monitor menu or via the SMfit® Total Care service software.

Connecting the monitor to a computer system is executed either via a 15pin DSub connector or a DVI-I connector. The SCD 19102 is additionally equipped with two analogue video inputs, thanks to which it can process standard analog video signals (PAL/NTSC). RGB and Video inputs can be concurrently connected to various signal sources. The picture in picture function is available.

The Force Mode function helps the SMD 19102 monitor adapt to signals with uncommon timing and therefore makes it possible to replace old vacuum tubes with these panels.

The SMfit® Total Care program is a service web application, included on the included CD disk with software and documentation. It contains many functions for testing, parameterization and calibration. A photometer is necessary for calibration.

The various designs of the SMD 19102 monitor and mechanically identical SMD 19102 monitor enable configuring your application with a united appearance and control method: with or without a protective glass sheet or with or without a stand. The multifunctional stand offers a large range for height adjustment, rotating and tilting.

The SMD 19102 monitor meets all medicine standards in terms of safety and electromagnetic compatibility. In addition to this, the EIZO quality control system for medicine devices is certified in compliance with the ISO 13485 standard.

Technical specifications

Panel size	48 cm (19 inches) TFT LCD
Device colour	Anthracite
Viewable image size	376 mm (width) x 301 mm (height)
Viewable image size - diagonal	481 mm
Ideal/Recommended resolution	1280 x 1024 pixels
Pixel pitch	0.294 mm x 0.294 mm
Max. brightness	1000 cd/m ²
Max. contrast	900:1
Max. Viewing angle	Horizontal: 170°; Vertical: 170°
Formats	VGA, SVGA, XGA, SXGA non-interlaced, interlaced
Horizontal frequency	30 – 100 kHz
Vertical frequency	50 – 100 Hz
Picture signals	DVI, single link Analog (DVI-I, 15pin-SubD, BNC) Video Level: 0,5 ... 1,0 V Sync Level: TTL compatible SoG-Sync Level: 0,2 ... 0,3 Vpp Y/C and CVBS PAL (625 Z / 50 Hz) NTSC (525 Z / 60 Hz) Video Level: 0,5 ... 1.4 Vpp Sync Level: 0,2 ... 0,3 Vpp
Input connectors	DVI-I 15pin-DSub 3 x BNC (SoG/G, H, V) 1 x BNC (CVBS) 4pin-Mini DIN
Output connector	1 x BNC (SoG/G) for through traffic
Power consumption	max. 58 W
Cover	IP20
Dimensions (W x H x D)	422 mm x 348 x 95 mm (without stand)
Net weight	6,4 kg (without stand)
Standards	EN60601-1 CSA C22.2 No.601.1 UL60601-1 EN60601-1-2 Ilimit B FCC Class A MPR II
Warranty	3 years

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