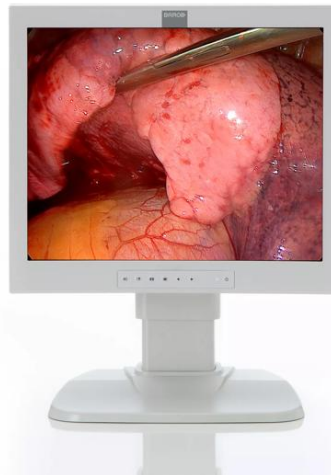# E192HSA

19" surgical color LCD display

- **High-quality LCD technology with LED backlights**

- **Lightweight and compact**

- **For use with endoscopy trolleys**

- **Full range of SD and HD video inputs**

Pixel perfect precision

This surgical display with LED backlight technology is the perfect match for endoscopy cameras. It combines artifact-free images with calibrated, consistent colors for surgical precision. Thanks to its high brightness, high contrast ratio and wide viewing angle, surgeons can see precise endoscopic images from any angle in a high-bright environment.

Major quality in a compact size

The E192HSA has been specifically designed for mounting on endoscopy trolleys. Lightweight, compact and extremely simple to install, it meets all of the requirements of the small integrated operating room. The display features compatibility with endoscopic cameras, fluoroscopes, ultrasound echography, mobile x-ray systems, and other medical imaging systems.

Safety guaranteed

This 19" surgical display complies with all of the latest safety and medical standards. Its fan-less and fully cleanable design, including a splash-proof front, allows for complete disinfection and makes the E192HSA completely safe for use near patients.

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Product specifications   E192HSA

General specifications

Screen technology	TFT AM LCD White LED backlight
Active screen size (diagonal)	19.0" (481.84 mm)
Active screen size (H x V)	376 x 302 mm (14.8" x 11.89")
Aspect ratio	5:4
Resolution	1MP (1280 x 1024)
Pixel pitch	0.294mm
Color imaging	Yes
Color support	16.7 million (8-bit)
Viewing angle	178°
Luminance	Default @6500K: 250 cd/m² Maximum: 300 cd/m² (typical)
Contrast ratio	900:1 (typical)
LCD transition time	Average total 18ms typical (Rise time Tr + Decay time Tf; Tr = Black to White , Tf = White to Black)
White point	Native: 6400K Calibrated: 5600K, 6500K, 7600K, 9300K
Dot clock	165 MHz (maximum)
Gamma	Native, CRT, Xray
Screen protection	Dual side anti-reflective Acrylic
Keyboard	Mechanical membrane 7 buttons
Video input signals	▪ DVI-D Single Link (Digital – HDMI video support with HDCP) ▪ VGA ▪ Component Video RGBS / YPbPr (4xBNC) ▪ S-video (4-pin Mini DIN) ▪ Composite video (1xBNC) ▪ 3G-SDI (1xBNC)
Video output signals	▪ DVI-D (output selectable from DVI-1) ▪ S-video (4-pin Mini DIN) ▪ Composite video (1xBNC) ▪ 3G-SDI (1xBNC)
Video formats	VGA & DVI : Up to 1920x1200 at 60Hz (reduced blanking) ▪ Maximum Hor freq: 90kHz ▪ Maximum pixel clock: 165MHz ▪ Maximum Ver freq: 75Hz Standard PAL and NTSC for S-Video, Composite and Component Component YPbPr/ RGBS: HDTV -up to 1080i & 1080p SDI Format Supported: 625/25 PAL, 525/29.97 NTSC, 1080i50, 1080i59.94, 1080i60, 720p50, 720p59.94, 720p60, 1080p50, 1080p59.94, 1080p60 SDI Compliance: SMPTE 425M (Level A), SMPTE 424M, SMPTE 292M, SMPTE 259M-C, SMPTE 296M, ITU-R BT.656, ITU-R BT.601
Remote control	RS-232 (D-sub 9-pin)
Power requirements (nominal)	External power supply: 100-240VAC, 50/60Hz, medical grade Display power input: +24 VDC ±10% / 1.3 A
Power consumption (nominal)	35W typical
OSD languages	English, French, German, Spanish, Italian
Dimensions display (W x H x D)	425 x 375 x 96.8 mm (16.7" x 18.6" x 3.6")
Dimensions packaged (W x H x D)	593 x 483 x 192 mm (23.3" x 19.0" x 7.6")
Net weight display	5.8 kg (12.6 lbs)
Net weight packaged	8.87 kg (19.9 lbs)
Mounting standard	VESA (100 x 100 mm)
Recommended modalities	Endoscopy, Laparoscopy, PACS, PM, US, CT, MR
Certifications	MDD 93/42/EEC (Class1), Amended by 2007/47/EC EN 60601-1 3rd Edition (2006) -Medical Electrical Equipment / General Requirements for basic Safety and essential performance IEC 60601-1 3rd Edition (2005) -Medical Electrical Equipment / General Requirements for basic Safety and essential performance ANSI/AAMI ES60601-1 3rd Edition (2005) -Medical Electrical Equipment / General Requirements for basic Safety CAN/CSA-C22.2 No. 60601-1 (2008) -Medical Electrical Equipment -Part 1: General Requirements for basic Safety and Essential Performance Approvals/Marking: CE c-UL-us, DEMKO, PSE, CCC. Note PSE is available on PSU Electromagnetic Compatibility: EMC Medical EMC Standards: IEC/EN 60601-1-2 (2007), EN55011/CISPR 11 (Class B), FCC CFR47 part 15 & 18 RoHS-2, REACH, WEEE compliant IP21 (IPx5 monitor front side only)
Supplied accessories	User manual Mains cables (European, US, Chinese) External power supply Interface cable DVI 3m
Optional accessories	Display pedestal (P/N: K9302060A)
Operating temperature	0 ÷ +40°C
Storage temperature	-20 ÷ +60°C
Operating humidity	10 ÷ 90% (non-condensing)
Storage humidity	10 ÷ 90% (non-condensing)
Operating altitude	3000m max.
Storage altitude	12000m max.

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