



# Digital Operating Room

Our range of operating room products are designed for the modern hospital environment. The portfolio comprises of safe label system (SLS), monitor positioning systems and surgical displays for use in any environment where procedures are carried out. Available in high definition or 4K ultra-high definition, and in 2D or 3D.

your single source supplier



your single source supplier

# Safe Label System (SLS)

A standard of care  
in the world's  
leading hospitals



## Overview

Safe, compliant, fast medication labeling —  
anywhere medications are prepared

Codonics Safe Label System (SLS) is an award-winning, FDA-approved medical device that improves the safety and accuracy of medication management, integrating worldwide recognized best practices and international standards. A complete solution to enhance patient care, SLS uses barcode technology to read information from a drug container and electronically verify it against the hospital's pharmacy-approved formulary database at the point of care.

## Where SLS is used

The system integrates with both manual and smart anesthesia drug carts (ADCs)\* in the OR, enabling it to be conveniently situated as part of the anesthesia workflow. SLS is also widely used in the ICU, for patient care on the floor and at the bedside, and in the pharmacy.

## Improve patient safety

Problems associated with mislabeling and mishandling of medications continue to adversely affect hospitals and surgical facilities. Drug labeling requires time and vigilance, and is prone to human error. For example, in the OR, anesthesiologists are met with competing demands, coupled with the challenge to handwrite the required drug information in a legible manner on a very small area. SLS uses barcode technology to read information from drug containers and empowers you to label any medication, anywhere in your facility, with a compliant label.

## Workflow eliminates medication errors and improves compliance

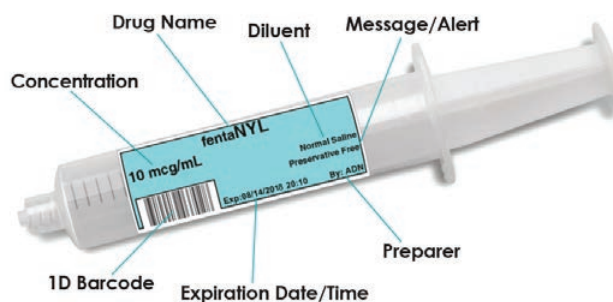
When a drug is scanned on SLS, the clinician is immediately presented with audible and visual confirmation of the drug and concentration in hand, providing an electronic "double-check", a safeguard that ensures the medication selected is the intended medication. The system then automatically presents a TJC-compliant, easy-to-read and ready-to-apply label that meets ASA guidelines, eliminating the need for handwriting and ensuring safety, accuracy and compliance.

SLS reduces the 3 most common drug errors made in the OR:

Common Error	Codonics SLS Solution
1. Vial / Ampoule Swaps	SLS scans the drug container and asks for confirmation before printing the label
2. Mislabeling / Illegible Labeling	SLS provides TJC-compliant full-color labels based upon a site-specific formulary
3. Syringe Swaps	SLS enables the labeled syringe to be scanned to identify its content prior to administration

## Additional benefits

- Includes a 2D barcode on labels enabling electronic documentation of the medication in the patient's AIMS/EHR
- When integrated with an anesthesia cart, SLS can help to decrease stock-outs, improve inventory control and increase charge capture
- Data analytics provide pharmacy insight into the OR
- When integrated with AIMS, identifies syringes prior to administration, provides warnings for expired syringes, patient allergies or adverse drug interactions
- Prints labels for IV lines, invasive monitor lines, and other OR needs on demand





# Monitor Suspension Systems

Shielding systems are an integral part of holistic radiation protection. Imaging Solutions offers an extensive range of shielding solutions to enable the highest quality of safety without compromise in terms of comfort or practicality for both the patient and the examiner. Medical staff and patients also benefit from the flexibility in the positioning of the systems and contour options.

## PORTEGRA<sup>2</sup>

Components can be assembled like building blocks and can be tailored to your individual requirements. Of course, MAVIG can also offer customer specific solutions.

### Track Mounted



MAVIG has set a standard for practices and hospitals in ceiling support and radiation protective systems. The ceiling track is suited for universal use of ceiling guided accessories, including radiation protective shields, lamps, injectors, monitors, and other equipment. The unique structure profile ensures smooth running of the carriage. With little force, the installed system can be moved and positioned. The carriage glides smoothly, even after many years of routine use Adjustable cross-struts simplify the system installation.

#### Description

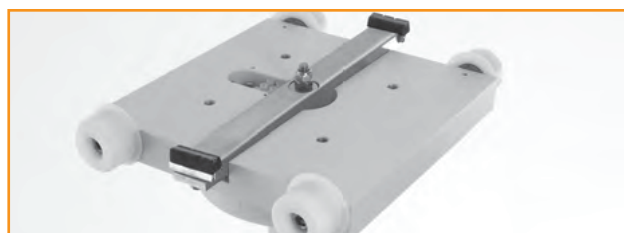
Ceiling Track

#### Product Code

MA-TS1001, -05

### Safety & Performance Features

- Maximum load capacity of up to 18 kg (39.7 lbs) for each suspension arm
- The steel extension / spring arm ensures high stability against collisions
- UL listing (IEC 60601-1, Edition 2 + 3) and CE certification
- User-friendly, smooth edged design
- Allows for different load levels
- Easy spring arm tension adjustment
- Life Cycle Tested



Solid construction for maximum safety. Many years of development have led to MAVIG's unique steel columns. The proven construction, sturdy design, and numerous tests ensure the highest level of safety available.

The patented brake mechanism is a standard for all support systems with a carriage. The brake holds the carriage at a fixed position inside the ceiling track, which provides additional safety during its use.



#### Twin Column with Carriage (Trolley)

- One electrical pin and one standard pin at the same height
- Each pin offers a 240° rotation
- Maximum net load at spring arm adapter: 18.0 kg (39.7 lbs)

#### Description

Twin Column with Carriage

#### Product Code

MA-TS2031, -32



#### 360° Column with Carriage (Trolley)

- Lower pin allows 360° rotation
- Upper pin is electrical with 240° rotation
- Maximum net load at spring arm adapter: 18.0 kg (39.7 lbs)

#### Description

360° Column with Carriage

#### Product Code

MA-TS2031, -32

## Stationary Installation



MA-TS2020 - 23

MA-TS2001 - 05

### Twin Column Stationary

- One electrical pin and one standard pin at the same height
- Each pin offers a 240° rotation
- Maximum net load at spring arm adapter: 18.0 kg
- Second electrical pin available upon request

Description	Product Code
Twin Column Stationary	MA-TS2001 - 05

### 360° Column Stationary

- Lower pin allows 360° rotation
- Upper fixed pin is electrical with 240° rotation
- Maximum net load at spring arm adapter: 18.0 kg

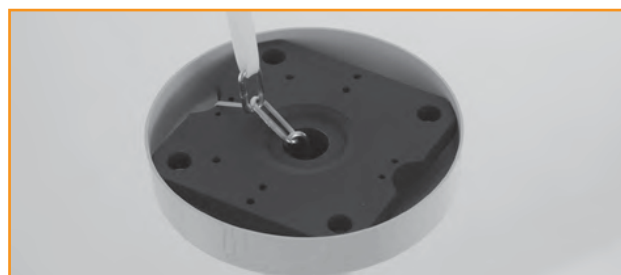
Description	Product Code
360° Column Stationary	MA-TS2001 - 05

## Extension / Spring Arm for Equipment

Protective shields, lamps, monitors, injectors and other accessories can be attached and positioned as required. The extension / spring arm combination offers a large range of different load bearing categories:

- The long reach capacity with an extension arm of 75 or 95 cm and spring arm of 91 cm
- Multiple load bearing categories: 3.5 – 7.0 kg, 7.0 – 12.0 kg, 12.0 – 18.0 kg
- Shock absorbing, plastic covers to protect from collision damage
- Internal steel cable provides safe support even after many years of service
- Specially designed collar guarantees a firm connection with the shield

Description	Product Code
Portegra2 Extension 75	MA-E-OT75-70120
Portegra2 Extension 95	MA-E-OT95-70120



### MAVIG Columns for the Portegra2-System

Solid construction for maximum safety. Many years of development has led to MAVIG's unique steel columns. The proven construction, sturdy design, and numerous tests ensure the highest level of safety available. The patented ceiling anchor provides an extra level of protection, stopping the system from falling in the event that the mounting comes away from the ceiling.



Mounting plate for stationary column (recommended for substructures, e.g. Unistrut®)

Description	Product Code
Mounting Plate	MA-TS1520

Wall Mount for Portegra2  
(max. load capacity of 13.0 kg)

Description	Product Code
Wall Mount	MA-TS1515



### Portegra2 Suspension Arm

The MAVIG Portegra2 suspension arm provides the mobility needed so that radiation protection and other equipment can always be positioned where required.

#### Patented Safety Features:

A sophisticated safety collar prevents the separation of the connection joint. This is combined with our safety spring to keep the connection from loosening, allowing a long and trouble-free product life. As well, a defined breaking point, including an internal safety steel cable, provides controlled safety even in case of heavy collision with other equipment.

# Smart Systems

Multifunctional monitor suspension systems for diagnostic and clinical applications. For many years, MAVIG has been the first choice among monitor suspension systems. The stable, high-quality systems are optimally designed for routine use in the hospital or the radiological practise. They offer maximum safety and high flexibility. All kinds of LCDs with VESA adaptor can be mounted for seamless alignment.

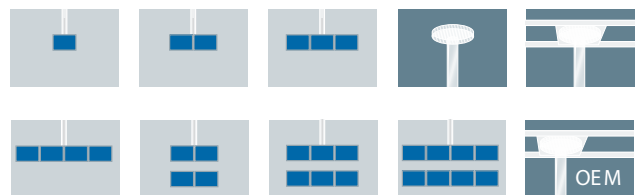
MAVIG life cycle testing ensures 100-percent quality of all products delivered. The products are furthermore UL and CE certified. MAVIG is also ISO EN 13485-2003 certified by TÜV Product Service.

## The Sleek Monitor Suspension for Very High Loads

Minimum space for several monitors – thanks to its sleek design with a motorised column, the GD60 fits in small spaces and still offers a great many extension variants.

## Maximum Capabilities

Up to eight monitors can be installed with ease. Combination with the MAVIG ceiling track system greatly enhances the radius of action. The motorised vertical column can be rotated through 330°. The integrated vertical balance adjustment simplifies extensions of different monitor sizes and weights, which can be installed gap-free.



# GD60

## The Versatile Monitor Suspension System

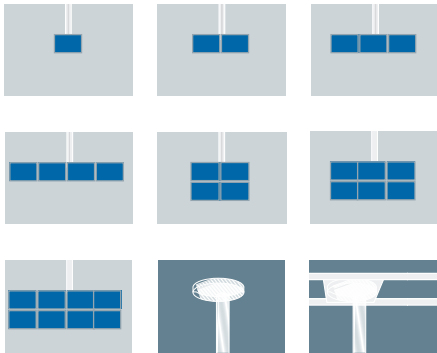
Our patented on-site rapid balance adjustment system, universal joint for easy, torque-free operation, fully integrated cabling and the rapid adjustment to different monitor sizes are only some of the many features provided. The system is designed for heavy load conditions - its weight capacity ranges up to 105 kg (233 lbs.)

### Suspension

The universal joint suspension allows rapid movement of the system in case of emergency, eliminates torque effects and enhances system life.

Suspension

MA1-GD60



The powerful monitor suspension with maximum mobility.

### Versatile Track

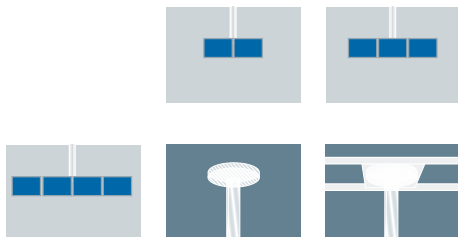
The GD65 combines the versatile MAVIG track system with the sophisticated MAVIG suspension for one to four monitors, designed for easy and smooth, torque-free operation. In case of collisions during routine use the GD65 discretely retracts – with no damage to the instruments or injuries to persons.

### Assembly

The modular system allows the installation of additional monitors, infrared receivers and other accessories. The patented track system is simple to install and offers a maximum of safety.

Versatile Track

MA1- GD65



## Economic Solution for Existing Track Systems

The economically priced system provides a solution for existing MAVIG 335 track systems in the field. Due to its slim design and less weight, a GD75 can easily be slipped into pre-installed, smaller 335 tracks at any time, while the GD70 fits in stationary systems.

### Maximum Functionality

The system for two LCD monitors should be cabled externally only. Many functions of the "big" systems, like bended horizontal rail for perfect viewing angle, aligned LCD positioning.

Economic Solution

MA1- GD70/75



## The Smart Monitor Suspension System

A flexible spring arm with integrated cabling normally, only considerably larger systems have these features. Thanks to its equipment, the only one, two or three monitors are required.

### Ceiling Track System

Thanks to the spring arm, the monitors can be easily positioned. The MAVIG ceiling track systems enabled a larger positioning area: the patented track system is simple to install and offers a maximum of safety and performance.

Smart Monitor Suspension

MA1- GD72/76





# Great Flexibility for Extension With All Applications

The Portegra2 ceiling suspension system offers various patented safety features. The maximum load capacity of each mounting post is 18 kg (40 lbs.) net. The attractive plastic coverings conceals hardware and blends with the surrounding equipment.




















## Monitor Cart

Mobile system in radiological rooms are always a safety hazard. On the basis of numerous statics calculations and optimal design, the MD70 offers a maximum of safety. The sleek look of the monitor cart permits unimpeded communication between the doctor and the medical assistant. The chassis is as small as possible and still dimensioned to be as stable as necessary. A cable roll-up on the column stand takes up excess cabling and eliminates the danger of unnecessary stumbling hazards.

Mobile System MD70-1 (one display)	MA1-MD70
Mobile System MD70-2 (two displays)	MA1-MD70
Mobile System MD70-3 (three displays)	MA1-MD70



## Monitoring Suspension Systems Product Specification and Certification

	System	Certification	1 Monitor	2 Monitors	3 Monitors	4 Monitors	6 Monitors	8 Monitors
	MA1- GD4020	Available also as certified precabled version 	Stationary For MAVIG track 335 < 18kg / 40lbs. External cabling only	—	—	—	—	—
	MA1- GD70	Available also as certified precabled version 	Stationary <28kg / 62lbs. External cabling only	—	—	—	—	—
	MA1- GD75	Available also as certified precabled version 	For MAVIG track 335 For MAVIG track 480 <28kg / 62lbs. External cabling only	—	—	—	—	—
	MA1- GD72	Available also as certified precabled version 	Stationary <44kg / 97lbs. Fully internal cabling	—	—	—	—	—
	MA1- GD76	Available also as certified precabled version 	For MAVIG track 480 <44kg / 97lbs. Fully internal cabling	—	—	—	—	—
	MA1- GD65	Available also as certified precabled version 	Stationary For MAVIG track 480 <44kg / 97lbs. Fully internal cabling, Kardanic Joint for smooth and collision safe performance	—	—	—	—	—
	MA1- GD60	Available also as certified precabled version 	Stationary For OEM tracks <116kg / 255lbs. Fully internal cabling, Kardanic Joint for smooth and collision safe performance	—	—	—	—	—
	MA1- GD67	Available also as certified precabled version 	Stationary For MAVIG track 480 For OEM tracks <116kg / 255lbs. Internal cabling, optionally with Kardanic Joint for smooth and collision safe performance	—	—	—	—	—
	MA1- MD70	Available also as certified precabled version	For mobile cart <27kg / 60lbs. Fully internal cabling	—	—	—	—	—





# 4K UHD surgical display

- Distinctive design, optimized for the operating room
- Flexible multi-modality imaging
- Fabulous 4K image quality
- BT.2020 compatible
- 12G-SDI and Quad-link 3G-SDI signals accepted

With Barco's MDSC-8427 surgical display, you'll experience the next level of surgical precision on one of the most versatile displays in the operating room. Featuring Barco's unequalled image quality, this 4K display has exceptional brightness and crisp contrast. It's how you'll see the most detailed picture on a 27" screen. And thanks to our smart image processing technology, specially designed for medical video, your surgical images will be razor-sharp.

## True-to-life colors in the surgical suite

The MDSC-8427 has been designed for endoscopy imaging and the integrated operating room. The display has a wide color gamut and offers advanced color calibration algorithms. This results in the most accurate color reproduction, making it the preferred choice for real-time critical imaging.

## User friendly

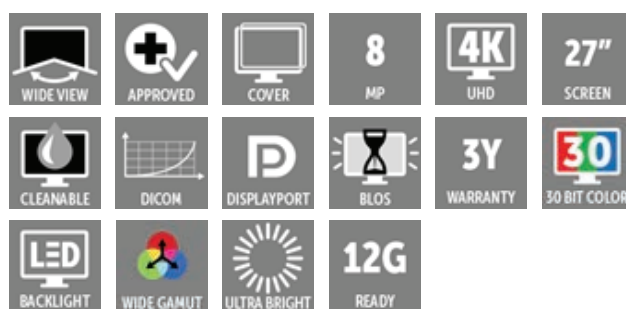
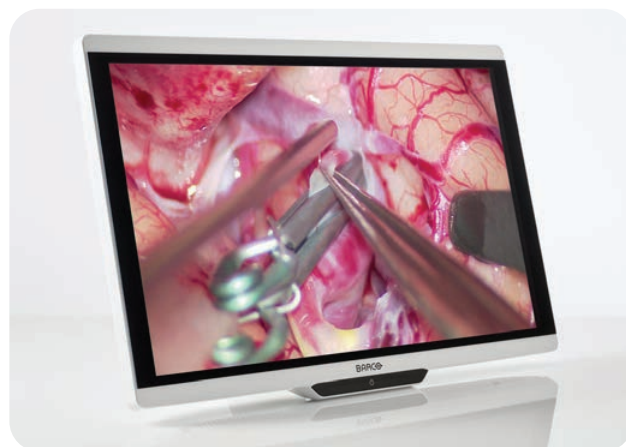
The dual user interface – there is one at the front as well as at the back – makes it easy to operate the display. The touch screen functions at the front can be programmed to meet the personal preferences of surgical staff. The intuitive user interface makes it easy to set up the screen or change the layout configurations of the display to fit the procedure. Four dedicated shortcut buttons enable fluent configuration of the display.

## Distinctive design

The 27" screen delivers a stylish, sleek solution for 4K visualization in the operating room. Every detail has been carefully envisioned to assure a professional, purposeful, and elegant fit for the surgical suite. The 27" size offers a lightweight and attractive alternative to current 24" or 26" Full HD displays.

## Perfectly safe

This 4K display features a unique, automated failover feature. A backup signal is guaranteed at all times – with no intervention – to ensure safe surgery. The display is easy to disinfect thanks to the smooth surface and splash-proof housing. The integrated cable cover combined with the rubber joystick ensure optimal hygiene. Needless to say, it has been approved for use near patients.





## Specifications

<b>Screen technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight
<b>Active screen size (diagonal)</b>	27 inch (685 mm)
<b>Active screen size (H x V)</b>	597 x 336 mm
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	UHD (3840 x 2160)
<b>Pixel pitch</b>	0.155 mm
<b>Color support</b>	1 Billion (30 bit color depth)
<b>Color gamut</b>	Native = Wide color gamut (Adobe 92%) Calibrated color space: ITU-709, DCI-P3, BT.2020
<b>Viewing angle</b>	178° Hor / 178° Ver
<b>Luminance</b>	Max: 750 cd/m <sup>2</sup> (typ.) @6500K : 550 cd/m <sup>2</sup> stabilized (typ.)
<b>Contrast ratio</b>	1400:1 (Typical)
<b>Response time</b>	Ton + Toff = 20 msec (typ.)
<b>White point</b>	Calibrated: 5600K, 6500K, 7600K, 9300K
<b>Gamma curve</b>	Native, 1.8, Video, 2.2, 2.4, DICOM
<b>Front protection screen</b>	2-side AR glass with anti-fingerprint
<b>Keyboard</b>	Front Keyboard : 5-key touch Capacitive (User programmable) Rear Keyboard : 5-key membrane (Menu navigation)
<b>Video inputs</b>	MDSC-8427 LED 4K-UHD input : <ul style="list-style-type: none"> <li>4K-UHD input selectable among: <ul style="list-style-type: none"> <li>1x DP 1.1 up to 3840 x 2160 @30Hz</li> <li>2x DP 1.1 up to 1920 x 2160 @50Hz/60Hz</li> <li>1x DP 1.2 MST up to 3840 x 2160 @50Hz/60Hz</li> <li>2x HDMI 2.0 up to 3840 x 2160 @50Hz/60Hz</li> </ul> </li> <li>FHD input (upscaled to UHD)</li> <li>1x DVI</li> <li>1x 3G-SDI;</li> </ul>
<b>Video inputs</b>	MDSC-8427 12G 4K-UHD inputs: 4K-UHD input selectable among: <ul style="list-style-type: none"> <li>Quad-link 3G-SDI up to 4096 x 2160 @50Hz/60Hz</li> <li>12G-SDI up to 4096 x 2160 @50Hz/60Hz</li> <li>1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz</li> <li>2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz</li> <li>1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz</li> <li>2x HDMI 2.0 up to 4096 x 2160 @50Hz/60Hz</li> </ul> FHD input (upscaled to 4K) <ul style="list-style-type: none"> <li>1x DVI-SL</li> </ul>
<b>Video outputs</b>	MDSC-8427 LED <ul style="list-style-type: none"> <li>1x 3G-SDI (3G-SDI input loop-through)</li> <li>1x DVI (4K display screen clone - downscaled to FHD)</li> </ul> MDSC-8427 12G <ul style="list-style-type: none"> <li>2x 12G-SDI (input loop through)</li> <li>1x DVI (4K display screen clone - downscaled to FHD)</li> </ul>

<b>Features</b>	Video processing optimized for low latency and noise reduction, Picture-in-Picture, Picture-by-Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Legacy signals accepted, Programmable functional keys, DC Power output, cable cover.
<b>Remote control</b>	Remote control of Monitor functions available on: <ul style="list-style-type: none"> <li>USB type B port for FW download and remote control</li> <li>Remote control through DDC on DVI and DP</li> </ul>
<b>Power consumption</b>	MDSC-8427 LED: Max 100W / 25V ± 10% MDSC-8427 12G: Max 120W / 25V ± 10%  Low power mode:  MDSC-8427 LED: 18W Typ MDSC-8427 12G: 33W Typ Power-off: ~ 1W
<b>Power consumption</b>	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +25V / 8A
<b>DC power output</b>	(Power-to-dongle) DC connector: +5V / 2A Available also on DVI, DP and USB ports
<b>Dimensions (W x H x D)</b>	657 x 418 x 75 mm ( 25.9 x 16.5 x 3.0 in)
<b>Dimensions (packaged)</b>	860 x 560 x 180 mm (33.9 x 22.0 x 7.1")
<b>Net weight display</b>	9.1 Kg / 20.7 lbs
<b>Net weight packaged</b>	13.2 kg / 29.1 lbs
<b>Mounting standard</b>	100x100 mm VESA
<b>Operating temperature</b>	0° - 40° for safety/ 5° - 35° recommended
<b>Storage temperature</b>	-20° -60°C
<b>Operating humidity</b>	20% – 85% R.H.
<b>Storage humidity</b>	10% – 85% R.H.
<b>Compliance</b>	<ul style="list-style-type: none"> <li>ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014</li> <li>CAN/CSA-C22.2 No. 60601-1 (2014)</li> <li>IEC 60601-1:2005 (Third Edition) + CORR. 1:2006 + CORR. 2:2007 + A1:2012</li> <li>EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014</li> <li>Electromagnetic Compatibility: EMC Medical EMC Standards: IEC 60601-1-2 (2014), EN 60601-1-2 (2015) EN55011 /CISPR 11, FCC CFR47 Part 15 Subpart B (Class B)</li> <li>GB17625.1-2012; GB4943.1-2011; GB/T9254-2008</li> <li>Approvals/Marking: CE, c-UL-us, DEMKO, CCC, INMETRO, BIS</li> </ul>
<b>Protection rating</b>	IP21 (IP45 front side)
<b>Warranty</b>	3 years
<b>Green compliance</b>	ROHS-3, REACH, WEEE

# Full HD surgical display

- For the best hand-eye coordination
- Allows for easy cleaning and disinfection
- Works with Nexxis for video-over-IP integration

Barco's MDSC-2326 is a 26-inch, near-patient surgical display with LED backlight. Next to the renowned image quality of the MDSC-2226, the new scratch-resistant, high quality optical glass offers durable protection throughout the display's lifetime.

## Ease of mind

### Calibrated, artifact-free images

The display's stabilized brightness, high contrast and calibrated colors provide surgeons with excellent depth perception and the most accurate images from FHD endoscopy camera systems.

### Multi-source, multi-display imaging

With its broad input connectivity, the MDSC-2326 offers flexible multi-modality imaging (PiP & PaP) in new integrated operating rooms. Featuring an integrated Barco Nexxis decoder (optional) it offers the most convenient visualization solution for uncompressed video-over-IP without delay.

### Safety, stability and redundancy

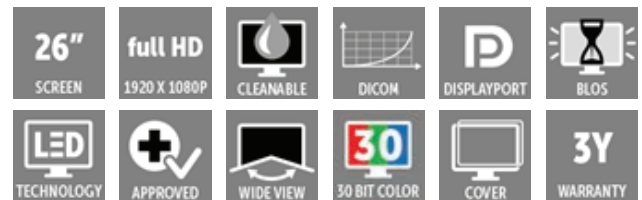
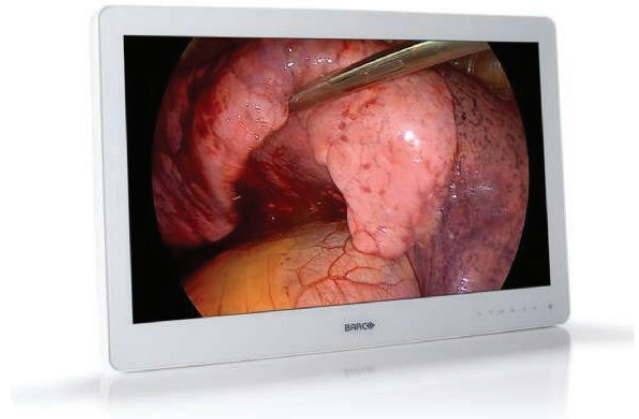
Thanks to its LED backlight with light output stabilization, the display ensures lifetime-long performances and image consistency. It also offers a unique, automated failover feature so a backup signal is always available to ensure safe surgery

### Ease of installation

The MDSC-2326 comes with a smart cable management system that hides the cables for a clutter-free set-up. Its lightweight design allows easy mounting on surgical booms and spring arms.

## Ease of use

Barco's MDSC-2326 allows for easy cleaning and disinfection thanks to its smooth surface, splash-proof housing (front protection level IP45). It comes with a highly durable, scratch-resistant front glass featuring excellent optical performance.



#### Barco's MDSC-2326 features:

- 26" wide-screen LCD
- Full HD resolution (1,920 x 1,080)
- High-bright LED backlight with output stabilization
- Wide viewing angle thanks to IPS-Pro LCD technology
- 10-bit image processing
- Artifact-free images
- Calibrated, consistent colors and grayscales
- Easy-clean design with sealed front (IPX5)
- Smart cable management system

## Specifications

<b>Screen technology</b>	TFT AM LCD
<b>Active screen size (diagonal)</b>	661 mm (26.0")
<b>Active screen size (H x V)</b>	597 x 336 mm
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	2MP (1920 x 1080)
<b>Pixel pitch</b>	0.300 mm
<b>Color support</b>	1073 million (10-bit)
<b>Viewing angle</b>	178° (panel typical)
<b>Max Luminance</b>	500 cd/m <sup>2</sup> (panel typical) 400 cd/m <sup>2</sup> 'stabilized' @6500K & ITU-709
<b>Contrast ratio</b>	1400:1 (panel typical)
<b>Response time</b>	18 ms (typical)
<b>Housing Colour</b>	White RAL 9003
<b>Gamma curve</b>	Native, 1.8, Video, 2.2, 2.4, DICOM
<b>Video inputs</b>	MDSC-2326 LED <ul style="list-style-type: none"> <li>• DVI-I (Digital &amp; Analog – HDMI support) 3G-SDI (1x BNC)</li> <li>• DisplayPort 1.1a</li> <li>• Component Video RGBS / YPbPr (4x BNC)</li> <li>• S-video (4-pin Mini DIN)</li> <li>• Composite video / SOG (1x BNC)</li> </ul> MDSC-2326 DDI <ul style="list-style-type: none"> <li>• DVI-I (Digital &amp; Analog – HDMI support)</li> <li>• DVI-D</li> <li>• 2x 3G-SDI (2x BNC)</li> <li>• DisplayPort 1.1a</li> <li>• Component Video RGBS / YPbPr (4x BNC)</li> <li>• S-video (4-pin Mini DIN)</li> <li>• Composite video / SOG (1x BNC)</li> </ul> MDSC-2326 MNA <p>Same as MDSC-2326 LED + 1x Fiber Optic SFP+ (for uncompressed video over IP)</p>
<b>Video outputs</b>	DVI-D S-video (4-pin Mini DIN) Composite video (1x BNC) 3G-SDI (BNC) / DDI version: 2 x 3G-SDI
<b>Power requirements (nominal)</b>	Power source for external power supply: 100 – 250 VAC / 47-63 Hz auto-switch Power source for display power input: +24 VDC / 2.5A
<b>Power consumption</b>	50W max (LED and DDI version) 75W max (MNA version)
<b>Power management</b>	DVI-DMPM states supported Power On state Active-Off state
<b>Dot clock</b>	165 MHz max (DVI)
<b>Gamma curve</b>	Native, 1.8, 2.0, 2.2, 2.4, DICOM
<b>OSD languages</b>	English, French, German, Spanish, Italian
<b>Dimensions w/o stand (W x H x D)</b>	640 x 419 x 87 mm (25.2 x 16.5 x 3.4")

<b>Dimensions power supply (W x H x D)</b>	210 x 103 x 52 mm (8.27 x 4.06 x 2.05")
<b>Net weight w/o stand</b>	9.4 kg (20.7 lbs) (LED and DDI version) 9.8 kg (21.6 lbs) (MNA version)
<b>Net weight power supply</b>	1.5 kg (3.31 lbs)
<b>Net weight packaged w/o stand</b>	12.5 kg (27.6 lbs) (LED and DDI version) 12.9 kg (28.4 lbs) (MNA version)
<b>Power supply DC output cable length</b>	2.5 m (8.2 ft)
<b>Mounting standard</b>	VESA (100 x 100 mm)
<b>Screen protection</b>	Protective, non-reflective glass cover
<b>Recommended modalities</b>	Endoscopy, Laparoscopy, PACS, PM, US, CT, MR
<b>Certifications</b>	CE (Medical Device Class I) ANSI/AAMI ES 60601-1:2005; A1:2012 – Med. El. Equip., Part 1: general req. for basic safety and essential performance CAN/CSA-C22.2 No. 60601-1: 2014 Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance (Adopted IEC 60601-1:2005, third edition, 2005-12) IEC 60601-1: 2005 + CORR. 1:2006 + CORR. 2:2007 + A1:2012 (Medical electrical equipment – Part 1: General requirements for basic safety and essential performance) EN 60601-1: 2006 + A1:2013 + A12:2014 (Medical electrical equipment". Part 1: General requirements for safety) INMETRO
<b>Supplied accessories</b>	1x DVI-D video cable 1x printed User Guide (English) 1x documentation disc, containing all translations of the User Guide 1x external power supply 4 screws, 4 dented washers and an Allen key Mains cables
<b>Optional accessories</b>	Barco stand (K9302097A) Power extension cable 10m (K3495066) Power extension cable 30m (K3495068)
<b>Warranty</b>	3 years
<b>Operating temperature</b>	10 ~ 35°C for performance / 0 ~ 40°C for safety
<b>Storage temperature</b>	-20 ~ +60°C
<b>Operating humidity</b>	10 ~ 90% (non-condensing)
<b>Storage humidity</b>	10 ~ 90% (non-condensing)
<b>Operating altitude</b>	3000 m max
<b>Storage altitude</b>	12000 m max

# Full HD 21.5-inch medical touchscreen

- Accurate touchscreen
- Ergonomic and easy to operate
- Medically certified

The AMM 215WTTP is a 21.5" touchscreen designed for medical professionals that demand accurate and reliable touch User Interface interaction.

## Ergonomic interaction

The AMM 215WTTP has been built with ergonomics in mind. The 21.5" screen is easy to operate and the perfect size and format for a variety of applications, including the digital OR and medical carts. Thanks to its Full HD resolution, clinicians have access to rich and detailed information.

The display features Projected Capacitive Touch screen technology with multi- and single-touch functionality. It allows clinicians to smoothly interact with the user interface on the monitor, even when wearing surgical gloves.

## Designed for medical environments

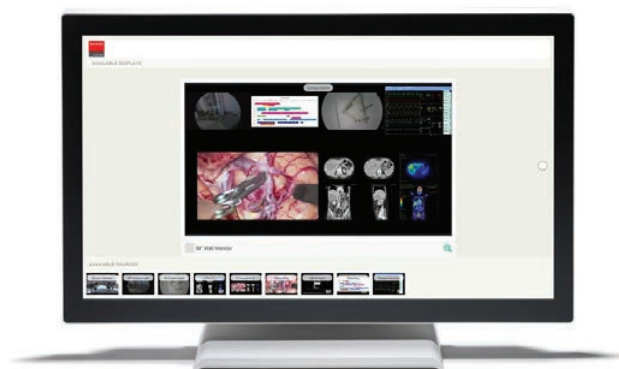
The AMM 215WTTP is medically certified and fit for use in a highly demanding, mission-critical environment, such as the operating room. The bezel-free design allows for easy cleaning and disinfection, a major prerequisite in all surgical and clinical environments.

## Easy to install

The AMM 215WTTP allows for easy installation onto a variety of computing platforms. It is Microsoft® Windows® HID (Human Interface Device) compatible if you use the USB touchscreen interface. No additional software driver is required for general operation of the touchscreen.

## Features

- Project Capacitive touchscreen with multi-touch and gesture input application
- Full High Definition resolution
- Medically certified
- Bezel-free design
- HID compliant for easy installation & integration on computing devices
- Easy cleaning
- Table stand allowing for wide tilt angle
- VESA mounting holes on touch monitor unit for mounting on surgical boom arms, monitor arm and medical carts
- Mounting holes on the table stand for various mounting options
- Multilingual OSD user control





## Specifications

<b>Screen technology</b>	TFT AM LCD / LED Backlight
<b>Active screen size (diagonal)</b>	21.46" inches (545.2 mm)
<b>Active screen size (H x V)</b>	476 x 267 mm (18.7 x 10.5")
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	1920 x 1080
<b>Pixel pitch</b>	0.248 x 0.248 mm
<b>Color support</b>	16.7 million colors
<b>Viewing angle</b>	178° Hor / 178° Ver
<b>Luminance</b>	250 cd/m² (typ)
<b>Contrast ratio</b>	1000:1 (Typical)
<b>Touch sensor</b>	Projected Capacitive Touch Technology (PCT) 10 points
<b>Video input signals</b>	1xDVI-D, 1xVGA (D-Sub 15pin)
<b>Video output signals</b>	N/A
<b>Video formats</b>	Up to 1920x1080, 60 Hz 31.47-82.3 kHz (Horizontal) 56-75Hz (Vertical)
<b>Interface</b>	USB 2.0, type B
<b>Touchscreen driver</b>	Windows, Embedded Linux, Apple Mac OS
<b>External power supply</b>	AC input: 100 – 240 VAC / 50-60 Hz DC output: +12VDC / 4.2 A
<b>Power consumption</b>	Operating: 27W Sleep: 2 W - Off : 1 W
<b>Dimensions (W x H x D)</b>	518 x 314 x 46 mm 518 x 352 x 219 mm (incl. stand)
<b>Net weight display</b>	7 kg (approx.)
<b>Net weight packaged</b>	10 kg (approx.)
<b>Mounting standard</b>	Removable display stand 100x100 VESA mount
<b>Temperature</b>	Operating: 0° - 40° C Storage: -20° - 60° C
<b>Humidity</b>	Operating: 20% – 80% RH, non-condensing Storage: 10% – 80% RH, non-condensing
<b>Regulation Compliance</b>	CE (EN60601-1, 3rd edition) and EMC (EN60601-1-2) UL/cUL (ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1) FCC (Part 15 Class B) CCC (GB4943.1, GB9254, GB17625.1) PSE
<b>Green compliance</b>	RoHS, REACH
<b>Warranty</b>	18 month

# 4K UHD large-screen surgical display

- 55-inch wide-screen color LCD with Quad Full HD resolution
- Wide viewing angle
- Advanced image processing algorithms
- BT.2020 compatible
- 12G-SDI and Quad-link 3G-SDI signals accepted

Barco's MDSC-8255 is a 55-inch surgical display purpose-built for ultra-high resolution, multi-image viewing in the digital operating room. Thanks to its high quality video performance and lightweight housing with shallow depth and thin bezel, it's the ideal complement of any advanced video distribution system in the OR.

## Large-screen 4K UHD resolution display for referral imaging

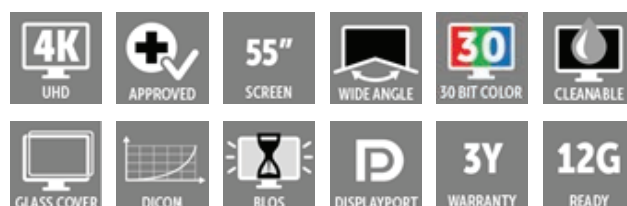
A future-proof choice for referral imaging in the OR, the MDSC-8255 can present information previously shown on four 27" monitors on one large screen, with all four images in full HD. Thanks to the integrated 4K decoder (optional) it offers seamless integration with Barco's Nexxis video-over-IP solution.

## Wall-mount flexibility

With its protective front glass, shallow depth, thin bezel and light weight the MDSC-8255 is perfect for wall mounting.

## Delivering image quality on large screens

Color-calibrated, artifact free images in 4K resolution: the MDSC-8255 presents surgeons with accurate, realistic images and excellent depth perception. Advanced video processing features and noise reduction algorithms, and a full 10-bit image processing chain make this display ideal for consultation of any kind of medical referral images inside the OR.



## Specifications

<b>Display technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight TFT AM LCD / IPS technology / LED backlight
<b>Active screen size (diagonal)</b>	54,6" / 1388 mm
<b>Active screen size (H x V)</b>	1210 x 640 mm
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	3840 x 2160
<b>Pixel pitch</b>	0.315 mm
<b>Color support</b>	1073 million (10-bit)
<b>Color calibration</b>	ITU-709, DCI-P3, BT.2020
<b>Viewing angle</b>	178° Hor / 178° Ver
<b>Brightness</b>	Max: 500 cd/m² (typ.) @6500K : 300 cd/m2 stabilized (typ.)
<b>Contrast ratio</b>	1100:1 (max.)
<b>Response time</b>	Gray-to-Gray = 8 msec (typ.)
<b>White point</b>	Calibrated: 5600K, 6500K, 7600K, 9300K
<b>Gamma curve</b>	Native, 1.8, Video, 2.2, 2.4, DICOM
<b>Front protection screen</b>	Scratch-resistant 2-side AR glass
<b>Keyboard</b>	Membrane keyboard on side
<b>Video inputs</b>	MDSC-8255 LED MDSC-8255 LED 4K-UHD input selectable among: 1x DP 1.1 up to 3840 x 2160 @25Hz/30Hz 2x DP 1.1 up to 1920 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 3840 x 2160 @50Hz/60Hz 2x HDMI 2.0 up to 3840 x 2160 @50Hz/60Hz FHD input (upscaled to UHD): 1x DVI 1x 3G-SDI MDSC-8255 12G 4K-UHD input selectable among: • Quad-link 3G-SDI up to 3840 x 2160 @50Hz/60Hz • 12G-SDI up to 3840 x 2160 @50Hz/60Hz • 1x DP 1.1 up to 3840 x 2160 @25Hz/30Hz • 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz • 1x DP 1.2 MST up to 3840 x 2160 @50Hz/60Hz • 2x HDMI 2.0 up to 3840 x 2160 @50Hz/60Hz FHD input (upscaled to UHD): • 1x DVI MDSC-8255 MNA 4K-UHD input selectable among: • 1x DP 1.1 up to 3840 x 2160 @25Hz/30Hz • 2x DP 1.1 up to 1920 x 2160 @50Hz/60Hz • 1x DP 1.2 MST up to 3840 x 2160 @50Hz/60Hz • 2x FO SFP+ module for 4K-UHD Nexxis link FHD input (upscaled to UHD): • 1x DVI • 1x 3G-SDI
<b>Video outputs</b>	MDSC-8255 LED & MNA 1x 3G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD) MDSC-8255 12G 2x 12G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD)

<b>Features</b>	Video processing optimized for low latency and noise reduction, Picture-in-Picture, Picture-by-Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Legacy signals accepted, DC Power output
<b>Remote control</b>	MDSC-8255 LED & 12G micro-USB port for FW download & control protocol MDSC-8255 MNA FW download through network connection
<b>Power consumption</b>	MDSC-8255 LED: 144W (max)/ 90 ÷ 264 Vac 50Hz/60Hz MDSC-8255 12G: 162W (max)/ 90 ÷ 264 Vac 50Hz/60Hz MDSC-8255 MNA: 170W (max) / 90 ÷ 264 Vac 50Hz/60Hz Low power mode
<b>Dimensions</b>	1259 x 733 x 87 mm (49.5 x 28.8 x 3.4 in)
<b>Net weight display</b>	MDSC-8255 LED: 33.2 kg (73.1 lbs) MDSC-8255 MNA: 34.2 kg (75.3 lbs) MDSC-8255 12G: 33.5 kg (73.8 lbs)
<b>Net weight packaged</b>	MDSC-8255 LED: 39.7 kg (87.5 lbs) MDSC-8255 MNA: 41.2 kg (90.8 lbs) MDSC-8255 12G: 40.6 kg (89.5 lbs)
<b>Mounting standard</b>	VESA 200x200 & 600x200 mm
<b>Temperature</b>	Operating: 0° ÷ 35° Storage: -20° ÷ 60°
<b>Humidity</b>	Operating: 10% ÷ 90% R.H. Storage: 5% ÷ 90% R.H.
<b>Regulation Compliance</b>	<ul style="list-style-type: none"> <li>• ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014</li> <li>• CAN/CSA-C22.2 No. 60601-1 (2014)</li> <li>• ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014</li> <li>• CAN/CSA-C22.2 No. 60601-1 (2014)</li> <li>• IEC 60601-1:2005 (Third Edition) + CORR. 1:2006 + CORR. 2:2007 + A1:2012</li> <li>• EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014</li> <li>• Electromagnetic Compatibility: EMC Medical EMC Standards: IEC 60601-1-2 (2014), EN 60601-1-2 (2015) EN55011 /CISPR 11, FCC CFR47 Part 15 Subpart B (Class B)</li> <li>• GB17625.1-2012; GB4943.1-2011; GB/T9254-2008</li> <li>• Approvals/Marking: CE, c-UL-us, DEMKO, CCC, INMETRO, EAC</li> <li>• The products comply with the Safety and performance requirements of Regulation (EU) 2017/745 (MDR)</li> </ul>
<b>Protection rating</b>	IP20 (IP45 front side)
<b>Warranty</b>	3 years
<b>Green compliance</b>	ROHS-3, REACH, WEEE

# 4K UHD surgical display

- Perfect match for 4K endoscopy cameras
- Shows images with astonishing detail
- Medical-grade and smart design
- BT.2020 compatible
- 12G-SDI and Quad-link 3G-SDI signals accepted

Barco's MDSC-8231 is a 31-inch, near-patient, high-brightness surgical display that is purpose-built for 4K imaging in the digital operating room and interventional radiology control room. It offers an easy-to-clean design, light and smart mechanics, and the most life-like images today.

## Ease of mind

### Flawless 4K imaging

The perfect match for 4K endoscopy camera systems, the MDSC-8231 presents endoscopic images with a resolution four times that of HD. This provides surgeons with more detail-rich, color-correct images for a real-life presentation of the patient's anatomy and excellent depth perception. Images are presented with unrivaled color accuracy (thanks to the wide color gamut and advanced color calibration), without artifacts, and with near-zero latency for optimal hand-eye coordination. The 31-inch display size makes the MDSC-8231 ideal for use in the interventional radiology control room as well.

### Multi-source, multi-display imaging

With its broad input connectivity and wide set of image control features, the MDSC-8231 offers flexible multi-modality imaging in new integrated operating rooms. The 31-inch display also offers integrated functionality (optional) for use with Barco's Nexxis for video-over-IP solutions.

### Safety, stability and redundancy

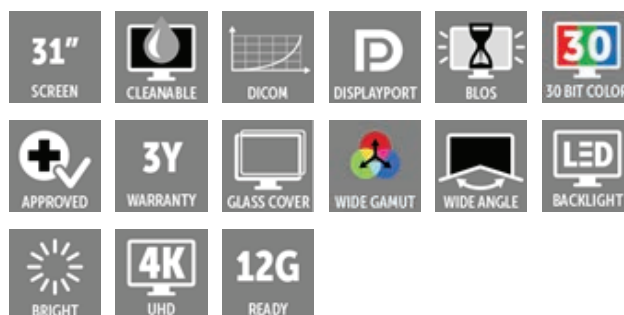
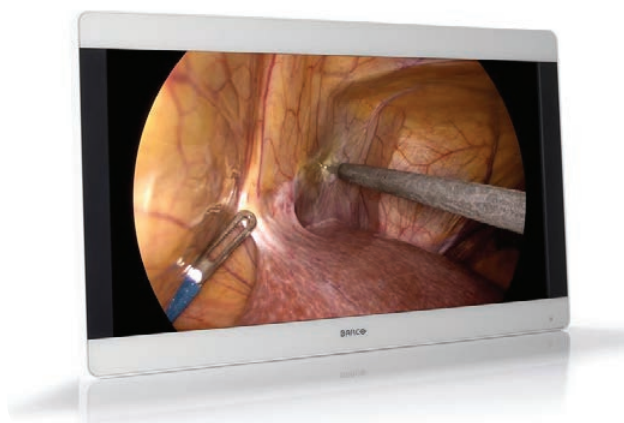
Thanks to its high-bright LED backlight with light output stabilization, the display ensures a long lifetime and image consistency. The unique, automated failover feature guarantees a backup signal at all times to ensure safe surgery.

### Ease of installation

The MDSC-8231 comes with a smart cable management system that hides the cables for a clutter-free set-up. Its lightweight design allows easy mounting on surgical booms and spring arms.

### Ease of use

Barco's MDSC-8231 allows for easy cleaning and disinfection thanks to its smooth surface and splash-proof housing (front protection level IP45). It comes with a highly durable, scratch-resistant front glass featuring excellent optical performance.





## Specifications

<b>Screen technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight TFT AM LCD / IPS-PRO technology / LED backlight
<b>Active screen size (diagonal)</b>	789 mm (31.1")
<b>Active screen size (H x V)</b>	698 x 368 mm
<b>Aspect ratio</b>	17:9
<b>Resolution</b>	4K-2K (4096 x 2160)
<b>Pixel pitch</b>	0.1704 mm
<b>Color support</b>	1073 million (10-bit)
<b>Color gamut</b>	Native: 96% DCI-P3 / 105% Adobe
<b>Color calibration</b>	ITU-709, DCI-P3, BT.2020
<b>Viewing angle</b>	178° Hor / 178° Ver
<b>Maximum luminance</b>	Max 550 cd/m <sup>2</sup> (typ.) @6500K: 450 cd/m <sup>2</sup> stabilized (typ.)
<b>Contrast ratio</b>	1400:1 (typ.)
<b>Response time</b>	T on + T off (=rise + fall): 20 ms (typ.)
<b>White point</b>	Calibrated: 5600K, 6500K, 7600K, 9300K
<b>Gamma curve</b>	Native, 1.8, Video 2.2, 2.4, DICOM
<b>Front protection screen</b>	Scratch-resistant 2-side AR alkali-aluminosilicate glass
<b>Keyboard</b>	Capacitive 7-key touch keyboard
<b>Video inputs</b>	MDSC-8231 LED 4K-UHD input selectable among: 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x HDMI 2.0 up to 4096 x 2160 @50Hz/60Hz FHD input (upscaled to UHD): 1x DVI 1x 3G-SDI MDSC-8231 12G 4K-UHD input selectable among: Quad-link 3G-SDI up to 4096 x 2160 @50Hz/60Hz 12G-SDI up to 4096 x 2160 @50Hz/60Hz 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x HDMI 2.0 up to 4096 x 2160 @50Hz/60Hz FHD input (upscaled to UHD): 1x DVI MDSC-8231 MNA 4K-UHD input selectable among: 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x Fiber Optic SFP+ for 4K-UHD Nexxis link FHD input (upscaled to 4K) 1x DVI 1x 3G-SDI
<b>Video outputs</b>	MDSC-8231 LED & MNA 1x 3G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD) MDSC-8231 12G 2x 12G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD)
<b>Multi-image support</b>	Picture-in Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Quadview (through Nexxis)

<b>Remote control</b>	MDSC-8231 LED, MDSC-8231 12G: Usb Type B port for FW download & control protocol / remote control through DDC on DVI & DP MDSC-8231 MNA: FW download through network connection
<b>Features</b>	Video processing optimized for low latency and noise reduction, Picture-in-Picture, Picture-by-Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Legacy signals accepted, DC Power output, cable cover.
<b>Power consumption</b>	MDSC-8231 LED: 165W (Max) / 24V ± 10% MDSC-8231 12G, MDSC-8231 MNA: 190W (Max) / 24V ± 10% Low power mode MDSC-8255 LED: 18W Typ MDSC-8255 12G: 33W Typ MDSC-8255 MNA: 52W Typ Power-off: ~ 1
<b>External power supply</b>	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +24 VDC / 10 A
<b>DC power output</b>	DC connector: +5V / 2A Available also on DVI, DP and USB ports
<b>Dimensions w/o stand (W x H x D)</b>	777 x 472 x 93 mm / 30.6 x 18.6 x 3.6 in
<b>Net weight w/o stand</b>	12.1 Kg / 26.6 lbs (MDSC-8231 LED, MDSC-8231 12G) 12.7 Kg / 28.0 lbs (MDSC-8231 MNA)
<b>Net weight packaged</b>	17 Kg / 37.5 lbs (MDSC-8231 LED, MDSC-8231 12G) 17.5 Kg / 38.6 lbs (MDSC-8231 MNA)
<b>Mounting standard</b>	100x100 & 200x100 mm VESA
<b>Temperature</b>	Operating: 0° ÷ 35° C Storage: -20° ÷ 60° C
<b>Humidity</b>	Operating: 10% ÷ 90% R.H. Storage: 5% ÷ 90% R.H.
<b>Regulation Compliance</b>	<ul style="list-style-type: none"> <li>• ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014</li> <li>• CAN/CSA-C22.2 No. 60601-1 (2014)</li> <li>• IEC 60601-1:2005 (Third Edition) + CORR. 1:2006 + CORR. 2:2007 + A1:2012</li> <li>• EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014</li> <li>• Electromagnetic Compatibility: EMC Medical EMC Standards: IEC 60601-1-2 (2014), EN 60601-1-2 (2015) EN55011 /CISPR 11, FCC CFR47 Part 15 Subpart B (Class B)</li> <li>• GB17625.1-2012; GB4943.1-2011; GB/T9254-2008</li> <li>• Approvals/Marking: CE, c-UL-us, DEMKO, CCC, INMETRO, EAC</li> </ul>
<b>Certifications</b>	IP20 (IP45 front side only)
<b>Warranty</b>	3 years
<b>Green compliance</b>	ROHS-3, REACH, WEEE

# Full HD 21.5-inch surgical display

- Compact size for routine screening procedures in GI Endoscopy or Colonoscopy
- High-quality, cost-effective
- Antimicrobial Seolforbio Technology™

## Major quality in a compact size

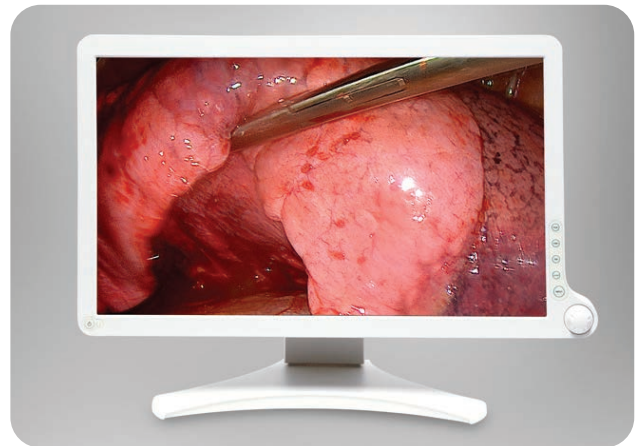
With its compact 21.5" size and high pixel density, the AMM 215WTD is the perfect match for endoscopy cameras. Featuring true 10-bit real-time processing, motion adaptive SD and HD de-interlacing, advanced 3D noise reduction, and accurate chromatic data reproduction, this surgical display meets the highest image quality standards.

## All-round connectivity

The AMM 215WTD supports a broad range of input types including VGA, DVI, Composite & S-Video, RGB, Component, HD/SD SDI.

## Safety guaranteed

The 21.5" surgical display comes with proprietary Antimicrobial Seolforbio Technology™ to prevent bacterial cultivation and odor on the LCD display. This plastic injection technology makes the AMM 215WTD compliant with the ISO22196 standard for antimicrobial activity of antibacterial treated plastics.



## Features

- Superb quality high resolution LCD
- Energy-efficient LED backlight
- Wide range of inputs supported
- Sealed design to meet IP23
- Antimicrobial Seolforbio Technology™
- Arm mountable VESA compliance
- Picture-by-Picture mode with independent adjustment
- Protective filter
- DC powered
- Intuitive rotary knob control

## Specifications

<b>Screen technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight TFT AM LCD / LED Backlight
<b>Active screen size (diagonal)</b>	21.46" inches (545.2 mm)
<b>Active screen size (H x V)</b>	475 x 267 mm (18.7 x 10.5")
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	1920 x 1080
<b>Pixel pitch</b>	0.2475 mm
<b>Color imaging</b>	Yes
<b>Color support</b>	16.7 million
<b>Viewing angle</b>	178°
<b>Luminance</b>	250 cd/m2
<b>Contrast ratio</b>	1000:1
<b>LCD transition time</b>	<25ms (Typ.)
<b>Screen protection</b>	Double-side anti-reflective PMMA protective cover
<b>Video input signals</b>	2xDVI-I, VGA, RGBS / YPbPr, S-video, Composite video, 3G-SDI
<b>Video output signals</b>	SDI / S-video / Composite Video, RGBS / YPbPr
<b>Remote control</b>	9-pin D-Sub (RS-232C) x 1
<b>Power requirements (nominal)</b>	Power adaptor: AC 100 ~ 240V 50-60Hz, 2.0A DC 13V, 6.92A
<b>Power consumption (nominal)</b>	50W
<b>Dimensions display (W x H x D)</b>	523 x 321 x 110 mm
<b>Net weight display</b>	Monitor: 5.46Kg (approximately)
<b>AC adaptor: 720g</b>	
<b>Mounting standard</b>	VESA (100 x 100 mm)
<b>Certifications</b>	FDA & EC: Endoscopic and Surgical imaging (Class I) Safety: UL (UL60601-1), cUL (CAN/CSA-C22.2 No.6011-M90), CE (EN60601-1), AS/NZS 3200-1-0, CCC (GB4943-2001), CB-ITE (IEC60950-1), IP23 Compliance EMC: FCC (Part Class B), CE (EN60601-1-2), AS/NZS 3200-1-2, VCCI (Class B), CCC (GB9254, GB17625.1)
<b>Operating temperature</b>	32° ~ 95°F (0° ~ 35°C)
<b>Storage temperature</b>	-4° ~ 140°F (-20° ~ 60°C)
<b>Operating humidity</b>	20% ~ 80%, non-condensing
<b>Storage humidity</b>	10% ~ 85%, non-condensing

## 24" surgical display

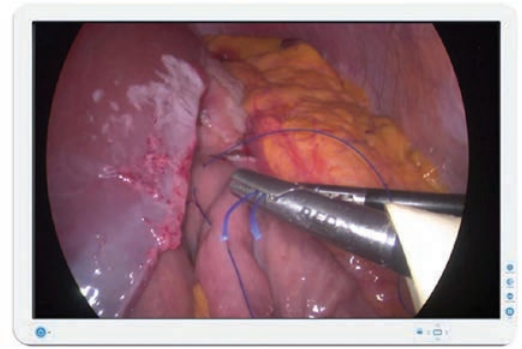
Barco's AMM240ED is a 24-inch near-patient surgical display with LED backlights, featuring a 1920 x 1200 resolution. Purpose-built for endoscopy imaging, the AMM240ED is a cost-effective but extremely reliable display. Surgical video and images can be placed in Picture-by-Picture mode with independent adjustments.

### Allround connectivity

The AMM240ED supports a broad range of input types including DVI, VGA, RGB, Component & Composite Video as well as HD/SD SDI.

### Safety guaranteed

Thanks to the sealed design (rated IP22), a protective filter and cable cover, the AMM240ED is safe for use near patients. It also ensures safe and easy mounting onto surgical arms thanks to the VESA compliance. Needless to say, the AMM240ED complies with all the latest medical standards.





## Specifications

<b>Screen technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight TFT AM LCD / LED Backlight
<b>Active screen size (diagonal)</b>	611.3 mm (24.07")
<b>Active screen size (H x V)</b>	520.4 x 326 mm (20.46 x 12.83")
<b>Aspect ratio</b>	16:10
<b>Resolution</b>	1920 x 1200
<b>Pixel pitch</b>	0.27 mm
<b>Color support</b>	16.7 Mio (8 bit)
<b>Viewing angle</b>	178° Hor / 178° Ver
<b>Luminance</b>	300 cd/m²
<b>Contrast ratio</b>	1000:1
<b>Gamma curve</b>	1.8, 1.9, 1.95, 2.1, 2.2, 2.3, 2.4
<b>Front protection screen</b>	anti-reflective PMMA protective cover
<b>Video input signals</b>	1xDVI-I, 1x HD15, 1x Y/C, 1x 3G-SDI, 1x RGBS / YPbPr,
<b>Video output signals</b>	1x DVI-I, 1x 3G-SDI
<b>Features</b>	Picture in Picture
<b>External power supply</b>	AC input : 90-264 VAC / 47-63 Hz auto-switch DC Output : ±24VDC / 1.7A
<b>Dimensions w/o stand (W x H x D)</b>	570 x 386.9 x 63.2 mm (22,4 x 15.2 x 2.5")
<b>Net weight w/o stand</b>	7.35 Kg
<b>Mounting standard</b>	75x75 VESA / 100x100 mm VESA
<b>Temperature</b>	Operating : 10°-40°C Storage : -18°-60°C
<b>Humidity</b>	Operating : 25%-75% non-condensing Storage : 15%-90% non-condensing
<b>Compliance</b>	Medical Safety Compliance: IEC 60601-1: 2012 Edition 3.1 EN 60601-1: 2006 +A1:2013 ANSI/AAMI ES 60601-1: 2005/(R)2012 A1:2012, C1:2009/(R)2012 and A2:2010/(R)2012 CAN/CSA-C22.2 No. 60601-1: 14 AS/NZS 3200-1:1988 CCC (GB4943.1-2011) CB-ITE (IEC 60950-1:2005 (2nd Ed); Am1:2009 + Am2:2013
<b>Protection rating</b>	IP22
<b>Green compliance</b>	ROHS-2, REACH, WEEE
<b>Warranty</b>	2 years

# 4K UHD 3D display

- Perfect match for FHD 3D endoscopy cameras
- BT.2020 & BT.709 compatible
- 3G-SDI / HDMI options available
- 3D ergonomic eye-shield included
- Medical-grade, easy to clean design

MDFC-8232 is a 31-inch near-patient monitor, designed to address the increasing demand of the high-quality imaging that is typical of modern surgical environments.

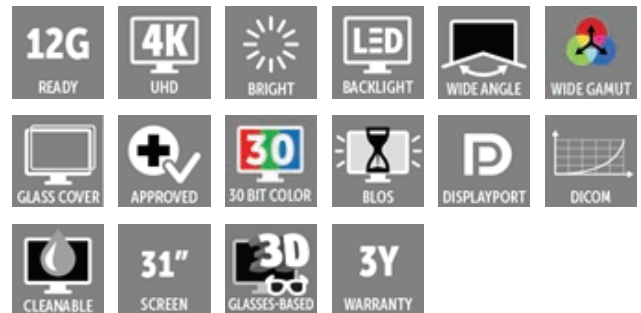
The proprietary video processing and advanced color calibration algorithms, combined with a wide color gamut LCD, results in high color accuracy and detailed images, exempt from artifacts, and with near-zero latency for optimal hand-eye coordination.

In 2D mode, thanks to a resolution four times the conventional FHD, surgeons will benefit from richly detailed, color-correct images for UHD real-life patient's anatomy.

In 3D mode, through the supplied ergonomic kit, composed by a light-weight frame and a replaceable 3D eye-shield, multiple users at the same time will be able to see the same FHD content, with excellent depth perception even from different viewing angles and distances.

Available as either DP/HDMI (MDFC-8232 3HB) or DP/SDI (MDFC-8232 3SB), this monitor is compatible with the most common 3D and 2D video formats typical of modern microscopes and laparoscopic camera systems.

The highly durable and scratch-resistant full-glass front surface, and the snap-in lockable connector cover, result in a clutter-free and easy-to-clean design ideal for application in sterile environments. The front glass also minimizes reflection for better visibility. The designed in standard VESA-100 mounting plate allows easy mounting on surgical booms and spring arms.



## Specifications

<b>Screen technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight
<b>Active screen size (diagonal)</b>	789 mm (31.1")
<b>Active screen size (H x V)</b>	698 x 368 mm
<b>Aspect ratio</b>	17:9 / 16:9
<b>Resolution</b>	4K / 2K (4096 x 2160) / UHD (3840 x 2160)
<b>Pixel pitch</b>	0.1704 mm
<b>Color support</b>	1073 million (10-bit)
<b>Color gamut</b>	Native: 92% DCI-P3 / 105% Adobe
<b>Color calibration</b>	ITU-709, DCI-P3, BT.2020, BT.709
<b>Viewing angle</b>	178° Hor. / 178° Vert.
<b>Luminance</b>	Max: 450 cd/m <sup>2</sup> (typ.) Native Color space: 390 cd/m <sup>2</sup> calibrated default value @6500K: 360 cd/m <sup>2</sup> calibrated default value
<b>Contrast ratio</b>	1300:1 (typ.)
<b>White point</b>	Native: 7200K Calibrated: 5600K, 6500K, 9300K
<b>Gamma curve</b>	1.8, Video, 2.2, 2.4, DICOM
<b>Response time</b>	T on + T off (i.e. rise + fall): 20 ms (typ.)
<b>3D viewing distance</b>	Optimal: 1500 mm; Minimum: 686 mm
<b>Vert. viewing angle</b>	@ Min viewing distance: 15° Up/Down @ Optimal viewing distance: 8.0° Up/Down (crosstalk < 7%)
<b>Lens type</b>	Circular polarization: Left eye on top
<b>Keyboard</b>	Capacitive 7-key touch keyboard - Keyboard Enabling/Disabling membrane switch
<b>Video inputs</b>	2D Input signals: 4K-UHD inputs: 1x DP 1.1 up to 4096 x 2160 @30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 1x 12G-SDI 3840 x 2160 @ 60Hz (3SB) 1x HDMI2.0 3840 x 2160 @ 60Hz (3HB) FHD input (upscaled to 4K) 1x DVI 3D Input signals: 4K-UHD inputs: 1x DP 1.1 up to 3840 x 2160 @30Hz 2x DP 1.1 up to 1920 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 3840 x 2160 @50Hz/60Hz 1x 12G-SDI 3840 x 2160 @60Hz (3SB) 1x HDMI2.0 3840 x 2160 @ 60Hz (3HB) FHD input 2x 3G-SDI (dual stream)
<b>Video outputs</b>	2x 3G-SDI (3G-SDI input loop through) 1x DVI (4K display screen clone - downscaled to 1080i/1080p)
<b>Multi-image support</b>	(2D only) Picture-in Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD

<b>Remote control</b>	USB Type B port for FW download & control protocol
<b>Features</b>	Video processing optimized for low latency and noise reduction, Picture-in-Picture, Picture-by-Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out (In 2D mode: Display clone; in 3D mode: L/R view OSD selectable), FHD input upscaled to UHD, Legacy signals accepted, DC Power output, cable cover.
<b>Power consumption</b>	Maximum: 168W (Max) / 24V ± 10%
<b>Low power mode: TBC</b>	Power-off: ~ 1W
<b>External power supply</b>	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +24 VDC / 10 A
<b>DC power output</b>	DC connector: +5V / 2A Available also on DVI, DP and USB ports
<b>Dimensions (W x H x D)</b>	778 x 473 x 93 mm / 30.6 x 18.6 x 3.6 in
<b>Net weight</b>	MDFC-8232 3Hx = 14.4 kg MDFC-8232 3Sx = 14.7 kg
<b>Net weight packaged</b>	20 kg
<b>Mounting standard</b>	100x100 & 200x100 mm VESA
<b>Temperature</b>	Operating: 0° ÷ 35° C
<b>Storage: -20° ÷ 60° C</b>	
<b>Humidity</b>	Operating: 10% ÷ 90% R.H.
<b>Storage: 5% ÷ 90% R.H.</b>	
<b>Regulation Compliance</b>	<ul style="list-style-type: none"> <li>• ANSI/AAMI ES60601-1:2005/(R)2012</li> <li>• CSA CAN/CSA-C22.2 NO. 60601-1:14</li> <li>• IEC 60601-1 Edition 3.1 (2012)</li> <li>• EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014</li> <li>• IEC 60601-1-2 (2014)</li> <li>• EN 60601-1-2 (2015)</li> <li>• FCC CFR 47 Part 15 Subpart B</li> <li>• GB17625.1-2012; GB4943.1-2011; GB/T9254-2008</li> <li>• CE, c-UL-us, DEMKO, CCC</li> </ul>
<b>Certifications</b>	IP20 (IP45 front side only)
<b>Warranty</b>	3 years
<b>Green compliance</b>	ROHS-3, REACH, WEEE

# Full HD 32-inch surgical display

- For the best hand-eye coordination
- Allows for easy cleaning and disinfection
- Works with Nexxis for video-over-IP integration

Barco's MDSC-2232 is a 32" near-patient surgical display with Full HD resolution. Purpose-built for the operating room, emergency room, and pre-operative areas, it offers an easy-clean design, smart mechanics and the most detailed images in the procedure room today.

## Perfect image reproduction

The display's high brightness, high contrast and full HD resolution provide surgeons with excellent depth perception and precise color and monochrome images. It presents images with unrivaled color and grayscale accuracy and with near-zero latency for perfect hand-eye coordination. Thanks to its high-bright LED backlight with light output stabilization, the surgical display also ensures a long lifetime and image consistency across displays.

## Multi-source, multi-display imaging

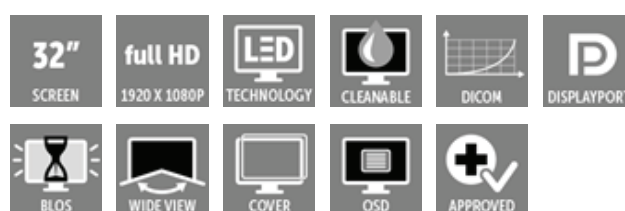
With its broad input connectivity, the MDSC-2232 offers flexible multi-modality imaging (PiP & PaP) in new integrated operating rooms. The 32-inch display also offers integrated functionality (optional) for use with Barco's Nexxis for OR solution, ensuring smooth distribution of uncompressed video and data over the IP network without delay.

## Easy to install

The MDSC-2232 comes with a smart cable management system that hides the cables for a clutter-free set-up. Its lightweight design allows easy mounting on surgical booms and spring arms. Available in two models, this surgical display also features a host of connectivity and remote control options.

## Safe for medical use

Barco's MDSC-2232 allows for easy cleaning and disinfection thanks to its smooth surface and splash-proof housing (front protection level IPX5). The multi-coated glass is highly durable, scratch-resistant, and protects the LCD panel from physical damage. The fanless design avoids the spread of contaminants. What's more, the display offers a unique, automated failover feature so a backup signal is always available to ensure safe surgery.



## Specifications

<b>Screen technology</b>	TFT AM LCD / S-IPS technology / LED backlight
<b>Active screen size (diagonal)</b>	31.55" (801 mm)
<b>Active screen size (H x V)</b>	698 x 393 mm (27.48" x 15.47")
<b>Aspect ratio</b>	16:9
<b>Resolution</b>	2MP (1920 x 1080)
<b>Pixel pitch</b>	0.364 mm
<b>Color imaging</b>	Yes
<b>Color support</b>	16.7 million (8-bit)
<b>Viewing angle</b>	178°
<b>Maximum luminance</b>	Maximum: 450 cd/m <sup>2</sup> Luminance (typical) Default @ 6500K: 360 cd/m <sup>2</sup> stabilized (typical)
<b>Contrast ratio</b>	1300:1 (typical)
<b>LCD transition time</b>	Average total 25 msec (Rise time Tr + Decay time Tf; Tr = Gray to White, Tf = Gray to Black)
<b>White point</b>	Native: 10000K (typical) Calibrated: 5600K, 6500K, 7600K, 9300K
<b>Dot clock</b>	165 MHz (maximum)
<b>Gamma</b>	Native, 1.8, 2.0, 2.2, 2.4, DICOM
<b>Backlight sensor</b>	Backlight stabilization
<b>Screen protection</b>	Double side anti-reflective tempered glass
<b>Keyboard</b>	Capacitive 7-key touch keyboard
<b>Video input signals</b>	MDSC-2232 DDI: DVI-I Single Link (Digital & Analog – HDMI video support with HDCP) DVI-D Component Video RGBS / YPbPr (4xBNC) S-video (4-pin Mini DIN) Composite video (1xBNC) 3G-SDI (2xBNC) DisplayPort (VESA std 1.1a) MDSC-2232 MNA: DVI-I Single Link (Digital & Analog – HDMI video support with HDCP) Component Video RGBS / YPbPr (4xBNC) S-video (4-pin Mini DIN) Composite video (1xBNC) 3G-SDI (1xBNC) DisplayPort (VESA std 1.1a) Nexxis fiber optic input
<b>Video output signals</b>	MDSC-2232 DDI: DVI-D (output selectable from DVI-1 in, DVI-2 in) S-video (4-pin Mini DIN) Composite video (1xBNC) 3G-SDI (2xBNC) MDSC-2232 MNA: DVI-D (output selectable from DVI in, Nexxis) S-video (4-pin Mini DIN) Composite video (1xBNC) 3G-SDI (1xBNC)
<b>Supplied accessories</b>	Video cables (DVI DL 3m)
<b>Operating temperature</b>	+10 ÷ +35 °C for performance, 0 ÷ +40 °C for safety
<b>Storage temperature</b>	-20 ÷ +60°C
<b>Operating humidity</b>	10 ÷ 90% (non-condensing)
<b>Storage humidity</b>	5 ÷ 90% (non-condensing)
<b>Operating altitude</b>	3000m max.
<b>Storage altitude</b>	12000m max.

<b>Video formats</b>	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 DisplayPort 1.1a: up to 1920 x 1200 60Hz
<b>Remote control</b>	RS-232 (D-sub 9-pin)
<b>Power requirements (nominal)</b>	External power supply: 100-240VAC, 50/60Hz, medical grade Display power input: MDSC-2232 DDI: +24 VDC ±10% / 2.2 A MDSC-2232 MNA: +24 VDC ±10% / 3 A
<b>Power consumption (nominal)</b>	MDSC-2232 DDI: 48W typical MDSC-2232 MNA: 65W typical
<b>OSD languages</b>	English, French, German, Spanish, Italian
<b>Dimensions display (W x H x D)</b>	777 x 472 x 92 mm (30.6" x 18.6" x 3.5")
<b>Dimensions packaged (W x H x D)</b>	970 x 625 x 200 mm (38.19" x 24.60" x 7.87")
<b>Net weight display</b>	12.9 kg / 28.4 lbs (MDSC-2232) 13.3 kg / 29.3 lbs (MDSC-2232)
<b>Net weight packaged</b>	MDSC-2232 DDI: 19.0 kg (41.9 lbs) MDSC-2232 MNA: 19.4 kg (42.7 lbs)
<b>Mounting standard</b>	VESA (100 x 100 mm, 200 x 100 mm)
<b>Recommended modalities</b>	Endoscopy, Laparoscopy, PACS, PM, US, CT, MR
<b>Certifications</b>	IEC 60601-1: 2012 Edition 3.1 (Medical electrical equipment – Part 1: General requirements for basic safety and essential performance) EN 60601-1: 2006 +A1:2013 (Medical electrical equipment". Part 1: General requirements basic safety and essential performance) ANSI/AAMI ES 60601-1: 2005/(R)2012 and A1:2012, C1:2009/(R)2012 and A2:2010/(R)2012 - Med. El. Equip., Part 1: general req. for basic safety and essential performance. CAN/CSA-C22.2 No. 60601-1: 14 Medical Electrical Equipment - Part 1: General Requirements for Basic Safety and Essential Performance (Harmonized with Ed. 3.1) Approvals/Marking: CE (Medical Device Class I), c-UL-us, DEMKO, PSE, KCC, CCC, Note: PSE is available on PSU, BIS (MDSC-2232 MNA only), INMETRO Electromagnetic Compatibility: EMC Medical EMC Standards: IEC60601-1-2, EN55011/CISPR 11 Class B), FCC CFR47 part 15 & 18 Class B RoHS-3, REACH, WEEE compliant IP20 (IP45 monitor front side only)



# 24" Full-HD in-wall console for the OR

- 24-inch mounted in-wall console for the OR
- Integrated Nexxis connectivity
- Wide viewing angle
- Optional touchscreen

MDMX-22400 GNTB is a 24" Full-HD in-wall OR console with integrated Nexxis connectivity and optional touchscreen. The console consists of a single display configuration and allows the entire OR staff to combine and view multiple images, with an intuitive control system for flexible and easy use.

## Optimize valuable space

The MDMX-22400 GNTB is multifunctional: it can function as a nurse station area presenting patient and surgery information, and it's also an AV control station. It offers direct control of remote PC sources and thanks to its integrated Nexxis decoder, video routing and compositions can be managed without additional installation or configuration.

The console is integrated in the OR wall, so it doesn't take up any additional space. The black protective, anti-reflective glass front cover allows for easy cleaning and disinfecting.

## Enjoy maximum flexibility with Nexxis inside

The MDMX-22400 GNTB fits perfectly within Nexxis' plug and play system: you can route any Nexxis source to the screen, on which multiple types of compositions are possible.

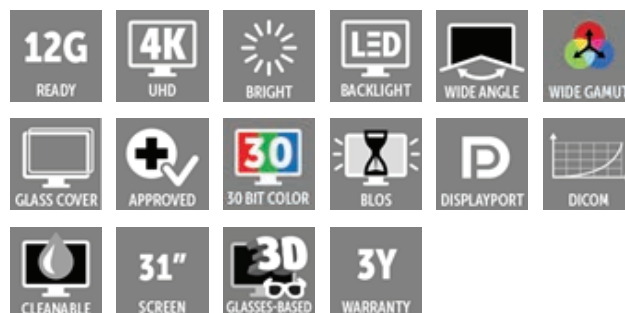
Additionally, a programmable Nexxis button makes it easy to adapt the console's functionalities to the OR team's needs: start/stop recordings, take snapshots, change video layouts, reset video source, ...

## Tailor it to your needs

All components are integrated in the console, which reduces installation time and cost. An optional foldable IP68 keyboard is available in several regional variants (US, German, Italian, French, Spanish, Turkish), as well as a trackpad and USB mouse. The MDMX-22400 GNTB can be combined with the MDMX-25500 GNNB 55" console, with an optional second keyboard, for even more screen surface.

## Features

- Enjoy ergonomic viewing support for everyone in the OR: from doctors and nurses to trainees
- Choose the touchscreen option and work even more quickly and easily
- See time and date, synced with the hospital network, from anywhere in the OR
- Rely on StopWatch functions for time-sensitive interventions
- Connect mobile devices, such as mobile C-arm video sources, to Nexxis
- Interact with remote-PC video sources as if you're in front of them



## Specifications

<b>Screen/Backlight technology</b>	15": MVA/WLED 24": IPS/WLED
<b>Active screen size (diagonal)</b>	15": 384 mm (15.1") 24": 605 mm (23.8")
<b>Active screen size (H x V)</b>	15": 376 x 73 mm (14.8 x 2.9") 24": 527 x 296 mm (20.8 x 11.7")
<b>Aspect ratio (H:V)</b>	15": 160:31 24": 16:9
<b>Resolution</b>	15": 1280 x 248 24": 1920 x 1080
<b>Pixel pitch</b>	15": 0.294 x 0.294 mm 24": 0.275 x 0.275 mm
<b>Color imaging</b>	Yes
<b>Gray imaging</b>	Yes
<b>Bit depth</b>	15": 8 bpc 24": 8 bpc
<b>Viewing angle (H, V)</b>	15": 89° 24": 178°
<b>Ambient light sensor</b>	No
<b>Maximum luminance (panel typical)</b>	15": 300 cd/m <sup>2</sup> 24": 250 cd/m <sup>2</sup>
<b>Contrast ratio (panel typical)</b>	15": 2000:1 24": 1000:1
<b>Response time ((Tr + Tf)/2) (typical)</b>	15": 8 ms 24": 14 ms
<b>Housing color</b>	Glass/Black front - Steel/White border + back Stainless steel dashboard below glass front for buttons/interfaces
<b>Video input signals</b>	1 x 10GbE Fiber Optic Interface for 24" FHD Nexxis link Optional: 2 x 10GbE Fiber Optic Interface for 1x mobile device connectivity on front
<b>Embedded Nexxis</b>	1 x MNA-420 decoder
<b>Nexxis features</b>	View up to 2 Nexxis sources (PiP/PaP) Keyboard/Mouse/Touch control of source Programmable Nexxis button (front) Option to mount 1x front Neutrik opticalCON for mobile device connectivity
<b>General features</b>	SmartBar with date/time & stopwatch Power control button for external PC (front)
<b>Options (configurable)</b>	1 x Keyboard/trackpad module available in different languages: EN-DE-FR-IT-TR-ES Includes USB silicone mouse (cleanable)
<b>USB ports</b>	1 x USB 2.0 downstream (External mouse for Nexxis-source control)
<b>Power rating</b>	100-240 Vac, 50/60 Hz, 3-1.5 A

<b>Power consumption</b>	75 Watt
<b>Dimensions (W x H x D)</b>	796 x 1050 x 120 mm
<b>Dimensions packaged (W x H x D)</b>	1095 x 1300 x 341 mm
<b>Net weight</b>	54 kg (incl. 1 x K&M module)
<b>Net weight packaged</b>	64 kg (incl. 1 x K&M module)
<b>Mounting standard</b>	In-wall
<b>Screen protection</b>	Protective, anti-reflective glass cover
<b>Certification and compliance</b>	CE (Medical Device Class I) CCC (China) Safety specific: IEC 60950-1:2005 + A1:2009 EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013 IEC 60601-1:2005 + A1:2012 – EN 60601-1:2006 + A1:2013 + A12:2014 ANSI/AAMI ES606011:2005 + R1:2012 CAN/CSA C22.2 No. 60601-1:2014 EMI specific: IEC 60601-1-2:2014 (ed4) EN 60601-1-2:2015 (ed4) FCC part 15 Class ICES-001 Level Environmental: EU RoHS China RoHS REACH Canada Health WEEE Packaging Directive
<b>Green compliance</b>	ROHS-3, REACH, WEEE
<b>Supplied accessories</b>	User guide (English) Installation guide (English) USB stick, containing translations of the user & installation guide 2x hex key
<b>Optional accessories</b>	Neutrik opticalCON accessories
<b>Operating temperature</b>	0 °C to 40 °C (10 °C to 40 °C within specs)
<b>Storage temperature</b>	-20 °C to +60 °C
<b>Operating humidity</b>	20 % to 85 % (non-condensing)
<b>Storage humidity</b>	20 % to 85 % (non-condensing)
<b>Operating pressure</b>	Minimum 70 kPa
<b>Storage pressure</b>	50 to 106 kPa
<b>Warranty</b>	2 years

# Combined 24" Full-HD and 49" 4K in-wall console for the OR

- Mounted in-wall console for the OR
- Double display configuration of 24-inch Full-HD and 49-inch 4K display
- Integrated Nexxis connectivity
- Wide viewing angle
- Optional touchscreen

MDMX-22449 GNTB is an in-wall OR console that consists of a 24" Full-HD and a 49" 4K display, with optional touchscreen. It includes integrated Nexxis connectivity and can also offer touchscreen functionality. The console allows the entire OR staff to combine and view multiple images, with an intuitive control system for flexible and easy use.

## Optimize valuable space

The MDMX-22449 GNTB is multifunctional: it can function as a nurse station area presenting patient and surgery information, and it's also an AV control station. It offers direct control of remote PC sources and thanks to its integrated Nexxis decoder, video routing and compositions can be managed without additional installation or configuration.

The console is integrated in the OR wall, so it doesn't take up any additional space. The black protective, anti-reflective glass front cover allows for easy cleaning and disinfecting.

## Enjoy maximum flexibility with Nexxis inside

The MDMX-22449 GNTB fits perfectly within Nexxis' plug and play system: you can route any Nexxis source to the screen, on which multiple types of compositions are possible.

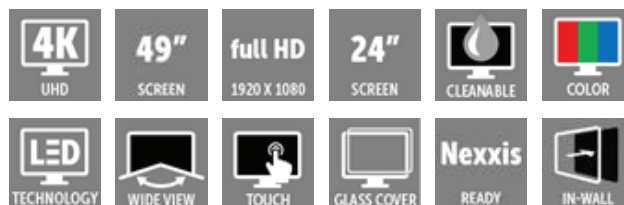
Additionally, a programmable Nexxis button makes it easy to adapt the console's functionalities to the OR team's needs: start/stop recordings, take snapshots, change video layouts, reset video source, ...

## Tailor it to your needs

All components are integrated in the console, which reduces installation time and cost. One or two optional foldable IP68 keyboards are available in several regional variants (US, German, Italian, French, Spanish, Turkish), as well as trackpads and USB mice.

## Features

- Enjoy ergonomic viewing support for everyone in the OR: from doctors and nurses to trainees
- Choose the touchscreen option and work even more quickly and easily
- See time and date, synced with the hospital network, from anywhere in the OR
- Rely on StopWatch functions for time-sensitive interventions
- Connect mobile devices, such as mobile C-arm video sources, to Nexxis
- Use the PACS optimization button to quickly switch between color profiles: for optimal viewing of PACS images or other modalities
- Interact with remote-PC video sources as if you're in front of them



## Specifications

<b>Screen/Backlight technology</b>	15": MVA/WLED 24": IPS/WLED 49": IPS/WLED
<b>Active screen size (diagonal)</b>	15": 384 mm (15.1") 24": 605 mm (23.8") 49": 1232 mm (48.5")
<b>Active screen size (H x V)</b>	15": 376 x 73 mm (14.8 x 2.9") 24": 527 x 296 mm (20.8 x 11.7") 49": 1074 x 604 mm (42.3 x 23.8")
<b>Aspect ratio (H:V)</b>	15": 160:31 24": 16:9 49": 16:9
<b>Resolution</b>	15": 1280 x 248 24": 1920 x 1080 49": 3840 x 2160
<b>Pixel pitch</b>	15": 0.294 x 0.294 mm 24": 0.275 x 0.275 mm 49": 0.280 x 0.280 mm
<b>Color imaging</b>	Yes
<b>Gray imaging</b>	Yes
<b>Bit depth</b>	15": 8 bpc 24": 8 bpc 49": 10 bpc
<b>Viewing angle (H, V)</b>	15": 89° 24": 178° 49": 178°
<b>Ambient light sensor</b>	No
<b>Maximum luminance (panel typical)</b>	15": 300 cd/m <sup>2</sup> 24": 250 cd/m <sup>2</sup> 49": 500 cd/m <sup>2</sup>
<b>Contrast ratio (panel typical)</b>	15": 2000:1 24": 1000:1 49": 1100:1
<b>Response time ((Tr + Tf)/2) (typical)</b>	15": 8 ms 24": 14 ms 49": 8 ms
<b>Housing color</b>	Glass/Black front - Steel/White border + back Stainless steel dashboard below glass front for buttons/interfaces
<b>Video input signals</b>	1 x 10GbE Fiber Optic Interface for 24" FHD Nexxis link 2 x 10GbE Fiber Optic Interface for 49" UHD Nexxis link Optional: 4 x 10GbE Fiber Optic Interface for 2x mobile device connectivity on front
<b>Embedded Nexxis</b>	1 x MNA-420 decoder 1 x MNA-440 decoder
<b>Nexxis features</b>	Video layouts (PiP/PaP/Quad...) Keyboard/Mouse/Touch control of source Programmable Nexxis button (front) Option to mount 2x front Neutrik opticalCON for mobile device connectivity
<b>General features</b>	SmartBar with date/time & stopwatch Power control button for external PC (front) DICOM button (front)
<b>Options (configurable)</b>	1 x or 2 x Keyboard/trackpad module available in different languages: EN-DE-FR-IT-TR-ES Includes USB silicone mouse (cleanable)

<b>USB ports</b>	2 x USB 2.0 downstream (External mouse for Nexxis-source control)
<b>Power rating</b>	100-240 Vac, 50/60 Hz, 3-1.5 A
<b>Power consumption</b>	230 Watt
<b>Dimensions (W x H x D)</b>	1896 x 1050 x 120 mm
<b>Dimensions packaged (W x H x D)</b>	2190 x 1337 x 341 mm
<b>Net weight</b>	110 kg (incl. 1 x K&M module)
<b>Net weight packaged</b>	125 kg (incl. 1 x K&M module)
<b>Mounting standard</b>	In-wall
<b>Screen protection</b>	Protective, anti-reflective glass cover
<b>Certification and compliance</b>	CE (Medical Device Class I) CCC (China) Safety specific: IEC 60950-1:2005 + A1:2009 EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013 IEC 60601-1:2005 + A1:2012 – EN 60601-1:2006 + A1:2013 + A12:2014 ANSI/AAMI ES60601:2005 + R1:2012 CAN/CSA C22.2 No. 60601-1:2014 EMI specific: IEC 60601-1-2:2014 (ed4) EN 60601-1-2:2015 (ed4) FCC part 15 Class ICES-001 Level Environmental: EU RoHS China RoHS REACH Canada Health WEEE Packaging Directive
<b>Green compliance</b>	ROHS-3, REACH, WEEE
<b>Supplied accessories</b>	User guide (English) Installation guide (English) USB stick, containing translations of the user & installation guide 2x hex key
<b>Operating temperature</b>	0 °C to 40 °C (10 °C to 40 °C within specs)
<b>Storage temperature</b>	-20 °C to +60 °C
<b>Operating humidity</b>	20 % to 85 % (non-condensing)
<b>Storage humidity</b>	20 % to 85 % (non-condensing)
<b>Operating pressure</b>	Minimum 70 kPa
<b>Storage pressure</b>	50 to 106 kPa
<b>Warranty</b>	2 years

# 55" 4K in-wall console for the OR

- 55-inch mounted in-wall console for the OR
- Integrated Nexxis connectivity
- Wide viewing angle

MDMX-25500 GNNB is a 55" 4K in-wall OR console with integrated Nexxis connectivity. The console consists of a single display configuration and allows the entire OR staff to combine and view multiple images, with an intuitive control system for flexible and easy use.

## Optimize valuable space

The MDMX-25500 GNNB is multifunctional: it can function as a nurse station area presenting patient and surgery information, and it's also an AV control station. It offers direct control of remote PC sources and thanks to its integrated Nexxis decoder, video routing and compositions can be managed without additional installation or configuration.

The console is integrated in the OR wall, so it doesn't take up any additional space. The black protective, anti-reflective glass front cover allows for easy cleaning and disinfecting.

## Enjoy maximum flexibility with Nexxis inside

The MDMX-25500 GNNB fits perfectly within Nexxis' plug and play system: you can route any Nexxis source to the screen, on which multiple types of compositions are possible. The optional Barco Nexxis WorkSpot feature lets you view up to 6 sources at the same time, and control each one individually.

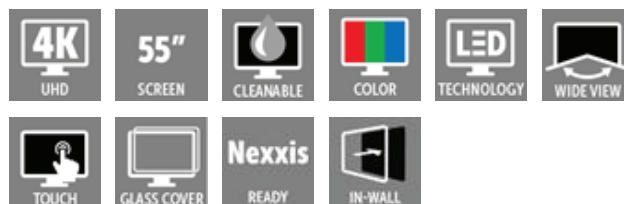
Additionally, a programmable Nexxis button makes it easy to adapt the console's functionalities to the OR team's needs: start/stop recordings, take snapshots, change video layouts, reset video source, ...

## Tailor it to your needs

All components are integrated in the console, which reduces installation time and cost. An optional foldable IP68 keyboard is available in several regional variants (US, German, Italian, French, Spanish, Turkish), as well as a trackpad and USB mouse. The MDMX-25500 GNNB can be combined with the MDMX-22400 GNTB 24" console, with an optional second keyboard, for even more screen surface.

## Features

- Enjoy ergonomic viewing support for everyone in the OR: from doctors and nurses to trainees
- Use the PACS optimization button to quickly switch between color profiles: for optimal viewing of PACS images or other modalities
- Connect mobile devices, such as mobile C-arm video sources, to Nexxis
- Go for the WorkSpot feature to view and control up to 6 video sources individually
- Interact with remote-PC video sources as if you're in front of them





## Specifications

<b>Screen/Backlight technology</b>	TFT AM LCD / IPS-PRO technology / LED backlight IPS/WLED
<b>Active screen size (diagonal)</b>	1388 mm (54.64")
<b>Active screen size (H x V)</b>	1210 mm x 680 mm (47.6 x 26.8")
<b>Aspect ratio (H:V)</b>	16:9
<b>Resolution</b>	3840 x 2160
<b>Pixel pitch</b>	0.315 x 0.315 mm
<b>Color imaging</b>	Yes
<b>Gray imaging</b>	Yes
<b>Bit depth</b>	10 bpc
<b>Viewing angle (H, V)</b>	178°
<b>Ambient light sensor</b>	No
<b>Maximum luminance (panel typical)</b>	500 cd/m <sup>2</sup>
<b>Contrast ratio (panel typical)</b>	1100:1
<b>Response time ((Tr + Tf)/2) (typical)</b>	8 ms
<b>Housing color</b>	Glass/Black front - Steel/White border + back Stainless steel dashboard below glass front for buttons/interfaces
<b>Video input signals</b>	2 x 10GbE Fiber Optic Interface for 55" UHD Nexxis link Optional: 4 x 10GbE Fiber Optic Interface for 2x mobile device connectivity on front
<b>Embedded Nexxis</b>	1 x MNA-240 decoder
<b>Nexxis features</b>	View up to 6 Nexxis sources (PiP/PaP/Quad...) Keyboard/Mouse control of source Programmable Nexxis button (front) Option to mount 2x front Neutrik opticalCON for mobile device connectivity.
<b>General features</b>	Power control button for external PC (front) DICOM button (front)
<b>Options (configurable)</b>	1 x Keyboard/trackpad module available in different languages: EN-DE-FR-IT-TR-ES Includes USB silicone mouse (cleanable)
<b>USB ports</b>	1 x USB 2.0 downstream (External mouse for Nexxis-source control)
<b>Power rating</b>	100-240 Vac, 50/60 Hz, 3-1.5 A
<b>Power consumption</b>	215 Watt
<b>Dimensions (W x H x D)</b>	1396 x 1050 x 120 mm
<b>Dimensions packaged (W x H x D)</b>	1696 x 1337 x 341 mm
<b>Net weight</b>	87 kg (incl. 1 x K&M module)
<b>Net weight packaged</b>	100 kg (incl. 1 x K&M module)
<b>Mounting standard</b>	In-wall
<b>Screen protection</b>	Protective, anti-reflective glass cover

<b>Certification and compliance</b>	CE (Medical Device Class I) CCC (China) Safety specific: IEC 60950-1:2005 + A1:2009 EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013 IEC 60601-1:2005 + A1:2012 – EN 60601- 1:2006 + A1:2013 + A12:2014 ANSI/AAMI ES606011:2005 + R1:2012 CAN/CSA C22.2 No. 60601-1:2014 EMI specific: IEC 60601-1-2:2014 (ed4) EN 60601-1-2:2015 (ed4) FCC part 15 Class ICES-001 Level Environmental: EU RoHS China RoHS REACH Canada Health WEEE Packaging Directive
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<b>Green compliance</b>	ROHS-3, REACH, WEEE
<b>Supplied accessories</b>	User guide (English) Installation guide (English) USB stick, containing translations of the user & installation guide 2x hex key
<b>Optional accessories</b>	Neutrik opticalCON accessories
<b>Operating temperature</b>	0 °C to 40 °C (10 °C to 40 °C within specs)
<b>Storage temperature</b>	-20 °C to +60 °C
<b>Operating humidity</b>	20 % to 85 % (non-condensing)
<b>Storage humidity</b>	20 % to 85 % (non-condensing)
<b>Operating pressure</b>	Minimum 70 kPa
<b>Storage pressure</b>	50 to 106 kPa
<b>Warranty</b>	2 years

# Nexxis - Uncompressed OR-over-IP platform

- Share video/audio in and outside the OR
- With near-zero latency & no compression
- Flexible to meet the needs of any procedure
- 4K and 3D ready!

Nexxis™ is Barco's video-over-IP platform for the integrated digital operating room.

It's the best way to share uncompressed, high-resolution video (and audio) in and between operating rooms.

This unique technology platform has been specifically designed for integration into the digital OR.

Ask your integration partner about it and find out how it enhances operational efficiency, team collaboration and surgical precision.

## The precision you need

High resolution, uncompressed medical images are presented with pixel-perfect precision and shared more efficiently.

Raw, uncompressed images – eliminating artifacts

Near-zero latency for perfect hand-eye coordination

4K end-to-end

3D imaging for minimally invasive surgery with MDSC-8232 M3D surgical 3D 4K display

## The flexibility you've always wanted

Nexxis meets every requirement of any surgical procedure. Plug and play (new) devices, switch sources with ease, and display images where and when you need them for optimal viewing comfort and ergonomics. Without interruptions, as the entire platform can be maintained remotely.

- Simple to set up the OR (all you need is a single optical cable)
- Easy plug and play of devices
- Central & remote control
- 3D source images are automatically translated into 2D or 3D for maximum visibility

## Easy to share and collaborate

Images can be streamed in, between, and outside operating rooms (e.g. auditoriums) in real time. This makes it easy to educate, consult and collaborate with your peers. Recording is also possible for documentation purposes and clinical research.

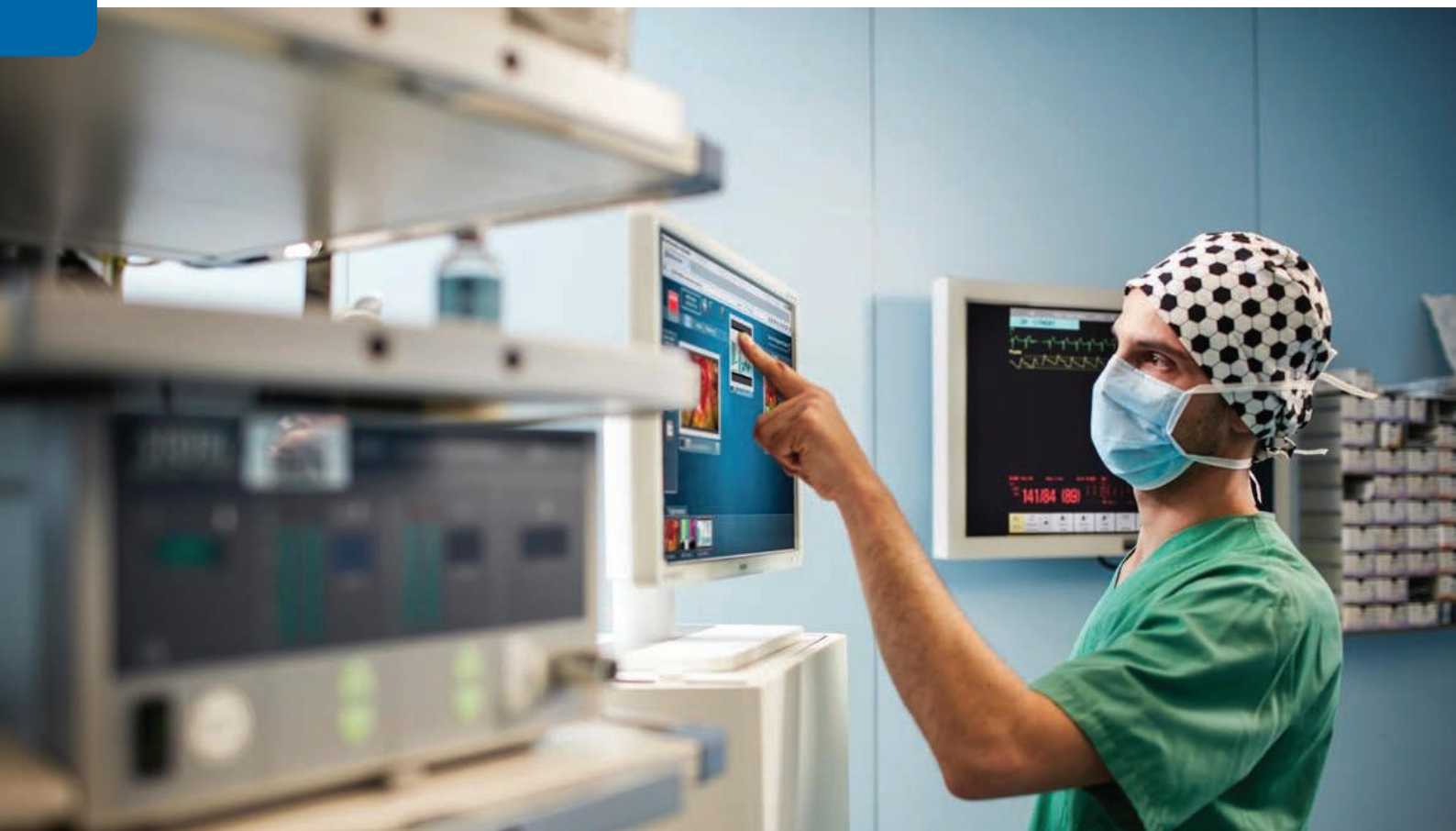
- Bi-directional inter-OR communication
- Physician interaction beyond the OR
- Streaming and recording
- Easy interactive education and training

## Always up to date

Built on a non-proprietary IP technology platform, Nexxis is ready for any new technology (e.g. 4K and 3D) as soon as you are. Scalable and flexible, Nexxis allows you to adapt as you need to and expand as you grow.

- Always up to date with the latest networking and visualization technologies
- Easy to adopt new integration requirements in the OR
- Easy to connect new ORs to the network architecture
- Expansion results in lower TCO

Certified as a medical device (CE/FDA), Nexxis is fit for use in the interventional OR. Every part of the solution has been designed and approved for use in a surgical environment.



your single source supplier



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