

MDFC-8232 3xB

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 designed in standard VESA-100 mounting plate allows easy mounting on surgical booms and spring arms.

White version on request

PRODUCT SPECIFICATIONS**MDFC-8232 3XB**

Screen technology	TFT AM LCD / IPS-PRO technology / LED backlight
Active screen size (diagonal)	789 mm (31.1")
Active screen size (H x V)	698 x 368 mm
Aspect ratio	17:9 / 16:9
Resolution	4K / 2K (4096 x 2160) / UHD (3840 x 2160)
Pixel pitch	0.1704 mm
Color support	1073 million (10-bit)
Color gamut	Native: 92% DCI-P3 / 105% Adobe
Color calibration	ITU-709, DCI-P3, BT.2020, BT.709
Viewing angle	178° Hor. / 178° Vert.
Luminance	Max: 450 cd/m ² (typ.) Native Color space: 390 cd/m ² calibrated default value @6500K: 360 cd/m ² calibrated default value
Contrast ratio	1300:1 (typ.)
White point	Native: 7200K Calibrated: 5600K, 6500K, 9300K
Gamma curve	1.8, Video, 2.2, 2.4, DICOM
Response time	T on + T off (i.e. rise + fall): 20 ms (typ.)
3D viewing distance	Optimal: 1500 mm; Minimum: 686 mm
Vert. viewing angle	@ Min viewing distance: 15° Up/Down @ Optimal viewing distance: 8.0° Up/Down (crosstalk < 7%)
Lens type	Circular polarization: Left eye on top
Keyboard	Capacitive 7-key touch keyboard -Keyboard Enabling/Disabling membrane switch
Video inputs	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)
Video outputs	2x 3G-SDI (3G-SDI input loop through) 1x DVI (4K display screen clone -downscaled to 1080i/1080p)
Multi-image support	(2D only) Picture-in Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD
Remote control	USB Type B port for FW download & control protocol
Features	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.
Power consumption	Maximum: 168W (Max) / 24V ± 10% Low power mode: TBC Power-off: ~ 1W

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External power supply	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +24 VDC / 10 A
DC power output	DC connector: +5V / 2A Available also on DVI, DP and USB ports
Dimensions w/o stand (W x H x D)	778 x 473 x 93 mm / 30.6 x 18.6 x 3.6 in
Net weight w/o stand	MDFC-8232 3Hx = 16.5 Kg. MDFC-8232 3Sx = 17 Kg.
Net weight packaged	22 Kg / 48.5 lbs.
Mounting standard	100x100 & 200x100 mm VESA
Temperature	Operating: 0° ÷ 35° C Storage: -20° ÷ 60° C
Humidity	Operating: 10% ÷ 90% R.H. Storage: 5% ÷ 90% R.H.
Regulation Compliance	<ul style="list-style-type: none">• ANSI/AAMI ES60601-1:2005/(R)2012• CSA CAN/CSA-C22.2 NO. 60601-1:14• IEC 60601-1 Edition 3.1 (2012)• EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014• IEC 60601-1-2 (2014)• EN 60601-1-2 (2015)• FCC CFR 47 Part 15 Subpart B• GB17625.1-2012; GB4943.1-2011; GB/T9254-2008• CE, c-UL-us, DEMKO, CCC
Certifications	IP20 (IP45 front side only)
Warranty	3 years
Green compliance	ROHS-3, REACH, WEEE

Last updated: 19 Nov 2020

Technical specifications are subject to change without prior notice. Please check www.barco.com for the latest information.