

MNA-120 ENC ANA

AV-to-IP encoder for the digital operating room with VGA & CVBS or VGA & S-Video



Barco's MNA series comprises adapters to encode and decode video, data and other information (e.g. control signals) to and from IP streams. These medically certified adapters ensure overall connectivity and support for current and legacy video sources. Automated device detection eliminates the need for user interventions when setting up the operating room.

Conversion to IP

The MNA encoders take in baseband video and non-video data and convert these to IP streams for transportation over a standard high-bandwidth IP network. The MNA decoders reconvert these raw IP packets to DVI video signals and other signals such as USB. End-to-end latency is amazingly short and is guaranteed not to exceed a single frame (< 15 ms).

The medical-grade MNA adapters offer:

- AV-to-IP conversion at the imaging source
- Complete connectivity for current and legacy video sources in the operating room, cath lab or interventional suite
- Support for non-video traffic (e.g. keyboard, mouse and audio)
- Easy integration via central API provided by Barco's NMS 1.0 software
- Smooth setup and ease of use

Product specifications

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General specifications

Video conversion	Converts analog baseband video signals to uncompressed IP video streams
Processing	One channel S-video/CVBS (720x576i50 or 720x485i60) + one channel analog graphical source (1920x1200p60 with reduced blanking)
Color depth	CVBS/S-Video: YCbCr 4:2:2 10 bit/color VGA: RGB24 8 bit/color & RGB30 10bit/color
Latency	Subframe
Security	AES 128 encrypted transmission of all video, data & control signals
Encoder system	VGA & CVBS or VGA & S-Video
Video Output	N/A
Video Input	N/A
Network output	1x PAL/NTSC uncompressed IP stream + 1x HD uncompressed IP stream
IP Connectivity	10GbE Fiber Optic Interface with SFP+ connector module
IP Standards	AVB, IP, IGMP, IGMP snooping, PIM, RTP, RTCP, 802.1q, AES 128b, HTTP(s)
USB	Micro USB type B USB Type A
Audio	Line-in, line-out and mic-in connector
Compliance	Supporting HIPAA-compliant external 12V Medical Approved PSU
GPIO	Trigger via any audio connector via 15mm length compatible 3.5mm TRRS jack
Nexxis Integration	N/A
NexxisPlus Integration	N/A
PSU	N/A
Power Consumption	< 30W
Size	37 mm H x152 mm W x152 mm D
Weight	Maximum 750g
Temperature	Range +5°C to +35°C Temperature change
Humidity	Operational: 35°C / 85% RH non condensing Storage: RH + 40°C / 95% non condensing
Altitude	N/A
Storage conditions	Temperature: Range -20°C to +60°C (Temperature change)
Acoustic noise level	Typical 38 dBA at 20°C at 1m
Mouting	N/A
Certifications	-CB (IEC 60601-1) informative report -CB (IEC 60950-1) -CB (IEC 62368-1) -cRU, RU (cRUus) -Demko -CE -UKCA -BIS (pending) -CEM (pending) -KC (pending) -RCM -EAC
Standards	Medical Equipment: -IEC 60601-1:2005 + A1:2012 + A2:2020 -IEC 60601-1-6:2010 + A1:2013 + A2:2020 -IEC 60601-1-2: 2014+A1:2020 (Ed.4.1) -ANSI/AAMI ES 60601-1:2005 + A1:2012 + A2:2021 -CAN/CSA-C22.2 No.60601-1:08 + A1.14 (Reaffirmed 2022) -EN 60601-1:2006 + A1:2013 + A12:2014 + A2:2021 -EN 60601-1-6:2010 + A1:2015 + A2:2021 -EN 60601-1-2:2015 + A1:2021 (Ed.4.1) -FCC class B -ICES-001 Level B ITE Equipment: -IEC 62368-1:2018 -EN IEC 62368-1:2020 + A11:2020 -IS 13252 (Part1): 2010
3D Video Support	N/A
Streamback	N/A

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