

# BM-AV1-E16SHD

In-Rack Monitoring



## FEATURES

High-quality HD video/audio monitor with discrete 3G/HD/SD, Dolby® E, Dolby® Digital, Dolby® Digital Plus decoding.

Comprehensive I/O facilities, including 2 x SDI, 8 x AES-3id pairs, 8 x analogue.

Loudness measurement to ITU-R BS.1770-3 / EBU R128

Integral video display.

16 channel monitoring with ability to monitor any channel on either speaker, including combinations and groups.

Multiple preset controls enabling fast recall of channel routing.

High resolution, tricolour level meters with adjustable colour transition points & peak-hold facility. Seven standard scales & ballistics, user assignable.

Auto-scaling facilities are available on the audio outputs when selecting multiple sources.

Fully RoHS compliant and 3 year warranty.

## INTRODUCTION

The BM-AV1-E16SHD is a 1U high-quality audio/video monitoring unit, capable of monitoring 3G/HD/SD video and multi-channel audio sources. This class leading product builds on Bel's reputation for providing very high quality and reliable broadcast solutions.

The BM-AV1-E16SHD provides a pair of auto-detecting 3G/HD/SD SDI inputs and accepts 8 analogue audio inputs and 8 AES-3id pairs (also accepts SPDIF).

Integral to the BM-AV1-E16SHD is a video display providing excellent clarity. The selected audio inputs are displayed on eight high-resolution multi-coloured LED bargraphs (selectable between channels 1-8 and 9-16) providing long term reliability. Selected audio channels are also provided as AES-3id and analogue outputs on the rear panel. Output levels can be fixed or controlled by the front panel volume control. An integral audio mix system enables any demuxed audio channel to be mixed on either, or both speakers, whilst maintaining a constant output level.

An SDI reclocked loop-through connector is provided enabling connection to downstream equipment.

Loudness measurement to ITU-R BS.1770-3/EBU R128 standards is available and can be displayed in four different ways, with each showing different combinations of Loudness measures.

A Dolby decoder is included in the BM-AV1-E16SHD as standard. When enabled it can decode Dolby® E, Dolby® Digital and Dolby® Digital Plus material from any of the AES inputs, or from embedded audio data within the SDI bitstreams. Eight Dolby mix-down algorithms are available directly from a front panel rotary control. Comprehensive metadata reporting is also provided via the video display.

Two high quality and magnetically shielded speakers are mounted on the front panel, together with a ducted bass speaker system provide high-SPL audio reproduction. Either speaker can monitor the sum of any combination of inputs.

A headphone socket is provided on the front panel.



## BM-AV1-E16SHD Specifications

<b>Audio Inputs</b>	
Digital AES3-id	8 x 75 Ohm (BNC connector)
Sample Rate	48 kHz
Analogue	8 x differential impedance 25 kohm. 25 way 'D' type connector
<b>Video</b>	
Input	2 x 3G/HD/SD SMPTE 424M, 259M, 296M, 274M, 292M
Output	1 x SDI loophrough
<b>Meters</b>	
Bar Graphs	26 element tricolour with adjustable colour break points
<b>Analogue Monitor Outputs</b>	2 x XLR3M
Max output level	+15 dB
Noise + THD	-98 dB
<b>Analogue Channel Outputs x 8</b>	1 x 25 way 'D' type connector
Max output level	+10 dB
Noise + THD	-108 dB w.r.t. clipping
<b>Digital Channel Outputs x 16</b>	8 x 75 ohm BNC
Digital AES-3id	
<b>Frequency response</b>	
All analogue outputs	20 Hz to 20 kHz $\pm 1$ dB
<b>Main drive amp</b>	
Noise + THD	-80 dB w.r.t. maximum output
<b>Speaker driver units</b>	
Peak acoustic level (@2ft)	100 dB SPL
Shielding	Magnetic
<b>Scales and Ballistics</b>	
DIN PPM	Overall dynamic range: 55 dB (+5 to -50 dB) Attack time: 10 ms Fallback: 1.5 sec per 20 dB decay
BBC PPM	Overall dynamic range: (+12 to -12 dB from mark 7 to mark 1) Attack time: 10 ms Fallback: 2.85 sec (from mark 7 to mark 1)
VU	Overall dynamic range 23 dB (+3 dB to -20 dB) Attack time: 300 ms Fallback: 300 ms
AES/EBU	Overall dynamic range 60 dB (0 to -60 dB) Attack time: 1 ms Fallback: 1.5 sec per 20 dB decay
<b>Housing</b>	19" Rack Mount: 1U high. Outline Dimensions: 483 mm(W) x 256 mm(D) x 44 mm(H) Outline Dimensions: 19inch(W) x 10inch(D) x 1.7inch(H)
<b>Power</b>	90 - 264 VAC 50/60 Hz Autoselect, Fuse 4A HAC
<b>Environment</b>	Temperature 0 °C to 30 °C. Humidity 70% max (non-condensing)
<b>Weight</b>	4 kg (8.8lbs)

Product specifications subject to change without prior notice. See website for warranty details.