

## professional broadcast solutions

audio/video monitors broadcast delays utility equipment

## BM-A1-16SHD In-Rack Monitoring



## **FEATURES**

High-quality 16 channel audio monitor with 3G/HD/SD SDI de-embedding.

Comprehensive I/O facilities, including 2 x SDI, 4 x AES-3id pairs, 8 x analogue.

Intuitive operation, with all controls directly accessible.

Display, providing input status and metadata.

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

Multiple configuration options available, enabling efficient integration.

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.

Designed to exceed current EMC directives.

Fully RoHS compliant and 3 year warranty.

## INTRODUCTION

The BM-A1-16SHD is a 1U high-quality audio monitor, 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-A1-16SHD provides a pair of auto-detecting 3G/HD/SD SDI inputs and accepts eight analogue audio inputs and four AES-3id pairs.

Integral to the BM-A1-16SHD is a display to enable easy device configuration and to provide signal status information.

Audio inputs are displayed on eight high-resolution tricoloured LED bargraphs (selectable as channels 1-8 and 9-16), and routed to speakers using dedicated push buttons located below each bargraph. Audio channels 1-8 are also provided as AES-3id and analogue outputs on the rear panel.

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

The BM-A1-16SHD is suited to operation in Master Control Rooms, Outside Broadcast Vehicles, or indeed anywhere where audio monitoring of SD, HD and 3G SDI sources is required, especially when within a space conscious environment.



BM-A1-16SHD Specifications	
Audio Inputs	
Digital AES3-id	4 x 75 Ohm (BNC connector)
Sample Rate	48 kHz
Analogue	8 x differential impededance 25 kohm. 25 way 'D' type connector
Video	
Input	2 x 3G/HD/SD SMPTE 424M, 259M, 296M, 274M, 292M
Output	1 x reclocked SDI loopthrough
Meters	
Bargraphs	26 element tricolour with adjustable colour break points
Analogue Monitor Outputs	2 x XLR3M
Max output level	+15 dB
Noise + THD	-98 dB
Analogue Channel Outputs x 8	1 x 25 way 'D' type connector
Max output level	+10 dB
Noise + THD	-108 dB w.r.t. clipping
Digital Channel Outputs x 8	4 x 75 ohm BNC
Digital AES-3id	
Frequency response	
All analogue outputs	20 Hz to 20 kHz ±1 dB
Main drive amp	
Noise + THD	-80 dB w.r.t. maximum output
Speaker driver units	
Peak acoustic level (@2ft)	100 dB SPL
Shielding	Magnetic
Scales and Ballistics	
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
Housing	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)
Power	90 - 264 VAC 50/60 Hz Autoselect, Fuse 4A HAC
Environment	Temperature O °C to 30 °C. Humidity 70% max (non-condensing)
Weight	4 kg (8.8lbs)

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