

Product Brief

MIU Audio Expansion Board (AEB) 700-11-01



Description

The Audio Expansion Board (AEB) is one of a suite of option boards available for the Mercury Interface Unit.

The AEB provides a standard interface for Mercury hardware panels and analog audio inputs and outputs. The AEB is commonly used to:

- Connect Mercury hardware and virtual panels into the Mercury Enterprise
- Extend communications to other intercoms, belt packs, IFBs, and wireless headsets
- Send audio to public address systems and recording devices
- Receive audio from multimedia sources including newsfeeds and training and simulation systems
- Create audio trunks / tie-lines between sites

Once an interface is established, hardware panels and other devices can communicate with authorized subscribers located anywhere on the Mercury enterprise.

Key Features

- Interface for Mercury hardware control panels
- Interface for analog inputs and outputs
- Up to four Audio Expansion Boards per Mercury Interface Unit
- Eight port capacity
- Balanced audio input and output
- Software-programmable input and output level adjustments for each port
- RJ45 connectors for easy cable construction
- Ideal for extending audio communications over IP



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Specifications

Audio Input	Number of ports	8 per card. Max of 4 option cards per MIU
	Type	Balanced audio on RJ-45
	Input impedance	> 10k Ω
	Nominal input level	0dBu
	Maximum input level	+20dBu
	Input level adjustment	Via software from -9dB to +12dB in steps of 1.5dB
	Frequency response (3dB points)	<25Hz and >3200Hz (8kHz sampling) <25Hz and >6600Hz (16kHz sampling)
	Distortion	<0.05% when routed locally
	Noise	< -60dB un-weighted
	Common mode rejection ratio	>70dB
Audio Output	Absolute maximum input voltage	Common Mode $\pm 15V$ / Differential $\pm 28V$
	Type	Electronically balanced on RJ-45 connector
	Output impedance	<20 Ω
	Nominal output level	0dBu
	Maximum output level	+20dBu
	Output level adjustment	Via software from -34.5dB to +12dB in steps of 1.5dB. Mute option.
	Frequency response (3dB points)	<25Hz and >3200Hz (8kHz sampling) <25Hz and >6600Hz (16kHz sampling)
	Distortion	<0.05% when routed locally
	Noise	< -60dB un-weighted
	Panel Data	Type
Data Rate		230.4kbaud, 8 data bits, 2 stop bits, 1 start bit, no parity
Protocol		Proprietary
Recommended cable type		CAT5e UTP
Maximum cable length		300m
RJ45 Connector Pinout	Pin 1	RS422 Data In +
	Pin 2	RS422 Data In -
	Pin 3	RS422 Data Out +
	Pin 4	Audio In -
	Pin 5	Audio In +
	Pin 6	RS422 Data Out -
	Pin 7	Audio Out +
	Pin 8	Audio Out -
Mechanical	Dimensions (W x D x H)	140mm (5.5") x 205mm (8.1") x 17mm (0.67")
	Weight	200g
Environmental	Operating temperature	0 to +50°C. Storage -20 to +85°C.
	Operating humidity	Relative humidity 0 to 90% non-condensing
Reliability	MTFB	80,000 hours
Ordering Information	700-25-01	Mercury Interface Unit (MIU)
	700-11-01	Audio Expansion Board (AEB) - Eight Port

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