DATA SHEET
TESIRA® EX-IN, EX-AEC, EX-OUT, EX-IO
4-CHANNEL INPUT AND OUTPUT EXPANDERS

The Tesira® EX-IN, EX-AEC, EX-OUT, and EX-IO are half-rack expander units for use with Tesira SERVER, SERVER-IO, and TesiraFORTÉ AVB devices. Each expander provides a total of 4 channels of analog audio. The EX-IN is a 4-channel mic/line level input expander, and the EX-AEC is a 4-channel mic/line level input expander with AEC (acoustic echo cancellation). The EX-OUT is a 4-channel mic/line level output expander, and the EX-IO provides two channels of mic/line level input and two channels of mic/line level output. The expanders communicate with the Tesira AVB network for audio networking, configuration and control, and are powered by PoE+ (IEEE 802.3at Class 4, 30W).

BENEFITS

• Input and output expanders allow placement of audio I/O in remote locations

• Expanders can be added to existing Tesira and TesiraFORTÉ installations as the system's needs change and grow

• Half-rack chassis facilitates discreet and convenient installation without the need for an equipment rack

• Fully configurable and controllable via the software

FEATURES

• Audio and control networking over AVB

• Powered by PoE+ (IEEE 802.3at Class 4, 30W)

• Plug-in barrier strip connectors

• Front panel LEDs for device status indications

• Half-rack chassis

• RoHS compliant and AES grounded

• Covered by Biamp Systems' 5-year warranty

ARCHITECTS & ENGINEERS SPECIFICATION

The 4-channel expanders shall be designed exclusively for use with Tesira® devices. The expanders shall be built in a half-rack chassis and be powered by PoE+ (IEEE 802.3at Class 4). The expander shall utilize the AVB network for all audio networking as well as software configuration and control. The input, AEC, and input/output expander shall receive mic or line level analog input on plug-in barrier strip connectors. The output and input/output expander shall deliver mic or line level analog output on plug-in barrier strip connectors. Analog-to-Digital and Digital-to-Analog conversion shall be 24-bit with a sampling rate of 48kHz. The expanders shall be CE marked, UL listed and compliant with the RoHS directive. Warranty shall be 5 years. The input expander shall be Tesira EX-IN. The input expander with AEC shall be Tesira EX-AEC. The output expander shall be Tesira EX-OUT. The input/output expander shall be Tesira EX-IO.
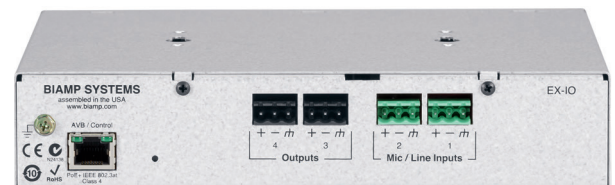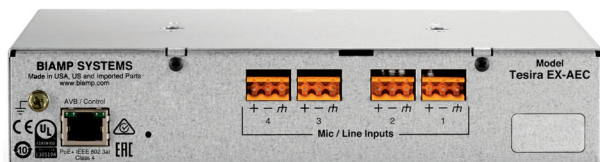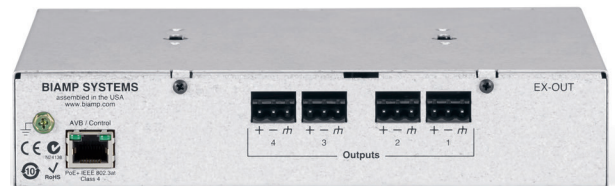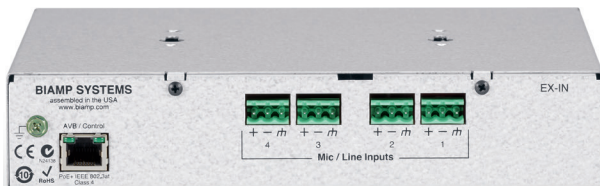
TESIRA EX-IN, EX-AEC, EX-OUT AND EX-IO SPECIFICATIONS

Frequency Response (20Hz~20kHz @ +4dBu):	+0/-0.25dB	**Phantom Power:***	+48 VDC (7mA/input)
THD+N (20Hz~20kHz):*		**Cross Talk (channel to channel @ 1kHz):***	
@ 0dB Gain, +4dBu In:	< 0.006%	@ 0dB Gain, +4dBu In:	< -85dB
@ 54dB Gain, -50dBu In:	< 0.040%	@ 54dB Gain, -50dBu In:	< -75dB
EIN (20Hz~20kHz, 66dB Gain, 150Ω):*	< -125dBu	**Overall Dimensions:**	
Dynamic Range (20Hz~20kHz, 0dB):*	> 108dB	Height:	1.75 inches (44 mm)
Tail Length:**	up to 300ms	Width:	8.5 inches (216 mm)
Convergence:**	up to 100dB/sec	Depth:	7.75 inches (197 mm)
Input Impedance (balanced):*	8kΩ	Weight:	3 lbs (1.4 kg)
Maximum Input:*	+24dBu	**Sampling Rate:**	48kHz
Input Gain Range (6dB Steps):	0 - 66dB	**A/D - D/A Converters:**	24-bit
Output Impedance (balanced):***	200Ω	**Compliance:**	
Maximum Output:***	+24dBu		FCC Part 15B (USA)
Power:	PoE+ (IEEE 802.3at Class 4, 30W)		CE marked**** (Europe)
			UL and C-UL listed (USA & Canada)
			RCM (Australia)
			EAC (Eurasian Customs Union)
			RoHS Directive (Europe)

* Specification applies to EX-IN, EX-AEC, or input channels of EX-IO
** Specification applies to EX-AEC

*** Specification applies to EX-OUT or output channels of EX-IO
**** Requires PoE+ insertion device to be CE marked
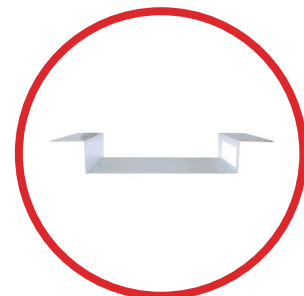
TESIRA EX-IN, EX-AEC, EX-OUT AND EX-IO BACK PANELS

OPTIONAL ACCESSORIES

RMK-1
Single unit rack mount kit

RMK-2
Two-unit rack mount kit

UTMK-1
Under table mount kit