

## 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.

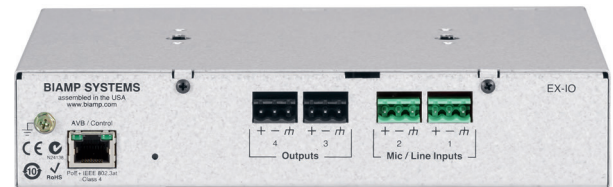
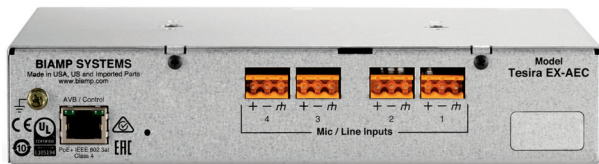
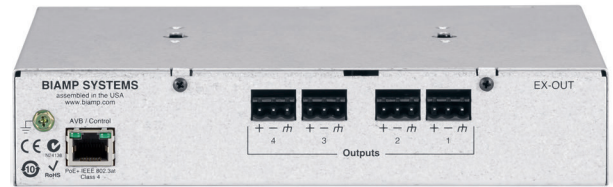
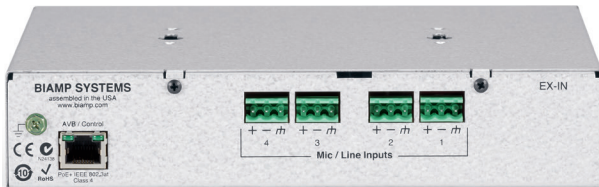
## TESIRA EX-IN, EX-AEC, EX-OUT AND EX-IO SPECIFICATIONS

<b>Frequency Response</b> (20Hz-20kHz @ +4dBu):	+0/-0.25dB	<b>Phantom Power:</b> *	+48 VDC (7mA/input)
<b>THD+N (20Hz-20kHz):*</b> @ 0dB Gain, +4dBu In:	< 0.006%	<b>Cross Talk (channel to channel @ 1kHz):*</b> @ 0dB Gain, +4dBu In:	< -85dB
@ 54dB Gain, -50dBu In:	< 0.040%	@ 54dB Gain, -50dBu In:	< -75dB
<b>EIN (20Hz-20kHz, 66dB Gain, 150Ω):*</b>	< -125dBu	<b>Overall Dimensions:</b>	
<b>Dynamic Range (20Hz-20kHz, 0dB):*</b>	> 108dB	<b>Height:</b>	1.75 inches (44 mm)
<b>Tail Length:**</b>	up to 300ms	<b>Width:</b>	8.5 inches (216 mm)
<b>Convergence:**</b>	up to 100dB/sec	<b>Depth:</b>	7.75 inches (197 mm)
<b>Input Impedance (balanced):*</b>	8kΩ	<b>Weight:</b>	3 lbs (1.4 kg)
<b>Maximum Input:*</b>	+24dBu	<b>Sampling Rate:</b>	48kHz
<b>Input Gain Range (6dB Steps):</b>	0 - 66dB	<b>A/D - D/A Converters:</b>	24-bit
<b>Output Impedance (balanced):***</b>	200Ω	<b>Compliance:</b>	
<b>Maximum Output:***</b>	+24dBu		FCC Part 15B (USA)
<b>Power:</b>	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



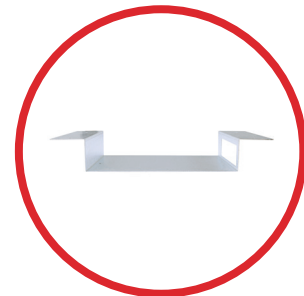
## OPTIONAL ACCESSORIES



**RMK-1**  
Single unit rack mount kit



**RMK-2**  
Two-unit rack mount kit



**UTMK-1**  
Under table mount kit

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