

## 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.

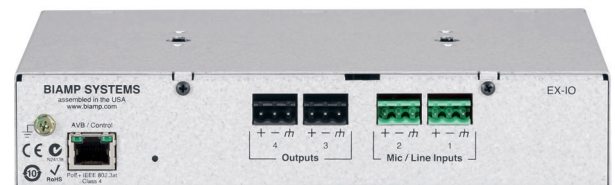
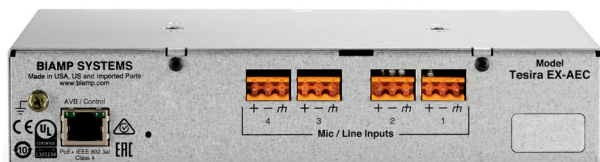
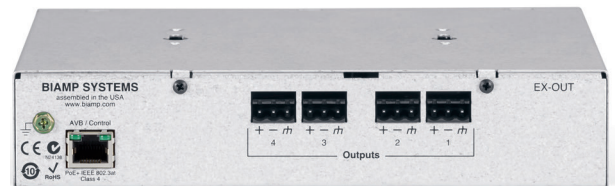
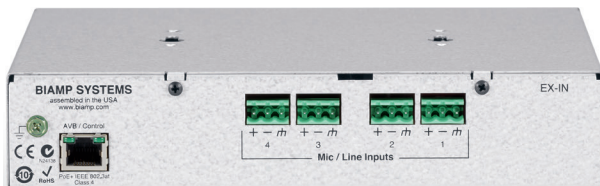
## TESIRA EX-IN, EX-AEC, EX-OUT AND EX-IO SPECIFICATIONS

|  |                                  |  |                                   |
|--|----------------------------------|--|-----------------------------------|
| <b>Frequency Response</b><br>(20Hz-20kHz @ +4dBu):   | +0/-0.25dB                       | <b>Phantom Power:</b> *  | +48 VDC<br>(7mA/input)            |
| <b>THD+N (20Hz-20kHz):*</b><br>@ 0dB Gain, +4dBu In: | < 0.006%                         | <b>Cross Talk (channel to channel @ 1kHz):*</b><br>@ 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



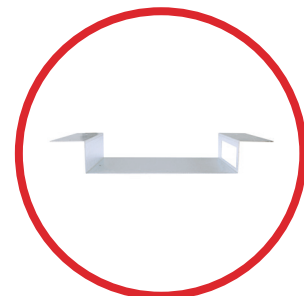
## OPTIONAL ACCESSORIES



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



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



**UTMK-1**  
Under table mount kit

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