DATA SHEET
TESIRA® SERVER-IO
CONFIGURABLE I/O DSP

Tesira® SERVER-IO is a configurable I/O digital signal processor for use with the Tesira digital audio networking platform. It is factory configured with one DSP card and capable of handling up to two additional DSP cards. The SERVER-IO can be configured with up to three total audio networking cards per chassis. The combinations of networking cards may include one AVB-1 Audio Video Bridging network card, up to two SCM-1 CobraNet® network cards, and up to two DAN-1 Dante™ network cards in any configuration. The SERVER-IO can support up to 12 standard Tesira I/O cards for up to 48 channels of audio I/O (e.g. mic and line level, VoIP, and standard telephone interface). The configurable I/O DSP features a Biamp algorithm, SpeechSense™, which enhances speech processing by more accurately distinguishing between human speech and noise. The DSP also provides extensive audio processing, including but not limited to: signal routing and mixing, equalization, filtering, dynamics, and delay as well as control, monitoring and diagnostic tools; all configured through Tesira software.

FEATURES

- Supports up to 3 DSP cards
- Up to 420 x 420 channels of digital I/O over AVB
- Supports optional 64 x 64 Dante audio networking
- Supports optional 32 x 32 CobraNet audio networking
- Up to 12 I/O cards with a maximum of 48 channels of audio
- System configuration and control via Ethernet or serial connection
- Front panel OLED display for device and system information

- Supports port authentication via IEEE 802.1X
- Processing algorithm: SpeechSense
- Signal processing via intuitive software allows configuration and control for: signal routing and mixing, equalization, filtering, dynamics and delay and much more
- Rack mountable (3RU)
- CE marked, UL listed and RoHS compliant
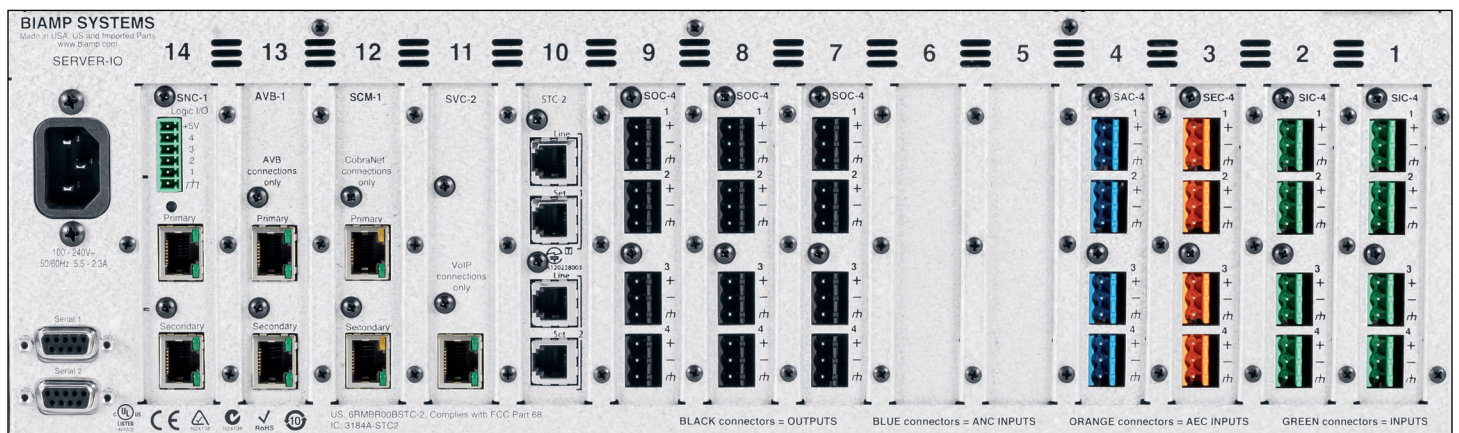- Covered by Biamp Systems' 5-year warranty

ARCHITECTS & ENGINEERS SPECIFICATION

The configurable I/O DSP shall be designed exclusively for use with Tesira® systems. The configurable I/O DSP shall support AVB digital audio and control networking by means of a modular 420 x 420 channel card. The configurable I/O DSP shall also support use of one or two 32 x 32 channel CobraNet® digital networking cards and/or one or two 64 x 64 channel Dante™ digital networking cards, up to a maximum of three audio networking cards total per chassis. The configurable I/O DSP shall be factory configured with one DSP card and shall be capable of supporting a total of three cards. The configurable I/O DSP shall provide dual Ethernet ports for configuration and control connection. The configurable I/O DSP shall support port authentication via IEEE 802.1X. The configurable I/O DSP shall be configurable for up to 48 channels of local audio input and output, including mic and line level, VoIP, and standard telephone interface. The configurable I/O DSP shall also support modular I/O cards for acoustic echo cancellation and ambient noise compensation. The configurable I/O DSP shall provide front panel LED identification of device power, status, alarm, and activity as well as system-wide alarm. The configurable I/O DSP shall provide front panel OLED display for device and system information. The configurable I/O DSP shall be rack mountable (3RU) and feature software-configurable signal processing, including but not limited to: signal routing and mixing, equalization, filtering, dynamics, and delay, as well as control, monitoring, and diagnostic tools. The configurable I/O DSP shall be CE marked, UL listed and shall be compliant with the RoHS directive. Warranty shall be five years. The configurable I/O DSP shall be Tesira SERVER-IO.

TESIRA SERVER-IO SPECIFICATIONS (AUDIO SPECIFICATIONS GIVEN REFLECT USE OF SIC-4 AND SOC-4)

Frequency Response (20Hz~20kHz @ +4dBu):	+0/-0.25dB	**Cross Talk (channel to channel @ 1kHz):**	
		@ 0dB Gain, +4dBu In:	< -85dB
THD+N (20Hz~20kHz):		@ 54dB Gain, -50dBu In:	< -75dB
@ 0dB Gain, +4dBu In:	< 0.006%	**Overall Dimensions:**	
@ 54dB Gain, -50dBu In:	< 0.040%	Height:	5.25 inches (133 mm)
EIN (20Hz~20kHz, 66dB Gain, 150Ω):	< -125dBu	Width:	19.0 inches (483 mm)
		Depth:	17.0 inches (432 mm)
Dynamic Range (20Hz~20kHz, 0dB):	> 108dB	Weight:	18 lbs (8.2 kg)
Input Impedance (balanced):	8kΩ	**Sampling Rate:**	48kHz
Maximum Input:	+24dBu	**A/D Converters:**	24-bit
Input Gain Range (6dB Steps):	0 - 66dB	**Compliance:**	
Output Impedance (balanced):	200Ω		FCC Part 15B (USA)
Maximum Output:	+24dBu		FCC Part 68 (USA)
			Industry Canada CS-03 (Canada)
Power Consumption (100~240VAC 50/60Hz):	< 150W		CE marked (Europe)
			UL and C-UL listed (USA & Canada)
Phantom Power:	+48 VDC (7mA/input)		RCM (Australia)
			EAC (Eurasian Customs Union)
			RoHS Directive (Europe)

TESIRA SERVER-IO BACK PANEL (OPTIONAL CARDS SHOWN IN SLOTS 1-4, 7-13)