DATA SHEET
TESIRA® SERVER-IO
DIGITAL AUDIO NETWORK SERVER

The Tesira® SERVER-IO is a digital network server for use with the Tesira digital audio networking platform. It is factory configured with one DSP card yet capable of handling up to two additional DSP cards. The SERVER-IO can be configured with up to three total audio networking cards per server. The combinations of networking cards can include up to two AVB-1 Audio Video Bridging network cards, up to two SCM-1 CobraNet® network cards, and up to two DAN-1 Dante™ network cards in any configuration. An integral network card provides network connectivity for configuration and control of the Tesira network. 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 on-board DSP features a new 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 the Tesira design software.

BENEFITS

- Offers flexibility to have scalable DSP and I/O in the same device
- Enables I/O to be distributed from a central location
- Customizable I/O configurations for easy right-sizing of system design
- Control networking can run on separate (existing) Ethernet network

FEATURES

- Supports up to 3 DSP cards
- Up to 12 I/O cards with a maximum of 48 channels of audio
- 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
- System configuration and control via Ethernet or serial connection
- Front panel OLED display for device and system information
- New 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
- 4-channel Acoustic Echo Cancellation (AEC) card with on board Automatic gain control (AGC)
- 4-channel Ambient Noise Compensation Card (ANC)
- Extensive input, output and logic expansion devices supported as part of the Tesira digital audio networking platform
- Rack mountable (3RU)
- **CE** marked, **UL** listed and **RoHS** compliant
- Covered by Biamp Systems' 5-year warranty

ARCHITECTS & ENGINEERS SPECIFICATION

The digital audio network server shall be designed exclusively for use with Tesira® systems. The server shall support AVB digital audio and control networking by means of a modular 420 x 420 channel card. The server 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 server. The server shall be factory configured with one DSP card and shall be capable of supporting a total of three cards. The server shall provide dual Ethernet ports for configuration and control connection. The server 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 server shall also support modular I/O cards for acoustic echo cancellation and ambient noise compensation. The server shall provide front panel LED identification of server power, status, alarm, and activity as well as system-wide alarm. The server shall provide front panel OLED display for server and system information. The server 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 server shall be CE marked, UL listed and shall be compliant with the RoHS directive. Warranty shall be five years. The server shall be Tesira SERVER-IO.

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

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

SERVER-IO BACK PANEL