

DATA SHEET

TESIRAFORTÉ® AI

FIXED I/O DSP



TesiraFORTÉ® AI is a fixed I/O DSP with 12 analog inputs and 8 analog outputs and includes up to 8 channels of configurable USB audio. USB audio allows TesiraFORTÉ to interface directly with USB audio hosts, as well as to take full advantage of today's most sophisticated conferencing solutions. TesiraFORTÉ AI 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 configuration software. TesiraFORTÉ AI is best-suited for small- to medium-sized rooms that require high-quality audio solutions using voice lift and mix-minus, such as conference rooms or council chambers.

BENEFITS

- Includes default configuration file, allowing for plug-and-play usage
- Highly scalable and cost-effective solution that can grow over time with the needs of the customer
- SpeechSense™ technology enhances speech processing
- Integrates directly with soft codecs and other USB audio hosts

FEATURES

- 12 mic/line level inputs, 8 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- 2-line OLED display with capacitive-touch navigation
- Rack mountable (1RU)
- Supports port authentication via IEEE 802.1X
- System configuration and control via Ethernet
- Internal universal power supply
- Signal processing via intuitive software allows configuration and control for signal routing, mixing, equalization, filtering, delay and much more
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Ethernet connection for programming and control on a RJ-45 connector. The fixed I/O DSP shall have internal DSP processing. The fixed I/O DSP shall include 4 channels of General Purpose Input and Output connection (GPIO) for sending or receiving logic signals. The programming of the GPIO ports shall be software configurable. The fixed I/O DSP shall include a RS-232 connection for control data transmission into or out of the fixed I/O DSP and such operation shall be software programmable. The fixed I/O DSP shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The fixed I/O DSP shall be software configurable to stream up to 8 channels of digital USB Class 1 Audio transmission either into or out of the fixed I/O DSP or simultaneous input and output. The fixed I/O DSP shall support port authentication via IEEE 802.1X. The fixed I/O DSP shall provide 12 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. The fixed I/O DSP shall provide 8 balanced output channels for the transmission of microphone or line level analog audio signals on screw-down, removable connectors. Each individual channel shall have its own dedicated connection. The fixed I/O DSP shall provide front panel OLED identification of device power, status, alarm, and activity as well as system-wide alarm. The fixed I/O DSP shall be rack mountable (1RU) 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 fixed I/O DSP shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The fixed I/O DSP shall be TesiraFORTÉ® AI.

TESIRAFORTÉ AI SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output:	+0.25 dB/-0.5 dB	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input:	< -85dB
THD+N (22Hz to 22kHz): 0dB gain, +4dBu input:	< 0.006%	54dB gain, -50dBu input:	< -75dB
EIN (no weighting, 22Hz to 22kHz):	< -125dBu	Sampling Rate:	48kHz
Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain:	> 108dB	A/D - D/A Converters:	24-bit
Input Impedance (balanced):	8kΩ	Power Consumption: 100-240VAC 50/60Hz:	< 35W
Output Impedance (balanced):	207Ω	USB: Bit Depth:	16- or 24-bit
Maximum Input:	+24dBu	Number of Channels:	up to 8
Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu		Sample Rate:	48kHz
Input Gain Range (6dB steps):	0-66dB	Environment: Ambient Operating Temperature Range:	32-104° F (0-40° C)
Overall Dimensions: Height: 1.75 inches (44 mm) Width: 19.0 inches (483 mm) Depth: 10.5 inches (267 mm) Weight: 8 lbs (3.63 kg)		Humidity:	0-98%, non-condensing
Phantom Power:	+48VDC (7mA/input)	Altitude:	0-6,600 feet (0-2000 Meters) MSL
		Compliance:	FCC Part 15B (USA) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)

TESIRAFORTÉ AI BACK PANEL

