

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.

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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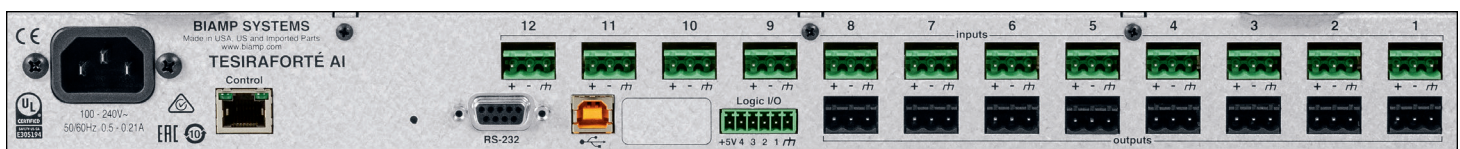
ARCHITECTS & ENGINEERS SPECIFICATION

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



DATA SHEET

TESIRAFORTÉ® AVB AI FIXED I/O DSP



TesiraFORTÉ® AVB 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 AVB AI utilizes Audio Video Bridging (AVB) for digital audio networking, and can be used as a standalone device or combined with other TesiraFORTÉ devices and Tesira DSPs, expanders, and controllers. TesiraFORTÉ AVB 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 AVB 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.

FEATURES

- 128 x 128 channels of AVB
- 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)
- System configuration and control via Ethernet
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- Fully compatible with Tesira AVB DSPs, amplifiers, expanders, and controllers
- 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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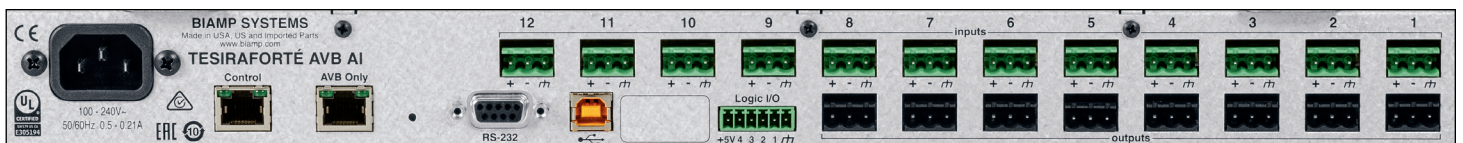
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Audio Video Bridging (AVB) digital audio networking that shall allow up to 128 x 128 channels. The AVB networking connection shall be implemented on a RJ-45 connector. 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 control and proxy all Tesira expander-class devices and Tesira control devices. 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® AVB AI.

TESIRAFORTÉ AVB AI SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output: +0.25 dB/-0.5 dB THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040% EIN (no weighting, 22Hz to 22kHz): < -125dBu Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB Input Impedance (balanced): 8kΩ Output Impedance (balanced): 207Ω Maximum Input: +24dBu Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu Input Gain Range (6dB steps): 0-66dB 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) Phantom Power: +48VDC (7mA/input)	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input: < -85dB 54dB gain, -50dBu input: < -75dB Sampling Rate: 48kHz A/D - D/A Converters: 24-bit Power Consumption: 100-240VAC 50/60Hz: < 35W USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing 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)
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TESIRAFORTÉ AVB AI BACK PANEL



DATA SHEET

TESIRAFORTÉ® DAN AI FIXED I/O DSP



TesiraFORTÉ® DAN AI is a fixed I/O DSP with 32 bi-directional channels of Dante™ digital audio, 12 analog inputs, 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 DAN AI 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 software. TesiraFORTÉ DAN 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.

FEATURES

- 32 x 32 channels of digital audio networking via the Dante protocol
- AES67-enabled Dante endpoint
- 12 mic/line level inputs, 8 mic/line level outputs
- 2 Gigabit Ethernet ports: Dante digital audio and Tesira control
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- 2-line OLED display with capacitive-touch navigation
- Supports port authentication via IEEE 802.1X
- Rack mountable (1RU)
- 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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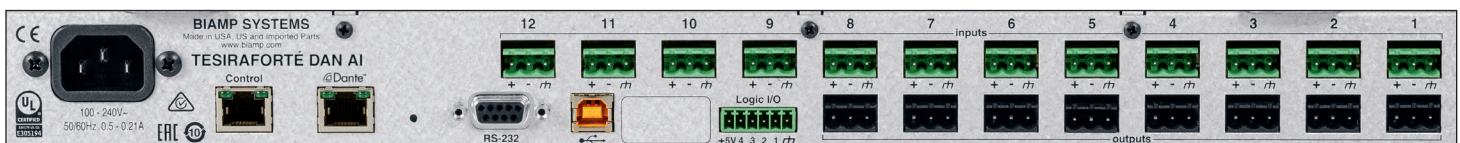
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Dante™ digital audio networking that shall allow up to 32 x 32 channels. The Dante networking connection shall be implemented on a RJ-45 connector. The fixed I/O DSP shall be interoperable in accordance with the AES67 standard. 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® DAN AI.

TESIRAFORTÉ DAN 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 54dB gain, -50dBu input: < -75dB
THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040%	Sampling Rate: 48kHz
EIN (no weighting, 22Hz to 22kHz): < -125dBu	A/D - D/A Converters: 24-bit
Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB	Power Consumption: 100-240VAC 50/60Hz: < 35W
Input Impedance (balanced): 8kΩ	USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz
Output Impedance (balanced): 207Ω	Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing Altitude: 0-6,600 feet (0-2000 Meters) MSL
Maximum Input: +24dBu	Compliance: FCC Part 15B (USA) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	
Input Gain Range (6dB steps): 0-66dB	
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)	
Phantom Power: +48VDC (7mA/input)	

TESIRAFORTÉ DAN AI BACK PANEL



DATA SHEET

TESIRAFORTÉ® CI

FIXED I/O DSP



TesiraFORTÉ® CI is a fixed I/O DSP with 12 analog inputs and 8 analog outputs and includes Acoustic Echo Cancellation (AEC) technology on all 12 inputs. It also 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 CI also provides extensive audio processing, including but not limited to: AEC technology, 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 CI is best suited for small- to medium-sized rooms that require high-quality audio solutions using AEC, voice lift, and mix-minus, such as conference rooms or distance learning environments.

FEATURES

- 12 mic/line level inputs with AEC, 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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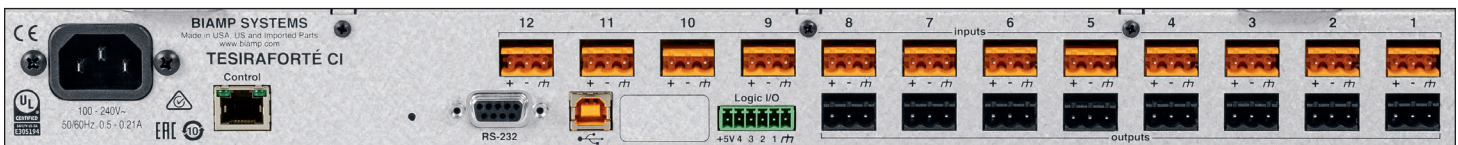
ARCHITECTS & ENGINEERS SPECIFICATION

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 input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. 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® CI.

TESIRAFORTÉ CI SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output: +0.25 dB/-0.5 dB THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040% EIN (no weighting, 22Hz to 22kHz): < -125dBu Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB Input Impedance (balanced): 8kΩ Output Impedance (balanced): 207Ω Maximum Input: +24dBu Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu Input Gain Range (6dB steps): 0-66dB 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) Phantom Power: +48VDC (7mA/input)	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input: < -85dB 54dB gain, -50dBu input: < -75dB Sampling Rate: 48kHz A/D - D/A Converters: 24-bit Power Consumption: 100-240VAC 50/60Hz: < 35W USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing 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)
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TESIRAFORTÉ CI BACK PANEL



DATA SHEET

TESIRAFORTÉ® AVB CI FIXED I/O DSP



TesiraFORTÉ® AVB CI is a fixed I/O DSP with 12 analog inputs and 8 analog outputs and includes Acoustic Echo Cancellation (AEC) technology on all 12 inputs. It also 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 AVB CI utilizes Audio Video Bridging (AVB) for digital audio networking, and can be used as a standalone device or combined with other TesiraFORTÉ devices and Tesira DSPs, expanders, and controllers. TesiraFORTÉ AVB CI also provides extensive audio processing, including but not limited to: AEC technology, 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 AVB CI is best suited for small- to medium-sized rooms that require high-quality audio solutions using AEC, voice lift, and mix-minus, such as conference rooms or distance learning environments.

FEATURES

- 128 x 128 channels of AVB
- 12 mic/line level inputs with AEC, 8 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- Rack mountable (1RU)
- System configuration and control via Ethernet
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- Fully compatible with Tesira AVB DSPs, amplifiers, expanders, and controllers
- 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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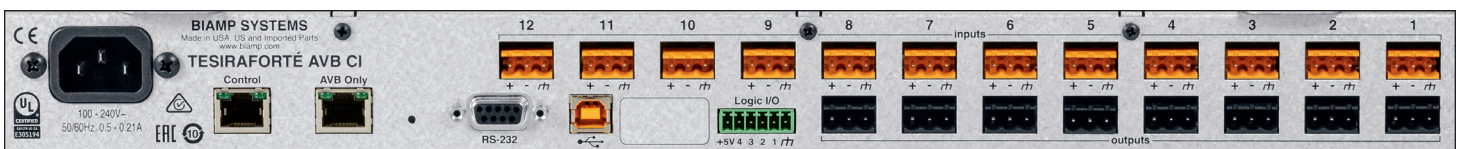
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Audio Video Bridging (AVB) digital audio networking that shall allow up to 128 x 128 channels. The AVB networking connection shall be implemented on a RJ-45 connector. 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 input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. 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 control and proxy all Tesira expander-class devices and Tesira control devices. 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® AVB CI.

TESIRAFORTÉ AVB CI SPECIFICATIONS

Frequency Response:		Crosstalk, channel to channel, 1 kHz:	
20Hz to 20kHz, +4dBu output:	+0.25 dB/-0.5 dB	0dB gain, +4dBu input:	< -85dB
THD+N (22Hz to 22kHz):		54dB gain, -50dBu input:	< -75dB
0dB gain, +4dBu input:	< 0.006%	Sampling Rate:	48kHz
54dB gain, -50dBu input:	< 0.040%	A/D - D/A Converters:	24-bit
EIN (no weighting, 22Hz to 22kHz):	< -125dBu	Power Consumption:	
Dynamic Range (in presence of signal)		100-240VAC 50/60Hz:	< 35W
22Hz to 22kHz, 0dB gain:	> 108dB	USB:	
Input Impedance (balanced):	8kΩ	Bit Depth:	16- or 24-bit
Output Impedance (balanced):	207Ω	Number of Channels:	up to 8
Maximum Input:	+24dBu	Sample Rate:	48kHz
Maximum Output (selectable):	+24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	Environment:	
Input Gain Range (6dB steps):	0-66dB	Ambient Operating Temperature Range:	32-104° F (0-40° C)
Overall Dimensions:		Humidity:	0-98%, non-condensing
Height:	1.75 inches (44 mm)	Altitude:	0-6,600 feet (0-2000 Meters) MSL
Width:	19.0 inches (483 mm)	Compliance:	
Depth:	10.5 inches (267 mm)		FCC Part 15B (USA)
Weight:	8 lbs (3.63 kg)		CE marked (Europe)
Phantom Power:	+48VDC (7mA/input)		UL und C-UL listed (USA and Canada)
			RCM (Australia)
			RoHS Directive (Europe)

TESIRAFORTÉ AVB CI BACK PANEL



DATA SHEET

TESIRAFORTÉ® DAN CI

FIXED I/O DSP



TesiraFORTÉ® DAN CI is a fixed I/O DSP with 32 bi-directional channels of Dante™ digital audio, 12 analog inputs with Acoustic Echo Cancellation (AEC), and 8 analog outputs. It also 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 advantage of modern conferencing solutions. TesiraFORTÉ DAN CI 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 DAN CI is best-suited for small- to medium-sized rooms that require high-quality audio solutions using AEC, voice lift, and mix-minus, such as conference rooms or distance learning environments.

FEATURES

- 32 x 32 channels of digital audio networking via the Dante protocol
- AES67-enabled Dante endpoint
- 12 mic/line level inputs with AEC, 8 mic/line level outputs
- 2 Gigabit Ethernet ports: Dante digital audio and Tesira control
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- 2-line OLED display with capacitive-touch navigation
- Supports port authentication via IEEE 802.1X
- Rack mountable (1RU)
- 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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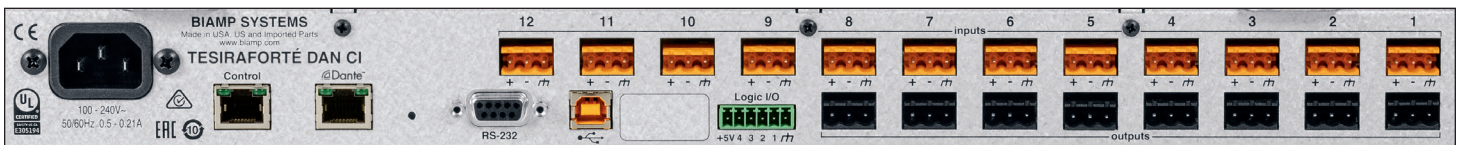
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Dante™ digital audio networking that shall allow up to 32 x 32 channels. The Dante networking connection shall be implemented on a RJ-45 connector. The fixed I/O DSP shall be interoperable in accordance with the AES67 standard. 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 input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. 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® DAN CI.

TESIRAFORTÉ DAN CI SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output: +0.25 dB/-0.5 dB THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040% EIN (no weighting, 22Hz to 22kHz): < -125dBu Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB Input Impedance (balanced): 8kΩ Output Impedance (balanced): 207Ω Maximum Input: +24dBu Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu Input Gain Range (6dB steps): 0-66dB 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) Phantom Power: +48VDC (7mA/input)	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input: < -85dB 54dB gain, -50dBu input: < -75dB Sampling Rate: 48kHz A/D - D/A Converters: 24-bit Power Consumption: 100-240VAC 50/60Hz: < 35W USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing 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)
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TESIRAFORTÉ DAN CI BACK PANEL



DATA SHEET

TESIRAFORTÉ® VT

FIXED I/O DSP



TesiraFORTÉ® VT is a fixed I/O DSP with 12 analog inputs and 8 analog outputs and includes Acoustic Echo Cancellation (AEC) technology on all 12 inputs. It also includes up to 8 channels of configurable USB audio, a 2-channel VoIP interface, and a standard FXO telephone interface. 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 VT provides extensive audio processing, including but not limited to: AEC technology, 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 VT is best-suited for rooms that require high-quality audio solutions using VoIP, voice lift, mix-minus, and AEC, such as conference rooms or distance learning environments.

FEATURES

- 12 mic/line level inputs with AEC, 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)
- System configuration and control via Ethernet
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- SIP VoIP interface via a RJ-45 connector
- Standard FXO telephone interface via RJ-11 connector
- 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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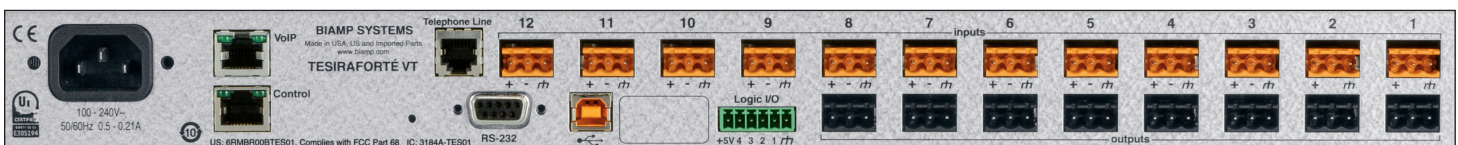
ARCHITECTS & ENGINEERS SPECIFICATION

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 4 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. The input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The fixed I/O DSP shall provide 4 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 integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector for two lines of VoIP communication and shall support Session Initiation Protocol (SIP) v2.0 or later. The fixed I/O DSP shall integrate to standard telephony communications on a RJ-11 connector for a single line of telephone communication. 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® VT.

TESIRAFORTÉ VT SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output: +0.25 dB/-0.5 dB THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040% EIN (no weighting, 22Hz to 22kHz): < -125dBu Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB Input Impedance (balanced): 8kΩ Output Impedance (balanced): 207Ω Maximum Input: +24dBu Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu Input Gain Range (6dB steps): 0-66dB 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) Phantom Power: +48VDC (7mA/input)	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input: < -85dB 54dB gain, -50dBu input: < -75dB Sampling Rate: 48kHz A/D - D/A Converters: 24-bit Power Consumption: 100-240VAC 50/60Hz: < 35W USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing Altitude: 0-6,600 feet (0-2000 Meters) MSL Compliance: FCC Part 15B (USA) FCC Part 68 (USA) Industry Canada CS-03 (Canada) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
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TESIRAFORTÉ VT BACK PANEL



DATA SHEET

TESIRAFORTÉ® AVB VT FIXED I/O DSP



TesiraFORTÉ® AVB VT is a fixed I/O DSP with 12 analog inputs and 8 analog outputs and includes Acoustic Echo Cancellation (AEC) technology on all 12 inputs. It includes up to 8 channels of configurable USB audio, a 2-channel VoIP interface, and a standard FXO telephone interface. 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 AVB VT utilizes Audio Video Bridging (AVB) for digital audio networking, and can be used as standalone device or combined with other TesiraFORTÉ AVB devices and Tesira DSPs, expanders, amplifiers, and controllers. TesiraFORTÉ AVB VT also provides extensive audio processing, including but not limited to: AEC technology, 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 AVB VT is best-suited for rooms that require high-quality audio solutions using VoIP, voice lift, mix-minus, and AEC, such as conference rooms or distance learning environments.

FEATURES

- 128 x 128 channels of AVB
- 12 mic/line level inputs with AEC, 8 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- Rack mountable (1RU)
- Fully compatible with Tesira AVB DSPs, amplifiers, expanders, and controllers
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- SIP VoIP interface via a RJ-45 connector
- Standard FXO telephone interface via RJ-11 connector
- 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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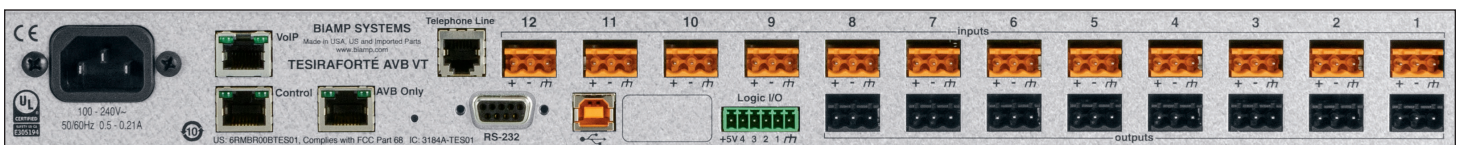
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Audio Video Bridging (AVB) digital audio networking that shall allow up to 128 x 128 channels. The AVB networking connection shall be implemented on a RJ-45 connector. 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 input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. 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 integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector for two lines of VoIP communication and shall support Session Initiation Protocol (SIP) v2.0 or later. The fixed I/O DSP shall integrate to standard telephony communications on a RJ-11 connector for a single line of telephone communication. 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 control and proxy all Tesira expander-class devices and Tesira control devices. 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® AVB VT.

TESIRAFORTÉ AVB VT SPECIFICATIONS

Frequency Response: 20Hz to 20kHz, +4dBu output: +0.25 dB/-0.5 dB THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040% EIN (no weighting, 22Hz to 22kHz): < -125dBu Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB Input Impedance (balanced): 8kΩ Output Impedance (balanced): 207Ω Maximum Input: +24dBu Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu Input Gain Range (6dB steps): 0-66dB 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) Phantom Power: +48VDC (7mA/input)	Crosstalk, channel to channel, 1 kHz: 0dB gain, +4dBu input: < -85dB 54dB gain, -50dBu input: < -75dB Sampling Rate: 48kHz A/D - D/A Converters: 24-bit Power Consumption: 100-240VAC 50/60Hz: < 35W USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing Altitude: 0-6,600 feet (0-2000 Meters) MSL Compliance: FCC Part 15B (USA) FCC Part 68 (USA) Industry Canada CS-03 (Canada) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
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TESIRAFORTÉ AVB VT BACK PANEL



DATA SHEET

TESIRAFORTÉ® DAN VT

FIXED I/O DSP



TesiraFORTÉ® DAN VT is a fixed I/O DSP with 32 bi-directional channels of Dante™ digital audio, 12 analog inputs with Acoustic Echo Cancellation (AEC) technology, and 8 analog outputs. It also includes up to 8 channels of configurable USB audio, a 2-channel VoIP interface, and a standard FXO telephone interface. 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 DAN VT also provides extensive audio processing, including but not limited to: AEC technology, 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 DAN VT is best-suited for rooms that require high-quality audio solutions using VoIP, voice lift, mix-minus, and AEC, such as conference rooms or distance learning environments.

FEATURES

- 32 x 32 channels of digital audio networking via the Dante protocol
- AES67-enabled Dante endpoint
- 12 mic/line level inputs with AEC, 8 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- Rack mountable (1RU)
- Internal universal power supply
- Supports port authentication via IEEE 802.1X
- SIP VoIP interface via a RJ-45 connector
- Standard FXO telephone interface via RJ-11 connector
- 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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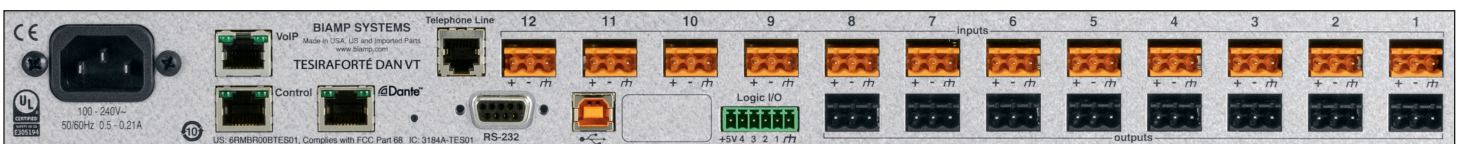
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Dante™ digital audio networking that shall allow up to 32 x 32 channels. The Dante networking connection shall be implemented on a RJ-45 connector. The fixed I/O DSP shall be interoperable in accordance with the AES67 standard. 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 input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. 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 integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector for two lines of VoIP communication and shall support Session Initiation Protocol (SIP) v2.0 or later. The fixed I/O DSP shall integrate to standard telephony communications on a RJ-11 connector for a single line of telephone communication. 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 TesiraFORTE® DAN VT.

TESIRAFORTÉ DAN VT 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) FCC Part 68 (USA) Industry Canada CS-03 (Canada) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)

TESIRAFORTÉ DAN VT BACK PANEL



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TESFDS-361-2010-EN-R1

DATA SHEET

TESIRAFORTÉ® AVB VT4 FIXED I/O DSP



TesiraFORTÉ® AVB VT4 is a fixed I/O DSP with 4 analog inputs, 4 channels of Acoustic Echo Cancellation (AEC) technology, and 4 analog outputs. It also includes up to 8 channels of configurable USB audio, a 2-channel VoIP interface and a standard FXO telephone interface. 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 AVB VT4 utilizes Audio Video Bridging (AVB) for digital audio networking, and can be used as a standalone device or combined with other TesiraFORTÉ AVB devices and Tesira DSPs, expanders, and controllers. TesiraFORTÉ AVB VT4 also provides extensive audio processing, including but not limited to: AEC technology, 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 AVB VT4 is best-suited for smaller rooms that require high-quality audio solutions using VoIP, voice lift, mix-minus, and AEC, such as conference rooms or distance learning environments.

FEATURES

- 128 x 128 channels of AVB
- 4 mic/line level inputs with AEC, 4 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- Rack mountable (1RU)
- Fully compatible with Tesira AVB DSPs, amplifiers, expanders, and controllers
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- SIP VoIP interface via a RJ-45 connector
- Standard FXO telephone interface via RJ-11 connector
- 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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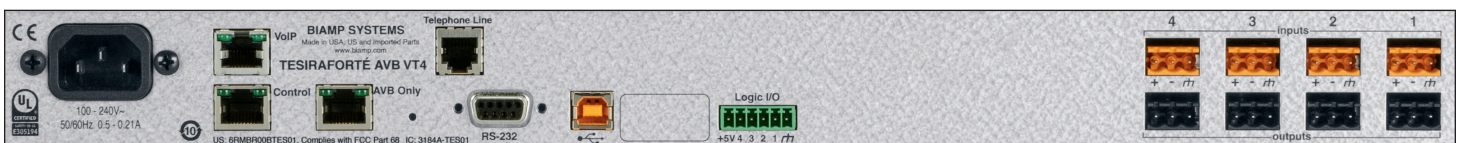
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Audio Video Bridging (AVB) digital audio networking that shall allow up to 128 x 128 channels. The AVB networking connection shall be implemented on a RJ-45 connector. 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 4 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. The input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The fixed I/O DSP shall provide 4 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 integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector for two lines of VoIP communication and shall support Session Initiation Protocol (SIP) v2.0 or later. The fixed I/O DSP shall integrate to standard telephony communications on a RJ-11 connector for a single line of telephone communication. 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 control and proxy all Tesira expander-class devices and Tesira control devices. 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® AVB VT4.

TESIRAFORTÉ AVB VT4 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
54dB gain, -50dBu input:	< 0.040%	Sampling Rate:	48kHz
EIN (no weighting, 22Hz to 22kHz):	< -125dBu	A/D - D/A Converters:	24-bit
Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain:	> 108dB	Power Consumption: 100-240VAC 50/60Hz:	< 35W
Input Impedance (balanced):	8kΩ	USB: Bit Depth:	16- or 24-bit
Output Impedance (balanced):	207Ω	Number of Channels:	up to 8
Maximum Input:	+24dBu	Sample Rate:	48kHz
Maximum Output (selectable):	+24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	Environment: Ambient Operating Temperature Range:	32-104° F (0-40° C)
Input Gain Range (6dB steps):	0-66dB	Humidity:	0-98%, non-condensing
Overall Dimensions: Height:	1.75 inches (44 mm)	Altitude:	0-6,600 feet (0-2000 Meters) MSL
Width:	19.0 inches (483 mm)	Compliance:	FCC Part 15B (USA)
Depth:	10.5 inches (267 mm)		FCC Part 68 (USA)
Weight:	8 lbs (3.63 kg)		Industry Canada CS-03 (Canada)
Phantom Power:	+48VDC (7mA/input)		CE marked (Europe)
			UL und C-UL listed (USA and Canada)
			RCM (Australia)
			RoHS Directive (Europe)

TESIRAFORTÉ AVB VT4 BACK PANEL



DATA SHEET

TESIRAFORTÉ® DAN VT4

FIXED I/O DSP



TesiraFORTÉ® DAN VT4 is a fixed I/O DSP with 32 bi-directional channels of Dante™ digital audio, 4 analog inputs, 4 channels of Acoustic Echo Cancellation (AEC) technology, and 4 analog outputs. It also includes up to 8 channels of configurable USB audio, a 2-channel VoIP interface and a standard FXO telephone interface. 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 DAN VT4 also provides extensive audio processing, including but not limited to: AEC technology, 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 DAN VT4 is best-suited for smaller rooms that require high-quality audio solutions using VoIP, voice lift, mix-minus, and AEC, such as conference rooms or distance learning environments.

FEATURES

- 32 x 32 channels of digital audio networking via the Dante protocol
- AES67-enabled Dante endpoint
- 4 mic/line level inputs with AEC, 4 mic/line level outputs
- Gigabit Ethernet port
- Up to 8 channels of configurable USB audio
- RS-232 serial port
- 4-pin GPIO
- Rack mountable (1RU)
- Supports port authentication via IEEE 802.1X
- Internal universal power supply
- SIP VoIP interface via a RJ-45 connector
- Standard FXO telephone interface via RJ-11 connector
- 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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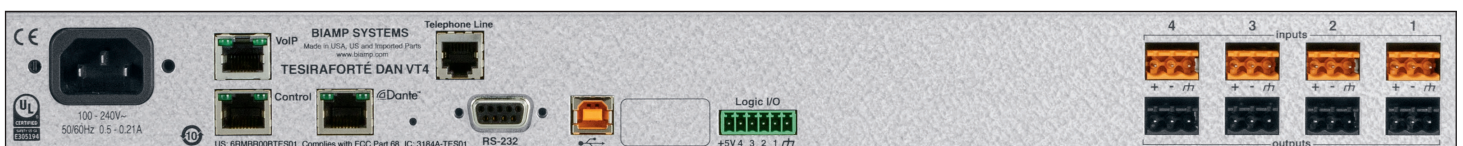
ARCHITECTS & ENGINEERS SPECIFICATION

The fixed I/O DSP shall be designed exclusively for use with Tesira® systems. The fixed I/O DSP shall support Dante™ digital audio networking that shall allow up to 32 x 32 channels. The Dante networking connection shall be implemented on a RJ-45 connector. The fixed I/O DSP shall be interoperable in accordance with the AES67 standard. 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 4 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. The input connections shall include Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The fixed I/O DSP shall provide 4 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 integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector for two lines of VoIP communication and shall support Session Initiation Protocol (SIP) v2.0 or later. The fixed I/O DSP shall integrate to standard telephony communications on a RJ-11 connector for a single line of telephone communication. 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® DAN VT4.

TESIRAFORTÉ DAN VT4 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 54dB gain, -50dBu input: < -75dB
THD+N (22Hz to 22kHz): 0dB gain, +4dBu input: < 0.006% 54dB gain, -50dBu input: < 0.040%	Sampling Rate: 48kHz
EIN (no weighting, 22Hz to 22kHz): < -125dBu	A/D - D/A Converters: 24-bit
Dynamic Range (in presence of signal) 22Hz to 22kHz, 0dB gain: > 108dB	Power Consumption: 100-240VAC 50/60Hz: < 35W
Input Impedance (balanced): 8kΩ	USB: Bit Depth: 16- or 24-bit Number of Channels: up to 8 Sample Rate: 48kHz
Output Impedance (balanced): 207Ω	Environment: Ambient Operating Temperature Range: 32-104° F (0-40° C) Humidity: 0-98%, non-condensing Altitude: 0-6,600 feet (0-2000 Meters) MSL
Maximum Input: +24dBu	Compliance: FCC Part 15B (USA) FCC Part 68 (USA) Industry Canada CS-03 (Canada) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	
Input Gain Range (6dB steps): 0-66dB	
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)	
Phantom Power: +48VDC (7mA/input)	

TESIRAFORTÉ DAN VT4 BACK PANEL



DATA SHEET

TESIRAFORTÉ® X 400

MEETING ROOM DSP



TesiraFORTÉ® X 400 is a meeting room DSP featuring multiple network and analog audio connection points, with 4 channels of Acoustic Echo Cancellation (AEC) assignable across any digital or analog input. Five 1 Gigabit Ethernet ports are provided, four of which are PoE+ powered, and all of which support media and control traffic of various types including AVB, Dante™, and VoIP.

A USB port also supports 1x1 mono or 2x2 stereo USB audio along with HID synchronization allowing the device to act as a conferencing audio peripheral to systems such as Biamp's Modena™ family or Unified Communications platforms.

Biamp Launch™ technology provides the capability for device discovery and tuning to be undertaken without the need for custom programming, and additionally provides the user with a full performance report of the space upon completion.

TesiraFORTÉ X 400 provides extensive audio processing, including but not limited to: AEC technology, signal routing and mixing, equalization, filtering, dynamics, and delay, as well as control, monitoring, and diagnostic tools. TesiraFORTÉ X 400 is auto-configurable using Biamp Launch but also allows users the option to manually override and completely customize its programming using Tesira software.

FEATURES

- Supports simultaneous operation of AVB, Dante, and AES67 digital audio networking protocols
- 2 mic/line level inputs, 2 mic/line level outputs
- Five 1 Gigabit Ethernet ports
- Four ports support PoE+ power (IEEE 802.3.at Class 4, 30W)
- Up to 2x2 channels of configurable USB audio
- 4 AEC channels assignable to any input
- 4-pin GPIO
- Surface mountable with included bracket
- Supports port authentication via IEEE 802.1X
- SIP VoIP interface via Gigabit Ethernet connection
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The Conference Room DSP shall support Ethernet connection for programming and control on a RJ-45 connector. The Conference Room DSP shall have internal DSP processing. The Conference Room 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 Conference Room DSP shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The Conference Room DSP shall be software configurable to stream up to 2 channels of digital USB Class 1 Audio transmission either into or out of the Conference Room DSP or simultaneous input and output. The Conference Room DSP shall support port authentication via IEEE 802.1X. The Conference Room DSP shall provide 2 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. Any network audio or analog audio connection may be assigned one of four channels of Acoustic Echo Cancellation (AEC). Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The Conference Room DSP shall provide 2 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 Conference Room DSP shall integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector and shall support Session Initiation Protocol (SIP) v2.0 or later. The Conference Room DSP shall be capable of being deployed with zero programming or manual tuning and shall provide a post-commissioning status report via the use of Biamp Launch technology. The Conference Room DSP shall 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 Conference Room DSP shall provide front panel LED identification of device power, status, alarm, and activity as well as system-wide alarm. The Conference Room DSP shall be surface mountable using the included mounting hardware. The Conference Room DSP shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The Conference Room DSP shall be TesiraFORTÉ® X 400.

TESIRAFORTÉ X 400 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:	< 150W
Output Impedance (balanced):	207Ω	USB: Bit Depth:	24-bit
Maximum Input:	+24dBu	Number of Channels:	up to 2x2
Maximum Output (selectable): +24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu		Sample Rate:	48kHz
Maximum Number of AVB Channels:	128x128	Environment: Ambient Operating Temperature Range:	32-104° F (0-40° C)
Maximum Number of AVB Streams:	64x64	Humidity:	0-98%, non-condensing
Maximum AVB Stream Passthrough:	150	Altitude:	0-6,600 feet (0-2000 Meters) MSL
Maximum Number of Dante Channels:	32x32	Compliance:	FCC Part 15B (USA) Canada ICES-003 (A) / NMB-003 (A) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
Maximum Number of Dante Flows:	32x32		
Input Gain Range (6dB steps):	0-66dB		
Overall Dimensions: Height:	1.47 inches (37.3 mm)		
Width:	8.11 inches (206 mm)		
Depth:	8.11 inches (206 mm)		
Weight:	1.9 lbs (0.86kg)		
Phantom Power:	+48VDC (7mA/input)		

TESIRAFORTÉ X 400 BACK PANEL



OPTIONAL ACCESSORIES

Accessory Pack



DATA SHEET

TESIRAFORTÉ® X 800

MEETING ROOM DSP



TesiraFORTÉ® X 800 is a meeting room DSP featuring multiple network and analog audio connection points, with 8 channels of Acoustic Echo Cancellation (AEC) assignable across any digital or analog input. Five 1 Gigabit Ethernet ports are provided, four of which are PoE+ powered, and all of which support media and control traffic of various types including AVB, Dante™, and VoIP.

A USB port also supports 1x1 mono or 2x2 stereo USB audio along with HID synchronization allowing the device to act as a conferencing audio peripheral to systems such as Biamp's Modena™ family or Unified Communications platforms.

Biamp Launch™ technology provides the capability for device discovery and tuning to be undertaken without the need for custom programming, and additionally provides the user with a full performance report of the space upon completion.

TesiraFORTÉ X 800 provides extensive audio processing, including but not limited to: AEC technology, signal routing and mixing, equalization, filtering, dynamics, and delay, as well as control, monitoring, and diagnostic tools. TesiraFORTÉ X 800 is auto-configurable using Biamp Launch but also allows users the option to manually override and completely customize its programming using Tesira software.

FEATURES

- Supports simultaneous operation of AVB, Dante, and AES67 digital audio networking protocols
- 2 mic/line level inputs, 2 mic/line level outputs
- Five 1 Gigabit Ethernet Ports
- Four ports support PoE+ power (IEEE 802.3.at Class 4, 30W)
- Up to 2x2 channels of configurable USB audio
- 8 AEC channels assignable to any input
- 4-pin GPIO
- Surface mountable with included bracket
- Supports port authentication via IEEE 802.1X
- SIP VoIP interface via Gigabit Ethernet connection
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The Conference Room DSP shall support Ethernet connection for programming and control on a RJ-45 connector. The Conference Room DSP shall have internal DSP processing. The Conference Room 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 Conference Room DSP shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The Conference Room DSP shall be software configurable to stream up to 2 channels of digital USB Class 1 Audio transmission either into or out of the Conference Room DSP or simultaneous input and output. The Conference Room DSP shall support port authentication via IEEE 802.1X. The Conference Room DSP shall provide 2 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. Any network audio or analog audio connection may be assigned one of eight channels of Acoustic Echo Cancellation (AEC). Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The Conference Room DSP shall provide 2 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 Conference Room DSP shall integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector and shall support Session Initiation Protocol (SIP) v2.0 or later. The Conference Room DSP shall be capable of being deployed with zero programming or manual tuning and shall provide a post-commissioning status report via the use of Biamp Launch technology. The Conference Room DSP shall 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 Conference Room DSP shall provide front panel LED identification of device power, status, alarm, and activity as well as system-wide alarm. The Conference Room DSP shall be surface mountable using the included mounting hardware. The Conference Room DSP shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The Conference Room DSP shall be TesiraFORTÉ® X 800.

TESIRAFORTÉ X 800 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:	< 150W
Output Impedance (balanced):	207Ω	USB: Bit Depth:	24-bit
Maximum Input:	+24dBu	Number of Channels:	up to 2x2
Maximum Output (selectable):	+24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	Sample Rate:	48kHz
Maximum Number of AVB Channels:	128x128	Environment: Ambient Operating Temperature Range:	32-104° F (0-40° C)
Maximum Number of AVB Streams:	64x64	Humidity:	0-98%, non-condensing
Maximum AVB Stream Passthrough:	150	Altitude:	0-6,600 feet (0-2000 Meters) MSL
Maximum Number of Dante Channels:	32x32	Compliance:	FCC Part 15B (USA) Canada ICES-003 (A) / NMB-003 (A) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
Maximum Number of Dante Flows:	32x32		
Input Gain Range (6dB steps):	0-66dB		
Overall Dimensions: Height:	1.47 inches (37.3 mm)		
Width:	8.11 inches (206 mm)		
Depth:	8.11 inches (206 mm)		
Weight:	1.9 lbs (0.86kg)		
Phantom Power:	+48VDC (7mA/input)		

TESIRAFORTÉ X 800 BACK PANEL



OPTIONAL ACCESSORIES

Accessory Pack



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TESDS-397-2104-EN-RI

DATA SHEET

TESIRAFORTÉ® X 1600

MEETING ROOM DSP



TesiraFORTÉ® X 1600 is a meeting room DSP featuring multiple network and analog audio connection points, with 16 channels of Acoustic Echo Cancellation (AEC) assignable across any digital or analog input. Five 1 Gigabit Ethernet ports are provided, four of which are PoE+ powered, and all of which support media and control traffic of various types including AVB, Dante™, and VoIP.

A USB port also supports 1x1 mono or 2x2 stereo USB audio along with HID synchronization allowing the device to act as a conferencing audio peripheral to systems such as Biamp's Modena™ family or Unified Communications platforms.

Biamp Launch™ technology provides the capability for device discovery and tuning to be undertaken without the need for custom programming, and additionally provides the user with a full performance report of the space upon completion.

TesiraFORTÉ X 1600 provides extensive audio processing, including but not limited to: AEC technology, signal routing and mixing, equalization, filtering, dynamics, and delay, as well as control, monitoring, and diagnostic tools. TesiraFORTÉ X 1600 is auto-configurable using Biamp Launch but also allows users the option to manually override and completely customize its programming using Tesira software.

FEATURES

- Supports simultaneous operation of AVB, Dante, and AES67 digital audio networking protocols
- 2 mic/line level inputs, 2 mic/line level outputs
- Five 1 Gigabit Ethernet ports
- Four ports support PoE+ power (IEEE 802.3.at Class 4, 30W)
- Up to 2x2 channels of configurable USB audio
- 16 AEC channels assignable to any input
- 4-pin GPIO
- Surface mountable with included bracket
- Supports port authentication via IEEE 802.1X
- SIP VoIP interface via Gigabit Ethernet connection
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The Conference Room DSP shall support Ethernet connection for programming and control on a RJ-45 connector. The Conference Room DSP shall have internal DSP processing. The Conference Room 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 Conference Room DSP shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The Conference Room DSP shall be software configurable to stream up to 2 channels of digital USB Class 1 Audio transmission either into or out of the Conference Room DSP or simultaneous input and output. The Conference Room DSP shall support port authentication via IEEE 802.1X. The Conference Room DSP shall provide 2 balanced input connections for receiving of microphone or line level analog audio signals on screw-down, removable connectors. Any network audio or analog audio connection may be assigned one of sixteen channels of Acoustic Echo Cancellation (AEC). Acoustic Echo Cancellation (AEC) hardware and firmware, the parameters, routing and operation of which shall be software programmable. The Conference Room DSP shall provide 2 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 Conference Room DSP shall integrate to Voice Over Internet Protocol (VoIP) systems on a RJ-45 connector and shall support Session Initiation Protocol (SIP) v2.0 or later. The Conference Room DSP shall be capable of being deployed with zero programming or manual tuning and shall provide a post-commissioning status report via the use of Biamp Launch technology. The Conference Room DSP shall 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 Conference Room DSP shall provide front panel LED identification of device power, status, alarm, and activity as well as system-wide alarm. The Conference Room DSP shall be surface mountable using the included mounting hardware. The Conference Room DSP shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The Conference Room DSP shall be TesiraFORTÉ® X 1600.

TESIRAFORTÉ X 1600 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:	< 150W
Output Impedance (balanced):	207Ω	USB: Bit Depth:	24-bit
Maximum Input:	+24dBu	Number of Channels:	up to 2x2
Maximum Output (selectable):	+24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu	Sample Rate:	48kHz
Maximum Number of AVB Channels:	128x128	Environment: Ambient Operating Temperature Range:	32-104° F (0-40° C)
Maximum Number of AVB Streams:	64x64	Humidity:	0-98%, non-condensing
Maximum AVB Stream Passthrough:	150	Altitude:	0-6,600 feet (0-2000 Meters) MSL
Maximum Number of Dante Channels:	32x32	Compliance:	FCC Part 15B (USA) Canada ICES-003 (A) / NMB-003 (A) CE marked (Europe) UL und C-UL listed (USA and Canada) RCM (Australia) RoHS Directive (Europe)
Maximum Number of Dante Flows:	32x32		
Input Gain Range (6dB steps):	0-66dB		
Overall Dimensions: Height:	1.47 inches (37.3 mm)		
Width:	8.11 inches (206 mm)		
Depth:	8.11 inches (206 mm)		
Weight:	1.9 lbs (0.86kg)		
Phantom Power:	+48VDC (7mA/input)		

TESIRAFORTÉ X 1600 BACK PANEL



OPTIONAL ACCESSORIES

Accessory Pack



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