# DATA SHEET
# TESIRAFORTÉ CI
# TESIRAFORTÉ AVB CI


The TesiraFORTÉ CI is a digital audio server 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 adds Audio Video Bridging (AVB) digital audio networking. The AVB model can be used as a standalone device or can be combined with other TesiraFORTÉ devices and Tesira servers, expanders, and controllers. 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.

## BENEFITS

- Allows integrators to choose which model works best for the installation environment.
- Application-specific models make system design, configuration, and installation easier and faster.
- Included default configuration file allows for plug-and-play usage.
- Highly scalable and cost-effective solution that can grow over time with the needs of the customer.
- Acoustic Echo Cancellation (AEC) technology on all 12 inputs.
- SpeechSense™ technologies to enhance speech processing.
- Integrates directly with soft codecs and other USB audio hosts.

## FEATURES

- 128 x 128 channels of AVB (AVB model only)
- 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
- Internal universal power supply
- Fully compatible with Tesira servers, endpoints, expanders, and controllers (AVB model)
- 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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# TESIRAFORTÉ AVB CI & TESIRAFORTÉ CI: EXTERNAL CODEC CONFERENCING SOLUTION

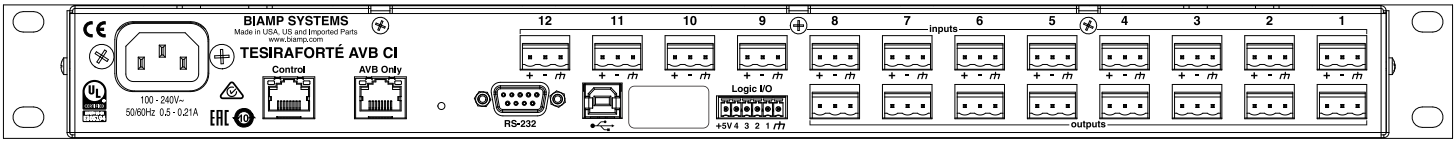
## ARCHITECTS & ENGINEERS SPECIFICATION

The digital audio network server shall be designed exclusively for use with Tesira systems. The AVB model server 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 on the AVB model. The server shall support Ethernet connection for programming and control on a RJ-45 connector. The server shall have internal DSP processing. The server 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 server shall include a RS-232 connection for control data transmission and such operation shall be software programmable. The server shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The server shall be software configurable to stream up to 8 channels of digital USB Audio Class 1 transmission either into or out of the server or simultaneous input and output. The server 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 server 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 server shall provide front panel OLED identification of server power, status, alarm, and activity as well as system-wide alarm. The server 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 server shall control and proxy all Tesira expander-class devices (AVB model only) and Tesira control devices. 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 TesiraFORTÉ AVB CI (for AVB model) or TesiraFORTÉ CI (for non-AVB model).

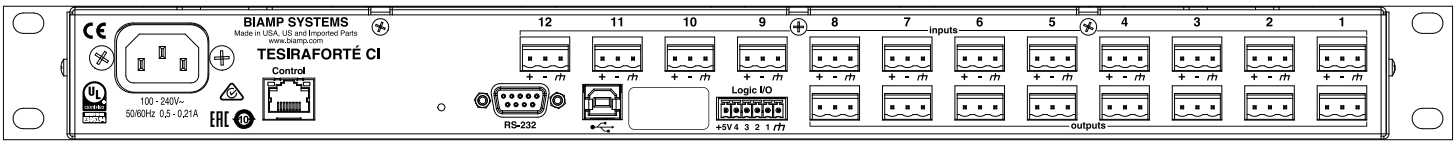
## SERVER SPECIFICATIONS

| | | | |
|---|---|---|---|
| **Frequency Response:**<br>20Hz to 20kHz ,+4dBu output | +0.25dB/-0.5dB | **Phantom Power:** | +48 VDC (7mA/input) |
| **THD+N (22Hz to 22kHz):**<br>0dB gain, +4dBu input<br>54dB gain, -50dBu input | <br>< 0.006%<br>< 0.040% | **Crosstalk, channel to channel, 1kHz:**<br>0dB gain, +4dBu input<br>54dB gain, -50dBu input | <br>< -85dB<br>< -75dB |
| **EIN** (no weighting, 22Hz to 22kHz): | < -125dBu | **Sampling Rate:** | 48kHz |
| **Dynamic Range** (in presence of signal):<br>22Hz to 22kHz, 0dB gain | > 108dB | **A/D – D/A Converters:** | 24-bit |
| **Input Impedance** (balanced): | 8kΩ | **Power Consumption**<br>(100-240VAC 50/60Hz): | < 35W |
| **Output Impedance** (balanced): | 207Ω | **USB:** | |
| **Maximum Input:** | +24dBu | **Bit Depth:**<br>**Number of Channels:**<br>**Sample Rate:** | 16- or 24-bit<br>up to 8<br>48kHz |
| **Maximum Output** (selectable): | +24dBu, +18dBu, +12dBu, +6dBu , 0dBu, -31dBu | **Compliance:** | FCC Part 15B (USA)<br>Industry Canada CS-03 (Canada)<br>CE marked (Europe)<br>UL and C-UL listed (USA & Canada)<br>RCM (Australia)<br>EAC (Eurasian Customs Union)<br>RoHS Directive (Europe) |
| **Input Gain Range:** (6dB steps): | 0dB to 66dB | | |
| **Overall Dimensions/Weight:** | Height: 1.75 inches (44 mm)<br>Width: 19.0 inches (483 mm)<br>Depth: 10.5 inches (267 mm)<br>Weight: 8 lbs (3.63 kg) | | |

## TESIRAFORTÉ AVB CI BACK PANEL




## TESIRAFORTÉ CI BACK PANEL



# DATA SHEET
# TESIRAFORTÉ DAN CI


The TesiraFORTÉ DAN CI is a digital audio server 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.

## BENEFITS

- Efficient system design, configuration, and installation with application-specific models
- Superior call quality with Acoustic Echo Cancellation
- Enhanced speech detection and processing
- Seamless integration with soft codec conferencing technologies via USB audio input
- Simpler installation process using the default configuration file

## FEATURES

- 32x32 channels of digital audio networking via the Dante protocol
- 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
- 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 digital audio network server shall be designed exclusively for use with Tesira systems. The server 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 server shall support Ethernet connection for programming and control on a RJ-45 connector. The server shall have internal DSP processing. The server 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 server shall include a RS-232 connection for control data transmission into or out of the server and such operation shall be software programmable. The server shall include a Universal Serial Bus (USB) connection on a standard USB-B type connector. The server shall be software configurable to stream up to 8 channels of digital USB Class 1 Audio transmission either into or out of the server or simultaneous input and output. The server 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 server 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 server shall provide front panel OLED identification of server power, status, alarm, and activity as well as system-wide alarm. The server 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 server shall be CE marked, UL listed and shall be compliant with the RoHS directive. Warranty shall be five years. The server shall be TesiraFORTÉ DAN CI.

## SERVER SPECIFICATIONS

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|---|---|
| **Frequency Response:** | |
| 20Hz to 20kHz ,+4dBu output | +0.25dB/-0.5dB |
| **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): | 0dB to 66dB |
| **Overall Dimensions/Weight:** | Height: 1.75 inches (44 mm)<br>Width: 19.0 inches (483 mm)<br>Depth: 10.5 inches (267 mm)<br>Weight: 8 lbs (3.63 kg) |

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| **Phantom Power:** | +48 VDC (7mA/input) |
| **Crosstalk, channel to channel, 1kHz:** | |
| 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 |
| **Compliance:** | FCC Part 15B (USA)<br>Industry Canada CS-03 (Canada)<br>CE marked (Europe)<br>UL and C-UL listed (USA & Canada)<br>RCM (Australia)<br>RoHS Directive (Europe) |

## TESIRAFORTÉ DAN CI BACK PANEL