

Voltera D M A&E Specifications

Voltera D M: The amplified loudspeaker controller shall be available in five models: 600W 4-channel, 1200W 2-channel, 1200W 4-channel, 2400W 2-channel, and 2400W 4-channel configurations. The device shall feature a fully programmable DSP onboard with sufficient headroom to handle complex audio processing and distribution needs.

The amplified loudspeaker controller shall operate from 100V - 240V, 50/60 Hz AC input power. The power supply shall integrate high efficiency and low idle power consumption features.

The device shall be equipped with a detachable 3-pin IEC C14 inlet for C13 cables. The amplified loudspeaker controller shall have internal heat sinks cooled by variable speed fans with front to back airflow. The controller shall be able to drive both low impedance loads (2.7/4/8/16 Ohm) and 70V/100V distributed lines, selectable per channel. It shall provide power sharing capabilities of up to 83% of the total power on any channel (75% for 4-channel models).

The amplified loudspeaker controller shall contain a DSP board for real-time audio processing with a fixed latency of 2.65 ms (including look-ahead delay in zero overshoot peak limiters). The DSP shall offer comprehensive processing capabilities including 2048 tap FIR, 24 biquads, dynamic EQ, and peak, program, and thermal limiters with side chains.

The device shall support audio via AVB, Dante, and AES67 protocols. Network connectivity shall be provided by two 1000Base-T ports, supporting converged or split network modes. The amplified loudspeaker controller shall be remotely controllable and monitored via proprietary software (Tesira or VenueTune) running on an external PC.

The amplified loudspeaker controller shall support failover to analog processes. It shall provide control and monitoring I/O including mute all channels (input), health (output), sleep mode status (output), and sleep mode (input). Additionally, it shall feature 4 programmable GPIO pins for logic/voltage control.

The front panel shall provide bi-directional locate functionality, system status indicator, device status indicators, and channel status indicators for mute, signal, limit, and temperature.

The amplified loudspeaker controller shall have a dynamic range of 117 dB and a frequency response of +/-0.5 dB (20 - 20000 Hz, 8 ohm, unweighted). Total Harmonic Distortion plus Noise (THD+N) shall be less than 0.05% at 1000 Hz, 1 dB below maximum output and less than 0.05% from 20 - 20000 Hz for 1 W output.

The device shall measure 1.7 x 17.5 x 16.9 inches H x W x D (44 x 444 x 430 mm) rack rail to rear panel and weigh between 16.8 lbs (7.6 kg) and 17.2 lbs (7.8 kg) depending on the model. It shall be designed for rack mounting, occupying 1 RU, and shall include a rear support kit for 19" rack mounting.

The amplified loudspeaker controller shall be capable of operating in temperatures ranging from 32-104°F (0-40°C) and relative humidity of 0-95% non-condensing at altitudes from 0 - 2000 m (0-6562 ft).

The amplified loudspeaker controller shall be the Voltera D M series as manufactured by Biamp Systems, LLC.