

DATA SHEET

VOLTERA D M

AMPLIFIED LOUDSPEAKER CONTROLLER



Voltera D M series amplified loudspeaker controllers are designed to meet the most demanding audio processing and distribution needs. They support both Audio Video Bridging (AVB) and Dante for digital audio networking and can be used as a standalone device or combined with other Tesira devices, such as expanders and controllers. Equipped with advanced digital signal processing capabilities, Voltera D M offers extensive audio processing functions, including but not limited to signal routing and mixing, equalization, filtering, dynamics, and delay, all configured through Tesira configuration software. The integration of these features reduces wiring and device count, streamlining installations and lowering project costs while providing robust control, monitoring, and diagnostic tools.

Available in 600W 4 channel, 1200W 2 channel, 1200W 4 channel, 2400W 2 channel, and 2400W 4 channel, all models of the Voltera D M provide high power and channel density while maintaining high efficiency and low idle power. They are capable of high peak voltage output and can deliver up to 83% of the total power on any channel using power sharing. They also offer both Lo-Z or Hi-Z per channel to support hybrid systems.

FEATURES

- The ALAMOS loudspeaker profile library, with nearly 700 unique profiles covering over 200 Biamp models, streamlines commissioning when using Tesira or VenueTune software
- Powerful onboard DSP with ample headroom
- Network audio interface (AVB, Dante, and AES67)
- Lo-Z or Hi-Z per channel to support hybrid systems
- Configurable with Tesira or VenueTune software
- Power sharing up to 83% (the 4-channel models are limited to 75%) of the total power into any channel
- Wide dynamic range
- Low power consumption during use, idle, and standby
- Limiting for maximum reliability and zero clipping
- High peak voltage output capability (up to 160Vpk)
- High power and channel density

VOLTERA D M SPECIFICATIONS

Model	D 1200.2M	D 2400.2M	D 600.4M	D 1200.4M	D 2400.4M
General					
Number of amplifier channels	2	2	4	4	4
Total output all channels driven	1200 W	2400 W	600 W	1200 W	2400 W
Maximum output voltage	145 Vpk	160 Vpk	145 Vpk	145 Vpk	160 Vpk
Maximum output current	35 Apk	40 Apk	23 Apk	29 Apk	40 Apk
Power per channel all channels driven					
Hi-Z (70 / 100 V)	600 W	1200 W	150 W	300 W	600 W
16 ohm	600 W	1200 W	150 W	300 W	600 W
8 ohm	600 W	1200 W	150 W	300 W	600 W
4 ohm	600 W	1200 W	150 W	300 W	600 W
2.7 ohm	600 W	1200 W	150 W	300 W	600 W
Max power per channel using power sharing¹					
Hi-Z (70 / 100 V)	1000 W	2000 W	450 W	900 W	1800 W
16 ohm	650 W	800 W	450 W	650 W	800 W
8 ohm	1000 W	1600 W	450 W	900 W	1600 W
4 ohm	1000 W	2000 W	450 W	900 W	1800 W
2.7 ohm	1000 W	1360 W	450 W	710 W	1360 W
¹ Available on any channel					
Network					
Ports	2 1000Base-T ports				
Networked media formats supported	Dante, AES67 and AVB				
Network modes supported	Converged (all on port 2) or split (control port 1, media port 2)				
PoE+ support	If port 1 is connected to a PoE+ switch with a UPS, then the Voltera D will not reboot when mains power is lost				
Network latency	AVB: 2 ms, Dante : 1 / 2 ms				
Sample rates supported	96 and 48 kHz				
Remote interface	Tesira, VenueTune				
Third party interface	TTP				
Processing					
Latency (analog input to output)	2.65 ms (includes look-ahead delay in zero overshoot peak limiters)				
Default gain (analog input to output)	29 dB				
Per input	Supports input redundancy and failover to analog sources Multilayered group control of raised cosine EQ, gain, delay (≤ 2 s), polarity and mute				
Per output	Very comprehensive processing supporting loudspeaker profiles including <ul style="list-style-type: none"> • 2048 tap FIR, 24 biquads • Dynamic EQ • Peak, program and thermal limiters with side chains 				
Startup time with PoE+	<1 s				
Audio performance					
THD+N (1000 Hz, at 1 dB below max output)	<0.05%				
THD+N (20 - 20000 Hz for 1 W)	<0.05%				
Frequency response	+/-0.5 dB (20 - 20000 Hz, 8 ohm, unweighted)				
Channel separation (crosstalk at 1 kHz)	>70 dB				
Dynamic range	117 dB				
Back panel interface					
Control and monitoring IO	Mute all channels (input), Health (output), Sleep mode status (output), Sleep mode (input)				
Programmable GPIO	4 logic/voltage control pins, defined using Tesira software				
Analog input connectors	3-pin terminal block connectors with 0.15" (3.81 mm) pitch				
Output connectors	2-pin terminal block connectors rated for 41 Arms. Can take up to 8 mm ² (8.2 AWG) cables				
Detachable mains connector	3-pin IEC C14 inlet for C13 cables				
Front panel interface					
NFC status reading	Tamper proof design				
Locate	Extensive status and network information can be read with a phone via NFC				
System status indicator	Bi-directional locate functionality				
Device status indicators	Shows if there are faults within the greater system				
Channel status indicators	Status, activity and faults				
	Mute, signal, limit and temp				
Power and environmental					
Cooling	Variable speed fans, front to back airflow				
Operating temperature	32-104F (0-40C)				
Relative humidity	0-95% non-condensing altitude 0 - 2000 m (0-6562 ft)				
Nominal Voltage	100-240 VAC, 50/60 Hz				
Mechanical					
HxWxD (rack rail to rear panel)	1.7 x 17.5 x 16.9 inches (44 x 444 x 430 mm)				
Weight	16.8 lbs (7.6 kg)	17 lbs (7.7 kg)	17 lbs (7.7 kg)	17 lbs (7.7 kg)	17.2 lbs (7.8 kg)
Included accessories	Rear support kit for 19" 1 RU mount				

¹The power ratings for 2.7 ohm are reduced to guarantee that the same voltage can be delivered in impedance dips that are 25% lower. As an example: 1200 W into 2.7 ohm is 80 Vpk, which into impedance dips of 2 ohm (75% of 2.7 ohm) resulting in extremes with 40 Apk and a burst power of 1600 W.

The power figures are measured using a 25 ms burst repeated every 400 ms with a sustained average at 1/8th power (i.e. a 12 dB crest factor)

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