



# Dolby® Multichannel Amplifier



The Dolby® Multichannel Amplifier is an advanced, high-density design that can replace up to 16 stereo amplifiers. With less equipment to install, power, and maintain, you get a simpler and more efficient installation. The Dolby Multichannel Amplifier is available in three configurations, with 16 channels (DMA16300), 24 channels (DMA24300) or 32 channels (DMA32300). The Class D amplification topology is designed to deliver high-performance audio quality on every channel.

The Dolby Multichannel Amplifier is designed for reliability. It includes a custom-built power supply with built-in redundancy, power sharing, operational monitoring, and fault detection. The Dolby Multichannel Amplifier power supply enables the system to operate from a 100 to 240 VAC, 20 amp service without tripping the AC mains circuit breaker. The Dolby Multichannel Amplifier automatically detects maximum and net power availability, as well as certain operational and environmental conditions, and adjusts channel gains based on power supply conditions, load conditions, and fault conditions.

## DOLBY MULTICHANNEL AMPLIFIER FEATURES

- Available in three configurations (16, 24, or 32 channels)
- 4U rackmount chassis
- 300 W per channel at 8Ω
- 600 W two-channel bridge mode at 8Ω
- Universal power supply 100 to 240 VAC
- Custom-built power supply with built-in redundancy
- Web-based UI for easy access from anywhere on the theatre network
- Front-panel status/signal presence LEDs
- Long and short rack rail kits



# DOLBY MULTICHANNEL AMPLIFIER

## INPUTS and OUTPUTS

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- 1 x GB Ethernet (1000Base-T/RJ-45)
- 2 x Ethernet (Dolby Atmos® Connect/RJ-45)
- 8, 12, or 16 high-voltage/current terminal block outputs (accepting 8 to 24 AWG loudspeaker wire)
- Front-panel USB 2.0 port for alternative maintenance functions

## ACCESSORIES

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- Cat1140: Long rack rail kit
- Cat1240: Short rack rail kit
- DMA-ACC-US accessory kit (domestic US)
- DMA-ACC-CN accessory kit (China)
- DMA-ACC-ROW accessory kit (rest of world)

## CONTROL AND MONITORING

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- Web-based user interface
- SNMP
- API documentation available on request

## POWER

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- AC inlet IEC 320-C20 20 A maximum
- 100 to 240 VAC, 50 to 60 Hz

## PHYSICAL

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- Dimensions (product): 48.3 x 17.7 x 56.3 cm (19 x 7 x 22 in)
- Dimensions (shipping): 61 x 30.5 x 72.4 cm (24 x 12 x 28.5 in)
- Weight (product): 28.12 kg (62 lb)
- Weight (shipping): 32.65 kg (72 lb)

## AC LINE CURRENT DRAW AND THERMAL DISSIPATION SPECIFICATIONS

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### Notes:

1. Pink noise stimulus with 12 dB crest factor, band-limited 20 Hz to 20 kHz.
2. Data based on all driven channels.
3. Full power: 32 channels at 300 Wrms per channel (same net power for bridged mode; 16 channels at 600 Wrms per channel).
4. Specifications for the DMA3200 are based on laboratory measurements and should be considered typical values, as they do not constitute absolute limits.
5. Specifications for the DMA24300 and DMA16300 are mathematically derived from the laboratory measurements made on the DMA3200.
6. 120 VAC 1/4 power pink noise tests on the DMA3200 and DMA2400 are limited by duration due to AC mains breaker rating. Amplifier output limiting occurs to reduce current draw.



**DMA32300**

Output Level	Load	Output Configuration	120 VAC			208 VAC			230 VAC		
			Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour
Idle	-	-	2.1	227	775	1.5	227	775	1.5	227	775
1/8 power pink noise	4Ω	Normal	15.2	576	1,965	8.8	548	1,870	7.8	540	1,843
	8Ω	Normal	15.1	567	1,935	8.6	525	1,791	7.7	518	1,767
	8Ω	Bridged	15.7	631	2,153	8.8	550	1,877	8.1	606	2,068
1/4 power pink noise	4Ω	Normal	See Note 6			15.9	859	2,931	14.5	816	2,784
	8Ω	Normal				15.1	701	2,392	13.8	646	2,204
	8Ω	Bridged				16.4	950	3,242	14.8	898	3,064

**DMA24300**

Output Level	Load	Output Configuration	120 VAC			208 VAC			230 VAC		
			Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour
Idle	-	-	1.8	196	689	1.5	196	669	1.4	196	669
1/8 power pink noise	4Ω	Normal	11.4	432	1,474	6.6	411	1,402	5.9	405	1,382
	8Ω	Normal	11.3	425	1,451	6.5	394	1,344	5.8	389	1,326
	8Ω	Bridged	11.8	473	1,615	6.6	413	1,408	6.1	455	1,551
1/4 power pink noise	4Ω	Normal	See Note 6			11.9	644	2,198	10.9	612	2,088
	8Ω	Normal				11.3	526	1,794	10.3	485	1,653
	8Ω	Bridged				12.3	713	2,431	11.1	674	2,298

**DMA16300**

Output Level	Load	Output Configuration	120 VAC			208 VAC			230 VAC		
			Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour	Line Current (A,rms)	Dissipated Power (Watts,rms)	BTU /Hour
Idle	-	-	1.5	152	519	1.3	152	519	1.3	152	519
1/8 power pink noise	4Ω	Normal	7.7	291	993	4.4	277	944	4.0	273	930
	8Ω	Normal	7.6	286	977	4.4	265	905	3.9	262	893
	8Ω	Bridged	7.9	319	1,087	4.4	278	948	4.1	306	1,044
1/4 power pink noise	4Ω	Normal	14.3	408	1393	8.0	434	1,480	7.3	412	1,406
	8Ω	Normal	13.3	322	1100	7.6	354	1,208	7.0	326	1,113
	8Ω	Bridged	14.3	408	1393	8.3	480	1,637	7.5	453	1,547



# DOLBY MULTICHANNEL AMPLIFIER

## AUDIO SPECIFICATIONS

Parameter	Typical Performance Specification			Measurement Notes
	Unbridged	Bridged		
Power output rating	300 watts	600 watts	8Ω	<b>Dolby Power Amplifier Rating Specifications:</b> 1: Burst 1 kHz for 20 ms, 10 kHz for 10 ms, half channels driven 2: Short term 20 Hz, 1 kHz, and 20 kHz at -1 dB for five seconds, quarter channels driven 3: Long term 1/8 power pink noise for one hour, all channels driven
	300 watts	NA	4Ω	
THD+N (1 kHz)	0.004% to 0.009%		8Ω	1 dB below rated power, AES-17 20 kHz LPF, 2 adjacent channels driven
	0.009% to 0.02%		4Ω	
THD+N (20Hz to 20 kHz)	0.05%		8Ω	
	0.20%		4Ω	
Frequency response	20 Hz to 20 kHz, +0.4/-0.2 dB		8Ω	
Intermodulation distortion ratio (SMPTE 4:1)	0.05%			1 dB below rated power, SMPTE 4:1 60 Hz and 7 kHz, AES17 20 kHz lowpass filter
Signal-to-noise ratio	109 dB			A-weighted, AES17 20 kHz lowpass filter
Channel separation (crosstalk)	70 to 90 dB		8Ω	Depending upon channel utilization, measured at 1 kHz
DC offset	<±5 mV			
Output impedance	44 mΩ			
Damping factor	180		8Ω	Measured 20 Hz to 1 kHz

Note: These specifications provide typical values and do not represent absolute limits.

Specifications are subject to change without notice.

### PATENTS

This product may be protected by patents and pending patent applications in the United States and elsewhere. For more information, including a specific list of patents protecting this product, please visit <http://www.dolby.com/patents>.

### PRODUCT MODEL

This documentation applies to Model CID1001.

