Dolby Multichannel Amplifier

Dolby Multichannel Amplifier

Save space. Reduce heat. Amplify sound.

- The Dolby® Multichannel Amplifier is an advanced, high-density design that can **replace up to 16 stereo amplifiers.** Its Class D amplification topology is designed to deliver high-performance audio quality on every channel.

- With less equipment to install, power, and maintain, you get a **simpler and more efficient installation**

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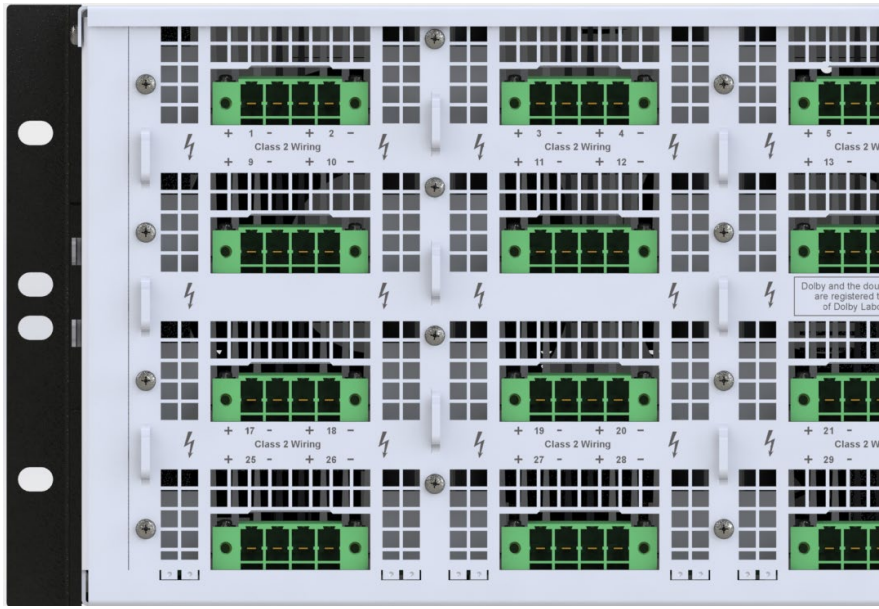


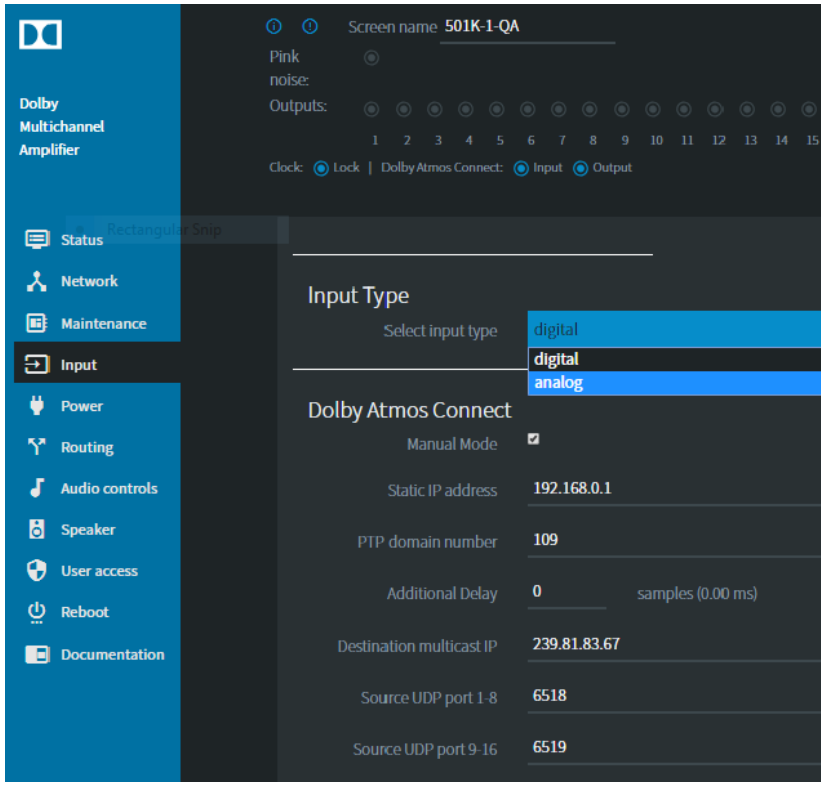
Available in three configurations

DMA16302 - 16 channels
DMA24302 - 24 channels
DMA32301 - 32 channels

The 16 DMA16302 and DMA24302 configurations provide an **8-channel analog** input module that allows direct integration with both, legacy Dolby cinema processors, and other cinema processors used in 5.1/7.1 surround sound installations.

Dolby Multichannel Amplifier

Designed for reliability



The Dolby Multichannel Amplifier is designed for reliability. It includes a custom 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 main 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, load and fault conditions. A **web-based UI** is available for easy **access from anywhere on the theater network.**

Dolby Multichannel Amplifier

Info from just a glimpse

The **front-panel LEDs** specify whether audio is present on the amplifier outputs of the various channels.

For amplifier models using the analog inputs, green LEDs illuminate to show input signal. The LED indicators also alert you to bad speaker status (short circuit, open circuit, clipping) or amplifier hardware issues/ If there is a problem with the speakers, wiring, or the amplifier, this can be easily noticed from a distance in the projection room.

Dolby Multichannel Amplifier

Simple and easy maintenance

The illuminated power button offers information regarding **various amplifiers states** and can even indicate critical power or thermal faults.

The USB port provides you with the capability of performing **alternative maintenance procedures** such as; backup, system restore, upgrade and extract logs while flashing in blue to indicate USB access and activity on this port.

Dolby Multichannel Amplifier

With an eye toward sustainability

In late 2017 Dolby introduced the first version of the Dolby Multichannel Amplifier (DMA) to the cinema market. The design of our amplifier was modeled around **lowering electrical usage and sharing power between several speakers.** We accomplished this by offering 16-, 24-, or 32-channel digital amplifiers replacing large numbers of 2 or 4 channel analog amplifiers. Instead of using "off the shelf" inefficient power supplies that drive a small number of speakers, Dolby designed its own high efficiency power supply that regulates power to multiple speakers as needed. When not in use, the DMA draws very little power when compared to the draw on conventional amplifiers at idle, ensuring a lower energy bill.

An example from one exhibitor observed an **85% reduction in energy used** from widely deployed analog stereo amplifiers. Their testing showed that when driving 32 loudspeaker channels, a standard amplifier used 40.16kW per hour (14,658.4 kW per year) versus the Dolby Multichannel Amplifier DMA32301 using 5.57 kW per hour (2,449.15 kW per year). **The financial savings per year, using this example, would be roughly $3,000 per screen** based on a $0.20 per kW price. Extend that savings to the entire complex for a **major reduction of operating expenses**.

An additional benefit from the DMA series amplifiers over the analog competitors is the **significant reduction in heat** produced in the Dolby amplifier (Class D) versus common analog amplifiers (Class A or A/B). One customer advised that by installing DMA amplifiers, the **building's heat index was reduced** to the point where they could install ½ ton air-conditioning units as opposed to a 1-ton units to cool the projection room.

Dolby Multichannel Amplifier

Dolby Multichannel Amplifier features

- Available in three configurations (16, 24, or 32 channels)
- Universal power supply 100 to 240 VAC
- Custom power supply with built-in redundancy
- Internal crossovers and signal processing to improve your cinema's sound
- Web-based UI for easy access from anywhere on the theatre network
- 4U rackmount chassis
- Front-panel status/signal presence LEDs
- Long and short rack rail kits available to fit your installation
- Easily integrates with both legacy Dolby cinema processors, and other cinema processors used in 5.1/7.1 surround sound installations.

Dolby Multichannel Amplifier

Specifications

I/Os

- 1 × GB Ethernet (1000Base-T/RJ-45)
- 2 x Ethernet (Dolby Atmos Connect/RJ-45)
- Compatible with 3rd-party AES67 analog input devices*
- 8, 12, or 16 high-voltage/current terminal block outputs (accepting 8 to 24 AWG loudspeaker wire)
- 8-channel analog input (25-pin DB25, female) (DMA16302 and DMA24302)

Accessories

- CAT1140 – long rack rail kit (26" – 36" depth)
- CAT1240 – short rack rail kit (19" – 26" depth)
- DMA-ACC-US accessory kit (domestic U.S.)
- DMA-ACC-CN accessory kit (China)
- DMA-ACC-ROW accessory kit (rest of world)
- DMA-ACC-TW accessory kit (Taiwan)
- DMA-ACC-IN accessory kit (India)
- DMA-ACC-YAM-ADC - Cable to connect CP750 to Yamaha ADC
- DMA-ACC-ANA-CBL - Cable to connect CP750 to DMA

Output Mode	Speaker Impedance	Output Power
Stereo Output Mode	2 Ω	600 W
	4 Ω	600 W
	8 Ω	300 W
Bridged Output Mode	4 Ω	1100 W
	8 Ω	1100 W

User access/monitoring:

- Web-based user interface
- SNMP

Electronic specifications

- 100 to 240 VAC, 50 to 60 Hz
- 20 Amp maximum
- AC inlet (plug) IEC 320-C20

Unit dimensions:

- 19"W x 7"H x 22"L (48.3 x 17.7 x 56.3 cm)

Shipping dimensions:

- 26"W x 14.2"H x 31.5"L (66 x 36 x 80 cm)

Unit weights:

- DMA16302 – 60.4 lbs. (27.39 kg)
- DMA24302 – 65.0 lbs. (29.48 kg)
- DMA32301 – 69.6 lbs. (31.57 kg)

Shipping weights:

- DMA16302 - 72.8 lbs. (33 kg)
- DMA24302 - 77.2 lbs. (35 kg)
- DMA32301 - 80 lbs. (36 kg)

*Yamaha Tio1608-D I/O box
Specifications are subject to change without notice.
This documentation applies to Model CID1001

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