

D2Audio™ GM100 and GM50

100 & 50 watts per channel digital amplifier modules for manufacturers of multi-room distributed audio systems

Fully self-contained amplifier module enables rapid system design

The GM100 and GM50 each contain a high-performance digital switching controller, high-voltage drivers and MOSFET output stages, and a high quality output filter stage. The entire module is encased in an EMI-shielded package and tested to be compliant with FCC, UL, CSA, and CE regulations. Pin compatibility across modules allows multiple SKUs from one design.

Excellent sound quality

The GM100 and GM50 deliver full power per channel into an 8-ohm load with all channels driven per FTC specifications. They achieve a signal-to-noise ratio (SNR) of over 90 dB and a THD+N of less than 0.15% for full bandwidth amplification. The amplifiers are musically smooth and clean.

90% efficiency reduces heat for 66% less rack space and minimal cabinet venting

Because of the extreme efficiency, almost no heat is generated minimizing the need to provide large racks and to vent equipment closets.

Configurable audio processing

These modules contain a signal processor for EQ, treble, bass, volume control, cross-over, and dynamic range compression and limiting. Configuration and operation are controlled over a standard two-wire serial interface. This can be accomplished using a host microcontroller or a remote PC/Windows graphical user interface (GUI).

Pure digital path plus analog inputs

The GM100 and GM50 are true digital amplifiers offering both analog audio and I²S digital audio inputs for the most flexible system architectures. The module supports up to eight channels of high-performance analog audio and 24-bit digital I²S audio inputs at sample rates up to 192 kHz.

Protection and graceful recovery from short-circuit, thermal and over-current fault conditions

8-, 6-, and 4-zone configurations

Product	Zones	Channels	Stereo Sources
2 x GM100-8	8	16	8
2 x GM100-6	6	12	6
1 x GM100-8	4	8	4

2 x GM50-8	8	16	8
2 x GM50-6	6	12	6
1 x GM50-8	4	8	4



Technical Specifications

Power

- GM100: 100 watts/channel into 8 ohms (FTC)
- GM50: 50 watts/channel into 8 ohms (FTC)
- Full-bridge output configuration
- 6 & 8 channel options
- 2x power into 4 ohms by paralleling outputs
- 4x power into 2 ohms by paralleling outputs

THD+N

- (rated power into 8 ohms, 1 kHz)
- <0.15%

Power Bandwidth

- (rated power into 8 ohms)
- 20 Hz - 20 kHz, +/- 0.5 dB

Signal-to-Noise Ratio (SNR)

- >90 dB

Efficiency

- >90%

Audio Input

- 24-bit I²S digital inputs
- 32 kHz to 192 kHz sample rates
- 8 analog inputs

Audio Signal Processing

- Volume Control
- Bass/Treble Tone Control
- Compressor/Limiter
- Channel Mapping/Mixing
- Crossovers

Amplifier Control

- Two-wire serial interface

Dimensions

- 4.28 x 6.8 x 2.04 in
- 10.87 x 17.27 x 5.18 cm

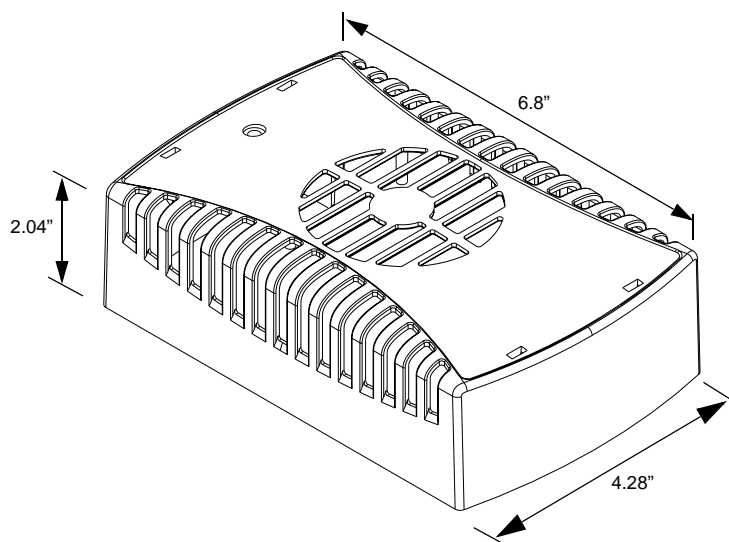
Weight

- <2.2 lbs (1 kg)

Agency Tests

- Tested for compliance with FCC Class B, UL, CSA, CE

Dimensions



Block Diagram

