

D2Audio™ GR100

100 watts per channel digital amplifier module
for manufacturers of home theater receivers

Fully self-contained amplifier module enables rapid system design

The GR100 contains 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 for high performance audio systems

The GR100 drives 100 watts per channel into an 8-ohm load with all channels driven per FTC specifications. It achieves a signal-to-noise ratio (SNR) of over 90 dB and a THD+N of less than 0.15% for full bandwidth amplification. The amplifier is musically smooth and clean.

90% efficiency reduces heat. Enables thin, elegant system industrial design

The GR100 also includes an internal heat sink and fan to dissipate heat. The low-speed fan is ultra-quiet and is turned on only under extreme thermal conditions.

Configurable audio processing

The GR100 contains a signal processor to handle EQ, treble, bass, volume control, cross-over, and dynamic range compression and limiting. Configuration and operation of the audio signal processor is 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

The GR100 is a true digital Class D amplifier, eliminating the need for any digital-to-analog conversion in the audio signal chain. The module supports up to eight channels of 24-bit digital I²S audio input at sample rates up to 192 kHz.

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

Multiple SKUs for 7.1, 6.1, and 5.1 formats

GR100 Family	Channels	Total Power
GR100-8	8	800W
GR100-7	7	700W
GR100-6	6	600W
GR100-5	5	500W



Technical Specifications

Power

- 100 watts/channel into 8 ohms (FTC)
- Full-bridge output
- 5, 6, 7, & 8 channel options

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

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

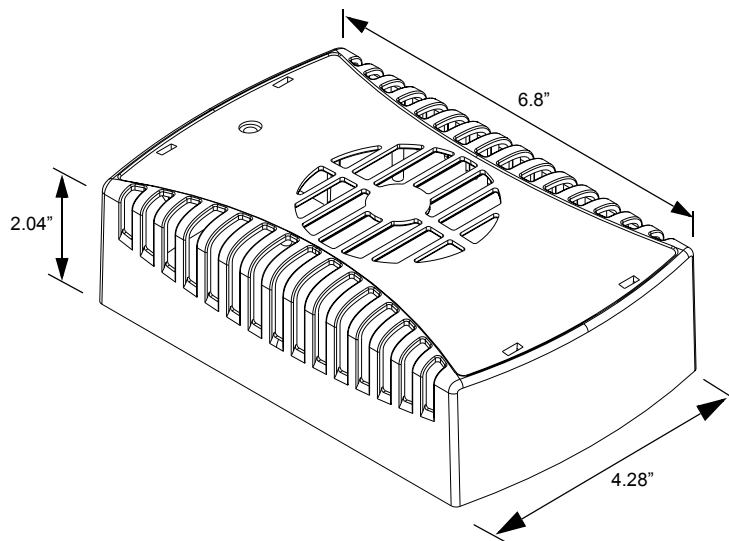
Weight

- <2.2 lbs (1 kg)

Agency Tests

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

Dimensions



Block Diagram

