

PRO 2|30 EVO

TECHNICAL DATA SHEET

HI-END stereo Class D power amplifier

550 W × 2 / 4 Ω 825 W × 2 / 2 Ω
1650 W × 1 bridged / 4 Ω
2500 W × 1 at 2 Ω (maximum power)

FEATURES

- HI-END Class D power amplifier.
- Synchronized digital architecture for high-performance automotive audio.
- Class D output-stage switching frequency: 500 kHz.
- Stereo and bridged output configurations.
- Independent input sensitivity adjustment for each channel via DIP switch.
- Temperature-dependent fan control and thermal shutdown protection.
- Four-layer FR4 PCB with 70 µm copper and a gold surface finish.
- Perfectly matched for use with Mosconi DSPs.

POWER SUPPLY

Supply voltage	10–16 V
DC-DC converter topology	Unregulated push-pull, 50 kHz
On-board fuse	1 × 150 A
Standby current	< 2 mA
Overall efficiency	81% (stereo, 4 Ω); 72% (stereo, 2 Ω / bridged, 4 Ω)

OUTPUT

Stereo RMS power at 4 Ω	550 W × 2 (73.5 A)
Stereo RMS power at 2 Ω	825 W × 2 (145 A)
Bridged RMS power at 4 Ω	1650 W × 1 (145 A)
Maximum bridged power at 2 Ω	2500 W × 1 (maximum power)

Current draw shown in parentheses.

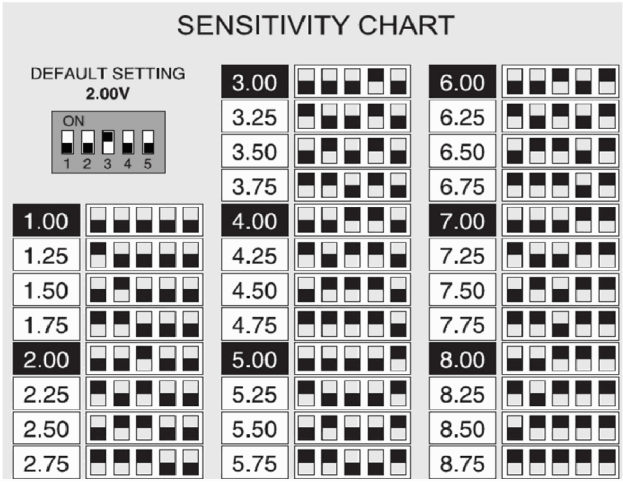
SIGNAL INPUT

Low-level input sensitivity	1–8.75 V
Sensitivity adjustment	32 settings via DIP switch Independent for each channel
Input impedance	20 kΩ

CONNECTIONS

Power supply	Gold-plated terminal block
Speaker output	Gold-plated terminal block
Signal input	2 gold-plated RCA connectors

*SENSITIVITY SETUP



CEA-2006-A SPECIFICATIONS

Rated output power	550 W × 2 at 14.4 V, 4 Ω, < 1% THD+N
S/N ratio	> 74 dBA (ref. 1 W at 14.4 V, 4 Ω)

THD

THD at 4 Ω, stereo	< 0.05% (1 kHz, 90% rated power)
THD at 2 Ω, stereo	< 0.05% (1 kHz, 90% rated power)

OTHER ELECTRICAL CHARACTERISTICS

Mute delay	3 s
Secondary voltages (VDD / SERV)	±71.6 V / ±15.6 V
Idle current (no signal, 14.4 V)	4.5 A
Thermal shutdown current	0.2 A
Battery-to-secondary ground decoupling	1 kΩ
Battery-to-chassis ground decoupling	100 mA PTC (approx. 7 Ω)
Bandwidth (−3 dB at 1 W)	20 Hz–20 kHz
S/N ratio (10 Hz–22 kHz, ref. rated power)	100 dB (A-weighted)
Equivalent input noise (10 Hz–22 kHz)	< 8 µV (A-weighted)
Channel separation (ref. 10 W)	> 65 dB
Fan on/off temperature	50 / 45 °C
Thermal shutdown/restart	90 / 70 °C
Damping factor at 4 Ω	> 100
Start-stop operation	Down to 7.5 V for up to 300 ms
Microcontroller	Atmel processor

PCB

Base material	FR4 (135 °C)
Solder mask	Matte black
Number of layers	4
Copper thickness	70 µm
Surface finish	Gold

APPEARANCE

Dimensions	500 × 205 × 55 mm
Weight	5.0 kg
Finish	Black / Titanium

NOTE: this amplifier is designed to play music on real speakers. It is not rated to drive static signals on pure resistive loads. Data is subject to change without notice.