

DigiMod 1500

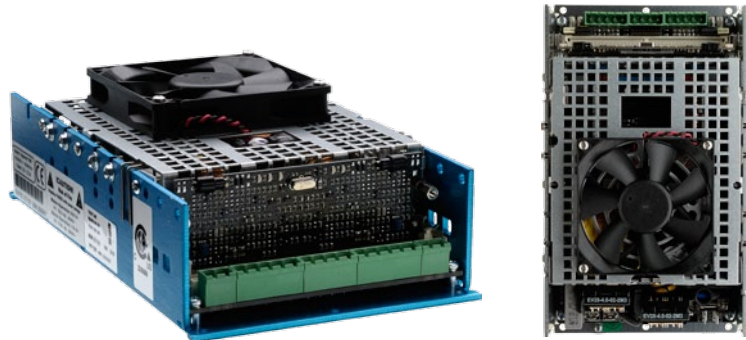
High Efficiency 2-Channel Class-D Amplifier Module for Professional Applications



DigiMod 1500 is a class-D amplifier module delivering up to 1500 W, ideal for a wide range of applications such as mid to high power subwoofers, 2-way cabinets, stage monitors or active mixers.

Both power supply and 2-channel output stage are mounted in a single and robust chassis of the same size of other DigiMod modules, for maximum scalability of mechanical design for different products.

Specifically designed DSP boards with advanced processing, remote control and networking capabilities are available for DigiMod 1500, to perfectly fit with the amplifier and providing a complete solution in a compact package.



FIXED
switching
frequency

AUTO
mains selection

DSP
add-on

Armonía
Pro Audio Suite™

- ▶ Mid Power Single or Double Subwoofer
- ▶ Mid Power 2-way Stage monitor
- ▶ Mid Power 2-way Single Cabinet / Line Array
- ▶ Mid Power Active Mixers

- ▶ Thermal protections (power limiting - thermal shutdown)
- ▶ Short-circuit/overload/high frequency output protections
- ▶ Clip limiter, permanent signal limiter
- ▶ Auxiliary output voltages
- ▶ Bypass line outputs for external active/passive filters
- ▶ Mute command
- ▶ Temperature controlled internal fans and output
- ▶ Optional DSP boards
- ▶ Fully integrated in Armonía Pro Audio Suite™ for Monitoring, Remote Control & Networking with optional DSP board

Single subwoofer	1500 W @ 8 Ω BTL
Double subwoofer	2x 750 W @ 4 Ω SE
2-way unbalanced load	LF: 750 W @ 4 Ω SE
	MF/HF: 380 W @ 8 Ω SE
Max output voltage per channel	92 V _{peak}

- ▶ Premium Performance
 - ✓ Powersoft class-D technology used in DigiMod modules is an industry standard in terms of quality, reliability, robustness and attention to detail. Accurate design of the Pulse Width Modulation block guarantees maximum performance, high predictability and immunity from intermodulation artifacts.
- ▶ Modularity
 - ✓ Same mechanical profile as all the DigiMod models, same input/output and DSP interface connectors allowing easy integration of different models to build a complete range of products.
- ▶ Scalability
 - ✓ Plug an additional 2-channel amplifier (DigiMod 1000NPS) to extend the range of possible applications using 4 output channels, (both pairs bridgeable) to drive 3-way systems or high power 2-ways systems even at higher load impedances.
- ▶ Powerful and flexible signal processing tools
 - ✓ Compatible with third party DSP and all Powersoft DSP solutions: together with Armonía Pro Audio Suite™ you can tailor the module's behavior to fit your design: from standard Linkwitz-Riley crossovers to FIR filters, from limiters to delays and everything in between.
- ▶ Complete set of protections
 - ✓ Powersoft amp modules are equipped with extensive protection circuitry: power limiters, thermal shutdown, short circuit and overload, clip limiter.
- ▶ Certification process made easy
 - ✓ Powersoft provides EMI/safety certifications, reports and documentation that will effectively cut certification costs on the final product.
- ▶ Compact:
 - ✓ Power supply, output stage, DSP and connectors are all included in a single, compact, lightweight and protected chassis



DigiMod 1500

High Efficiency 2-Channel Class-D Amplifier Module for Professional Applications

Specifications

General

Number of channels	2 in / 2 out
Output power	
Maximum output power per channel @ 4 Ω	750 W
Maximum output power per channel @ 8 Ω	370 W
Maximum output power per channel @ 16 Ω	190 W
Maximum output power @ 8 Ω Bridged	1500 W
Maximum output power @ 16 Ω Bridged	740 W
Max output voltage	92 V _{peak}
Max output current	35 A _{peak}

Audio

Gain	32 dB (x40 voltage gain)
Frequency response	10 Hz - 20 kHz (±3 dB) @ 1 W, 8 Ω
S/N ratio	112 dB (A weighted)
Input sensitivity @ 8Ω	1.38 V / 5 dBu
Max input level	4.36 V / 15 dBu
Input impedance	10 kΩ balanced
THD+N	< 0.05% from 0.1 W to full power (typically <0.01%)
DIM100	< 0.02% from 0.1 W to full power (typically <0.005%)
Slew rate	50 V/μs @ 8 Ω, input filter bypassed
Damping factor @ 8Ω	> 500 @ 100 Hz

AC Mains Power

Power supply	Universal, regulated switch mode
Nominal power requirement	AC 100 V - 240 V, 50/60 Hz
Operating voltage	AC 90 - 264 V
Power factor	cosφ > 0.85 @ 4 Ω full power
Consumption	
1/8 of max output power @ 8 Ω	270 VA

AUX supplies

Max aux supply current draw @ ±12 V	200 mA
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Thermal

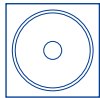
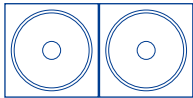
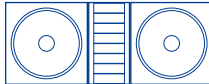
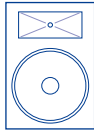
Environmental operating temperature	0° - 40° C / 32° - 104° F	
Thermal dissipation	Fan, variable speed, temperature controlled @ 230 V	
1/8 of max power @ 4 Ω	213 BTU/h	54 kcal/h
1/4 of max power @ 4 Ω	403 BTU/h	102 kcal/h

Construction

Dimensions (L x W x H)	216 mm x 122 mm x 51 mm 8.5" x 4.8" x 2"	
Weight	1.15 kg (2.5 lb)	

Application Examples

Please note that the following configuration examples do not cover all possible applications. Power ratings could vary depending on acoustic design and speaker specifications. Contact Powersoft for support in selecting the ideal solution for your specific needs.

single subwoofer	double subwoofer	2-way line array	2-way cabinet
			
1500 W @ 8 Ω	2x 750 W @ 4 Ω	MF/HF: 380 W @ 8 Ω or 190 W @ 16 Ω LF: 2x 350 W @ 8 Ω	MF/HF: 380 W @ 8 Ω or 190 W @ 16 Ω LF: 750 W @ 4 Ω