

# DigiMod 2004PFC2

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



The DigiMod 2004PFC is a two channel amplifier module representing an important evolution in the DigiMod Series family of products.

Delivering up to 1000 W on 4  $\Omega$  per channel (2000 W on 8  $\Omega$  in bridged mode), the DigiMod 2004PFC reaches a new level of excellence in terms of power consumption and sonic performance, guaranteeing reliability and consistency in all operating conditions thanks to a new power supply equipped with PFC and featuring Smart Rails Management.

The DigiMod 2004PFC shares the same compact mechanical layout of the other DigiMod Series models, and is fully compatible with all existing Powersoft DSP solutions.



**FIXED**  
switching  
frequency



**DSP**  
add-on

**Armonía**  
Pro Audio Suite™

- ▶ High Power 2-way PA Systems / Line Arrays
- ▶ High Power Single or Double Subwoofer
- ▶ High Power Applications
- ▶ High Power Sub + Satellite Systems

- ▶ 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

2-way unbalanced load	LF: 1000 W @ 4 $\Omega$ SE MF/HF: 600 W @ 8 $\Omega$ SE
Balanced load	2000 W @ 8 $\Omega$ BTL
Max output voltage per channel	108 V <sub>peak</sub>

- ▶ Efficiency and robustness, always and everywhere
  - ✓ Latest generation single-stage patented Power Factor Correction design allows to achieve optimal and consistent performance in all operating conditions worldwide.
- ▶ Maximize performances, minimize consumption
  - ✓ Patented SRM (Smart Rails Management) technology allows to maximize the efficiency of the system and drastically reducing power consumption at any load condition.
- ▶ Premium Performances
  - ✓ Powersoft Class-D technology 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.
- ▶ 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



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## Specifications

### General

Number of channels	2 in / 2 out
Output power	
Maximum output power per channel @ 4 $\Omega$	1000 W
Maximum output power per channel @ 8 $\Omega$	600 W
Maximum output power per channel @ 16 $\Omega$	320 W
Maximum output power @ 8 $\Omega$ Bridged	2000 W
Maximum output power @ 16 $\Omega$ Bridged	1200 W
Max output voltage	108 V <sub>peak</sub>
Max output current	54 A <sub>peak</sub>

### Audio

Gain	32 dB (x40 voltage gain)
Frequency response	20 Hz - 20 kHz ( +0/-1 dB ) @ 1 W, 8 $\Omega$
S/N ratio	115 dB (A weighted)
Crosstalk separation	-70 dB @ 1 kHz (4 $\Omega$ )
Input sensitivity @ 8 $\Omega$	1.6 V / +6 dBu
Max input level	2.7 V / +10.8 dBu
Input impedance	10 k $\Omega$ balanced
THD+N	< 0.09% from 0.1 W to full power (typically <0.05%)
DIM100	< 0.09% from 0.1 W to full power (typically <0.05%)
Slew rate	50 V/ $\mu$ s @ 8 $\Omega$ , input filter bypassed
Damping factor	> 500 @ 100 Hz

### AC Mains Power

Power supply	Universal, regulated switch mode with PFC (power factor correction)	
Nominal power requirement	AC 100 V - 240 V, 50/60 Hz	
Operating voltage	AC 90 - 264 V	
Power factor	$\cos\phi > 0.90$ @ 4 $\Omega$ full power	
Consumption		
1/8 of max output power @ 8 $\Omega$	600 VA	

### AUX supplies

Max aux supply current draw @ $\pm 12$ V	500 mA
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### Thermal

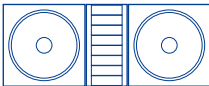
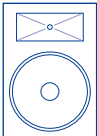

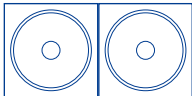
Environmental operating temperature	0° - 40° C / 32° - 104° F	
Thermal dissipation	Fan, variable speed, temperature controlled	
	@ 230 V	
1/8 of max power @ 4 $\Omega$	150 BTU/h	38 kcal/h
1/4 of max power @ 4 $\Omega$	246 BTU/h	62 kcal/h
	@ 115 V	
1/8 of max power @ 4 $\Omega$	621 BTU/h	156 kcal/h
1/4 of max power @ 4 $\Omega$	1154 BTU/h	290 kcal/h

### Construction

Dimensions (L x W x H)	216 mm x 122 mm x 79 mm 8.5" x 4.8" x 3.1"
Weight	1.55 kg (3.4 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.

2-way line array	2-way	single subwoofer	double subwoofer
			
MF/HF: 1000 W @ 4 $\Omega$ or 600 W @ 8 $\Omega$ or 320 W @ 16 $\Omega$	MF/HF: 1000 W @ 4 $\Omega$ or 600 W @ 8 $\Omega$ or 320 W @ 16 $\Omega$		
LF: 2 x 500 W @ 8 $\Omega$	LF: 1000 W @ 4 $\Omega$	2000 W @ 8 $\Omega$	2x 1000 W @ 4 $\Omega$