

DigiMod 3000PFC

High Efficiency 2/4/6-Channel Class-D Amplifier Platform for Professional Applications

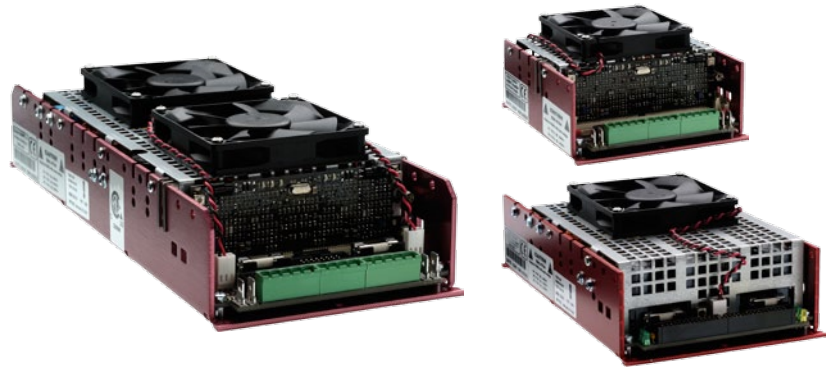


DigiMod 3000PFC is a high-power modular amplifier platform capable of delivering up to 4000 W to a max of 6 output channels.

The power supply and 2-channel amplifier are available both as separated units and integrated in a single, compact chassis, for maximum mechanical flexibility.

Solid and consistent performances worldwide and clean output signal in all operating conditions are achieved thanks to the 4th generation PFC and fixed frequency PWM design.

Unsurpassed power capabilities, together with sound clarity and flexibility make the DigiMod 3000PFC perfect for powering top level line arrays, powerful subwoofers and high performances multi-channel applications.



+4 ch
available

PFC

FIXED
switching
frequency

DSP
add-on

Armonía
Pro Audio Suite™

Single subwoofer	3400 W @ 8 Ω BTL
2-way unbalanced load	LF: 1700 W @ 4 Ω SE MF/HF: 1100 W @ 8 Ω SE
3-way unbalanced load with additional DigiMod 3000PFC AMP	LF: 2x 1500 W @ 4 Ω SE MF: 2x 500 W @ 8 Ω PA HF: 380 W @ 8 Ω SE
Max output voltage per channel	135 V _{peak}

- ▶ High Power Single or Double Subwoofer
- ▶ High Power 2-way Cabinet / Line Arrays
- ▶ Very High Power Double Subwoofer*
- ▶ Very High Power multi-way Cabinet / Line Arrays*
- ▶ Multi-Channel High Power Applications* (up to 6-channel configurations)
- ▶ High Power Sub+Satellite systems*

*when used with additional DigiMod 3000PFC AMP



DigiMod 3000PFC PS + 2 DigiMod 3000PFC AMP

- ▶ 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

- ▶ 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 form factor 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.
- ▶ Reliable efficiency
 - ✓ The power supply implements Power Factor Correction that guarantees clean power absorption from the mains and improves overall reliability and efficiency.
- ▶ 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
 - ✓ 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	see "Configurations" table
Output power	
Maximum output power per channel @ 4 Ω	1700 W
Maximum output power per channel @ 8 Ω	1100 W
Maximum output power per channel @ 16 Ω	600 W
Maximum output power @ 8 Ω Bridged	3400 W
Maximum output power @ 16 Ω Bridged	2200 W
Max output voltage	135 V _{peak}
Max output current	52 A _{peak}

Configurations

DigiMod 3000PFC SU	2 in / 2 out
DigiMod 3000PFC SU + DigiMod 3000PFC AMP	2 in / 4 out
DigiMod 3000PFC SU + 2x DigiMod 3000PFC AMP	2 in / 6 out
DigiMod 3000PFC PS + DigiMod 3000PFC AMP	2 in / 2 out
DigiMod 3000PFC PS + 2x DigiMod 3000PFC AMP	2 in / 4 out

Audio

Gain	38 dB (x80 voltage gain)
Frequency response	20 Hz - 20 kHz (±3 dB) @ 1 W, 8 Ω
S/N ratio	112 dB (A weighted)
Crosstalk separation	-70 dB @ 1 kHz (4 Ω)
Input sensitivity @ 8Ω	1.04 V / 2.5 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	> 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	cosφ > 0.75 @ 4 Ω full power	
Consumption		
1/8 of max output power @ 8 Ω		600 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	464 BTU/h	117 kcal/h
1/4 of max power @ 4 Ω	246 BTU/h	850 kcal/h

Construction

DigiMod 3000PFC SU		
Dimensions (L x W x H)	309 mm x 122 mm x 79 mm 12.2" x 4.8" x 3.1"	
Weight	2.27 kg (5 lb)	
DigiMod 3000PFC PS		
Dimensions (L x W x H)	216 mm x 122 mm x 79 mm 8.5" x 4.8" x 3.1"	
Weight	1.53 kg (3.4 lb)	
DigiMod 3000PFC AMP		
Dimensions (L x W x H)	140 mm x 122 mm x 79 mm 5.5" x 4.8" x 3.1"	
Weight	0.8 kg (1.76 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.

