



OEM SOLUTIONS

*Power*soft

SOLUTIONS FOR LOUDSPEAKER MANUFACTURERS

Every single part of the Audio Industry works for an ultimate goal: to provide a clear, rich and fulfilling listening experience, able to effectively convey information and to communicate emotions.

Loudspeaker manufacturers take care of the most important step in the path to “make sound alive”, and Powersoft is proud of supporting their work by pushing audio amplification and signal processing forward since more than 15 years, contributing to the creation of the most advanced active systems in the industry.

Thanks to such experience, Powersoft knows the importance of guaranteeing, as an OEM partner, the high quality, reliability, flexibility and competitiveness needed by speaker manufacturers to give life to great end products and successfully bring them to the market.

This is why Powersoft focuses in offering not just the state of the art technologies for which it's renowned for, but a complete support over the end product's life-cycle, from design and integration, to certification and after sales services.



INTEGRATION

CERTIFICATION

Electronics are the heart of any active system: a correct integration can be the key to make the most out of the amplifier, and often makes the difference between a good and a great end product. Powersoft learned the importance of sharing its experience and offers its OEM partners a strong support since the design phase, to help maximizing performances and reliability.

Certifications are more and more often a mandatory step to open new markets, and the time and costs required can seriously impact the competitiveness and the ability to seize on new opportunities. Powersoft helps by providing complete EMI/Safety certifications, CB reports and all the documentation needed to speed up the process and reduce the overall costs.



AFTER SALE

SIMPLICITY

Being a reliable partner means offering support, always and everywhere. Thanks to a growing worldwide network of Authorized Service Centers, professionally trained, certified and continuously updated, Powersoft is always close to your customers and your products to provide a fast and effective support.

Powersoft helps simplifying all of the speaker's manufacturing processes by providing a complete range of amplification, processing and software tools, by offering turnkey solutions to drastically reduce time to market, and by using a design approach aimed to allow a single amp model to be used across the highest number of different end-products and applications.

DIGIMOD PFC SERIES

HIGH POWERED, SCALABLE SOLUTIONS FOR PROFESSIONAL APPLICATIONS.

All DigiMod PFC models share a fixed switching frequency PWM design, an integrated power supply with patented PFC and Smart Rails Management, and an extensive set of protection mechanisms. The possibility to build 2ch, 4ch and 6ch configurations makes the DigiMod PFC Series suitable for a wide range of high power applications: from heavy duty self powered subs, to multi-way beam steering line arrays, and OEM high power rack amps.



DIGIMOD 3004PFC4

- 4ch amp with integrated power supply.
- Ideal for 3-way systems and 4/8ch OEM rack amps.
- 150Vp max output voltage , 54Ap max output current.

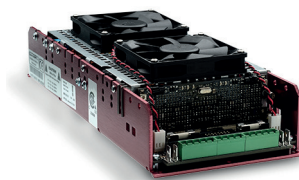
4 Channel mode	4 x 1000W @ 4Ω
3 Channel mode	3000W @ 8ΩBTL + 1000W @ 4ΩSE + 500W @ 8ΩSE
2 Channel mode	3000W @ 8ΩBTL + 1500W @ 8ΩBTL



DIGIMOD 3004PFC2

- 2ch amp with integrated power supply.
- Ideal for single/dual subs and 2/4ch OEM rack amps.
- 150Vp max output voltage , 54Ap max output current.

2 Channel mode	2 x 1600W @ 4Ω
1 Channel mode	1 x 3200W @ 8ΩBTL



DIGIMOD 3000PFC

- Drive up to 2x additional slave amp units for 4/6ch configurations
- Ideal for single/dual subs multichannel high power applications
- 135Vp max output voltage , 52Ap max output current

4 Channel mode	4 x 1000W @ 4Ω (with slave amp)
2 Channel mode	2 x 2000W @ 4Ω
1 Channel mode	1 x 4000W @ 8ΩBTL

APPLICATION EXAMPLES.

2 WAYS LOUDSPEAKER	DIGIMOD 3004PFC2	DIGIMOD 3004PFC4	DIGIMOD 3000PFC
	HF: 1 x 1100W @8Ω LF: 1 x 1600W @4Ω	HF: 1 x 1500W @8Ω LF: 1 x 3000W @8Ω	HF: 1 x 1000W @8Ω LF: 1 x 2000W @4Ω

3 WAYS LOUDSPEAKER	DIGIMOD 3004PFC2	DIGIMOD 3000PFC*
	HF: 1 x 600W @ 8Ω MF: 1 x 1500W @ 4Ω LF: 1 x 3000W @ 8Ω, or 2 x 1500W @ 4Ω	HF: 1 x 600W @ 8Ω MF: 1 x 1100W @ 4Ω LF: 1 x 3000W @ 8Ω, or 2 x 1500W @ 4Ω

*with Slave AMP

SINGLE SUBWOOFER	DIGIMOD 3004PFC4	DIGIMOD 3000PFC
	1 x 3200W @8Ω	1 x 4000W @8Ω

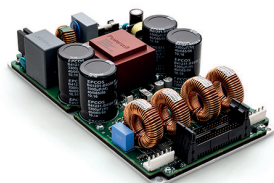
DOUBLE SUBWOOFER	DIGIMOD 3004PFC2	DIGIMOD 3004PFC4	DIGIMOD 3000PFC
	1 x 1600W @4Ω	1 x 1500W @4Ω	1 x 2000W @4Ω

LITEMOD SERIES

COMPACT AND LIGHTWEIGHT SOLUTION WITH THE HIGHEST POWER-TO-VOLUME RATIO.

Flexibility is the keyword for LiteMod Series: the three models can power entire product lines, allowing for the optimization and the integration of multiple products and simplifying stock management. LiteMod 4HC 2Ω capability makes it the perfect solution for 2, 4, or even 8ch OEM rack amps applications.

All this in a compact package showing the highest power-to-volume ratio available in the market, integrating the latest generation PFC Power Supply and providing a complete set of read outs for an accurate and comprehensive control by the DSP of use.



LITEMOD 4HC

- 4ch amp with bridge, parallel and parallel bridge configuration capabilities.
- Suitable for subs, 2/3-way systems as well as 2/4/8ch OEM rack amp.
- 78Vp, 140Vp_{PBTL} max voltage, 30Ap, 60Ap_{parallel} max current.

4 Channel mode	4 x 750W @ 4Ω
3 Channel mode	1 x 1500W @ 8ΩBTL + 2 x 750W @ 4Ω
2 Channel mode	2 x 1500W @ 8ΩBTL + 2 x 1200W @ 2ΩPTL
1 Channel mode	1 x 2400W @ 4ΩPBTL

LITEMOD HV

- 2ch High Voltage amp with integrated power supply.
- Optimized for 8Ω loads, both in subs and 2-way systems.
- 120Vp max voltage, 31Ap max current.

2 Channel mode	2 x 700W @ 8Ω
1 Channel mode	1 x 1400W @ 16ΩBTL

LITEMOD

- 2ch amplifier with integrated power supply.
- Flexible performance on unbalanced loads.
- Up to 800W+400W for 2-way systems.
- 85Vp max voltage, 31Ap max current.

2 Channel mode	2 x 600W @ 4Ω
1 Channel mode	1 x 1200W @ 8Ω BTL

APPLICATION EXAMPLES.

3 WAYS LOUDSPEAKER

LITEMOD 4HC



HF: 1 x 380W @ 8Ω
 MF: 1 x 750W @ 4Ω
 LF: 1 x 1500W @ 8Ω, or
 2 x 750W @ 4Ω

SUBWOOFER

LITEMOD 4HC

LITEMOD



1 x 2400W @ 4Ω, or
 2 x 1200W @ 8Ω

1 x 1200W @ 8Ω, or
 2 x 600W @ 4Ω

2 WAYS LOUDSPEAKER

LITEMOD 4HC

LITEMOD HV

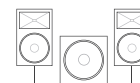


HF: 1 x 750W @ 8/16Ω
 LF: 1 x 1500W @ 8Ω

HF: 1 x 350W @ 8/16Ω
 LF: 1 x 700W @ 8Ω

SUB+2 FULL RANGE TOPS

LITEMOD 4HC



TOP: 2 x 750W @ 4Ω
 SW: 1 x 1500W @ 8Ω, or
 2 x 750W @ 4Ω

SUB+TOP

LITEMOD 4HC

LITEMOD 4HC

LITEMOD 4HC



TOP: 1 x 600W @ 8Ω
 SW: 1 x 3000W @ 8Ω, or
 2 x 1500W @ 4Ω

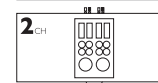
HF: 1 x 380W @ 8Ω
 LF: 1 x 750W @ 4Ω
 SW: 1 x 1500W @ 8Ω, or
 2 x 750W @ 4Ω

TOP: 700W @ 8Ω
 SW: 700W @ 8Ω

2/4 CHANNEL AMP

LITEMOD 4HC

LITEMOD 4HC



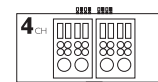
2 x 1200W @ 2Ω, or
 1 x 2400W @ 4Ω

4 x 750W @ 4Ω, or
 2 x 1500W @ 8Ω

4/8 CHANNEL AMP

2 x LITEMOD 4HC

2 x LITEMOD 4HC



4 x 1200W @ 2Ω, or
 2 x 2400W @ 4Ω

8 x 750W @ 4Ω, or
 4 x 1500W @ 8Ω

MINIMOD SERIES

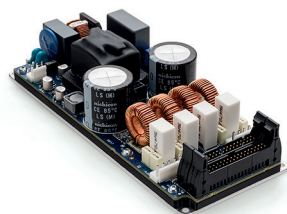
NEW GENERATION AMP MODULE FOR LOW POWER APPLICATIONS.

The MiniMod 4's output stages may be connected in single ended, bridged, paralleled or even in parallel-bridge mode, so that it may fit single or dual subs as well as 2 or 3-way systems, or products requiring all 4 channels independently as beam steering speakers or multichannel rack amps.

It integrates a PFC power supply in very small footprint and it provides a complete set of readouts for DSP control, MiniMod 4 represents an extremely versatile yet compact solution for a huge number of applications, from M.I. amplifiers to portable PA, from studio monitors to multizone amps for commercial installations or high channel count rack amps for cinema systems.

MINIMOD 4

- 4ch amp with integrated PFC power supply.
- Extreme flexibility: bridge, parallel and parallel bridge configuration possibilities.
- Suitable for subs, 2/3-way systems, multichannel rack amps (up to 24ch in 2U).
- 35Vp, 70Vp_{PBTL} max output voltage, 10Ap, 20Ap_{parallel} max output current.



4 Channel mode	4 x 150W @ 4Ω
3 Channel mode	1x300W @ 8ΩBTL + 2 x 150W @ 4Ω
2 Channel mode	2 x 300W @ 8ΩBTL or 2ΩPTL
1 Channel mode	1 x 600W @ 4ΩPBTL

APPLICATION EXAMPLES.

3 WAYS LOUDSPEAKER

MINIMOD 4



HF: 1 x 800W @ 8Ω
MF: 1 x 150W @ 4Ω
LF: 1 x 300W @ 8Ω

SUBWOOFER

MINIMOD 4



1 x 600W @ 4Ω, or
2 x 300W @ 8Ω

2 WAYS LOUDSPEAKER

MINIMOD 4

MINIMOD 4



HF: 1 x 300W @ 8Ω
LF: 1 x 300W @ 8Ω

HF: 1 x 300W @ 8Ω
LF: 1 x 300W @ 8Ω

SUB+TOP

MINIMOD 4

MINIMOD 4



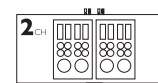
TOP: 1 x 300W @ 8Ω
SW: 1 x 300W @ 8Ω

HF: 80W @ 8Ω
LF: 150W @ 4Ω
SW: 1 x 300W @ 8Ω

4/8 CHANNEL AMP

2 x MINIMOD 4

2 x MINIMOD 4



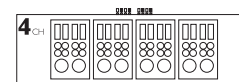
4 x 300W @ 2Ω, or
2 x 600W @ 4Ω

8 x 150W @ 4Ω, or
4 x 300W @ 8Ω

8/16 CHANNEL AMP

4 x MINIMOD 4

4 x MINIMOD 4



8 x 300W @ 2Ω, or
4 x 600W @ 4Ω

16 x 150W @ 4Ω, or
8 x 300W @ 8Ω

STEERED ARRAY

2 x MINIMOD 4

2 x MINIMOD 4



HF: 8 x 80W @ 8Ω
LF: 12 x 150W @ 8Ω

HF: 8 x 150W @ 4Ω, or
8 x 80W @ 8Ω

IPALMOD SERIES

OVERCOME THE LIMITATIONS OF TRADITIONAL TRANSDUCERS.

Integrated Powered Adaptive Loudspeaker (IPAL) technology is a functional solution born to help overcome the limitations of traditional transducers. The IPAL approach, using specifically designed transducers, allows a sensible increase of the mains input to acoustic output efficiency ratio by using a full boundary-conditions processing.



IPALMOD

- Differential pressure sensor and Zero Latency DSP onboard for closed feedback loop implementation.
- Suitable for very inductive / low impedance loads, down to 0,8Ω.
- Pressure control / Virtual speaker mode to maximize performances and adapt to existing designs.
- 180Vp max output voltage , 95Ap max output current.

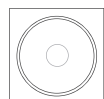
1 Channel mode

1 x 8500W @ 1Ω

APPLICATION EXAMPLES.

SINGLE SUBWOOFER

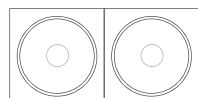
1 x IPALMOD



8500W @ 1Ω

DOUBLE SUBWOOFER

1 x IPALMOD

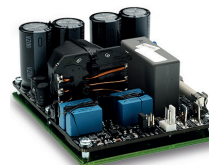
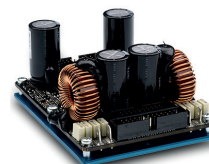


8500W @ 1Ω

D-CELL 504 SERIES

SMALL AND LIGHTWEIGHT, AC/DC POWERED, 2/4-CHANNEL AMPLIFICATION PLATFORM.

D-Cell504 is a smart brick, it enables the designer to create unique systems. The PFC power supply comes in either in AC or in DC versions, allowing for special applications such as solar powered systems, automotive solutions, theme parks attractions, or even multichannel commercial installations where a back up DC power supply is needed.



D-CELL 504

- Available with integrated 2in/4output DSP
- Process the signal for an additional amp without DSP
- Extensive set of on board limiters and protections
- Power Factor Corrected power supply driving up to 2x amp boards

2 Channel mode	2 x 350W @ 4Ω		
1 Channel mode	1 x 700W @ 8Ω BTL		
AC Operating Range	AC 90- 264V up to 80 Hz		
DC Operating Range	DC 9.5- 68V		
Output Range	@ 12 V _{dc} 250W	@ 24 V _{dc} 550W	@ 48 V _{dc} 750W

APPLICATION EXAMPLES.

2 WAY SYSTEM

D-CELL 504



HF: 1 x 190W @ 8Ω, or
2 x 95W @ 16Ω
LF: 1 x 350W @ 4Ω

3 WAY SYSTEM

2 x D-CELL 504

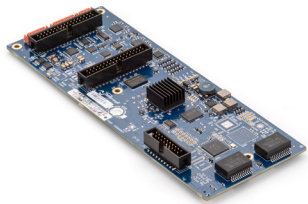


HF: 1 x 95W @ 16Ω
HF: 1 x 190W @ 8Ω
HF: 1 x 700W @ 8Ω

LOTO DSP

1-2 IN / 4 OUT ADVANCED DSP BOARD WITH AES3 DIGITAL INPUT AND DANTE

LOTO is the most advanced DSP solution delivering up to 2 sec of input delay, multi-layer input and output EQ, parametric raised cosine filters, custom FIR and IIR equalizers, as well as TruePower™, RMS and Peak limiters, Active DampingControl™, and Live Impedance. Basic models features state of the art analog inputs and outputs, whilst LOTO Advanced further increases routing options by adding AES3 digital input through XLR connectors, and the support of Dante™ digital audio networking architecture, with 2 inputs and 2 outputs.

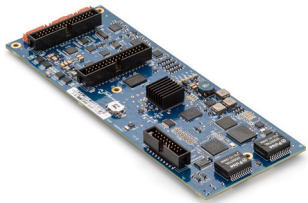


LOTO BASIC

- Top-grade DSP with high dynamic range and extensive feature set.
- Multi-stage signal processing: innovative solutions for modeling speakers behavior and power handling.
- Input and output IIR, FIR, IIR+FIR equalizers and raised-cosine filters.
- Complete sets of limiters: peak, RMS voltage, RMS current, and TruePower™.
- Active DampingControl™.

1-2 in / 4 out

Ethernet based networking



LOTO ADVANCED

- AES3 Digital input
- Dante™
- Top-grade DSP with high dynamic range and extensive feature set.
- Multi-stage signal processing: innovative solutions for modeling speakers behavior and power handling.
- Input and output IIR, FIR, IIR+FIR equalizers and raised-cosine filters.
- Complete sets of limiters: peak, RMS voltage, RMS current, and TruePower™.
- Active DampingControl™.

1-2 in / 4 out

Ethernet based networking

LOTO INTEGRATION KIT

Compatible with all Digimod PFC2- PFC4, Litemod family, and Minimod4 amp modules, LOTO features a set of accessories aimed at simplifying integration where complete control and premium performances are required.

LOTO is available with a set of accessories that make integration easy.



LOTO BASIC 2

- Pre assembled I/O panel with:
2 x XLR analog input + 2 x XLR analog link thru
Integrated two port 1G ethernet switch
24 recallable presets via push buttons
- Diecast Aluminum heatsink with integrated EMC Filter and temperature controlled fan



LOTO ADVANCED 1D

- Pre assembled I/O panel with:
1 x XLR analog input + 2 x XLR analog link thru
1 x XLR carrying 2 AES3 Inputs
AES 67 / Dante 4 inputs / 4 outputs supported on 2 x Ethercon ports
Integrated two port 1G ethernet switch
24 recallable presets via push buttons
- Integrated
- Diecast Aluminum heatsink with integrated EMC Filter and temperature controlled fan



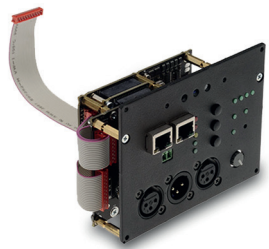
LOTO ADVANCED 2D

- Pre assembled I/O panel with:
2 x XLR analog input + 2 x XLR analog link thru
1 x XLR carrying 2 AES3 Inputs
AES 67 / Dante 4 inputs / 4 outputs supported on 2 x Ethercon ports
Integrated two port 1G ethernet switch
- 1,8" TFT display
- Diecast Aluminum heatsink with integrated EMC filter and temperature controlled fan

DSP SOLUTIONS

OPEN AND FLEXIBLE TOOLS FOR SOUND SHAPING AND REMOTE MANAGEMENT.

Digital Signal Processing plays a capital role in defining the sound of the speakers and protecting the system while getting the most out of the amplifier. Powersoft's DSP solutions guarantee a tight, effective and easy integration, for maximum performances and reliability. The DSP boards meet the requirement of a wide range of applications, while keeping the development process for the speaker designer fast and easy.

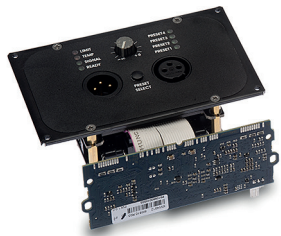


DSP-4

- 1in/4out DSP, SHARC based.
- Input, pre-output, output processing stages with custom FIR and raised cosine filters.
- AES3 Digital input with analog back up strategy.
- Fully redundant daisy chain networking and audio distribution on a single CAT5 cable.
- LiveImpedance™, Active Damping Control™, TruePower™ Limiters.

1 in / 4 out

Ethernet based networking



DSP-D

- 2in/4out DSP, ADAU based.
- 170ms input delay, >116dB(A) SNR.
- Input/Output with parametric IIR + 2x Xover.
- Peak and RMS limiter with frequency shaping.

2 in / 4 out

RS 485 based networking



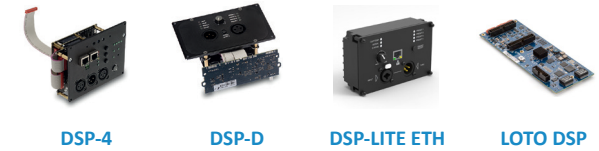
DSP-LITE ETH

- 2in/3out DSP, ADAU based with ETH programming port.
- 170ms input delay, >118dB(A) SNR.
- Input/Output with parametric IIR + 2x Xover.
- Peak and RMS limiter with frequency shaping.

2 in / 4 out

Ethernet type connection

COMPATIBILITY CHART.



	DSP-4	DSP-D	DSP-LITE ETH	LOTO DSP
 DIGIMOD 3004 PFC4	✓	✓	✓	✓
 DIGIMOD 3004 PFC2	✓	✓	✓	✓
 DIGIMOD 3000 PFC	✓	✓		
 LITEMOD 4HC	✓		✓	✓
 LITEMOD HV	✓		✓	✓
 LITEMOD	✓		✓	✓
 MINIMOD 4			✓	✓
 IPALMOD	✓			

INTEGRATION KIT

TURNKEY SOLUTIONS FOR EASY INTEGRATION AND REDUCED TIME TO MARKET.

Keeping up with today's market pace is a paramount and challenging aspect in every project, and reducing time to market can be critical for the success of a new product. The Integration Kit speeds up the development process with a turnkey solution, enabling the designer to focus on the acoustics properties and the sonic footprint of the system. The Integration Kit includes everything is needed to guarantee an effective and professional solution, easy to assemble and open to customization.



- Saves time and resources usually needed to design and manufacture mechanical parts.
- Rebrandable- identify the assembled kit, both mechanically and digitally.
- Customizable kits designed to cater for a wide array of applications.
- Time saving design- easy to assemble, plug and play solution.

1. THE MODULE

Choose the amplifier module that better suits the specifications of the system's design.

2. THE HEATSINK

Pair the module with the purposely designed heatsink.

3. THE DSP BOARD / INTERFACE

Select the appropriate DSP solution, choosing from DSP-D, DSP-Lite, and DSP-4.

COMPATIBILITY CHART.



SMALL HEATSINK



MEDIUM HEATSINK



LARGE HEATSINK



DIGIMOD 3004 PFC4



DIGIMOD 3004 PFC2



DIGIMOD 3000 PFC



LITEMOD 4HC



LITEMOD HV



LITEMOD



MINIMOD 4



IPALMOD



ProManager Plus

Multi-purpose Control Center

POWERFUL CUSTOMIZATION FOR ALL OEM PARTNERS

Armonía ProManager Plus is a dedicated software tool aimed to configure any Powersoft OEM system. With Armonía Pro Manager Plus, OEM manufacturers can initialize the system so that it shows proprietary brand information in ArmoníaPlus, including series and model name, image and the serial number of the product. This level of customization and brand visibility adds another dimension of value for the manufacturer.



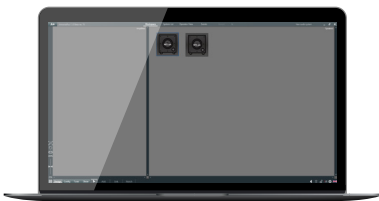
INITIALIZE

Through the initialization process, it is possible to create original processing schemes and to apply proprietary DSP presets designed for the whole finished system.



CUSTOM MODELS

The manufacturer can create and manage its own customized model and re-brand it as his own. It is also possible to configure the Module to be recognized within ArmoníaPlus.



ARMONIAPLUS INTEGRATION

ArmoníaPlus will then load the M-Force as a customized speaker model within the workspace, allowing for the implementation of all its functionalities.

Armonía Plus

System Manager

REMOTE CONTROL AND MONITORING OF THE FULL RANGE OF POWERSOFT PRODUCTS.

ArmoníaPlus is a new and unique tool for the audio engineer to significantly improve sonic performance and system reliability. On-line or off-line system setup and tuning, real-time management and monitoring of all vital functions from a remote PC via a single intuitive graphical user interface. OEM manufacturer can display a system based on Powersoft amp modules as his own, providing a powerful environment and yet supporting its own brand identity.



THE WORKSPACE

The Workspace is the main window, where the user can visualize all the devices. This allows large systems to be constantly under control.



THE PROCESSING

This is the door to the processing for every device. Selecting a block allows up for adjustments of every single parameter in the audio path.



THE EQ/FILTERS

The frequency response of each channel may be adjusted in several ways, and a discrete time delay inserted. When a DSP-4 is implemented, the input equalizer has both fully parametric and 30-band graphics modes.



DRIVING HUMAN AUDIO EXPERIENCE

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