

## EFFORTLESS INSTALLATION

- Compact size – 4 channels x 1 RU for reduced rack cost and space saving
- Industry-leading integrated DSP reduces need for external outboard equipment, drastically reducing installation costs
- Lowest thermal dissipation ratings in the industry, reducing the need for external cooling devices
- Direct drive either low impedance loads or 70V / 100V Hi-Z distributed lines
- Lightweight - for easier racking and shipping: 7.8 kg (17.3 lbs)
- Seamless integration into any networking environment – local and/or remote monitoring and operation via CAT5 or WiFi

## FEATURES

### Power supply

- Universal switch mode power supply up to 400VAC tolerant with Power Factor Correction
- Low Inrush Limiting reduces AC inrush current, removing the need for expensive power sequencers
- Detachable AC mains cable with IEC C19/22.2 (16A for EU, 20 A for USA) socket

### Protections

Fully protected circuit design with:

- AC protection: shut down power supply when AC mains voltage is outside operating range
- Clip limiter: prevents severely clipped waveforms from reaching loudspeakers, while still maintaining full peak power output
- DC protection: protects against infrasonic signal at the outputs
- VHF protections: protects the loudspeakers against non-audible, strong, non-musical high-frequency signals
- Short circuit protection: protects the amplifier from short circuit or other stressful events for the output circuits with automatic protection reset
- Long-term limiter: protects the loudspeaker against steady long-term rms (non-audio) signals reducing maximum output
- Thermal protection: output stages operating temperature up to 80 °C (176 °F)
- Over-current protection: temporarily disables all outputs if power supply peak current threshold is exceeded, automatically resumes normal operation after transient event subsides
- Temperature controlled continuous variable speed fan, front to back airflow

### General

- Fixed frequency switch mode output stage for high-grade sound accuracy
- Patented Smart Rails Management technology maximizes system efficiency and drastically reduces power consumption in any load and usage condition
- Standard Phoenix connectors: analog inputs, audio outputs, alarms and GPIO
- Remotely input gain controls per channel
- Remotely switchable double input (analog and Dante®) with assignable auto backup switching strategy per channel
- Full matrix signal routing of inputs to loudspeakers

### Community Loudspeaker Preset Library

- Complete Community loudspeaker library allows users to select loudspeaker model, type (Lo-Z, 70V, 100V), and application, then automatically sets the appropriate FIR processing and multi-stage limiters.
- Each Community preset also includes loudspeaker-specific power/impedance values, allowing ArmoniaPlus to automatically calculate and display the power needs and available headroom on each output channel, plus the total power draw and headroom available from the ALC power supply. This feature removes all the guesswork normally required to match loudspeakers with appropriate amplifiers.
- Multiple loudspeaker wired in parallel may be assigned to each output. Total resultant impedance and power needs are calculated automatically.

### Loudspeaker system configuration

- Direct drive either low impedance loads or 70V / 100V Hi-Z distributed lines
- Mixed configuration with Lo-Z/Hi-Z systems possible
- Bridged mode low impedance ( $4\Omega$ ) per channel pair

### Interactive Tuning Plugin

- The Interactive Tuning plugin, included in ArmoniaPlus, supports importing/exporting transfer functions and spectrum traces for offline evaluation, manipulation, and equalization using SmaartV8 (separate purchase required)
- Perform standard live measurement and equalization within the ArmoniaPlus workspace
- Draw custom target transfer curves using on screen EQ controls
- Trace inversion, trace capture and an extensive set of math operations are available to aid in system evaluation and tuning

### Alarms and GPI/O

- General Purpose Input/Output alarms triggered by:
  - dangerous DC in the output power signal
  - thermal stress
  - loss of AC mains
  - output short circuit
  - output load beyond user defined thresholds
  - loss of pilot tone
- Configurable alarm contact NC/NO per channel
- Remote ON/OFF switch

### Digital Signal Processing

- 2.5 ms fixed latency architecture
- Input/output independent equalizers per channel providing PEQ, raised cosine, shelving IIR filters as well as custom output FIR filters
- Additional Group/Zone gain, delay, and raised cosine equalizer control layers
- Delay up to 2000 ms on inputs and each Group/Zone layer
- Active DampingControl™ for cable compensation
- Peak, RMS voltage, RMS current, TruePower™, and clip limiters on each channel

### Settings

- Digital and analog input trim controls
- User selectable gain/sensitivity
- User selectable Energy Save and Breaker Save modes
- User selectable maximum mains current draw
- Lockable set-up with user selectable access key code
- Ethernet control provides full diagnostic, operational setting, and system monitoring

### Monitoring

- Hardware monitor available for fast local diagnostic
- Load impedance measurement for each channel
- Output power measurements for each channel
- Mains voltage and current measurements
- Total power and temperature measurements
- Downloadable log file of functional fault events with time-related trace
- Remote notification via SMS and/or email for any error or warning conditions

### System Control and Monitoring

- Via Software:

- Control and monitoring through [ArmoniaPlus System Manager](#)
- User-defined Operator View control screen
- Dedicated Web App
- 3<sup>rd</sup> party plugins
- Diagnostics (temperature, fans, ...)
- Via Hardware:
  - Attenuation (from 0 dB to 26 dB)
  - High Pass Filter (35 Hz, 70 Hz)
  - LoZ/HiZ/70V/100V output selection
  - Gain (from 26 dB to 35 dB)
  - Energy Save Mode
  - Breaker Save Mode