

Quattrocanali DSP+D Series

4-Channel High-Performance Amplifier Platform with DSP and Dante™



- Touring
- Installation

4 lo-Z
hi-Z
channels



DSP
onboard



Armonia
Pro Audio Suite™



The Quattrocanali Series is specifically designed for installation applications. In just 1 RU, Quattrocanali offers smaller dimensions, lighter weight and the traditionally amazing sound quality and reliability of all Powersoft products.

Quattrocanali Series amplifiers implement a high efficiency microprocessor controlled power supply with built in PFC (Power Factor Correction) that allows flawless worldwide operation with any AC mains voltage in the range 85-275 V_{AC} tolerant to peak up to 400 V. The patented SRM (Smart Rails Management)

technology allows to maximize the efficiency of the system and drastically reduce power consumption at any load and usage condition.

A secondary high efficient power supply is present to keep the system responsive at any operating condition, so that system check and monitoring can be performed even in stand-by and deep-sleep modes.

Quattrocanali Series is designed to work with lo-Z (from 2Ω) and with 70V/100V distributed lines: any mixed configuration of low and high impedance output loads can be realized, making the

Quattrocanali Series suitable to all application in installed sound reinforcement system.

DSP+D versions of the Quattrocanali series extends system performance with the support of Dante™ digital audio networking architecture and the on board high-end signal processing.

- ▶ Small to medium-scale venues
- ▶ Main systems, central or distributed, subwoofers, hi-Z/lo-Z
- ▶ Mission critical applications
- ▶ Shops, stores
- ▶ Theatres, restaurant, and bars
- ▶ Houses of worship
- ▶ Convention centres
- ▶ Business centres
- ▶ Cruise ships

Quattrocanali DSP+D Series

4-Channel High-Performance Amplifier Platform with DSP and Dante™

Specifications

| Channel Handling | | |
|---------------------------|--|---------------------------|
| Number of output channels | 4 Hi-Z or Lo-Z (bridgeable per ch. pair) | Phoenix PC 5/8-STF1-7,62 |
| Number of input channels | | |
| Analog | 4 | Phoenix MC 1,5/12-ST-3,81 |
| Dante™ | 4 | 1 x RJ45 |

| Audio | | | | | |
|----------------------------------|-------|--|------|------|-------|
| | Gain | 1204 | 2404 | 4804 | |
| Input sensitivity @ 8 Ω | 26 dB | 2.48 | 3.54 | 4.91 | Vrms |
| Input sensitivity @ 8 Ω | 29 dB | 1.76 | 2.51 | 3.48 | Vrms |
| Input sensitivity @ 8 Ω | 32 dB | 1.24 | 1.78 | 2.46 | Vrms |
| Input sensitivity @ 8 Ω | 35 dB | 0.88 | 1.26 | 1.74 | Vrms |
| S/N (20 Hz - 20 kHz @ 8 Ω) | | >104 | >108 | >110 | dB(A) |
| Max input level | | 20 dBu | | | |
| Frequency Response | | 20 Hz - 20 kHz ±0.5 dB, 1 W @ 8 Ω | | | |
| Crosstalk (1 kHz) | | typical -70 dB | | | |
| Input impedance | | 20 kΩ balanced | | | |
| THD+N (from 0.1 W to Full Power) | | < 0.1% (typical < 0.05%) | | | |
| DIM (from 0.1 W to Full Power) | | < 0.05% | | | |
| Slew Rate | | > 50 V/μs @ 8 Ω, input filter bypassed | | | |
| Damping Factor | | > 1000 @ 8 Ω, 20 Hz - 100 Hz | | | |

| DSP | |
|-----------------------|--|
| AD converters | 24 Bit Tandem™ @ 48 kHz 125 dB-A Dynamic Range - 0.005 % THD+N |
| DA converters | 24 Bit Tandem™ @ 48 kHz 117 dB-A Dynamic Range - 0.003 % THD+N |
| Sample rate converter | 24 Bit @ 44.1 kHz to 192 kHz 140 dB Dynamic Range - 0.0001 % THD+N |
| Internal precision | 32 bit floating point |
| Latency | 2.5 ms fixed latency architecture |
| Memory/Presets | 128 MB (RAM) plus 512 MB flash for presets |
| Delay | 2 s (input) + 100 ms (output) for time alignment |
| Equalizer | Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass |
| Crossover | linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR) |
| Limiters | TruePower™, RMS voltage, RMS current, Peak limiter |
| Damping control | Active DampingControl™ and LiveImpedance™ measurement |

| Output Stage | 1204 | 2404 | 4804 |
|--|----------------------|-----------------------|-----------------------|
| Maximum output power per channel @ 8 Ω | 300 W | 600 W | 1200 W |
| Maximum output power per channel @ 4 Ω | 300 W | 600 W | 1200 W |
| Maximum output power per channel @ 2 Ω | 400 W | 800 W | 1500 W |
| Maximum output power @ 4 Ω Bridged | 800 W | 1600 W | 3000 W |
| Maximum output power @ 8 Ω Bridged | 600 W | 1200 W | 2400 W |
| Maximum output power @ Hi-Z distributed line 100 V | 300 W | 600 W | 1200 W |
| Maximum output power @ Hi-Z distributed line 70 V | 300 W | 600 W | 1200 W |
| Maximum unclipped output voltage @ 8 Ω | 70 V _{peak} | 100 V _{peak} | 139 V _{peak} |
| Maximum output current | 33 A _{peak} | 45 A _{peak} | 45 A _{peak} |

The power figure is calculated by driving and loading symmetrically all the channels: uneven loads allow to achieve higher performances.

| Power & Thermal | | 1204 | 2404 | 4804 | | |
|------------------------|----------------|---|------|------|------|------------------|
| @ 115 V | Idle | Power | 31.1 | 31.1 | 31.3 | W |
| | | Current Draw | 0.45 | 0.45 | 0.47 | A _{rms} |
| | | Thermal Loss | 106 | 106 | 107 | BTU/h |
| | 1/8 Power @ 4Ω | Power | 227 | 405 | 823 | W |
| | | Current Draw | 2.1 | 3.7 | 7.7 | A _{rms} |
| | | Thermal Loss | 261 | 360 | 760 | BTU/h |
| @ 230 V | Idle | Power | 31.5 | 31.5 | 31.6 | W |
| | | Current Draw | 0.25 | 0.25 | 0.27 | A _{rms} |
| | | Thermal Loss | 107 | 107 | 108 | BTU/h |
| | 1/8 Power @ 4Ω | Power | 251 | 405 | 840 | W |
| | | Current Draw | 1.4 | 2.1 | 4.3 | A _{rms} |
| | | Thermal Loss | 344 | 360 | 818 | BTU/h |
| Power supply | | Universal regulated switch mode with PFC, SRM | | | | |
| Nominal voltage (±10%) | | 100-240 V @ 50-60Hz | | | | |
| Operating Voltage | | 60-264 V (with reduced power below 90 V) | | | | |
| AC Mains connector | | IEC C20 inlet (20 A max) region-specific power cord provided | | | | |

| Networking | |
|----------------------|--|
| Standards compliance | auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) |
| Supported topologies | Star |
| Remote interface | Armonia Pro Audio Suite™ |

| Construction | |
|--------------|--|
| Dimensions | 483 x 44.5 x 358 mm 19.0 x 1.75 x 14.1 in |
| Weight | 6.8 Kg (15 lb) |

