

Quattrocanali DSP+ Series

4-Channel Fixed Installation Amplifier Platform with DSP and AES67



○ TOURING
✓ INSTALLATION



ArmoniaPlus
System Manager

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 90-264 VAC tolerant to peak up to 400 VAC. 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 2 Ω) 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 applications in installed audio systems.

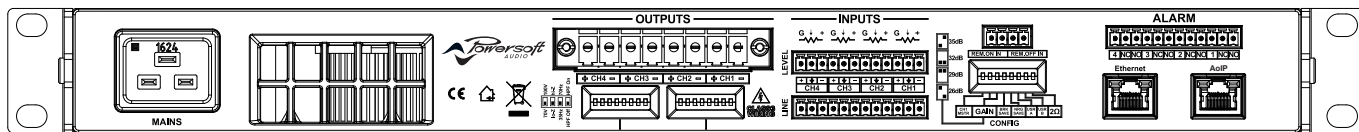
DSP versions of the Quattrocanali series extends system performance with the support of AES67 digital audio networking architecture and the on board high-end signal processing.

- ▶ 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+ Series

4-Channel Fixed Installation Amplifier Platform with DSP and AES67



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 |
| AES67 | 4 | 1 x RJ45 |
| Audio | | |
| | 1204 | 2404 4804 8804 |
| Input sensitivity @ 8 Ω with 26 dB Gain | 2.48 | 3.54 4.91 5.72 Vrms |
| Input sensitivity @ 8 Ω with 29 dB Gain | 1.76 | 2.51 3.48 4.06 Vrms |
| Input sensitivity @ 8 Ω with 32 dB Gain | 1.24 | 1.78 2.46 2.86 Vrms |
| Input sensitivity @ 8 Ω with 35 dB Gain | 0.88 | 1.26 1.74 2.03 Vrms |
| SNR (20 Hz - 20 kHz @ 8 Ω - typical) | 104 | 108 110 112 dB(A) |
| Max input level | 20 dBu | |
| Frequency Response | 20 Hz - 20 kHz ±1.0 dB, 1 W @ 8 Ω | |
| Crosstalk (1 kHz) | typical -70 dB | |
| Input impedance | 20 kΩ balanced | |
| THD+N (from 0.1 W to Half Power) | < 0.1% (typical < 0.05%) | |
| SMPTE IMD (from 0.1 W to Half Power) | < 0.1% (typical < 0.05%) | |
| Slew Rate | > 50 V/μs @ 8 Ω, input filter bypassed | |
| Output impedance at 100 Hz | 26 mΩ | |
| DSP | | |
| AD converters | 24 Bit Tandem™ @ 48 kHz typical 125 dB-A Dynamic Range - 0.005 % THD+N | |
| DA converters | 4 Bit Tandem™ @ 48 kHz typical 117 dB-A Dynamic Range - 0.003 % THD+N | |
| Sample rate converter | 24 Bit @ 44.1 kHz to 96 kHz typical 140 dB Dynamic Range - 0.0001 % THD+N | |
| Internal precision | 32 bit floating point | |
| Latency | 2.5 ms fixed latency architecture | |
| Memory/Presets | 49 amplifier snapshots, virtually unlimited speaker 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 | 8804 | |
|--|----------------------|-----------------------|-----------------------|-----------------------|---|
| per channel @ 8 Ω (symmetrical)* | 300 | 600 | 1200 | 1600 | W |
| per channel @ 4 Ω (symmetrical)* | 300 | 600 | 1200 | 2400 | W |
| per channel @ 2 Ω (symmetrical)* | 400 | 800 | 1500 | 1800 | W |
| @ 4 Ω Bridged (symmetrical)* | 800 | 1600 | 3000 | 3600 | W |
| @ 8 Ω Bridged (symmetrical)* | 600 | 1200 | 2400 | 4800 | W |
| @ Hi-Z distributed line 100 V (symmetrical)* | 300 | 600 | 1200 | 2000 | W |
| @ Hi-Z distributed line 70 V (symmetrical)* | 300 | 600 | 1200 | 2000 | W |
| per channel @ 8 Ω (asymmetrical)** | 1100 | 1300 | 1300 | 1800 | W |
| per channel @ 4 Ω (asymmetrical)** | 1100 | 1700 | 2600 | 3500 | W |
| per channel @ 2 Ω (asymmetrical)** | 1100 | 1600 | 1800 | 1800 | W |
| @ Hi-Z distributed line 100 V (asymmetrical)** | 1100 | 1500 | 2200 | 3000 | W |
| @ Hi-Z distributed line 70 V (asymmetrical)** | 1100 | 1700 | 2100 | 2100 | W |
| Maximum unclipped output voltage @ 8 Ω | 70 V _{peak} | 100 V _{peak} | 139 V _{peak} | 175 V _{peak} | |
| Maximum output current | 33 A _{peak} | 45 A _{peak} | 45 A _{peak} | 55 A _{peak} | |

*: All channels driven with the same burst power
 **: Maximum power-sharing capacity per channel

| Power & Thermal | | 1204 | 2404 | 4804 | 8804 | |
|-----------------|-------------------|------|------|------|------|------------------|
| @ 115 V | Power | 31.1 | 31.1 | 31.3 | 34 | W |
| | Idle Current Draw | 0.45 | 0.45 | 0.47 | 0.56 | A _{rms} |
| | Thermal Loss | 106 | 106 | 107 | 116 | BTU/h |
| | 1/8 Power @ 4Ω | 227 | 405 | 823 | 1702 | W |
| | Current Draw | 2.1 | 3.7 | 7.7 | 15.6 | A _{rms} |
| | Thermal Loss | 261 | 360 | 760 | 1713 | BTU/h |
| @ 230 V | Power | 31.5 | 31.5 | 31.6 | 34 | W |
| | Idle Current Draw | 0.25 | 0.25 | 0.27 | 0.37 | A _{rms} |
| | Thermal Loss | 107 | 107 | 108 | 117 | BTU/h |
| | 1/8 Power @ 4Ω | 251 | 405 | 840 | 1676 | W |
| | Current Draw | 1.4 | 2.1 | 4.3 | 8.2 | A _{rms} |
| | Thermal Loss | 344 | 360 | 818 | 1624 | BTU/h |

| | |
|------------------------|---|
| Power supply | Universal regulated switch mode with PFC, SRM |
| Nominal voltage (±10%) | 100-240 VAC @ 50-60Hz |
| Operating Voltage | 90-264 VAC |
| AC Mains connector | IEC C20 inlet (20 A max) region-specific power cord provided |

Typical use case power consumption is expected to be at least 20% lower (likely more than 50% lower)

| Networking | |
|----------------------|--|
| Standards compliance | auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) |
| Supported topologies | Star |
| Remote interface | ArmoniaPlus™ |
| Construction | |
| Dimensions | 483 x 44.5 x 358 mm 19.0 x 1.75 x 14.1 in |
| Weight | 7 Kg (15 lb) |

Data subject to change without notice.

