Quattrocanali DSP+ Series

4-Channel Fixed Installation Amplifier Platform with DSP and AES67

TOURING
INSTALLATION

POWER SHARING | 4 LO-Z HI-Z CHANNELS | 1U | ROUTING CHANNEL | AUDIO NETWORK | DSP ON BOARD | SAFETY RELIABILITY | SRM | PFC | ArmoníaPlus 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

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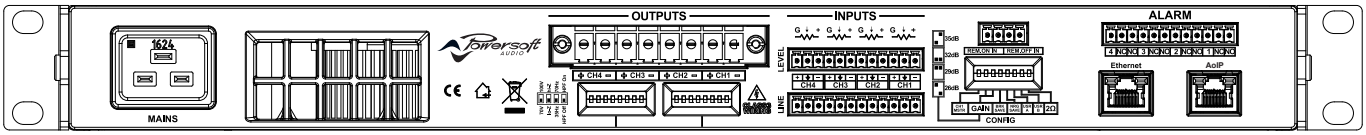

Specifications

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	
Maximum output power	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	Idle	Power	31.1	31.1	31.3	34	W
		Current Draw	0.45	0.45	0.47	0.56	A_{rms}
		Thermal Loss	106	106	107	116	BTU/h
	1/8 Power @ 4Ω	Power	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	Idle	Power	31.5	31.5	31.6	34	W
		Current Draw	0.25	0.25	0.27	0.37	A_{rms}
		Thermal Loss	107	107	108	117	BTU/h
	1/8 Power @ 4Ω	Power	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	ArmoníaPlus™

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.