Quattrocanali DSP+D Series

4-Channel Fixed Installation Amplifier Platform with DSP and Dante™

TOURING

INSTALLATION

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 85-275 VAC 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 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 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

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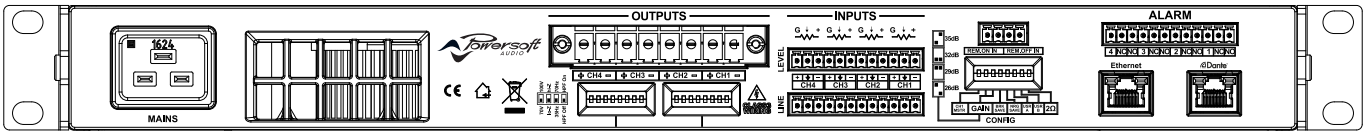

Specifications

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
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	ArmoníaPlus™

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

Data subject to change without notice.