



PLD Series

PLD4.2 | PLD4.3 | PLD4.5 Multi-Channel System Processing Amplifiers

Features

- Total power up to 8,000 watts.
- Flexible Amplifier Summing Technology™ (FAST) drives most any loudspeaker system or configuration by distributing total amplifier power across one, two, three or all four channels.
- Four channels of full function onboard loudspeaker DSP with Crossover and Parametric EQ Filters, Limiting and Alignment Delay eliminate the need for outboard loudspeaker processors.
- Powerful Intrinsic Correction™ processing maximizes the sonic performance of QSC loudspeakers.
- 20 Factory Preset configurations that can be modified and stored in the 50 User Presets.
- PowerLight universal switchmode power supply with PFC for highest efficiency, improved audio performance, and low weight.
- Four Input XLR connectors, and six NL-4 Output connectors.
- Integrated front panel with channel Select and Mute buttons, Input and Output LED Metering, 400x240 LCD, intuitive navigation buttons, LED power button and indicator, and cast aluminum handles.
- Preset Wizard simplifies amplifier configuration providing loudspeaker selection from a list of the top selling passive speakers.



The QSC PLD Series represents a revolutionary advancement in amplifier technology and innovation. Designed specifically for the needs of portable and production sound system users, PLD provides efficient, robust and extraordinarily high fidelity power to drive multiple channels and configurations of loudspeakers while simultaneously deploying sophisticated digital processing – all with minimal operator complexity. The PLD Series consists of three powerful, lightweight, four-channel amplifiers, each with onboard, advanced DSP and the capability to configure and combine channels in various ways to drive a wide range of loudspeaker systems. These amplifiers not only make your system perform better today, but also provide a wide and flexible range of options for future system growth.

Flexible Amplifier Summing Technology™ (FAST)

PLD amplifiers feature Flexible Amplifier Summing Technology™ (FAST) that actively distributes the total amplifier power in various combinations across one, two, three, or all four outputs. This flexibility allows PLD Series amplifiers to drive (for example) four full-range loudspeakers or subwoofers; a high-power subwoofer and a bi-amplified speaker; a single high-power full-range loudspeaker and subwoofer combo; or multiple power-hungry subwoofers from a single, very high output mono-block.

Advanced Amplifier Technology

The PLD Series amplifiers use QSC fourth generation class-D power amp design in combination with a custom power stage utilizing a new, purpose-built output device. These innovative MOSFET devices provide high voltage operation without needing a full bridge output and offer superior audio quality due to co-location of the semiconductors. Additionally PLD amps benefit from the famed and road-proven PowerLight power supply, further enhanced with Power Factor Correction (PFC) that aligns the current waveform with the AC mains voltage waveform. PFC enables PLD Series amps to draw current from the wall in a more efficient and controlled manner resulting in incredible power from a single standard AC breaker. Additionally, the PLD Series amps offer multi-stage sleep modes, saving energy when possible without ever sacrificing performance. The result is an exceptionally

powerful and flexible platform that offers low weight and outstanding efficiency.

System Processing

PLD Series is more than just an amplifier; it is also a capable and sophisticated loudspeaker processor. The close integration of processing and amplification allows the DSP to monitor and better respond to amplifier behavior, making dynamics processing far more accurate and effective than that typically achieved with separate components. This synergistic approach employs both RMS and Peak Limiters that allow the combination of amplifier and loudspeaker to produce more output without being pushed to distortion or destruction. In addition to the dynamics processing, the onboard DSP offers four channels of crossover filters, parametric EQ, and alignment delay - everything needed to optimize a loudspeaker system. PLD amplifiers also offer Intrinsic Correction™, a combination of IIR and FIR Filtering and loudspeaker processing methodology first developed for our WideLine line array loudspeakers. Intrinsic Correction compensates for the non-linearities in loudspeaker array and horn design and results in notably superior performance from your QSC loudspeakers.

Preset Wizardry

The on-board processing is managed and stored as presets, with 20 factory presets for the most common loudspeaker applications. For greater customization, the built-in Preset Wizard streamlines amplifier setup and provides loudspeaker selection from a list of top selling passive loudspeakers.

Space Efficient

With four channels of amplification plus drive rack signal processing in just 2RU, the PLD Series replaces equipment taking up as much as three times the rack-space. Simple to Use
With a dedicated front panel UI complete with LED meters and indicators, a 400x240 TFT color display, a rotary encoder and ergonomic navigation buttons, PLD amplifiers provide an intuitive interface for the user to control the system. The simplicity of the PLD amps is further illustrated by the fact that a complete system can be set up in mere minutes.

PLD Details

		PLD4.2	PLD4.3	PLD4.5
		Peak	Peak	Peak
4 Independent Channels A, B, C, D	8Ω	500 W	900 W	1200 W
	4Ω	700 W	1400 W	2000 W
	2Ω	625 W	1200 W	1600 W
2 Channels BTL Bridged A+B or C+D Doubles Voltage	8Ω	1200 W	2400 W	4000 W
	4Ω	1500 W	NR*	NR*
	2Ω	NR*	NR*	NR*
2 Channels Parallel AB or CD Doubles Current	8Ω	500 W	1300 W	1250 W
	4Ω	950 W	2000 W	2400 W
	2Ω	1200 W	2500 W	4000 W
1 Channel 3CH Parallel ABC Triples Current	8Ω	500 W	1400 W	1400 W
	4Ω	950 W	2400 W	2500 W
	2Ω	1800 W	3500 W	4500 W
1 Channel Bridged/Parallel AB+CD Doubles Current and Voltage	8Ω	1600 W	3500 W	4500 W
	4Ω	2500 W	5000 W	7500 W
	2Ω	NR*	NR*	NR*
1 Channel 4CH Parallel ABCD Quadruples Current	8Ω	500 W	1400 W	1600 W
	4Ω	1000 W	3000 W	3000 W
	2Ω	1700 W	5000 W	5300 W

BOLD = Optimal configuration for the load and channel count

PLD Details

	PLD4.2	PLD4.3	PLD4.5
Typical Distortion			
8 Ω	0.01 - 0.03%	0.01 - 0.03%	0.01 - 0.03%
4 Ω	0.03 - 0.06%	0.03 - 0.06%	0.03 - 0.06%
Maximum Distortion			
4 Ω - 8 Ω	1.0%	1.0%	1.0%
Frequency response (8 Ω)	20 Hz - 15 kHz +/- 0.2 dB 20 Hz - 20 kHz +0.2 dB / -0.7 dB	20 Hz - 15 kHz +/- 0.2 dB 20 Hz - 20 kHz +0.2 dB / -0.7 dB	20 Hz - 15 kHz +/- 0.2 dB 20 Hz - 20 kHz +0.2 dB / -0.7 dB
Noise			
Unweighted Output Unmuted	-101 dB	-101 dB	-101 dB
Weighted Output Muted	-109 dB	-109 dB	-109 dB
Gain (1.2V setting)	34.0 dB	38.4 dB	38.4 dB
Damping factor	>150	>150	>150
Input impedance	>10k, balanced or unbalanced	>10k, balanced or unbalanced	>10k, balanced or unbalanced
Maximum input level			
(3.9V setting)	12.28V (+24 dBu)	12.28V (+24 dBu)	12.28V (+24 dBu)
(1.2V setting)	3.88V (+14 dBu)	3.88V (+14 dBu)	3.88V (+14 dBu)
Controls and indicators (front)	Power • Channel MUTE Buttons • Channel SELECT Buttons • Channel Input Signal and CLIP LED Indicators • Channel Output and LIMIT LED Meters • HOME, ENTER, EXIT, GAIN Navigation Buttons • Control Knob		
Controls and indicators (rear)	AC Power Disconnect	AC Power Disconnect	AC Power Disconnect
Input connectors	Female XLR	Female XLR	Female XLR
Output connectors	NL4	NL4	NL4
Amplifier and load protection	Short circuit, open circuit, thermal, RF protection. On/Off muting, DC fault shutdown, active inrush limiting, input current limiting		
AC Power Input	Universal Power Supply 100 - 240 VAC, 50 - 60 Hz		
Dimensions (HWD)	3.5" x 19" x 12" (89mm x 482mm x 305mm)	3.5" x 19" x 16" (89mm x 482mm x 406mm)	3.5" x 19" x 16" (89mm x 482mm x 406mm)
Weight, Net / Shipping	18.5 lb (8.4 kg) / 22 lb (10.0 kg)	21.0 lb (9.5 kg) / 25 lb (11.3 kg)	22.0 lb (10.0 kg) / 26 lb (11.8 kg)
Agency approvals	UL, CE, RoHS/WEEE compliant, FCC Class A (conducted and radiated emissions)		
Carton contents	Locking IEC Cable, Quick Start Guide, USB Cable		

Burst Power - 20 ms 1 kHz sine burst, all channels driven

Continuous Power - EIA 1 kHz 1% THD, all channels driven

Specifications subject to change without notice.



1675 MacArthur Boulevard • Costa Mesa, CA 92626 • Ph: 800/854-4079 or 714/957-7100 • Fax: 714/754-6174

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