



## 8 Channel CXD-Q & CXD-Qn Series

### CXD8.8Q | CXD8.8Qn CXD8.4Q | CXD8.4Qn

Multi-Channel Network Amplifiers

#### Features

- Seamless Q-SYS integration with audio transport and control via standard Gigabit Ethernet protocols and hardware
- Capable of providing up to 8,000 W maximum power and 5,000 W continuous with Low-Z, 70V, or 100V direct drive available on all channels
- Flexible Amplifier Summing Technology™ (FAST) permits up to four channels to be combined for higher output power
- PowerLight universal switchmode power supply with PFC for highest efficiency, improved audio performance, and low weight
- CXD-Q models offer mic/line inputs into the Q-SYS ecosystem while CXD-Qn models are “network input only” to reduce system cost. All models provide touch-proof Euroblock loudspeaker connections
- Eight bi-directional GPIO connections that can be used for analog or digital inputs or outputs to/from Q-SYS
- Built-in energy saving modes ensure that the amplifier will draw the minimum amount of AC power while still providing outstanding audio quality



The QSC eight-channel CXD-Q and CXD-Qn Series amplifiers represent an advancement in amplifier technology coupled with outstanding integration capability as part of a Q-SYS system. Designed specifically for the needs of integrators, CXD-Q and CXD-Qn provide efficient, robust and extraordinarily high fidelity power to drive multiple channels and configurations of loudspeakers – all with optimal energy and rack space efficiency. The eight channel CXD-Q and CXD-Qn Series amplifiers consist of an 8,000W and 4,000W amplifier each. All models providing full Q-SYS capability with audio routing, processing and control. The amplifiers allow the user to configure and combine channels in various ways to drive a wide range of loudspeaker systems including 70V and 100V without the use of transformers. These amplifiers not only provide the power and processing make your system perform better, they offer outstanding efficiency ensuring that energy costs will be kept to a minimum over the life of the installation.

#### Flexible Amplifier Summing

CXD-Q Series amplifiers feature Flexible Amplifier Summing Technology™ (FAST) that enables the eight channels to be combined in banks of two with up to four channels combining in each bank for higher output power. With their +/- 150V rails, each channel on the CXD-Q Series amplifiers is capable of driving Low-Z, 70V, or 100V loads directly.

This flexibility allows CXD-Q Series amplifiers to drive (for example) two full-range surface mounted speakers along with a subwoofer and one 100V distributed speaker line; or a high-power subwoofer and a bi-amplified full-range loudspeaker; three 70V distributed speaker lines and a low impedance surface mount speaker line; or a single high-power channel driving monster subwoofers.

#### Q-SYS Connectivity

The CXD-Q and CXD-Qn Series amplifiers are part of the Q-SYS Platform. They are true Q-SYS peripherals meaning that they can connect on a Q-LAN Layer-3 network with the capability to source and receive signals. The CXD-Q models offer eight channels of mic/line input (with +12V phantom power) directly on the back of the amplifier that act as a Q-SYS on-ramps

in addition to amplification. The CXD-Qn models are network input only to simplify system design and reduce system cost when additional input are not needed. Both models provide eight bi-directional GPIO ports within the Q-SYS Platform for further interfacing with other equipment. It also means that the Q-Sys Platform can manage the fault protection and notification for these amplifiers. If for any reason an amplifier goes off-line or has a fault, the platform can alert the operator and ensure that system retains its integrity.

#### Power & Space Efficiency

The CXD-Q and CXD-Qn Series eight channel amplifiers use QSC's fifth generation class-D power amplifier design providing high voltage operation and offer outstanding audio quality and thermal performance. They benefit from the proven PowerLight power supply made better with Power Factor Correction (PFC) that aligns the current waveform with the AC mains voltage waveform. PFC enables these amplifiers to draw current from the wall in a more efficient and controlled manner resulting in incredible output power from a single standard AC breaker.

This series also incorporates several energy conservation and efficiency strategies, one of which is a unique multi-stage sleep mode that saves energy when possible without sacrificing performance.

With eight channels of amplification addressable from the network in just 2RU and eight channels of mic/line inputs on the “Q” models, the CXD-Q amplifiers replace equipment taking up as much as three times the rack space.

#### Integration Simplicity

The Q-SYS Platform is a complete integrated system that encompasses everything from the audio input to the output of the loudspeakers. As part of a Q-SYS system, the CXD-Q and CXD-Qn Series amplifiers are just some of the many peripherals that can be intuitively placed in a design and wired into the system. The centralized design maintains operational simplicity because not only does it allow for a “whole system” design philosophy, but Q-SYS configures and manages all peripherals to ensure that all elements of the system are functioning correctly.

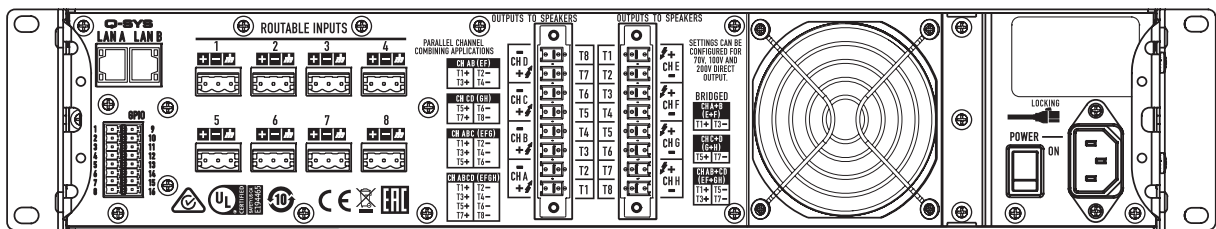
# 8-Channel CXD-Q Series Specifications

	CXD8.4Q / CXD8.4Qn		CXD8.8Q / CXD8.8Qn	
		Max Power		Max Power
8 Independent Channels A, B, C, D, E, F, G, H	70 V	500 W		850 W
	100 V	500 W		850 W
	8Ω	500 W		850 W
	4Ω	500 W		1000 W
	2Ω	500 W		600 W
2 Channels Combined in BTL Bridge A+B or C+D or E+F or G+H Doubles Voltage	8Ω	<b>1000 W</b>		<b>2000 W</b>
	4Ω	NR		NR
	2Ω	NR		NR
2 Channels Combined in Parallel AB or CD or EF or GH Doubles Current	8Ω	1000 W		1100 W
	4Ω	<b>1000 W</b>		<b>1800 W</b>
	2Ω	<b>1000 W</b>		<b>2000 W</b>
3CH Combined in Parallel ABC or EFG Triples Current	8Ω	1000 W		1100 W
	4Ω	1500 W		1800 W
	2Ω	1500 W		2800 W
4CH Combined in Bridged/Parallel AB+CD Doubles Current and Voltage	8Ω	<b>2000 W</b>		<b>3600 W</b>
	4Ω	<b>2000 W</b>		<b>4500 W</b>
	2Ω	NR		NR
4CH Combined in Parallel ABCD or EFGH Quadruples Current	8Ω	1200 W		1200 W
	4Ω	2000 W		2200 W
	2Ω	<b>2000 W</b>		<b>4000 W</b>

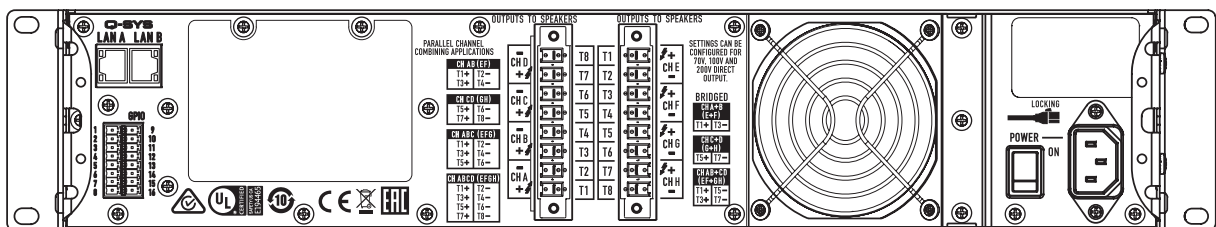
NR\* = Not Recommended due to excessive current draw

Max Power - 20 ms 1 kHz Sine wave burst, all channels driven.

**BOLD** = Optimal configuration for the load and channel count



CXD8.4Q / CXD8.8Q



CXD8.4Qn / CXD8.8Qn

# 8-Channel CXD-Q Series Specifications

	CXD8.4Q / CXD8.4Qn	CXD8.8Q / CXD8.8Qn
<b>Typical distortion</b>		
8Ω	0.02 - 0.05%	0.02 - 0.05%
4Ω	0.04 - 0.1%	0.04 - 0.1%
<b>Maximum distortion</b>		
4Ω - 8Ω	1.0%	1.0%
<b>Frequency response (8Ω)</b>	20 Hz - 20 kHz +/- 0.3 dB	20 Hz - 20 kHz +/- 0.3 dB
<b>Noise</b>		
Unweighted output unmuted	>101 dB	>101 dB
Weighted output muted	>104 dB	>104 dB
Gain (1.2V setting)	38.4 dB	38.4 dB
Damping factor	>100	>100
Input impedance	>8k balanced and >4k unbalanced	>8k balanced and >4k unbalanced
<b>Input Sensitivity</b>		
Continuously variable:	Vrms 1.23mV to 17.35V	Vrms 1.23mV to 17.35V
	dBu -56 to 27	dBu -56 to 27
	dBv -58.2 to 24.8	dBv -58.2 to 24.8
Controls and indicators (front)	Power • Channel MUTE Buttons • Channel SELECT Buttons • Channel Input Signal and CLIP LED Indicators • Channel Output and LIMIT LED Meters • NEXT, PREV, ID Buttons • Control Knob	
Controls and indicators (rear)	Euro (green) Power Disconnect	
<b>Input connectors</b>		
CXD8.4Q & CXD8.8Q	3-pin Euro (green) and Q-LAN Network connectivity	
CXD8.4Qn & CXD8.8Qn	Q-LAN Network connectivity only	
Output connectors	8-pin Euro (green)	
Amplifier and load protection	Short circuit, open circuit, thermal, RF protection. On/Off muting, DC fault shutdown, active inrush limiting	
AC power input	Universal power supply 100 - 240 VAC, 50 - 60 Hz	
<b>Dimensions (HWD)</b>	3.5" x 19" x 16" (89mm x 482mm x 406mm)	3.5" x 19" x 16" (89mm x 482mm x 406mm)
<b>Weight, net / shipping</b>	25 lb (11.3 kg) / 29 lb (13.2 kg)	26 lb (11.8 kg) / 30 lb (13.6 kg)
Agency approvals	UL, CE, RoHS/WEEE compliant, FCC Class A (conducted and radiated emissions)	
Carton contents	IEC Cable, quick start guide, Euro (green) connectors	



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8 Channel CXD-Q Spec Sheet 06/01/2017



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