QSC CX108V & QSC CX168 Audio Power Amplifier

CX 8-Channel Professional Audio Power Amplifiers

Designed for permanently installed sound systems where rack-space is at a premium, QSC's CX108V and CX168 provide unprecedented levels of channel density for multi-channel amplifiers. The QSC CX108V and QSC CX168 provide 100 watts per channel at 70 volts and 90 watts per channel at 8 ohms respectively. With both models, each pair of channels may be bridged to configure these amplifiers as 4, 5, 6, or 7 channel units. Like the entire CX Series, the 8 channel models features DataPorts for remote amplifier management or signal processing, incorporate QSC's legendary PowerLight® technology, and deliver our unmatched reputation for quality and reliability.

QSC's PowerLight technology takes your audio to an entirely new level. Delivering tighter bass and clean, transparent highs, PowerLight also cuts waste heat, boosts reliability and eliminates unwanted noise and hum. PowerLight is a revolutionary switching power supply technology that provides ample current to the audio power circuitry by charging the supply rails over 200,000 times per second through an ultra-low noise impedance circuit. Unlike amplifiers that use conventional supplies, the QSC 8-channel amplifier's audio signal is never starved prematurely and remains crisp and clean.

FEATURES & BENEFITS

1. 100 Watts per Channel at 70 Volts (CX108V)
2. 90 Watts per Channel at 8 Ohms and 130 Watts per Channel at 4 Ohms (CX168)
3. Compact Size – Only Two Rack Spaces and 14" Deep for Reduced Rack Space
4. Channel Pairs Bridgeable for Maximum Flexibility
5. Exclusive PowerLight Switch-Mode Power Supply Technology for High Performance and Compact Size
6. Active Inrush Limiting Eliminates AC Inrush Current, Removing the Need for Expensive Power Sequencers
7. Four HD15 DataPorts (One per Channel Pair) for QSControl Computer Control or QSC's Signal Processing Accessories
8. Custom Integrated Gain Control Security Cover for Tamper Proof Installations
9. 1 dB Recessed Detented Gain Control for Fast and Accurate Settings
10. Detachable Euro Style Input and Output Connectors
11. DIP Switch Control for Clip Limiters, High-Pass Filters, Bridge Mono and Parallel Operation
12. Selectable High-Pass Filters Protect Speakers and Prevent Speaker Transformer Saturation with Minimal Effect on Program Material (50 Hz or 75 Hz; CX108V) (33 Hz or 70 Hz; CX168)
13. Comprehensive Front Panel Indicators Including Signal, Clip, Bridge Mono and Parallel-Input LEDs
14. Fully Protected – Including DC, Infrasonic and Ultrasonic, Thermal Overload and Short Circuit Protection
15. High-Performance Class AB+B Complementary Bipolar Output Circuitry
16. Lightweight – Only 21 lbs (9.5 kg) for Easier Racking and Shipping
17. 3 Year Warranty Plus Optional 3 Year Extended Service Contract

SPECIFICATIONS

	CX168	CX108V	
Watts Per Channel			
8Ω / 20 Hz-20 kHz / 0.05% THD	8 x 90	–	
4Ω / 20 Hz-20 kHz / 0.1% THD	8 x 130	–	
70V / 20 Hz-20 kHz / 0.2% THD	–		8 x 100
Stereo Mode (all channels driven)	Continuous average output power per channel		
8Ω / 20 Hz-20 kHz / 0.05% THD	90 W	–	
4Ω / 20 Hz-20 kHz / 0.1% THD	130 W		
Midband Ratings	All Channels Driven	Single Channel	
8Ω / 1 kHz / 0.1% THD	100 W	120 W	–
4Ω / 1 kHz / 0.1% THD	140 W	180 W	–
70V / 20 Hz-20 kHz / 0.2% THD	–		100 W
Bridge Mono Mode	Bridge mono mode operation		
16Ω / 20 Hz-20 kHz / 0.1% THD	180 W	–	
8Ω / 20 Hz-20 kHz / 0.1% THD	260 W	–	
140V / 20 Hz-20 kHz / 0.2% THD	–		200 W
Signal to Noise (20 Hz-20 kHz)	-107 dB		-100 db
Input Sensitivity	1.25 Vrms at 8Ω		1.26 Vrms at 70V
Voltage Gain	20× (26 dB)		56× (35 dB)
Input Clipping	6 Vrms (+18 dBu)		6 Vrms (+18 dBu)
Output Circuitry	AB+B		AB+B
Frequency Response	20 Hz-20 kHz, + 0.2 dB		20 Hz-20 kHz, + 0.4dB
	8 Hz-50 kHz, + 0/-3 dB		8 Hz-70 kHz, + 0/-3 dB
Damping Factor	>200 (5 kHz and below)		>500 (5 kHz and below)
Input Impedence	6k ohms unbalanced, 22k ohms balanced		6k ohms unbalanced, 22k ohms balanced
Distortion (SMPTE-IM)	< 0.02%		
Distortion (typical)			
20 Hz-20 kHz: 10 dB below rated power	< 0.1% THD		
1.0 kHz and below: full rated power	< 0.03% THD		
Cooling	Variable-speed fan / rear-to-front air flow through tunnel heat sink		
Connectors			
Input	3-pin euro-style detachable terminal blocks (one per channel)		
DataPort	HD-15 connector (Ch. 1+2, 3+4, 5+6, 7+8)		
Output	two 8-pin euro-style detachable terminal blocks		
Controls			
Front	AC switch, Ch. 1, 2, 3, 4, 5, 6, 7 & 8 gain knobs		
Rear	DIP switches for Ch. 1-8, clip limiter on/off, LF filter freq select 33 or 70 Hz for CX168, LF filter freq select 50 or 75 Hz for CX108V, inputs parallel or stereo; bridge mono		
Indicators			
Power-On	Green LED		
Parallel Inputs	Orange LED (1 per channel pair)		
Signal -35 dB	Green LED (1 per channel)		
Bridged	Yellow LED (1 per channel)		
Clip	Red LED (1 per channel)		
Amplifier Protection	Full short circuit, open circuit, thermal, ultrasonic, and RF protection. Stable into reactive or mismatched loads		
Load Protection	On/off muting, individual channel DC fault blocking		
Dimensions (H×W×D)	3.5" (8.9 cm) 2 rack spaces x 19" (48.3 cm) rack mounting x 14" (35.6 cm) from front mount rails		
Weight – Net/Shipping	21 lbs (9.5 kg)/27 lbs (12.3 kg)		
Power Requirements	100, 120, 230 VAC, 50-60 Hz (configured at factory)		

120V Current Consumption (Multiply currents by 0.5 for 230V units)

Idle			0.6 A	0.6 A
1/8 power pink noise	8Ω		6.2 A	–
(typical of program material	4Ω		9.2 A	–
at maximum unclipped power)	70V		–	6.3 A
1/3 power pink noise	8Ω		9.2 A	–
(typical of program material	4Ω		14.2 A	–
with severe clipping)	70V		–	9.4 A