QX500D

High-Performance 2-Channel 500W Power Amplifier

The Quest QX500D is a high-performance 2 x 250W power amplifier engineered for versatile installation applications. Utilizing advanced UMAC™ Class-D technology, it offers exceptional efficiency and intelligent auto load sensing for both Low-Z and High-Z configurations. Its compact design supports wall or table mounting and high-density installation with up to 10 units per 3RU rack space. Robust construction – including a diecast base and comprehensive protection circuits – ensures reliable operation in demanding environments, making the QX500 a dependable solution for professional audio systems.

KEY SPECIFICATIONS

Channels	2 x 250W (Low-Z) or 1 x 500W (Bridge Mono for Low-Z & 70/100V)
Mounting	Wall/Table
Rack Density	3 units per 1RU

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SPECIFICATIONS

POWER	**NORMAL OPERATION (PEAK)**						**BRIDGE-MONO MODE**			
	Load	**Total Power**	**8Ω**	**4Ω**	**70V**	**100V**	**8Ω**	**4Ω**	**70V**	**100V**
	Maximum Dynamic Power (@1kHz, 1% THD)	500W	2 x 250W	2 x 250W	N/A	N/A	1 x 500W	1 x 500W	1 x 500W	1 x 500W
	NORMAL OPERATION (RMS)						**BRIDGE-MONO MODE**			
	Load	**Total Power**	**8Ω**	**4Ω**	**70V**	**100V**	**8Ω**	**4Ω**	**70V**	**100V**
	Maximum Continuous Power (@1kHz, 1% THD)	300W	2 x 150W	2 x 150W	N/A	N/A	1 x 300W	1 x 300W	1 x 300W	1 x 300W

I/O	OUTPUT CIRCUITRY	UMAC™ Class-D – full bandwidth PWM modulator with ultra-low distortion
	OUTPUT CHANNELS	Two Speaker Level Outputs via 4-pin Euroblock/Phoenix connector with 5.08 mm pitch.
	INPUT CHANNELS	Two Analogue Balanced Line Level Inputs via 6-pin Euroblock/Phoenix connector with 3.50mm pitch summed with Two digital audio inputs via Dante/AES67, provided on RJ45 connector. Out 1 = A1 + D1, Out 2 = A2 + D2
	DEFAULT GAIN	26 dB (Stereo Mode), 32dB (Bridged-Mono Mode)
	FREQUENCY RESPONSE	20Hz - 20kHz (+/-0.3dB), 4Hz - 48kHz (-3dB)
	TOTAL HARMONIC DISTORTION	<0.005% (1kHz, 5W, 8ohm load)
	DYNAMIC RANGE	104 dBA
	MAXIMUM INPUT LEVEL	+22 dBu (Analogue), 0dBFS (Digital)
	INPUT IMPEDANCE	10 kΩ
	LATENCY	N/A
C	CONTROLS AND INDICATORS (FRONT)	Per Channel: Volume Potentiometer Per unit (applies to both channels): 80 Hz HPF switch, 100 Hz LPF switch, Bridge-Mono switch and Auto-Standby switch. LED Indicators: A (Blue/Orange) - Active/Standby/Mute P (Orange) - Protection/Mute S (Green) - Signal Detection L (Orange) - Limiter For a full list of possible combinations of LEDs during operation, please see Quick Start Guide.
	CONTROLS AND INDICATORS (REAR)	ERR / CTRL / SNC / SYS (Dante Status) RST (Dante Factory Reset Switch)
	CONTROL AND MONITORING	N/A
	DIGITAL SIGNAL PROCESSING	N/A
	PROTECTION CIRCUITS	Thermal protection, over-current protection, DC protection, HF protection
P	MAINS POWER INPUT	Universal Mains, 100-240V, 50-60Hz
	MAINS CONNECTOR	Standard IEC C14
	POWER CONSUMPTION - STANDBY	2.0 W
	POWER CONSUMPTION - IDLE	9.0 W
	POWER CONSUMPTION - 1/8TH POWER / 8Ω LOAD	53 W
	POWER CONSUMPTION - 1/3RD POWER / 8Ω LOAD	125 W
H	HEAT GENERATED - STANDBY	1.4 BTU/hr / 0.3 kJ per hour
	HEAT GENERATED - 1/8TH POWER / 8Ω LOAD	43 BTU/hr / 11 kJ per hour
	COOLING	Fan-forced air cooling – temperature-dependent
	FAN NOISE (ANECHOIC CHAMBER @ 1m)	38 dB(A)
S	RACK SIZE	1RU High and 1/3-Rack Width
	DIMENSIONS (W x H x D)	125 x 44.5 x 330 mm (5.5 x 1.75 x 13")
	WEIGHT	1.52 kg (3.35 lbs)
	SHIPPING DIMENSIONS (W x H x D)	255 x 75 x 415 mm (10.0 × 2.95 × 16.3")
	SHIPPING WEIGHT	2.6 kg (5.7 lbs)
A	ACCESSORIES (INCLUDED)	Mains cable, feet, Euroblock/Phoenix plugs, rack ears
	ACCESSORIES (AVAILABLE SEPARATELY)	uRAK2 and WBQX300
	OPTIONS	Analogue version available – QX500A

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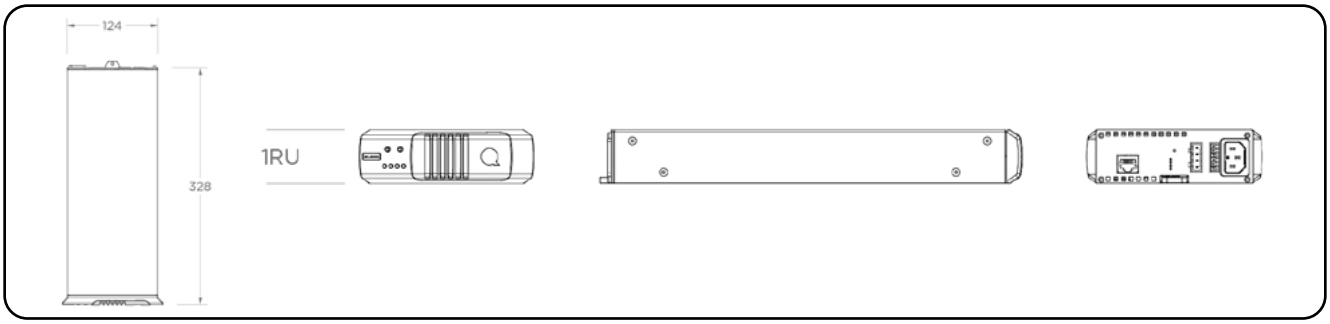
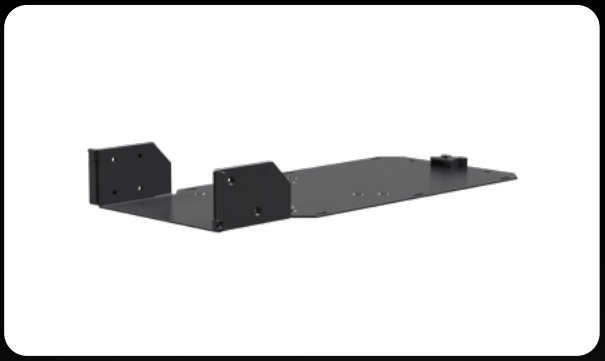


ACCESSORIES

uRAK2



WBQX300

QX500D

The amplifier shall be a two-channel Class D power amplifier employing UMAC™ full-bandwidth PWM modulation with ultra-low distortion. The amplifier shall feature two analogue balanced line-level inputs summed with two network audio inputs via Dante™ (AES67 compatible) and provide a maximum dynamic power output of 2 x 250 W into 4 ohms and 2 x 250 W into 8 ohms. In bridged mode, the amplifier shall deliver 1 x 500 W into 4 ohms, 8 ohms, 70 V or 100 V lines. Maximum continuous power output shall be 2 x 150 W into both 4 ohms and 8 ohms. Bridged continuous output power shall be 300 W into 8 ohms, 4 ohms, 70 V and 100 V.

Frequency response shall be 20 Hz to 20 kHz (±0.3 dB) and 4 Hz to 48 kHz (-3 dB). Total harmonic distortion shall not exceed 0.005% (1 kHz, 5 W, 8-ohm load). The amplifier shall provide a dynamic range of 104 dB (A-weighted), a maximum input level of +22 dBu (analogue) and 0 dBFS (digital), and an input impedance of 10 kilohms. Default voltage gain shall be 26 dB in stereo mode and 32 dB in bridged-mono mode.

Input connections shall be two analogue balanced line-level inputs via a 6-pin Euroblock/Phoenix connector with 3.50 mm pitch, and two Dante digital audio inputs via an RJ-45 connector. Analogue and digital inputs shall be summed per channel (Output 1 = A1 + D1, Output 2 = A2 + D2). Output connections shall be two speaker-level outputs via a 4-pin Euroblock/Phoenix connector with 5.08 mm pitch.

Front panel controls shall include per-channel volume potentiometer, per unit 80 Hz high-pass filter switch, 100 Hz low-pass filter switch, bridge-mono switch, and auto-standby switch. Front panel LED indicators shall show active/standby/mute, protection/mute, signal detection, and limiter status. Rear panel shall provide Dante status indicators (ERR, CTRL, SNC, SYS) and a Dante factory reset switch. The amplifier shall not feature onboard DSP or remote control and monitoring capability. Protection features shall include thermal protection, over-current protection, DC protection, and high-frequency protection.

The amplifier shall operate on 100–240 V AC, 50/60 Hz, with a standard IEC C14 mains connector. Power consumption shall not exceed 2.0 W (standby), 9.0 W (idle), 53 W (1/8 power, 8-ohm load), or 125 W (1/3 power, 8-ohm load). Cooling shall be provided by temperature- dependent fan-forced air cooling. Fan noise shall not exceed 38 dB(A) measured at 1 metre in anechoic conditions.

The amplifier shall occupy 1RU of vertical rack space and 1/3 rack width. Physical dimensions shall be 125 mm (W) x 44.5 mm (H) x 330 mm (D). Shipping dimensions shall be 255 mm (W) x 75 mm (H) x 415 mm (D). Net weight shall be 1.52 kg; shipping weight shall be 2.6 kg. The amplifier shall be supplied with mains cable, rack ears, rubber feet, and Euroblock connectors. The amplifier shall be the Quest QX500D.

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