QX500A

High-Performance 2-Channel 500W Power Amplifier

The Quest QX500A 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 3.50 mm pitch.
	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	110 dBA
	MAXIMUM INPUT LEVEL	+22 dBu
	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)	N/A
	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	0.6 W
	POWER CONSUMPTION - IDLE	7.7 W
	POWER CONSUMPTION - 1/8TH POWER / 8Ω LOAD	52 W
	POWER CONSUMPTION - 1/3RD POWER / 8Ω LOAD	123 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	1.43 kg (3.15 lbs)
	SHIPPING DIMENSIONS (W x H x D)	255 x 75 x 415 mm (10.0 × 2.95 × 16.3")
	SHIPPING WEIGHT	2.5 kg (5.5 lbs)
A	ACCESSORIES (INCLUDED)	Mains cable, feet, Euroblock/Phoenix plugs, rack ears
	ACCESSORIES (AVAILABLE SEPARATELY)	uRAK2 and WBQX300
	OPTIONS	Dante version available – QX500D

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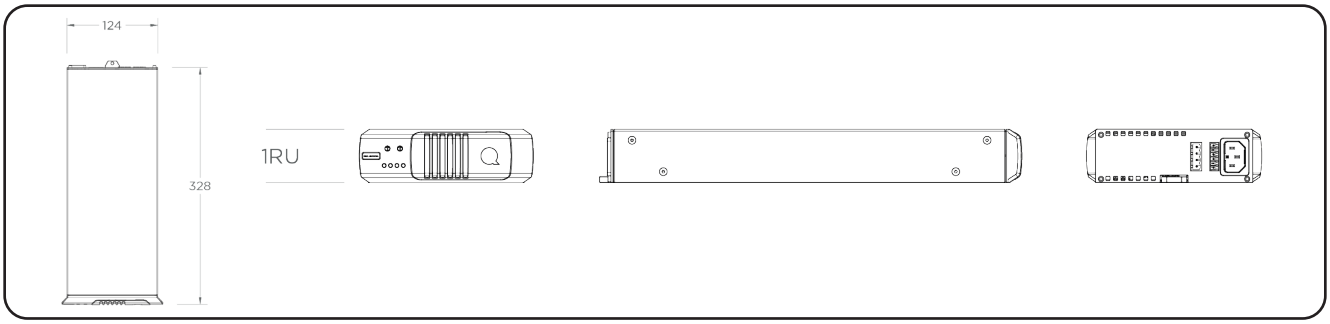
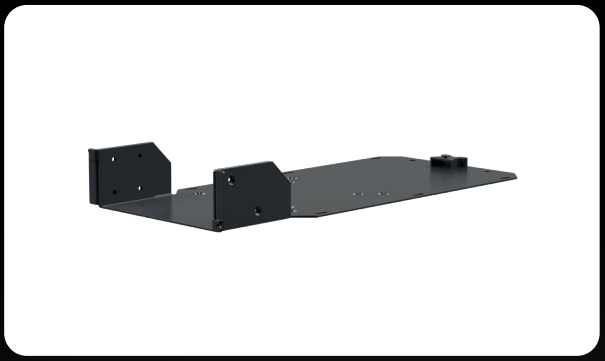


ACCESSORIES

uRAK2



WBQX300

QX500A

The amplifier shall be a two-channel Class D power amplifier employing UMAC™ full-bandwidth PWM modulation with ultra-low distortion. The amplifier shall 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 110 dB (A-weighted), a maximum input level of +22 dBu, and an input impedance of 10 kΩ. 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. 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 controls shall not be provided. 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 0.6 W (standby), 7.7 W (idle), 52 W (1/8 power, 8-ohm load), or 123 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 1.43 kg; shipping weight shall be 2.5 kg.

The amplifier shall be supplied with mains cable, rack ears, rubber feet, and Euroblock connectors. The amplifier shall be the Quest QX500A.

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