

AX6240/AX6220

ENERGY-EFFICIENT, DSP-POWERED AND
ETHERNET/USB-CONTROLLED 4000/2600-WATT
LOW-IMPEDANCE AMPLIFIER

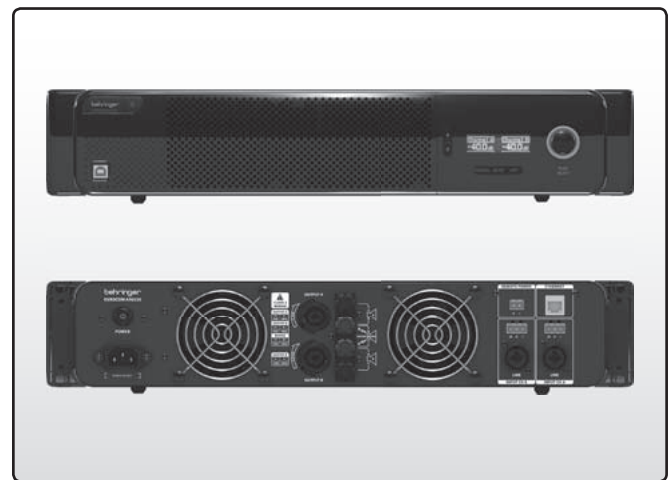
EUROCOM Installed Sound

AX6240/AX6220 Features:

- Ultra-reliable, dual-channel power amplifier designed for continuous operation in distributed music, paging and AV applications
- State-of-the-art, energy-saving Switch-Mode Power technology with up to 73% power efficiency drastically reduces energy cost
- 2 transformerless, cool-running Class-H amplifiers drive low-impedance loads down to 2 Ω
- High-performance DSP and 24-bit/96 kHz converters deliver ultimate signal integrity and extreme dynamic range
- DSP section features sophisticated delay, crossover, EQ (8 parametric, 2 dynamic), dynamics processing and lockable security settings
- Can be set up, controlled and monitored through standard Ethernet network or on-site via front panel USB connector
- Front panel LCD display enables setup and adjustment without PC
- 2 line level inputs via 3-pin Euroblock or XLR/TRS combination connectors
- NL4 type and screw-down binding post outputs for ultimate flexibility and reliability
- Front panel VU metering, mute indication, system fault, over-current or overdrive indicators and illuminated master volume ring with clipping indication
- "Zero"-attack Limiters on all output channels with independent DC and thermal overload protection automatically protects amplifier and speakers

Product Overview:

The Eurocom AX6240 and AX6220 are professional high-performance 2-channel power amplifiers featuring digital signal processing and Ethernet/USB control. The AX6240 delivers up to 1500 watts RMS per channel into loads down to 2 Ω , and up to 2900 watts RMS in bridged mono mode (4 Ω). The AX6220 delivers up to 1000 watts RMS per channel into loads down to 2 Ω , and up to 2000 watts RMS in bridged mono mode (4 Ω). Both models utilize transformerless Class-H topology and state-of-the-art switch-mode power technology to provide low noise and superior transient response while reducing amplifier energy costs. Dual variable-speed fans create back-to-front ventilation to keep racks running cool, and "zero-attack" limiters combine with independent DC and thermal overload protections to safeguard the amplifiers and connected speaker systems.



AX6240/AX6220 Technical Specifications:

Power Output LO-Z	AX6220	AX6240
Peak, 1% THD, 1 kHz sine wave		
Stereo (both channels driven)		
8 Ω per channel	480 W	680 W
4 Ω per channel	900 W	1300 W
2 Ω per channel	1400 W	2250 W
Bridged mono		
8 Ω	1750 W	2560 W
4 Ω	2600 W	4000 W
RMS, 1% THD, 1 kHz sine wave		
Stereo (both channels driven)		
8 Ω per channel	400 W	550 W
4 Ω per channel	650 W	900 W
2 Ω per channel	1000 W	1500 W
Bridged mono		
8 Ω	1300 W	1850 W
4 Ω	2000 W	2900 W

Audio Inputs / Outputs

Line level inputs	2 x 3-pin Euroblock and XLR / TRS combo	
Input impedance	10 k Ω unbalanced, 20 k Ω balanced	
Input sensitivity	1 V @ 4 Ω	1 V @ 4 Ω
Input clipping	11 Vrms (+23 dBu)	11 Vrms (+23 dBu)



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Product Overview continued:

Featuring 24-bit/96 kHz converters to ensure flawless signal integrity, the AX6240/AX6220 processing section maintains an extremely broad dynamic range while offering sophisticated DSP options including delay, crossover, dynamics, and both parametric (8-band) and dynamic (2-band) EQ. Parameters may be set and stored using intuitive front-panel controls and the amber backlit LCD, which also displays meters and indicates muting, system fault, over-current, and overdrive. The front panel also has an illuminated master volume knob with a clipping indicator. For remote control and monitoring, BEHRINGER offers the powerful Amp Remote software application which may be run on PCs connected either locally via the front panel USB connector or remotely via rear-panel Ethernet. Changes to settings may be prevented with secure lockout.

Input channels accept balanced or unbalanced microphone or line-level signals via XLR/TRS combination jacks or 3-pin Euroblock connectors. Outputs may be connected to speakers via professional twist-lock connectors, banana plugs, or bare wire (binding post). A 2-pin Euroblock socket is provided for sequential power control and remote power on/off. All mating Euroblock connectors are included, as are integrated rack ears and screw covers. Designed for high-power applications in the most demanding installations, the Eurocom AX6240 and AX6220 offer maximum performance and unsurpassed value.

AX6240/AX6220 Technical Specifications continued:

Overall system gain @ 8 Ω	34 dB (AX6220)	36dB
Outputs	Binding posts and NL-4	
Output circuit type	Class H	Class H
Minimum load impedance	2 Ω	2 Ω
System Information	AX6220	AX6240
Frequency response	20 Hz – 20 kHz, +0 / -1 dB @ 1 W, 1 kHz dBr into 8 Ω load	
THD+N	< 0.25% @ 1 W, 1 kHz dBr into 8 Ω load	
Signal-to-noise ratio	87 dB (@ input 2 dBu) 93 dB (@ +22 dBu)	
Damping factor	> 220 @ 8 Ω	> 220 @ 8 Ω
Crosstalk	> -70 dB @ rated power, 1 kHz	> -68 dB @ rated power, 1 kHz

Indicators	Power indicator LED ring illumination (yellow) Overload/Protection LED ring (red) LCD display VU meters, system fault, overcurrent / overdrive indicators	
Operating temperature	14° F to 104° F (-10° C to +40° C)	14° F to 104° F (-10° C to +40° C)
Cooling method	Automatic variable speed fan rear to front airflow	

Digital Signal Processing (DSP)

PC control	Type B USB on front or IEEE 802.3 Ethernet network connector on back panel	
Display	LCD 128 x 32, amber backlit	
Digital delay function	0 – 300 ms	0 – 300 ms
Digital crossover function	3 filter types, (Butterworth, Bessel, (per channel) Linkwitz-Riley) up to 48 dB/octave	
Digital EQ function	8-band parametric, 2-band dynamic (per channel) equalizer	
Digital dynamics function	Zero attack limiter Zero attack limiter (per channel)	
Presets	20 total presets, 19 user-definable	

Power Supply

	AX6220	AX6240
Power consumption	7A @ 220-240 V~ 50/60 Hz; 12A @ 120 V~ 60 Hz; 14A @ 100 V~ 50/60 Hz	5A @ 220-240 V~ 50/60 Hz; 9A @ 120 V~ 60 Hz; 10A @ 100 V~ 50/60 Hz
Power efficiency	69%	69%
AC power source	100~120 V AC 50/60 Hz 220~240 V AC 50/60 Hz	

Dimensions / Weight

Dimensions (H x W x D)	3.5 x 19 x 16" / 95 x 483 x 408 mm 3.7 x 17 x 16" / 95 x 432 x 406 mm
Weight	21.6 lbs / 9.8 kg (AX6240) 21.4 lbs/ 9.7 kg

Materials

Case material	Cold-rolled steel
Face plate material	Perforated steel
Included accessories	Rack mount bracket



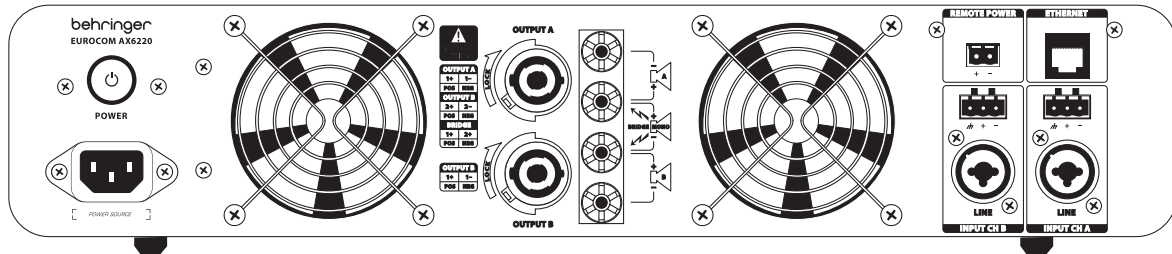
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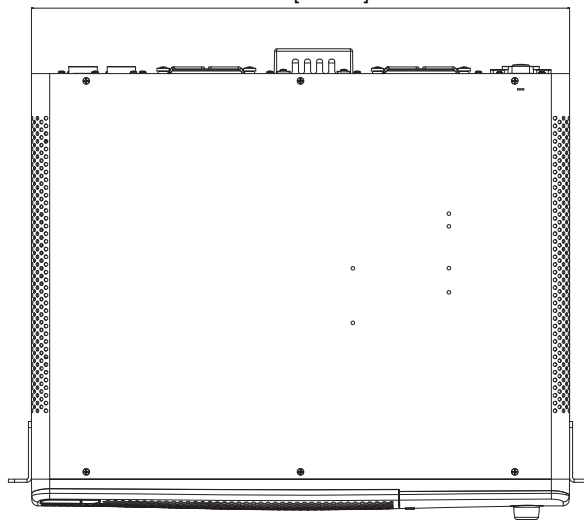
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Dimensional Drawings:



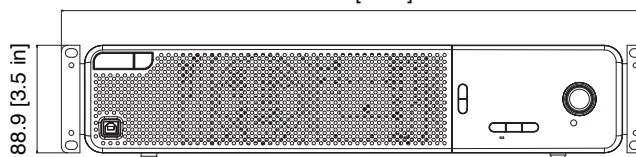
REAR

444.50 [17.5 in]



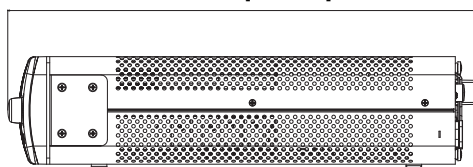
TOP

482.60 [19 in]



FRONT

390.10 [15.36 in]



SIDE

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Architect's and Engineer's Specifications:

Summary description: The amplifier shall be of Class H design with an energy-efficient switch-mode power supply and shall provide two low-impedance output channels in a 2U rack-mountable fan-cooled chassis with integrated DSP and remote Ethernet/USB control.

Digital signal processing (DSP) incorporated into the amplifier shall include delay, crossover, dynamics, parametric EQ (8-band), and dynamic EQ (2-band). The amplifier's A/D and D/A converters shall be 24-bit/96 kHz.

Controls and indicators shall include the following:

- Master Encoder knob for setting volume and DSP parameters
- Indicator ring for power (yellow) and clipping (flashing red)
- LCD screen to display current DSP module and settings
- Up and Down buttons to select DSP modules and parameters
- Process button to select DSP processing modules
- Setup button to select DSP parameters
- Exit button to display the top-level DSP menu
- AC power switch on rear-panel to turn amplifier on/off

Connections to the amplifier shall include the following:

- Remote power on/off on 2-pin Euroblock socket
- Inputs A and B, balanced or unbalanced mic or line-level, on XLR/TRS combination jacks and on 3-pin Euroblock sockets
- Outputs on NL4 panel connectors (twist-lock) and on binding posts (bare wire or banana plugs)
- Ethernet on RJ45 jack for LAN connection
- USB jack for connecting a computer
- AC power on IEC connector

Cooling and protection shall include back-to-front ventilation provided by dual variable-speed fans. Each amplifier output channel shall be protected against overload by a limiter. Each amplifier output channel shall incorporate independent DC and thermal overload protection.

Performance criteria met by the amplifier shall include:

- RMS power output (1 kHz @ 1% THD, 4Ω, bridged-mono) of 2900 W for AX6240 and 2000 W for AX6220
- Input sensitivity 1V @ 4 Ohms
- Input clipping of 11 V_{rms} (+23 dBu)
- Overall gain (8 Ω) of 36 dB for AX6240 and 34 dB for AX6220
- Frequency Response (8 Ω) of 20 Hz-20 kHz, +0/-1 dB
- Distortion (THD+N; 8 Ω) of less than 0.25% (1 W, 1 kHz)
- Signal to Noise Ratio of 87/93 dB at 2 dBu/+22 dBu
- Damping Factor (8 Ω) of greater than 220
- Crosstalk (1 kHz at rated power) of greater than -70 dB for AX6240 and -68 dB for AX6220

AC power requirements of the amplifier shall be 100 V (50/60Hz), 120 V (60Hz), or 220~240 V (50/60Hz).

Physical characteristics of the amplifier shall be:

- Height x Width x Depth of 3.5 x 17 x 16 in (89 x 432 x 406 mm)
- Net weight of not more than 21.6 lbs (9.8 kg)

Model: The power amplifier shall be the BEHRINGER EUROCOM AX6220/AX6240.