



Immersive HD Model D3200 Amplifier

Description:

AmbiSonic's new Model D3200 amplifier has been designed and engineered to deliver the best possible "Audiophile" quality sound. Featuring three (3) channels of clean power for multiple applications.

Channel one (1) output is 2000Wrms @ 4Ω with channels two (2) & three (3) output at 800Wrms @ 4Ω.

Coupled with a full featured Digital Signal Processor (DSP) for fine tuning of loudspeakers to their environment.



System Features:

- High power Tri-Amp DSP amplifier
- Advanced audiophile UMAC™ class D by Pascal™
- UREC™ SMPS with universal mains and regulated secondary voltages
- Mixed-mode 64 bits digital processing optimized for high performance audio
- DSP control via Ethernet connection, bundled Windows™ and MacOS™ DSP control SW
- 24bit/96kHz ADC/DAC, low 0.6ms latency
- Front panel LCD display and DSP controls
- Advanced cooling optimized for class D amplifiers
- Fan suspension and dual mode fan control for extra quiet operation in critical applications
- 2 analog inputs/outputs and digital AES/EBU input/output
- Maximum input level: +22dBu
- Front panel standby switch and multifunctional status LED
- External AC/DC trigger control for flexibility in installations

D3200 Specifications

SYSTEM SPECIFICATION:

Output power (at 1kHz, 1% THD+N, tested with AES17 filter)

Channel 1:	1,600Wrms @ 8Ω 2,000Wrms @ 4Ω 2,500Wrms @ 4Ω on typical loudspeaker load enabled by the XPC 1,200wrms @ 70v (Excessive Power Control) circuitry
Channels 2 and 3 each:	400Wrms @ 8Ω 800Wrms @ 4Ω & 70v
Channels 1 and 2/3 bridged:	2 x 1,600Wrms @ 8Ω 2 x 1,200w @ 70v

Operation voltage, Universal Mains (dual voltage auto selection): 95-240Vac, 50/60Hz

Power consumption (typical: 1/8 pink noise all channels at 8 Ohm) <500Wrms

Power consumption idle <40Wrms

Power consumption standby, at 120Vac {at 230Vac} <3Wrms {<6Wrms}

Input impedance, analog balanced 20kOhm

Input impedance, digital AES/EBU 110 Ohm

Power on/off trigger voltage, AC/DC 4-15V

Dimensions, WxHxD 19"x3.5x12.25" / 482.6x88.9x311.2mm

Weight (Net) 17.6lbs / 8kg

POWER AMP SPECIFICATION:

Frequency response (Ch2/Ch3 at 4/8 Ω load): 20 Hz - 20 kHz ± 0.1 dB / [20 Hz - 20 kHz ± 0.2 dB]

THD+N (AES17 filter) 1kHz, 1W, RL = 8Ω 0,003%

Signal-to-Noise Ratio (A-weighted, 20 Hz - 20 kHz, 8 Ω load) > 120 dB

Dynamic Range, Un-weighted/ Weighted 118dB / 120dB

Intermodulation distortion (CCIF), Ch2/Ch3, 18kHz/19kHz Po = 10W, 8Ω 0.0008% [0.001%]

Transient Intermodulation distortion (TIM), Ch2/Ch3, Po = 10W, 8Ω 0.002% [0.003%]

Damping factor (Ch2/Ch3 at 8 Ω load, 1 kHz and below): > 1000 [>500]

Protection Circuits: Input limiter, short circuit protection, DC protection of output, under & over voltage protection, intelligent on-board mains fuse protection, power stage overload protection, temperature protection

NOTE: [specs for Channel 1]

DSP FEATURES AND SPECIFICATION:

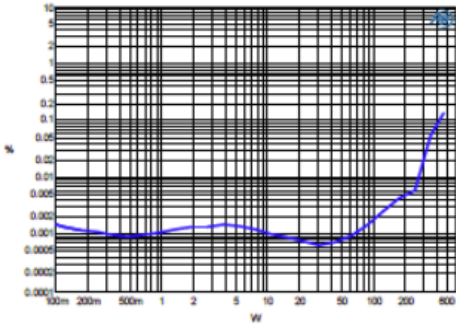
- Mixed-mode 64 bits digital processing
- Up to 96kHz sample rate, 24 bit conversion
- Frequency range 10Hz - 40kHz
- 120dB dynamic range
- Ethernet control interface
- Real-time configuration and monitoring via PC/MAC with numerical and graphic controls
- Front panel LCD display with controls and signal level LEDs
- 100 programmable presets, password protected access levels
- 10 parametric filters on each input and each output (Bell, Shelving, Notch, HPF, LPF or Allpass filters)
- 1s delay on each input; 20ms delay on each output
- Butterworth, Bessel, Linkwitz-Riley filters up to 24dB/oct
- Zero-attack limiter and configurable true RMS compressor on each input and each output
- 180° phase control on each output
- Latency 600 microseconds only
- Advanced grouping functions
- Optional IOS application control

*All specifications are subject to change

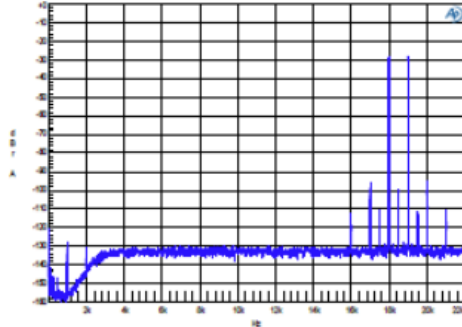


D3200 Specifications

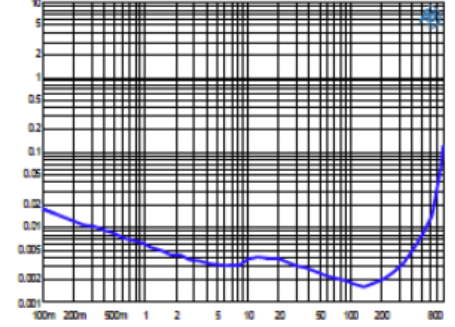
Intermodulation Distortion (CCIF, TIM)



CCIF vs. Power $R_L = 4 \text{ Ohm}$, SE, $f_1 = 18\text{kHz}$, $f_2 = 19\text{kHz}$

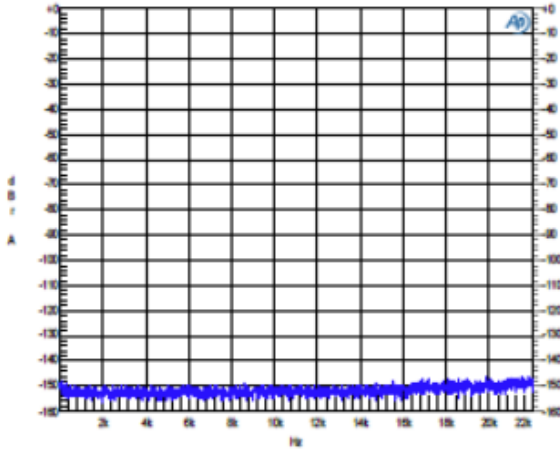


CCIF FFT, SE, $f_1 = 18\text{kHz}$, $f_2 = 19\text{kHz}$, $R = 4 \text{ Ohm}$, $P_0 = 10\text{W}$

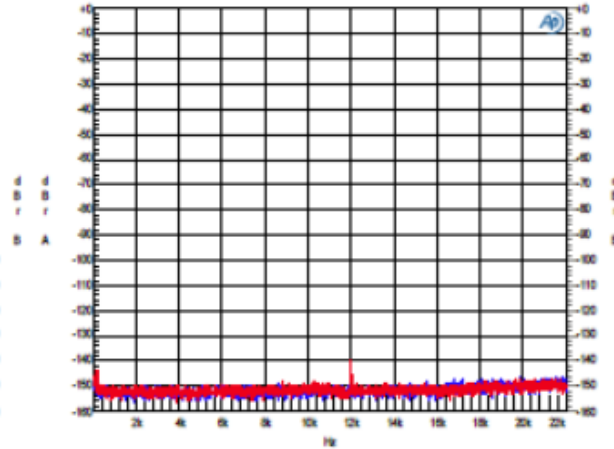


TIM vs. power, $R = 4 \text{ Ohm}$, SE

Noise Spectrum

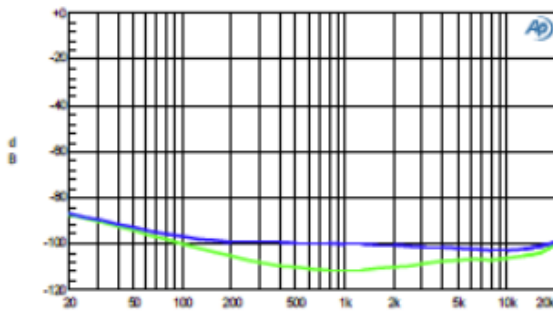


FFT, Channel 1 & 2, BTL, 8 Ohm, Idle

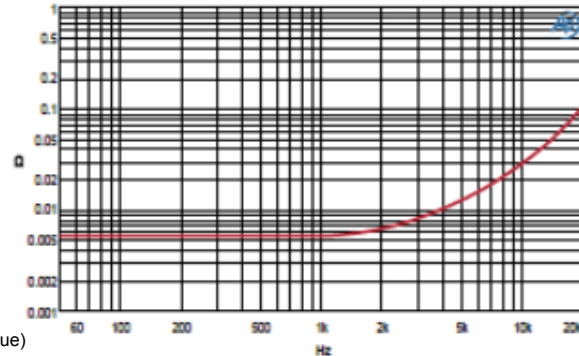


FFT, Channel 1 (blue) & 2 (red), SE, 4 Ohm, Idle

Cross Talk & Output Impedance



Cross Talk, Channel 2, $P_{o, ch1} = 100\text{W}$ (green), Channel 1 $P_{o, ch2} = 100\text{W}$ (blue)



Output impedance, SE, $I_{out} = 1\text{ARMS}$



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