CLASSÉ

SIGMA SERIES

Sigma AMP2, Sigma AMP5
amplifiers

Sigma series amplifiers are designed to pack tremendous power, performance and value into relatively small and energy efficient chassis. The Sigma series AMP2 is derived directly from the acclaimed Delta series CA-D200, sharing both power supply and amplifier circuitry. In the same way that our CT series models use the same circuitry as the equivalent Delta series but in a different chassis[1], the AMP2 is actually the 200W/Ch CA-D200 in a Sigma series chassis. The AMP5 also shares these same power supply and amplifier topologies, but with the necessary changes implemented to accommodate its five-channel configuration.

The basis of the design is switching technologies, used in both the power supply and audio stages. A Classé-designed Switch Mode Power Supply (SMPS) and Power Factor Correction (PFC) circuit, each operating at over 90% efficiency, provides a crystal clear reservoir of over 1kW of power. The low frequency dynamics, extension and control of these amplifiers and their ability to effortlessly drive difficult speaker loads can be credited in large part to the powerful and sophisticated power supply they employ. This combination of SMPS with PFC allows the Sigma series amplifiers to draw current from the wall throughout the voltage cycle, avoiding the sharp spikes of current drawn by conventional power supplies. Such sharp and short current demands cause high-frequency harmonics on the AC mains. By creating no such disturbance, the Sigma series amplifiers deliver their prodigious
effectively silent as far as the AC
ocessor and source components.

circuits use a true digital archi-
ge of DSP to solve an issue called
eatest source of distortion in oth-
lass D amplifiers. Dead-band-time,
o switching distortion in a class A/B
amplifier, is the time when the plus and minus halves of the amplifier are both off; it should be as close to zero as possible and in this design it is less than three nanoseconds.[2] With inherently low distortion, the Sigma series amplifiers use only a small level of overall negative feedback, helping to achieve low intermodulation distortion. Proprietary driver stage FETs ensure quick and precise switching of the output stage, contributing to the amplifiers' vanishingly low dead-band-time and maximizing their efficiency. The critical output stage filters are then used to filter only the 384 kHz switching frequency, leaving the amplifier with a neutral, extended and open upper midrange and high-frequency performance.

The Sigma AMP2 and AMP5 owe their outstanding performance and value to the unique engineering and manufacturing capabilities of Classé in Montréal and the B&W Group globally. No other high-end audio designers have access to the resources necessary to deliver such amplifiers at such competitive prices. The AMP2 and AMP5 have been conceived and built as examples of quality and value without peer. They will stand as benchmarks in the advancement of class D amplifier technology.

assis are specifically designed to accommodate rack-mount installations.

2 For more detail on this and other design features, please refer to the CA-D200 brochure.

CLASSE

SIGMA SERIES

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amplifiers

Sigma AMP2		Sigma AMP5
Frequency response	10Hz – 20kHz, -1dB into 4Ω	10Hz – 20kHz, -1dB into 4Ω
Output power	200W rms into 8Ω 400W rms into 4Ω	200W rms into 8Ω All channels driven 400W rms into 4Ω Any two channels driven*
Harmonic distortion	<0.018% @ 1kHz Balanced Input	0.018% @ 1kHz All channels driven to 1/8th power into 8Ω
Peak Output Voltage	116V peak to peak, 58V rms no load 116V peak to peak, 58V rms into 8Ω	116V peak to peak, 58V rms no load 116V peak to peak, 58V rms into 8Ω
Input impedance	100kΩ Balanced / 50kΩ SE	100kΩ Balanced / 50kΩ SE
Voltage gain	29 dB	29 dB
Input level at clipping	1.4Vrms Balanced/SE	1.4Vrms Balanced/SE
Intermodulation distortion	>80 dB below fundamental into 8Ω Balanced	>80 dB below fundamental into 8Ω SE
Signal-to-Noise Ratio	-100 dB at peak output into 8Ω (AES17)	-100 dB at peak output into 8Ω (AES17)
Rated power consumption	177W @ 1/8th power into 4Ω	200W @ 1/8th power into 8Ω
Mains voltage	100V - 240V, 50/60Hz	100V - 240V, 50/60Hz
Overall Dimensions	Width: 17.00" (433mm)	Width: 17.00" (433mm)
	Depth (excluding connectors): 14.57" (370mm)	Depth (excluding connectors): 14.57" (370mm)
	Height: 3.75" (95mm)	Height: 3.75" (95mm)
Net weight	22.0 lb (9.97 kg)	23.1 lb (10.48 kg)
Shipping weight	28.0 lb (12.70 kg)	30.0 lb (13.61 kg)

*each channel supports 400W output into 4 ohms but the AC Mains/power supply cannot support all channels driven simultaneously at this level, which would require over 2,500W and only occur under a special test condition. Every channel easily drives lower impedance loads.

– 20kHz measurement bandwidth used.

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