

# CORNERED AUDIO CA1800DSP



## Description

CA1800DSP is a powerful and very well sounding 3-Channel power amplifier with integrated DSP. Designed as a state-of-the-art tool for fixed installation, it provides a full set of DSP features with pre-sets for all Cornered speakers. Set up is easily done through USB or ethernet connection.

It delivers up to 3x1000W in 4 ohm or 3x600 watt in 8 ohm, all channels driven. It is also capable of delivering 600 watt in 70V/100V per channel and for added flexibility, CA1800DSP can run in high impedance mode on one or more channels, with the other channel(s) running in low impedance.

CA1800DSP includes a highly efficient switch mode power supply and three Class D output stages with ultra-low distortion, high efficiency and a full set of circuit protections. An efficient heat dissipation system and over-heat protection ensures uncompromising reliability. The advanced power supply includes power factor correction and delivers consistent, regulated power worldwide.

CA1800DSP is capable of sophisticated loudspeaker processing with its high performance 24bit AD/DA converters. There are 12 EQ's on each input channels and 5 EQ's on each output channels. Each band can be switched to Bell, Lo/Hi-Shelving with variable Q. High Pass and low pass filters are also available on each channel, from 6dB/Octave up to 24dB/octave Butterworth, Bessel and Linkwitz-Riley.

The integrated matrix enables signals from any input to be routed to any output. Triggers are available and the RCA inputs can be linked.

Volume control and up to 56 pre-loaded settings can be accessed directly from the front panel.

With very high output, excellent sound quality and settings for all Cornered speakers, the CA1800DSP is an excellent fit to large Cornered installations.

## FEATURES

- 4 input and 3 output channels with full matrix
- Top grade 24 bit DSP
- 17 EQ points with variable Q per channel
- Adjustable High pass/Low pass filters
- Limiter with variable attack/release/threshold
- RMS compressor
- Delay in time or distance
- White/pink noise generator
- Remote Trigger with link
- Analogue and digital input/output
- Optional sleep mode with auto on/off
- Power factor correction

## Network Connection & Control

- USB or Ethernet LAN RJ45 for system setup, monitoring and control via remote PC software
- Simultaneous control of up to 32 units via PC software
- Pre-sets for all Cornered loudspeakers

## Power & Amplifier Sections

- 24bit/48kHz high end converters
- 3x1000 watt @ 4ohm
- 1x1000 watt @ 8 ohm
- 3x600 watt @ 8ohm (all channels driven)
- 3x600 watt in 70/100V Direct drive
- Switch-Mode Power Supply
- Ultra-low distortion Class D amplifier
- Full protection circuitry including over-current, over/under voltage, output, DC and temperature

## SPECIFICATIONS

Number of Channels:	3
Max output (8 ohm)	3x600W
Max output (4 ohm)	3x1000W
Max output 1 ch.@8 ohm	1x1000 W @ 4 or 8 ohm
Max Output (70V/100V)	3x600W
Output Circuitry:	Class D
THD+N:	<0.02%
Signal To Noise Ratio:	>118 dB
Frequency Response	20-25kHz
Power Supply:	100-120V or 220-240V

## Mains Consumption/Current draw

Idle: 9.6W / 0.18A / 2.8BTU/h  
 1/8 max. power@8ohm: 1083W / 7.94A / 317BTU/h

Max Input/Output Level:	+12 dB
Input connections:	4xRCA with link out 2xRCA S/PDIF digital In/out
Speaker output:	Screw terminals
Dimension:	2 unit rack space
HxWxD:	88 x 482 x 354 mm
Weight:	8,5 kg

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## Architectural Specifications

The power amplifier shall be housed in a 2U rack-space enclosure. It shall have three discrete amplifier channels, each channel capable of driving load impedances from 4 ohms to >16 ohms and it shall be able to switch to high impedance mode (70 or 100V)

Output per channel, all channels driven, shall be: 1000 W into 4 ohm, 600 watt into 8 ohm or 70/100V. Maximum output - one channel driven - shall be 1.000 watt in 4 or 8 ohm. The amplifier shall have the following performance parameters: Frequency response shall be 20 Hz - 25 kHz + - 0,25 dB (8 ohm load, 1 dB below rated power) and signal-to-noise ratio shall be greater than 118 dB (A-weighted, 20 Hz - 20 kHz, 8ff load). THD at 1 watt (20 Hz - 20 kHz) in to 8 ohms shall be less than 0.02%; THD at 1 kHz, 1 dB below clipping.

The amplifier shall incorporate a remote-controlled DSP, with each channel offering limiter, delay, compressor, EQ and high pass / low pass filters.

The following connectors and controls shall be provided on the rear panel of the amplifier: The mains connector shall be an IEC inlet. The input connectors shall be RCA terminals with link. The output speaker connectors shall be heavy duty screw terminals. An ethernet and USB connector shall be provided to facilitate external control. And a trigger with link shall be available as well. The following connectors and controls shall be provided on the front panel of the amplifier: A push button to recall up to 56 pre-sets and control volume. A Standby/On button with LED indicator shall illuminate blue when the amplifier is in standby mode. An USB connector for external control.

The amplifier shall have a selectable sleep mode function enabling it to go into standby mode if no signal is present at either input. The amplifier shall power on when signal is sensed, if in on-mode when auto-powered off. The amplifier shall be cooled with a fan.

The amplifier shall 482 mm wide, 88 mm (2 U) high and 354 mm deep. It shall weigh 8.5 kg. The chassis shall be black steel and the front panel shall be black aluminum. The amplifier shall be the Cornered Audio CA1800DSP.

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