

# CORNERED AUDIO CA280DSP



## FEATURES

Top grade 24 bit DSP  
 Dynamic loudness  
 Limiter with variable attack/release/threshold  
 RMS compressor  
 Delay in time or distance  
 White/pink noise generator  
 Sound masking  
 Auto EQ (requires ASIO card and microphone)  
 Auto On/Auto off  
 Energy Star compliant  
 No fan  
 Power factor correction

## Network Connection & Control

USB, RJ45 or Wi-Fi connection 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  
 Connection for remote volume control (GPIO)

## Power & Amplifier Sections

24bit/48kHz high end converters  
 2x140W @ 4ohm or 8ohm  
 1x280W in 70V/100V Direct Drive  
 1x250 W in bridge mode - 8 ohm  
 Switch-Mode Power Supply with auto voltage sensing  
 Ultra-low distortion Class D amplifier  
 Full protection circuitry including over-current, over/under-voltage, output, DC and over-temperature

## Description

CA280DSP is a highly flexible, powerful and compact 2-Channel power amplifier with integrated DSP. It delivers up to 2x140W in 4 or 8 ohm or up to 1x280W in bridge mode. As a unique feature, it can also deliver 280 watt in 70V/100V mode without using internal transformer. For added flexibility, one channel can run in 4 or 8 ohm while the other channel runs in 100V mode.

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. Automated room EQ is EVEN possible with the use of an external ASIO card and microphone. In addition, CA280DSP creates its own access point for easy set-up via Wi-Fi.

CA280DSP includes a highly efficient switch mode power supply and two 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.

CA280DSP is capable of sophisticated loudspeaker processing with its DSP running 48 kHz/24 bit and high performance 24bit AD/DA Converters. There are 5 EQ's on the input channels and 30 EQ's on the output channels. Each band can be switched to Bell, Lo/Hi-Shelving with variable Q. The HP/LP filters offers slopes from 6dB/Octave up to 24dB/octave including Butterworth, Bessel and Linkwitz-Riley.

## SPECIFICATIONS

Number of Channels:	2
Max Output (4 & 8 ohm)	2x140W
Max Output (BTL - 8 ohm)	1x245W
Max Output (BTL - 4 ohm)	1x280W@min. 230V mains
Max Output (70V/100V)	1x280W
Output Circuitry:	Class D
THD+N:	<0.003%
Signal To Noise Ratio:	>105 dB
Frequency Response	20-20kHz +/-0,1dB
Power Supply:	Universal (85-265V)
Operating Range:	110-240V

## Mains Consumption/Current draw:

Idle:	8.8 W / 0.086 A/ 30BTU/H
1/8 max. power@4ohm:	54.7 W/ 0.277 A/ 187 BTU/H
H Full power:	331 W / 1.54 A/ 1130 BTU/H
Stand-By	0,25 watt
Max Input/Output Level:	+12 dB
Connections:	Phoenix w balanced input
Dimension	1U half rack space
HxWxD:	44x220x234mm
Weight:	2,54 kg

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## Architectural Specifications

The power amplifier shall be housed in a 1U high, half rack-space wide enclosure. It shall have two 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, both channels driven, shall be: 140 W into 4 or 8 ohms or; 70 W into 16 ohm. The output circuit shall be bridgeable and when bridged, it shall deliver 280 watt maximum total output in high impedance mode, 280 watt in 4 ohm with minimum 230V mains and 245 watt 8 ohm. The amplifier shall have the following performance parameters: Frequency response shall be 20 Hz - 20 kHz + - 0,15 dB (8 ohm load, 1 dB below rated power) and signal-to-noise ratio shall be greater than 105 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 0.003%; THD at 1 kHz at 1 dB below clipping.

The amplifier shall incorporate a remote-controlled DSP, with each channel offering limiter, delay, compressor EQ, dynamic loudness, automated room EQ and sound masking.

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 electronically balanced, 3-pin detachable screw terminals. The output connector shall be a 4-pin detachable screw connector. GPIO (General Purpose Input/Output) functions shall be a 4-pin detachable screw terminal. An ethernet and USB connector shall be provided to facilitate external control. In addition, the amplifier shall be able to create its own Wi-Fi access point. The following connectors and controls shall be provided on the front panel of the amplifier. Push button to recall three presets. A Standby/On button with LED indicator shall illuminate red when the amplifier is in standby mode. There shall be four LED's indicating: When the amplifier is connected to power (red), when limiting is active (blue), when the amplifier is clipping (red) and when signal is on (green). In addition, there shall be three LED's showing which preset is selected (dim yellow).

The power supply shall be a universal type with operation range from 85 to 265 Volt. The amplifier shall power on when power is connected to the amplifier, if in on mode when powered off. It shall go into standby mode if no signal is present at either input for 20 minutes. The amplifier shall have a selectable sleep mode function. Standby power consumption shall be less than 0,25 watt. The amplifier shall be passively cooled with no fan.

The amplifier shall 220 mm wide, 44 mm (1 U) high and 234 mm deep. It shall weigh 2.5 kg. The chassis shall be grey steel and the front panel shall be black aluminum. The amplifier shall be Energy Star compliant.

The amplifier shall be the Cornered Audio CA280DSP.

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