

CKd™ Series

High Power Multi Channel Amplifiers



CKd-1208 | CKd-1204 | CKd-608 | CKd-604



Description

Decades of proven performance, reliability and intelligence converge in the Crest Audio CKd™ Series, combining the legendary overbuilt power supply design made famous by the Crest Audio Pro 200™ with NexSys® networking functionality and an ultra-lightweight class D topology. The design centers around an ultra-high efficiency amplifier output circuit which reduces weight while increasing output power, reliability and thermal efficiency.

The CKd Series offers four multi-channel models to meet the needs of demanding audio installations. The CKd 1208 and CKd 1204 provide 1,250 watts per channel in eight and four channels, respectively, while the CKd 608 and CKd 604 provide 625 watts per channel in eight and four channels respectively. Each amplifier channel will operate to rated power in direct 70-volt, 100-volt, 8-ohm or 4-ohm modes, configurable per channel.

CKd amplifiers are networkable through the new Crest Audio Nx Dante-8™ NexSys control module to the Crest Audio NexSys 5 and Peavey® MediaMatrix® NWare™ software programs for advanced control and audio routing. The Nx Dante-8 module fits into the rear bay of CKd Series power amps and supports all NexSys functions, DSP functions and Dante digital audio I/O via 1 Gigabit Ethernet connection.

A Control Voltage input is included on each channel to allow external gain control, while the Fault output on each channel allows the CKd power amps to be wired to other monitoring systems. In addition, users can conserve energy by disabling channels that are not in use.

The CKd Series includes Crest Audio's exclusive ACL™ (Active Clip Limiting), which automatically reduces gain at the onset of clipping to prevent amplifier and load damage, and IGM™ (Instantaneous Gain Modulation), which monitors load current to protect against overloading.

Features

- Four multi-channel models: CKd-604, CKd-608, CKd-1204 and CKd-1208
- Ultra-lightweight class D topology
- CKd-1208 and CKd-1204 provide 1,250 watts per channel in eight and four channels respectively
- CKd-608 and CKd-604 provide 625 watts per channel in eight and four channels respectively
- Each amplifier channel will operate to rated power in direct 70-volt, 100-volt, 8-ohm or 4-ohm modes, configurable per channel
- Networkable through Crest Audio® Nx Dante-8™ NexSys control module to the Crest Audio NexSys 5 and Peavey MediaMatrix® NWare™ software programs for advanced control and audio routing
- Control Voltage input is included on each channel to allow external gain control
- Fault output on each channel allows CKd power amps to be wired to other monitoring system
- CKd amplifiers have the option to conserve energy by disabling channels that are not in use
- Crest Audio's exclusive ACL™ (Active Clip Limiting)
- IGM™ (Instantaneous Gain Modulation) to protect against overloading



CKd™ Series Amplifiers

Specifications

	CKd™ 1208	CKd™ 608	CKd™ 1204	CKd™ 604
Rated Power @ 4 ohms (1kHz single channel driven)	1,400 watts per channel at <0.15%	750 watts per channel at <0.15%	1,400 watts per channel at <0.15%	750 watts per channel at <0.15%
Rated Power @ 8 ohms (1kHz single channel driven)	1,300 watts per channel at <0.1%	750 watts per channel at <0.1%	1,300 watts per channel at <0.1%	750 watts per channel at <0.1%
Rated Power @ 70.7 volts (1kHz single channel driven)	1,250 watts per channel at <0.15%	625 watts per channel at <0.15%	1,250 watts per channel at <0.15%	625 watts per channel at <0.15%
Rated Power @ 100 volts (1kHz single channel driven)	1,250 watts per channel at <0.1%	625 watts per channel at <0.1%	1,250 watts per channel at <0.1%	625 watts per channel at <0.1%
Rated Power @ 4 ohms (all ch driven 50% duty cycle*)	1,250 watts per channel at 1kHz	650 watts per channel at 1kHz	1,250 watts per channel at 1kHz	650 watts per channel at 1kHz
Rated Power @ 8 ohms (all ch driven 50% duty cycle*)	1,250 watts per channel at 1kHz	650 watts per channel at 1kHz	1,250 watts per channel at 1kHz	650 watts per channel at 1kHz
Rated Power @ 70.7 volts (all ch driven 50% duty cycle*)	1,250 watts per channel at 1kHz	625 watts per channel at 1kHz	1,250 watts per channel at 1kHz	625 watts per channel at 1kHz
Rated Power @ 100 volts (all ch driven 50% duty cycle*)	1,250 watts per channel at 1kHz	625 watts per channel at 1kHz	1,250 watts per channel at 1kHz	625 watts per channel at 1kHz
Minimum Load Impedance	4 ohms	4 ohms	4 ohms	4 ohms
Frequency Response (-5 dB @ 1 watt (8 ohm load))	10 Hz - 20 kHz	10 Hz - 20 kHz	10 Hz - 20 kHz	10 Hz - 20 kHz
Damping Factor (8 ohms)	>200:1 @ 20 Hz - 1 kHz	>150:1 @ 20 Hz - 1 kHz	>200:1 @ 20 Hz - 1 kHz	>150:1 @ 20 Hz - 1 kHz
Input CMRR	< -75 dB at 1kHz	< -75 dB at 1kHz	< -75 dB at 1kHz	< -75 dB at 1kHz
Voltage Gain (Low Z)	x 40 (32.0 dB)	x 40 (32.0 dB)	x 40 (32.0 dB)	x 40 (32.0 dB)
Voltage Gain (70v/100v)	x 50 (34.0 dB)	x 50 (34.0 dB)	x 50 (34.0 dB)	x 50 (34.0 dB)
High Pass Filter	70 Hz, 3rd order HPF	70 Hz, 3rd order HPF	70 Hz, 3rd order HPF	70 Hz, 3rd order HPF
Input Sensitivity (Low Z)	1.9V for 1 kHz 4-ohm rated power 2.55V for 1 kHz 8-ohm rated power	1.27V for 1 kHz 4-ohm rated power 1.8V for 1 kHz 8-ohm rated power	1.9V for 1 kHz 4-ohm rated power 2.55V for 1 kHz 8-ohm rated power	1.27V for 1 kHz 4-ohm rated power 1.8V for 1 kHz 8-ohm rated power
Input Sensitivity (70v/100v)	1.4V for 1 kHz (70V) 4-ohm rated power 2.5V for 1 kHz (100V) 8-ohm rated power	1.4V for 1 kHz (70V) 4-ohm rated power 2.5V for 1 kHz (100V) 8-ohm rated power	1.4V for 1 kHz (70V) 4-ohm rated power 2.5V for 1 kHz (100V) 8-ohm rated power	1.4V for 1 kHz (70V) 4-ohm rated power 2.5V for 1 kHz (100V) 8-ohm rated power
Input Impedance	20K Ohms balanced, 10K Ohms unbalanced	20K Ohms balanced, 10K Ohms unbalanced	20K Ohms balanced, 10K Ohms unbalanced	20K Ohms balanced, 10K Ohms unbalanced
Noise and Hum	> -95dB, "A" weighted reference to rated power @ 8 ohms	> -95dB, "A" weighted reference to rated power @ 8 ohms	> -95dB, "A" weighted reference to rated power @ 8 ohms	> -95dB, "A" weighted reference to rated power @ 8 ohms
CURRENT CONSUMPTION ALL CHANNELS				
Idle:	200 watts, 400VA	120 watts, 240VA	120 watts, 240VA	85 watts, 170VA
1/8 Power 8 ohms / 4 ohms:	1.6kW, 2.45kVA / 1.72kW, 2.7kVA	.96kW, 1.47kVA / 1kW, 1.62kVA	.96kW, 1.47kVA / 1kW, 1.62kVA	.67kW, 1kVA / 700W, 1.14kVA
1/3 Power:	4kW, 6kVA / 4.4kW, 6.6kVA	2.4kW, 3.6kVA / 2.64kW, 4kVA	2.4kW, 3.6kVA / 2.64kW, 4kVA	1.7kW, 2.5kVA / 1.85kW, 2.8kVA
THERMAL EMISSION ALL CHANNELS (btu/hour)				
Idle:	677 btu/hr	406 btu/hr	406 btu/hr	285 btu/hr
1/8 Power 8 ohms / 4 ohms:	1060 / 1170	636 / 700	636 / 700	445 / 490
1/3 Power 8 ohms / 4 ohms:	2115 / 2330	1270 / 1400	1270 / 1400	890 / 980
Cooling		Temperature dependent variable speed 80mm DC fan		
CONTROLS				
Front:	On/Standby/Remote AC Switch, 120V: two independent 21A circuit breakers, 230V: two independent 12A circuit breakers (per 4 channels)		4 channel input signal attenuators, 4 channel 100V/70V/50V selection switches,	
Rear:	8 channel input signal attenuators, 8 channel 100V/70V/50V selection switches, two 3-position connectors for STO In and STO Out, 8 Fault Relay outputs (NO/NC), 8 Control Voltage inputs, NexSys module bay		two 3-position connectors for STO In and STO Out, 4 Fault Relay outputs (NO/NC), 4 Control Voltage inputs, NexSys module bay	
INDICATOR LEDS				
Front panel:	8 Mute, 8 Fault, 8 ACL/IGM, 8 Signal, 8 Active, 1 Power		4 Mute, 4 Fault, 4 ACL/IGM, 4 Signal, 4 Active, 1 Power	
Rear panel:	8 Mute, 8 Fault, 8 ACL/IGM, 8 Signal, 8 Active, 1 Power		4 Mute, 4 Fault, 4 ACL/IGM, 4 Signal, 4 Active, 1 Power	
Protection (per channel)	Over-temperature, DC, subsonic, incorrect loads, short-circuit, over-current			
Unit Protection	Over/Under AC Voltage, Fan operation			
CONNECTORS				
Input:	Eight 3-position Euro-style detachable terminal blocks		Four 3-position Euro-style detachable terminal blocks	
Output:	Four 4-position barrier strip terminal blocks with screws		Two 4-position barrier strip terminal blocks with screws	
Construction	14-gauge aluminum reinforced chassis with 12-gauge steel rack ears			
DIMENSIONS				
Height:	3.48" (8.84 cm), 2 EIA rack spaces		3.48" (8.84 cm), 2 EIA rack spaces	
Width (front):	19.00" (48.26 cm)		19.00" (48.26 cm)	
Width (rear):	17.25" (43.82 cm)		17.25" (43.82 cm)	
Overall depth:	20.30" (51.56 cm)		20.30" (51.56 cm)	
Mounting depth:	19.70" (50.04 cm) behind front rack ears		19.70" (50.04 cm) behind front rack ears	
Gross Weight	29.6 lbs (13.43 kg)	29.6 lbs (13.43 kg)	22 lbs (9.98 kg)	22 lbs (9.98 kg)
Net Weight	34.6 lbs (15.7 kg)	34.6 lbs (15.7 kg)	25 lbs (11.4 kg)	25 lbs (11.4 kg)
Power Requirements	120 VAC 60 Hz or 230 VAC 50 Hz			

* repetitive 1kHz cycles 50ms onset of clip and 50ms at 1/8 power

Architect's & Engineer's Specifications

Crest Audio CKd 1208, 1204, 608 and 604 Power Amplifiers

The multi-channel power amplifiers shall be available in hardware configurations of eight and four analog input channels and powered output channels. Each channel output shall be individually selectable as 8-ohm or 4-ohm low-impedance, or 70-volt or 100-volt constant voltage outputs. Input signals shall be connected via eight 3-position Euro-style detachable terminal blocks, and may be configured as balanced or unbalanced inputs. Amplified outputs shall be connected via four 4-position barrier strip terminal blocks with screw terminals.

Each model configuration shall be capable of accepting and hosting either of two networked modules to support connection of CobraNet or Dante networked audio transport streams of four or eight channels. Audio, control and monitoring signals shall be conducted to and from the power amplifier via Ethernet connections.

The power amplifier sections shall be of a highly efficient and lightweight Class D amplifier design yielding 1,250 watts per channel or 650 watts per channel at 1kHz with all channels driven at 50% duty cycle into 4-ohms or 8-ohms or 70.7 volts or 100 volts. Frequency response at 1 watt under an 8-ohm load shall be 10 Hz to 20 kHz.

Control voltage inputs shall be provided for each channel to allow for external gain control. Fault outputs on each channel shall be provided to allow monitoring of the operation of individual channels. Instantaneous Gain Modulation shall provide overload protection for each channel.

The multi-channel power amplifiers shall be the Crest Audio CKd-1208, CKd-1204, CKd-608 and CKd-604 power amplifiers.



Features and specifications subject to change without notice.

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