

CTs SERIES

CTs Series Multi-channel



Building on the foundation of the Com-Tech® Series, Crown's CTs Series offers new flexibility and value for installed sound applications. The Com-Tech Series were the first to offer independent selection of high- and low-impedance operation for a specific channel, and CTs Series amplifiers continue that tradition, with power levels and features carefully chosen to perfectly integrate into fixed install design requirements. For added flexibility, the CTs Series includes both dual-channel and multi-channel models.

All models in the CTs Series feature Crown's new Switching Power Supply for lighter weight, and all models are also compatible with the IQ System®. Multi-channel models accept new MC accessory modules that provide enhanced control, monitoring, and system integration.

The CTs multi-channel amps feature FIT (Fault Isolation Topology): each channel is self-contained on its own circuit board. Any fault that occurs on a channel circuit board is isolated to that circuit board. This means that if you have multiple zones being powered by one CTs multi-channel amp, unaffected zones will continue to operate.

In a profession where unplanned service calls quickly wipe out profits, the CTs Series amplifiers are designed to be the most reliable amplifiers you can install.

For more details about the Crown® CTs Series, contact Crown Customer Service at 800-342-6939 or 574-294-8200. Also, visit the Crown Audio web-site at www.crownaudio.com.

Specifications

Minimum Guaranteed Power: See power charts below.

Frequency Response (at 1 watt, 20 Hz - 20 kHz): ±0.5 dB.

Phase Response (at 1 watt, 10 Hz - 20 kHz): ±35°.

Signal to Noise Ratio below rated power (20 Hz to 20 kHz): 100 dB unweighted.

Features

- **New Crown Switching Power Supply for reduced weight.**
- **High power-density, with four channels (CTs 4200) or eight channels (CTs 8200) in a 3U chassis.**
- **Selectable constant-voltage (70V/100V*) or low-impedance (4/8 ohm) operation for each channel pair.**
- **FIT (Fault Isolation Topology) circuitry isolates faults within affected channels.**
- **TLC protection circuitry protects the amplifier from excessive heat by subtly and dynamically reducing the gain only when necessary to reduce heat levels.**
- **JTS circuitry protects output transistors from unsafe operating conditions without shutting the channel down.**
- **Accepts new MC accessory modules that tailor the amplifier to suit specific applications. Modules available for remote VCA level control and IQ System® Control.**
- **35-Hz High-Pass Filter is automatically inserted when the channel pair is set for constant-voltage operation (corner frequency may be changed as a service option).**
- **Comprehensive array of indicators including Power and Data, along with Bridge, Ready, Signal, Clip, Thermal and Fault for each channel, provide accurate diagnostics.**
- **Blue Power Indicator flashes if the amplifier shuts off due to an under/over voltage condition on the AC mains.**
- **Advanced protection circuitry guards against: shorted outputs, open circuits, DC, mismatched loads, general overheating, under-/over-voltage, high-frequency overloads and internal faults.**
- **Proven Crown AB+B Multi-Mode® output topology.**
- **Continuously-variable fans optimize cooling efficiency.**
- **Three Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications.**
- **Crown's advance-replacement Profit Protection Plan provides quick, no-questions-asked replacement of covered amps.**

* Channel pair must be operated in Bridge mode for 100V output.

Total Harmonic Distortion (THD) at 1 watt, from 20 Hz to 20 kHz: < 0.05%.

Intermodulation Distortion (IMD) 60 Hz and 7 kHz at 4:1, from 163 milliwatts to full bandwidth power: < 0.05% (typical).

Damping Factor: 10 Hz to 400 Hz: >180.

Crosstalk (below rated power, 20 Hz to 1 kHz): > 80 dB.

Common Mode Rejection (CMR) (20 Hz to 1 kHz): > 50 dB.

DC Output Offset (Shorted input): < 5 mV.

Input Impedance (nominal): 20 kilohms balanced, 10 kilohms unbalanced.

Maximum Input Level (before input compression): + 20 dBu.

Load Impedance (Note: Safe with all types of loads):

Stereo: 4/8 and 25 ohms (70V)
Bridge Mono: 8/16 and 50 ohms (100V)

Voltage Gain (at maximum level setting), 1.4V sensitivity,

4/8 Ohm Operation: 20:1 (26 dB);
70V Operation: 50:1 (34 dB)
100V Operation: 71.4:1 (37 dB)

Required AC Mains: 120V 60 Hz, 220/230/240V/50 Hz.

Power Draw at Idle (120VAC mains, all channels in 4/8 ohm mode): 70W.

Power Draw at Idle (120VAC mains, all channels in 70V mode): 114W.

Cooling: Continuously variable speed forced air, front-to-back airflow.

Dimensions (Width, Height, Depth):

CTs 4200: 19 in. (48.3 cm) W x 3.5 in. (8.9 cm) H x 16.25 in. (41.3 cm) D.

CTs 8200: 19 in. (48.3 cm) W x 5.25 in. (13.3 cm) H x 16.25 in. (41.3 cm) D.

CTs 4200

Dual

4 Channels Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
4-ohm (per ch.)	260W	215W
8-ohm (per ch.)	200W	190W
70V (per ch.)	220W	220W*

1 Channel Driven

1 Channel Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
4-ohm (per ch.)	270W	225W
8-ohm (per ch.)	220W	210W
70V (per ch.)	250W	245W*

Bridge-Mono

2 Channel-Pairs Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
8-ohm (per ch. pair)	520W	430W
16-ohm (per ch. pair)	400W	380W
100V (per ch. pair)	220W	220W*

1 Channel-Pair Driven

1 Channel-Pair Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
8-ohm (per ch. pair)	560W	450W
16-ohm (per ch. pair)	440W	420W
100V (per ch. pair)	250W	245W*

* Constant Voltage full bandwidth power ratings support 100Hz - 20kHz due to automatic High-Pass Filters.

CTs 8200

Dual

8 Channels Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
4-ohm (per ch.)	200W	175W
8-ohm (per ch.)	160W	155W
70V (per ch.)	200W	185W*

1 Channel Driven

1 Channel Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
4-ohm (per ch.)	270W	230W
8-ohm (per ch.)	220W	220W
70V (per ch.)	250W	230W*

Bridge-Mono

4 Channel-Pairs Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
8-ohm (per ch. pair)	400W	350W
16-ohm (per ch. pair)	320W	310W
100V (per ch. pair)	200W	185W*

1 Channel-Pair Driven

1 Channel-Pair Driven	Maximum Average Power in watts with 0.1% THD.	
	1 kHz	20 Hz-20 kHz
8-ohm (per ch. pair)	540W	460W
16-ohm (per ch. pair)	440W	440W
100V (per ch. pair)	250W	230W*

* Constant Voltage full bandwidth power ratings support 100Hz - 20kHz due to automatic High-Pass Filters.



CTs Series Multi-channel

Weight (Net, Shipping):

CTs 4200: 27 lb 8 oz (12.5 kg),
32 lb (14.5 kg)

CTs 8200: 36 lb 6 oz (16.5 kg),
47 lb (21.3 kg).

Front Panel Controls and Indicators

Bridge Mode Indicator: Yellow LED, one per channel pair, illuminates when the channel pair's Mode Switch is set to the "Bridge" position. If Mode switch is changed while amplifier is powered up, Bridge LED will flash, indicating that the amplifier must be powered off and on to reset the Mode.

Ready Indicator: Green LED, one per channel, illuminates when the channel is initialized and ready to produce audio output.

Signal Indicator: Green LED, one per channel, illuminates to indicate the presence of input signals above -40 dBu.

Clip Indicator: Red LED, one per channel, illuminates when the THD of the channel's output signal rises to a level typically considered as the onset of audible clipping. The Clip Indicator also will illuminate during Thermal Level Control (TLC) or input overload.

Thermal Indicator: Red LED, one per channel, flashes when a state of thermal stress or overload has caused the channel to shut down. If the power supply goes into thermal overload, all channel LEDs will flash.

Fault Indicator: Red LED, one per channel, flashes when a fault condition has occurred in the channel.

Ventilation Grille: Front-to-rear forced airflow.

Data Indicator: Yellow LED indicates IQ Loop data activity (if the amplifier is equipped with an IQ-MC module, and connected to an IQ Loop).

Power Indicator: Blue LED indicates amplifier has been turned on and AC power is available. Indicator also flashes if the amplifier shuts off due to an under-/over-voltage condition on the AC mains.

Power Switch: Amplifier is on when the switch is in the IN position.

Back Panel Controls and Connectors

AC Power Cord Connector: IEC inlet, type 320; 100/120VAC units: 15A; 220/230/240VAC units: 10A. Voltage is indicated above IEC inlet.

Output Connectors: One four-pole terminal strip for every two channels with touch-proof cover. Accepts up to 10 AWG terminal forks.

Accessory Panel: CTs 4200 accepts an optional IQ-MC4 or VCA-MC4 module. CTs 8200 accepts an optional IQ-MC8 or VCA-MC8 module.

Channel Level Controls: One 21-position detented rotary potentiometer per channel, ranging from infinity (-70 dB) to 0 dB attenuation.

Input Connectors: Removable Phoenix-style barrier connectors for balanced input.

Mode Switch: Used on each consecutive pair of channels, this four-position switch is used to select the amplifier's mode of operation: Dual 8/4 ohms, Dual 70V, Bridge-Mono 16/8 ohms, and Bridge-Mono 100V.

Cooling Vents: Front-to-rear forced airflow.

Options

Control Modules: IQ-MC4: IQ module for CTs 4200; VCA-MC4: VCA module for CTs 4200. IQ-MC8: IQ module for CTs 8200; VCA-MC8: VCA module for CTs 8200.

Wall-mount level control panels for use with VCA module: 1-VCAP: Single-gang panel with 1 VCA channel volume control; 4-VCAP: Two-gang panel with 4 VCA channel volume controls.

T-170V: This is an autoformer that allows 100V output from the amplifier, and allows other amplifiers without direct constant voltage output to be easily integrated into distributed systems.

TP-170V: This is a rack-mountable panel with four autoformers as described above.

Protection Systems

Thermal Level Control (TLC): If an amplifier channel starts to overheat, the TLC circuit will engage that channel's input compressor. By compressing the input, the amplifier will not generate as much heat and will have a chance to cool down. The degree of compression is proportional to the amount of overheating. If the channel becomes too hot for safe operation even after full TLC limiting, the channel will shut off, and the Thermal Indicator for that channel will flash brightly to alert the user that a state of thermal stress or overload has caused the channel to shut down.

FIT (Fault Isolation Topology): Isolates faults within affected channels.

Junction Temperature Simulation (JTS): JTS circuitry simulates the operation of the amplifier's output transistors, and compares it against the transistors known Safe Operation Area (SOA). If JTS sees that more power is about to be asked of the output devices than they are capable of delivering under the present conditions, JTS immediately limits the drive level until it falls within the SOA. Limiting is proportional and kept to an absolute minimum—only what is required to prevent the possibility of output transistor damage.

Fault: If an amplifier channel requires service, the corresponding Fault indicator will illuminate to alert the user of this condition. If this occurs, return the amplifier to the Crown factory or to an authorized Crown service center.

35-Hz High-Pass Filter: A fixed 35-Hz high-pass filter per channel pair is automatically inserted when the mode switch is set to either of the constant-voltage settings. The high-pass filter corner frequency can be set to 70 Hz, or bypassed, with a service option.

AC Under-/Over-Voltage Protection: If the AC line voltage varies out of an acceptable range, the amplifier's power supply turns off and the blue Power LED flashes. The amplifier will turn back on when the AC line voltage returns to safe operating levels.

Models	Under-Voltage Limit	Over-Voltage Limit
100-120 VAC units	90 VAC	132 VAC
220V/230V/240V units	90 VAC	264 VAC

Power Fuse: A fuse protects the amplifier from excessive AC current draw.

Inrush Limiting: A soft-start circuit in the power supply minimizes the amplifier's current draw during power-on.

Variable-speed Fans: Continuously variable speed fans direct the airflow through the amplifier for cooling.



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Crown's Three-Year, No-Fault, Fully Transferable Warranty

Crown offers a Three-Year, No-Fault, Fully Transferable Warranty for every new Crown amplifier—an unsurpassed industry standard. With this unprecedented No-Fault protection, your new Crown amplifier is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your amplifier fails, or does not perform to original specifications, it will be repaired or replaced at our expense. About the only things not covered by this warranty are those losses normally covered by insurance and those caused by intentional abuse. And the coverage is transferable, should you sell your amplifier.

See your authorized Crown dealer for full warranty disclosure and details. For customers outside of the USA, please contact your authorized Crown distributor for warranty information or call 574-294-8200.