Com-Tech® Series

INTRODUCTION

The Com-Tech Series of Crown amplifiers are designed to provide high power with extremely low distortion for use in audio applications. These amplifiers are designed with the professional in mind. Crown guarantees to meet or exceed its published specifications and backs them up with a 3 Year Full No Fault Warranty. For a standard cut-sheet please contact our literature department (1-800-342-6939/1-219-294-8200).

CT-200 OUTPUT POWER

110W/Ch 8 Ohms
155W/Ch 4 Ohms
305W Bridged Mono 8 Ohms
225W Parallel Mono 4 Ohms
315W Parallel Mono 2 Ohms
105W/Ch 70V 50 Ohms
210W Bridged Mono 140V 100 Ohms
210W Parallel Mono 70V 25 Ohms

CT-400 OUTPUT POWER

210W/Ch 8 Ohms
230W/Ch 4 Ohms
440W Bridged Mono 8 Ohms
425W Parallel Mono 4 Ohms
440W Parallel Mono 2 Ohms
225W/Ch 70V 25 Ohms
450W Bridged Mono 140V 50 Ohms
450W Parallel Mono 70V 12.5 Ohms

CT-800 OUTPUT POWER

305W/Ch 8 Ohms
490W/Ch 4 Ohms
995W Bridged Mono 8 Ohms
600W Parallel Mono 4 Ohms
835W Parallel Mono 2 Ohms
450W/Ch 70V 12.5 Ohms
900W Bridged Mono 140V 25 Ohms
900W Parallel Mono 70V 6.2 Ohms

CT-1600 OUTPUT POWER

540W/Ch 8 Ohms
875W/Ch 4 Ohms
1720W Bridged Mono 8 Ohms
1080W Parallel Mono 4 Ohms
1750W Parallel Mono 2 Ohms
890W/Ch 70V 6.2 Ohms
1780W Bridge Mono 140V 12.5 Ohm
1780W Parallel Mono 70V 3.1 Ohm

SONIC PERFORMANCE

Signal/Noise: 105 dB A-weighted
Damping Factor: >1000 From 10 to 400 Hz
Slew Rate: >13V/µSec Stereo
IMD: <0.05% At Rated Output
THD: <0.1% At Rated Output
Frequency Response: ±0.1 dB From 20 Hz to 20 kHz at 1W at 8 Ohms
Phase Response: ±10° From 10 Hz to 20 kHz
Input Impedance: 20 kOhm Balanced, 10 kOhm Unbalanced
Output Impedance: <10 mOhm In Series With <2 µH

CONTROLS & INDICATORS

Front Panel: On/Off Switch, Power Indicator, SPI Indicators, IOC Indicators, ODEP Indicators
Rear Panel: Level Controls, Stereo/Bridged Mono/Parallel Mono switch, 70V/8-4 Ohm Mode switches
Internal: Sensitivity Switch (26 dB/0.775V 8-4 Ohm Mode/0.775V 70V Mode Selection)

CONNECTORS

Input: Balanced Barrier Strip Standard with P.I.P.-BB, other connector styles available with other P.I.P. modules
Output: Barrier Strip

STRUCTURAL

Weight:
CT-200: 29 lbs
CT-400: 32 lbs
CT-800: 47 lbs
CT-1600: 58 lbs
Dimensions:
CT-200/400: 3.5" x 19" x 16" (2U)
CT-800: 5.25" x 19" x 16" (3U)
CT-1600: 7" x 19" x 16" (4U)
Cooling CT-200 Only: Convection, fan optional
Cooling CT-400/800/1600: 4 speed thermally controlled fan
AC Power: 120V 60Hz with standard 15A power plug. All models except CT-400 may be modified to any standard world line voltage. Export version of CT-400 is changeable, but it is a three rack space unit.

CIRCUITRY DESIGNS

Grounded Bridge output topology employs AB+B three-deep Darlington in a four-quadrant design. Rail voltage is not grounded at the power supply, but by two quadrants of the output stage. The result is voltage control allowing maximum power transfer to the load, but never placing more than half the output voltage across any output transistor device. These amplifiers also have Output Device Emulation Protection (ODEP) to protect the amplifier from unsafe thermal conditions. Unlike conventional thermal switches, the ODEP circuit steps in to limit drive only as much as necessary to protect the output stage rather than causing an abrupt shutdown. With ODEP, "The Show Goes On!" Front panel indicators are provided to show signal presence, IOC (distortion above 0.05%), and ODEP status (the thermal headroom of the amplifier). If it begins to run out of thermal headroom the ODEP indicators dim. After they go out the amplifier may begin to limit output drive to protect the amplifier thermally. Other protective circuitry includes slew rate limiting to prevent RF burn-out of high frequency transducers, output current limiting, and audio muting and high voltage shutdown in the event of output DC or output device failure. Another circuit innovation is the addition of mode switches to allow easy setup for either 70V distribution or direct 8/4 ohm loads.

Guaranteed Excellence

CROWN®

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Com-Tech Calculated Data

CT-200 Worst Case Load: 4 Ohm/Ch					
Program Material	Waste Heat (BTU/Hr)	Current Draw at 100VAC	Current Draw at 120VAC	Current Draw at 220VAC	Current Draw at 240VAC
Continuous Speech	370	1.7A	1.4A	0.8A	0.7A
Acoustic Music	420	2.3A	1.9A	1.0A	1.0A
Full Range Music	480	2.8A	2.4A	1.3A	1.2A
Compressed Music	540	3.4A	2.8A	1.6A	1.4A
Pink Noise	600	4.0A	3.3A	1.8A	1.7A

CT-400 Worst Case Load: 4 Ohm/Ch					
Program Material	Waste Heat (BTU/Hr)	Current Draw at 100VAC	Current Draw at 120VAC	Current Draw at 220VAC	Current Draw at 240VAC
Continuous Speech	390	2.0A	1.6A	0.9A	0.8A
Acoustic Music	480	2.8A	2.4A	1.3A	1.2A
Full Range Music	560	3.7A	3.1A	1.7A	1.6A
Compressed Music	650	4.5A	3.8A	2.1A	1.9A
Pink Noise	730	5.4A	4.5A	2.5A	2.3A

CT-800 Worst Case Load: 4 Ohm/Ch					
Program Material	Waste Heat (BTU/Hr)	Current Draw at 100VAC	Current Draw at 120VAC	Current Draw at 220VAC	Current Draw at 240VAC
Continuous Speech	500	2.9A	2.4A	1.3A	1.2A
Acoustic Music	675	4.7A	4.0A	2.2A	2.0A
Full Range Music	850	6.4A	5.5A	3.0A	2.8A
Compressed Music	1025	8.4A	7.0A	3.8A	3.5A
Pink Noise	1200	10.2A	8.5A	4.7A	4.3A

CT-1600 Worst Case Load: 70V Mode					
Program Material	Waste Heat (BTU/Hr)	Current Draw at 100VAC	Current Draw at 120VAC	Current Draw at 220VAC	Current Draw at 240VAC
Continuous Speech	650	4.4A	3.7A	2.0A	1.9A
Acoustic Music	975	7.7A	6.4A	3.5A	3.2A
Full Range Music	1300	11.0A	9.2A	5.0A	4.6A
Compressed Music	1625	14.3A	11.9A	6.5A	6.0A
Pink Noise	1950	17.6A	14.7A	8.0A	7.4A

The information provided on this page is *calculated* data based on driving both channels to rated output using the 1 kHz Maximum Average Power rating method. Other parameters used in calculation include a conservative idle current estimate of 90 Watts (assumes maximum fan speed) and a conservative estimation of efficiency at 65%. Information is only provided for the purpose of getting an idea of current draw and heat produced. Actual performance will vary depending on environment, program material, load, signal, and AC mains voltage and frequency. Values of calculated AC mains current draw are intended to represent average draw corresponding to the thermal breaker requirements that should be met. Peak current draw with dynamic program material may be significantly higher. Thermal information is provided to assist with calculating air conditioning needs. *The above data should not be construed as specifications.*