

Cronus DSP Matrix Intercom

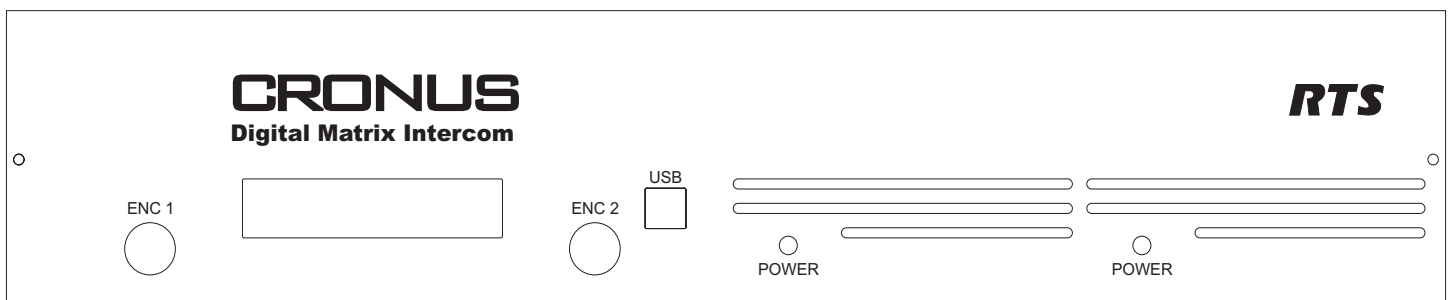


RTS Cronus is a modular 32-port Digital Matrix Intercom in 2 **RU** (rack units) holding up to four (4) cards with eight (8) ports each. Based upon an advanced DSP architecture, Cronus has the ability to link up to four (4) units into a single 128 port matrix. Through the use of standard video coaxial cable, the maximum distance between the first and last Cronus system can be 300 ft. and still appear as a single matrix. However, when using the Fiber Option card, the distance is increased up to 15 kilometers nominally. When connected as a single matrix, the individual Cronus controls remains autonomous and independent at each matrix for the highest reliability.

Features

- USB Connectivity, convenient front panel access as well as traditional rear access for system programming. You may use either the front panel access or the rear panel access at a time.
- Advanced **DSP** (Digital Signal Processing) designed to support audio signal processing on all 32 ports (inputs).
- Modular architecture allows for port expansion from 8 to 32 ports giving each user expandable systems in the field.
- Redundant Power Supply, each chassis is powered by two (2) power supplies, either of which can sufficiently power all the equipment alone. This provides constant power and disaster recovery even with the failure of one (1) power supply.
- RVON-C Voice-Over IP option card expands the capabilities of the system.

Line Drawing



Specifications

Analog Input and Outputs

Signal Type: Balanced

Nominal Level: 8dBu

Maximum Level: 20dBu

Input Impedance: 22k Ω

Output Impedance: 600 Ω

A/D and D/A

Sampling Rate: 48kHz

Resolution: 24-Bits

Performance

SNR at 20dBu: (A-weighted): >90dB

THD+N at 20dBu, 1kHz (unweighted): <0.007%

Frequency Response at 20dBu: within ± 1 dB from 50Hz–20kHz

Crosstalk at 20dBu: <-60dBu

CMRR: >70dB

NOTE: All measurements performed using an Audio Precision System 1 Dual Domain System. At f=1kHz and Level=20dBu. Measurement bandwidth=20Hz to 20kHz.

Connections

Intercom Channels (1–32)

Connector Type: 6-Pin RJ-12

Pin 1: Control -; Pin 2: Audio Out+; Pin 3: Audio In+; Pin 4: Audio In-; Pin 5: Audio Out-; Pin 6: Control+

Serial Interface Port (J1 - J6)

Connector type: 9-pin female D-sub

J1: RS-232 (AZedit)

Pin 1: Not Used; Pin 2: Input RS-232; Pin 3: Output RS-232; Pin 4: Not Used; Pin 5: GND; Pin 6: GND; Pin 7: Not Used; Pin 8: Not Used; Pin 9: Not Used

J2: RS-232 (Debug)

Pin 1: Not Used; Pin 2: GND; Pin 3: Input RS-232; Pin 4: Not Used; Pin 5: Not Used; Pin 6: Not Used; Pin 7: GND; Pin 8: Output RS-232; Pin 9: Not Used

J3: RS-422/RS-486 (J3 is Trunking)

Pin 1: RS-485/Input RS-482-; Pin 2: GND; Pin 3: Not Used; Pin 4: Not Used; Pin 5: Output RS-422+; Pin 6: RS-485+/Input RS-422+; Pin 7: GND; Pin 8: Not Used; Pin 9: Output RS-422-

J4: RS-422/RS-485 (J4 is for peripheral devices, such as UIO-256, PAP32)

Pin 1: RS-485-/Input RS-422-; Pin 2: GND; Pin 3: Not Used; Pin 4: Not Used; Pin 5: Output RS-422+; Pin 6: RS-485+/Input RS-422+; Pin 7: GND; Pin 8: Not Used; Pin 9: Output RS-422-

J5: RS-485 (DE-9S) (J5 is PAP32)

Pin 1: RS-485-; Pin 2: GND; Pin 3: Not Used; Pin 4: Not Used; Pin 5: Not Used; Pin 6: RS-485+; Pin 7: GND; Pin 8: Not Used; Pin 9: Not Used

J6: RS-485 (DE-9S) (J6 is undefined)

Pin 1: RS-485-; Pin 2: GND; Pin 3: Not Used; Pin 4: Not Used; Pin 5: Not Used; Pin 6: RS-485+; Pin 7: GND; Pin 8: Not Used; Pin 9: Not Used

USB Connectors (front end and back end J7)

Connector Type: Standard USB

Ethernet Interface Port (J8)

Connector Type: RJ-45 standard
(10base-T (Cat 3)/100Base-Tx (Cat 5))

GPIO Interface Port (J9)

Connector Type: 25-pin Female D-sub

Pin 1: Input 1; Pin 2: Common; Pin 3: Input 2; Pin 4: Common; Pin 5: Input 3; Pin 6: Common; Pin 7: Input 4; Pin 8: Common; Pin 9: GND; Pin 10: GND; Pin 11: GND; Pin 12: +5V; Pin 13: +5V; Pin 14: Relay 1 NC; Pin 15: Relay 1 NC; Pin 16: Common; Pin 17: Relay 2 NC; Pin 18: Relay 2 NC; Pin 19: Common; Pin 20: Relay 3 NC; Pin 21: Relay 3 NC; Pin 22: Common; Pin 23: Relay 4 NC; Pin 24: Relay 4 NC; Pin 25: Common

Hotlink Connectors

Coax Type (J10–J13): RG6 BNC Female 75 Ω Coax Connector
Fiber Optic Type (J10–J11): HFCT-5208M
(single mode transceiver): 1300nm laser-based transceiver in standard 1x9 mezzanine package for links of 15km nominal with single mode fiber cables.

Physical

Dimensions: 19 W x 3.5 H x 14 D (482.6mm x 88.9mm x 355.6mm)

Weight: 14.15lbs (6.41kg)

Power Requirements

90–240V, 50/60Hz, 1.4A

Environmental

Operating: 0°C to 50°C (32°F to 122°F)

Storage: -20°C to 75°C (-4°F to 167°F)

Order Information

R-90007770000 • Cronus • Cronus frame w/MC, Coax

R-90007770001 • Cronus • Cronus frame w/MC, Fiber

R-90027770000 • Cronus • Cronus AI/O Card Kit

The specification information is preliminary and is subject to change without notification.

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