

Real-Time Interface & Conversion Item 5000



Optional 1U Dual RICI Rackmount

Sunhillo's Real-Time Interface & Conversion Item (RICI) 5000 is a versatile and modular platform designed for surveillance sensor data formatting, filtering, and protocol conversions.

The RICI 5000 is an upgraded version of the popular RICI 4500 packaged in a new fanless compact format featuring dual Gigabit Ethernet ports and an integrated power supply. The optional rack-mountable chassis utilizes 1U of rack space for single or dual RICI's mounted in a single chassis. The all new rear M8 6-pin circular port provides a user interface for future product features.

The RICI 5000 is an ideal solution for networks requiring low-

density, high-speed system interfacing to multiple serial ports with the ability to scale to future network demands. The RICI 5000 is a compact FPGA-based signal processing platform that enables synchronous, asynchronous, Bisync plus HDLC serial / LAN interconnectivity and can be programmed to perform essentially any data format conversion. RICI 5000 units can be pre-configured to your specifications at the factory making installation and integration simple and efficient.

Common conversions performed by the RICI 5000 include message format transformations between surveillance data in ECGP, SGF, CD-2, ASR, ASTERIX, ADS-B, MAR, TPS75, Mode 4, ARTS,

FEATURES

- TCP/IP, UDP/IP, and Serial to LAN Protocol Conversions
- Each unit features 4 Rear DB25 serial ports
- Dual front panel Gigabit Ethernet ports
- 1U rack mountable or table-top compact design
- Rear M8 6-pin circular port available for future product features
- Integrated Power Supply

AIRCAT-500, and Mode S, in addition to sync, async serial, and LAN formats. Contact us for a full conversion capability matrix.

The RICI 5000 provides IP-based network connectivity via dual Gigabit Ethernet ports located on the front panel. Each RICI serves as the interface to 4 serial ports of data or the unit can also be used exclusively for LAN-to-LAN data formatting, filtering, and/or data conversion. Standard serial cables connect directly to the rear of each DB-25 connector, maintaining independent high speed connectivity in the Serial-to-LAN data configuration.

RICI 5000: Real-Time Interface & Conversion Item (RICI) 5000



Technical Specifications

Serial Port Controls

RS-232 (V.28), RS-422, X.21 (V.11), V35 (V.35 & V.28), EIA-530A (V.10 & V.11), RS-449/V.36 (V.10 & V.11), RS-485

Ethernet

10BASE-T, 100BASE-T, 1000BASE-T, IEEE-802.3

Protocols

Synchronous, Asynchronous, HDLC/SDLC, Bi-Sync, Mono-Sync, TCP/IP, UDP/IP

Message Formats

ASTERIX (e.g., CAT 01, 02, 33, 34, 48, and others), CD-2, ASR-9/11, Mode 4, Mode S, MAR, TPS75, ARTS, AIRCAT-500, ECGP, SGF, ADS-B, custom, and more

Clock Sources

DCE, DTE, Split Clock (individual clock receive and transmit on each port)

Power

- Power usage: 12W Max per unit
- 100-240 VAC, 2.0A Max, 50-60Hz

MTBF

750,000 Hours per Telcordia SR-332 (Issue 3)

Dimensions

Unit:

- Height: 1.61in / 41mm
- Width: 7.31in / 185.68mm
- Depth: 9.17in / 233mm

Populated 1U Chassis:

- Height: 1.75in / 44.45mm
- Width: 17in / 431.8mm
- Depth: 9.25in / 234.95mm

Weight

- Single RICI: 2.5lbs / 1.13kg
- Empty Sleeve: 3.5lbs / 1.59kg
- Fully Populated Chassis: 8.5lbs / 3.86kg

Environmental

- Storage Temperature: -50°C to +60°C
- Operating Temperature: 0°C to +50°C
- Relative Humidity Range: 10 – 90%, noncondensing
- Operating Altitude: -300' to 10,000' per MIL-STD-810G

Certifications and Compliance

- CE Marking
- FCC Part 15, Class B
- RoHS2 Directive 2011/65/EU
- UL/CSA/IEC/EN 60950-1
- UL/CSA/IEC/EN 62368-1
- ETL for Canada and US, 3023031



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