

Real-Time Interface & Conversion Item 5000



*Optional 1U Dual RICI Rackmount

Sunhillo's Real Time Interface and 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 compact, rugged format featuring dual Gigabit Ethernet ports and 4 serial ports. The optional rackmountable 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 expanded 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 is a compact FPGA-based signal processing platform that enables synchronous, asynchronous, Bi-sync plus HDLC serial / LAN interconnectivity and can be programmed to perform essentially any data format conversion. Generally, the units are pre-configured to your specifications at the factory making installation and integration simple and efficient.

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

FEATURES

- TCP/IP and UDP/IP 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 for future expanded product features

4, ARTS, SGF, AIRCAT-500, Mode S, in addition to sync, async serial and LAN formats.

The RICI 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. In the Serial-to-LAN data configuration, standard serial cables connect directly to the rear of each DB-25 connector, maintaining independent high speed connectivity.

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, AIR-CAT500, SGF, ADS-B, custom, and more

Clock Sources

- DCE, DTE, Split Clock (RICI can generate and/or receive clock on each port)

Power

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

MTBF

- 759,232 Hours per Teclordia SR-332 (Issue 3)

Dimensions

Unit:

- Height: 1.61in / 40.90mm
- Width: 9.17in / 232.92mm
- Depth: 9.25in / 234.95mm

Populated 1U Chassis:

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

Weight

- Single RICI: 3 lbs
- Empty Sleeve: 3 lbs
- Fully Populated Chassis: 9 lbs

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
- ETL for Canada and US, 3023031
- UL/CSA/IEC/EN 60950-1
- UL/CSA/IEC/EN 62368-1



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