



Increase your performance and flexibility with the highly configurable RIU-303.



Affordable

The RIU-303 is a general purpose Remote Interface Unit (RIU), giving a true low cost, "off-the-shelf" solution to the problem of providing affordable, high density interfacing within an integrated avionics architecture.

The RIU-303 is an extrapolation of the very successful RIU product line and incorporates not only a higher quantity of analogue interfaces but also a considerable expansion in the types of digital interfaces that can be accommodated. The RIU-303 general performance has been augmented by the latest embedded processing platform.

Flexible and configurable

The Remote Interface Unit 303 will provide approximately 220 channels of analogue and interface between, CAN, ARINC 429, RS-485 and an ARINC 664 Part 7 end system. The unit will represent ultimate configurability enabling the systems integrator and/or airframe authority to configure analogue interface ranges, configure data bus functions to transfer data between bus types (gateway functions), and host subsystem functions.

In addition to operating as a slave to the main computing resource, RIUs can provide autonomous local closed loop control. RIUs have also been utilized between units that do not have compatible interfaces, to provide a "data bus gateway" function.

The RIU-303 has been enabled to interface with an RIU-101 product via RS-485 (for further information about the RIU-101 please request a copy of TSP4313). The resources of an RIU-101 are available as an extension of the RIU-303 capability when connected via the RS-485 interface.

Key features

- Low cost by enabling customer configuration utilizing GE Aviation's proven qualified toolchain
- Provides significant amount of Databus Channels:
 - 1 off ARINC 664 Part 7
 - 5 off ARINC 825 (CAN)
 - 13 off ARINC 429 Tx
 - 16 off ARINC 429 Rx
 - 1 off ARINC 717
 - 1 off RS-485
- Provides approximately 200 channels of flexible analogue I/O
- Local control-loop closure capability
- Configured for each application using a table-driven approach
- No need for software re-design
- Customer Configuration via qualified toolchain
- Can hold up to 31 configurations simultaneously
- Programmable input range, update rate, filtering, scaling, linearization etc.
- Compact, low mass, ruggedized design
- High reliability
- Low power consumption, no cooling required

RIU-303

By embracing a technology re-use philosophy the RIU-303, like all products within the RIU product family, utilises a common set of technology building blocks. This approach enables 'mature' and 'de-risked' solutions

I/O Capability

Analogue Signal I/O

	I/O	Qty
Discrete, Open/Gnd	I	66
Discrete, 28V/Open	I	20
Frequency/Tacho	I	2
Volts, single-ended d.c.	I	6
Volts, single-ended or differential d.c.	I	26
Volts, single-ended a.c.	I	3
Voltage, Synchronous Rectified a.c.	I	6
Current, a.c. Txfmr	I	3
Water-Level Probe	I	5
Discrete, Open/Gnd	O	21
Discrete, 28V/Open with o/c trip	O	14
Volts, 0-10V d.c.	O	2
Current, +/- 10mA d.c.	O	1

Miscellaneous

	I/O	Qty
Excitation, +15V d.c., resistor isolated	O	28
Gnd Shunt	I	7
Gnd Ref/Rtn	I	52
Excitation, a.c.	O	1
Config/Mode Discrete	I	9

Serial I/O

	I/O	Qty
ARINC 664 part 7, network End System	I/O	1
CAN/ARINC 825	I/O	5
ARINC 429	I	16
ARINC 429	O	13
ARINC 717	O	1
TIA/EIA RS485	I/O	1

Physical Characteristics

Test

Temp range

Dimensions

Weight

Specification

-40°C to +85 °C ambient operating

8.6 x 8 x 2.5 inches (excl. connectors)

4.2lb

RIU303DSV1