

ES-1553RUNET/Px

The ES-1553RUNET/Px is a ruggedized, intelligent, single-channel, multifunction MIL-STD-1553 interface device. Its small size and rugged casing ability to interface through Ethernet make it a complete solution for developing, testing and performing system simulation of the MIL-STD-1553 bus, both in the lab and in rugged environments. The ES-1553RUNET/PxS is the single function version of the device with a single RT and no error injection.

The ES-1553RUNET/Px shares its API with the entire Px family so that applications currently running on our PCIe, PCI, ExpressCard, or PCMCIA cards, will run without change on this device.

Multiple units can operate on the same network, by programming each one with a unique IP address, and can be accessed from any computer on the network.

General Features

- ◆ Host interface: Ethernet 10/100 Mbps
- ◆ One MIL-STD-1553A/B channel
- ◆ Real-time operation
- ◆ 32-bit Time Tag
- ◆ Programmable Time Tag resolution (RT and Bus Monitor modes)
- ◆ Programmable interrupts

Channel Specifications

- ◆ Multifunction (Px) operating modes:
 - RT mode – up to 32 remote terminals
 - BC/Concurrent-RT mode – bus controller and up to 32 remote terminals
 - Bus Monitor mode – triggerable bus monitor
- ◆ Single function (PxS) operating modes:
 - RT mode – single remote terminal
 - BC mode – bus controller
 - Bus Monitor mode – triggerable bus monitor
- ◆ Internal Concurrent Monitor in RT, BC and BC/RT modes
- ◆ 64K x 8 dual-port RAM
- ◆ MIL-STD-1553 dual-redundant channels
- ◆ Both 1553A and 1553B protocol capability
- ◆ Multiple-RT simulation (up to 32 RTs)
- ◆ Multibuffering of data (RT mode)
- ◆ Major/Minor frames (BC mode)
- ◆ Asynchronous frames (BC mode)
- ◆ Automatic retry (BC mode)
- ◆ Programmable broadcast mode
- ◆ Service Request Processing (SRP)
- ◆ Loopback mode (Bus A to Bus B) enables complete built-in test; plus cable testing
- ◆ Error injection capabilities (multifunction only):
 - Word count
 - Bit count
 - Incorrect sync
 - Incorrect RT address
 - Incorrect parity
 - Non-contiguous data
 - Manchester
- ◆ MIL-STD-1760 Option:
 - Checksum error detection
 - Checksum error injection
 - Header words

Compliance

- ◆ MIL-STD-810G Environmental conditions (See our website for complete compliance testing report.)
- ◆ MIL-STD-461E Electromagnetic compatibility (See our website for complete compliance testing report.)

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Power Supply

- ◆ MIL-STD-704E Electric power compatibility for military airborne equipment (See our website for complete compliance testing report.)
- ◆ MIL-STD-1275B Electric power compatibility for 28Vdc electrical systems in military vehicles

Power Requirements

- ◆ 6.5 Watts max.

Dimensions

- ◆ 75.5mm (L) x 141.0mm (W) x 51mm (H)
(excluding mounting tabs and connectors)

Weight

- ◆ Approximately 700g

Software Support

- ◆ C drivers with source code for Windows and Linux
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools for Windows (optional)
- ◆ Additional software may be available on our website

Ordering Information

- ◆ **ES-1553RUNET/P1**
One multifunction MIL-STD-1553 channel
- ◆ **ES-1553RUNET/P1S**
One single function MIL-STD-1553 channel
- ◆ Additional Options:
 - 1760 1760 protocol support
 - D 1553 Direct Bus coupling

These specifications are subject to change without notification



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Mechanical Specifications

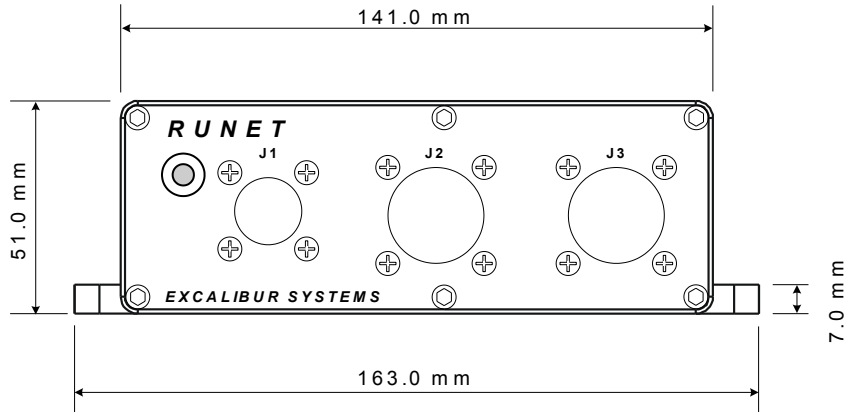


Figure 1 ES-1553RUNET/Px Front View

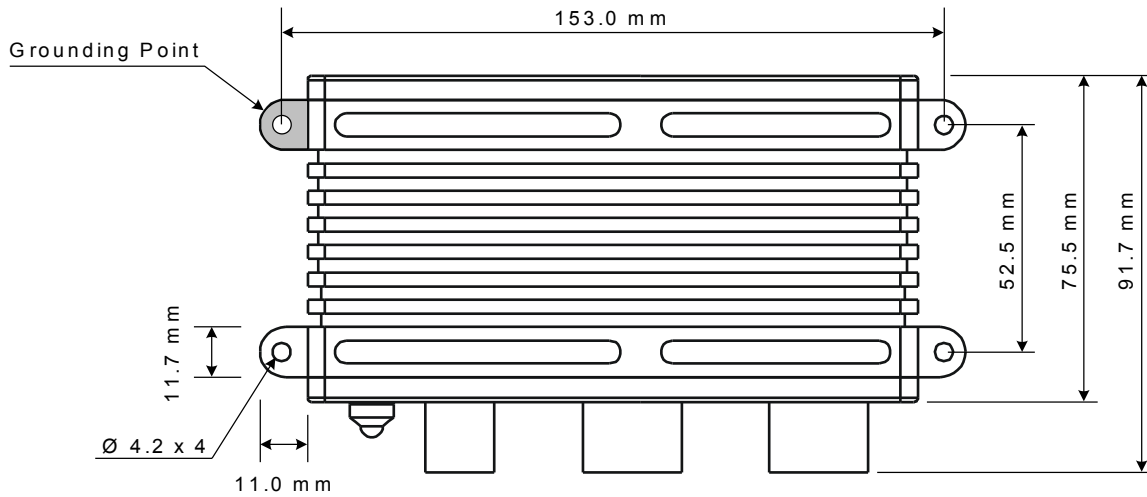


Figure 2 ES-1553RUNET/Px Top View



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