

# EXC-1553UNET/Px

The EXC-1553UNET/Px is an intelligent, single- or dual-channel, MIL-STD-1553 interface device. Its small size and ability to interface through USB or Ethernet interfaces make it a complete solution for developing, testing and performing system simulation of the MIL-STD-1553 bus, both in the lab and in the field. The EXC-1553UNET/PxS is the single function version of the device with a single RT and no error injection. In addition, this device provides 8 I/O Discrete signals and an IRIG B input.

The EXC-1553UNET/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 via USB ports on the same computer. In addition, 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: user selectable USB 2.0 or Ethernet 10/100 Mbps
- ◆ Up to two independent MIL-STD-1553A/B channels
- ◆ Transformer or Direct Bus coupling
- ◆ Real-time operation
- ◆ 32-bit Time Tag
- ◆ Programmable Time Tag resolution (RT and Bus Monitor modes)
- ◆ Programmable interrupts
- ◆ 8 Discrete I/O signals
- ◆ IRIG B input
- ◆ Smart power management
- ◆ Power source: Computer USB ports, USB power supply
- ◆ Configuration options:
  - Mounting plate
  - Hard-wired MIL-STD-1553 I/O cables

## Channel Specifications

- ◆ 64K x 8 dual-port RAM
- ◆ Independent MIL-STD-1553 dual-redundant channels
- ◆ Multifunction channels operate as multiple RTs, BC/Concurrent-RT or Triggerable Bus Monitor
- ◆ Single function channels operate as a single RT, BC or Triggerable Bus Monitor
- ◆ Internal Concurrent Monitor (RT and BC/RT modes)
- ◆ 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

## Physical Characteristics

- ◆ Dimensions: 98.5mm x 76mm x 18mm (not including connectors)
- ◆ Weight (/P2 basic configuration): 180g

## Operating Environment

- ◆ Operating Temperature: -40° to + 75°C
- ◆ Humidity: 5% - 90% noncondensing

## Host Interface

- ◆ Selectable USB 2.0 or 10/100Mbps Ethernet
- ◆ Power (/P2 typical): 5V @ 1A

## 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

- ◆ **EXC-1553UNET/P1-M or -C**  
One multifunction MIL-STD-1553 channel
- ◆ **EXC-1553UNET/P1S-M or -C**  
One single function MIL-STD-1553 channel
- ◆ **EXC-1553UNET/P2-M or -C**  
Two multifunction MIL-STD-1553 channels
- ◆ **EXC-1553UNET/P2S-M or -C**  
Two single function MIL-STD-1553 channels

**Note:** “-M” specifies panel mounted, with BJ157 connectors  
“-C” specifies a hard-wired 1553 cable with CJ70 connectors

- ◆ Additional Options:
  - 1760 1760 protocol support
  - D 1553 Direct Bus coupling
  - P mounting plate

*These specifications are subject to change without notification*



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