

EXC-1553USB/PM

**MIL-STD-1553 Card for
USB Interface Systems**

Mechanical and Electrical Specifications



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This document describes the mechanical and electrical specifications of the *EXC-1553USB/PM*, and contains the following sections:

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Overview

The *EXC-1553USB/PM* is a single-channel, bus monitor MIL-STD-1553 device with USB host interface. Its compact ruggedized assembly and enclosure is designed to meet a wide range of environmental requirements. Small, light, low power and versatile, the *EXC-1553USB/PM* is a solution for extreme field applications as well as development and testing of the MIL-STD-1553 bus in the lab.

The *EXC-1553USB/PM* shares its API with the entire Px family so that applications currently running on our 1553UNET, PCIe, PCI, ExpressCard, or PCMCIA cards, will run seamlessly here as well. Connect multiple units to your PC or Laptops USB ports.

The *EXC-1553USB/PM* conforms to MIL-STD-454 requirements for process, parts and workmanship.

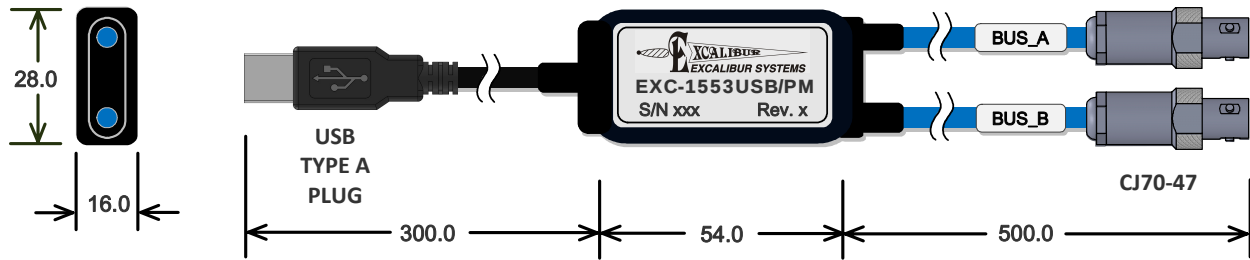
Additional Documents

The *EXC-1553USB/PM* is a monitor-only MIL-STD-1553 device. For developing applications, refer to the applicable sections of the *1553Px Family Software Tools Programmer's Reference*. Only the General Functions and the Bus Monitor Functions are relevant to the *EXC-1553USB/PM*.

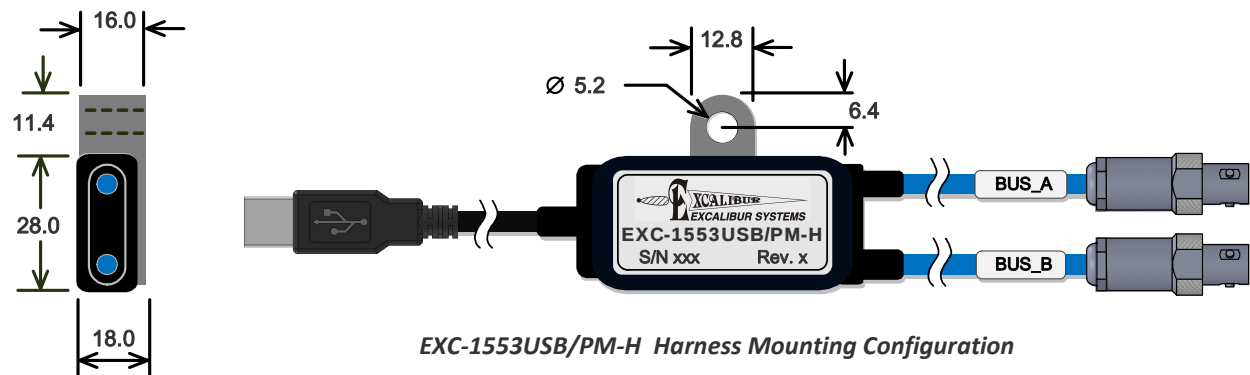
Setting up the *EXC-1553USB/PM* is similar to the *EXC-1553UNET/Px*. Refer to the **Installation and Setup** chapter of the *EXC-1553UNET/Px & ES-1553RUNET/Px User's Manual* (filename: 1553UNETpx_HW.pdf).

Note: Only the USB parts of the installation are relevant.

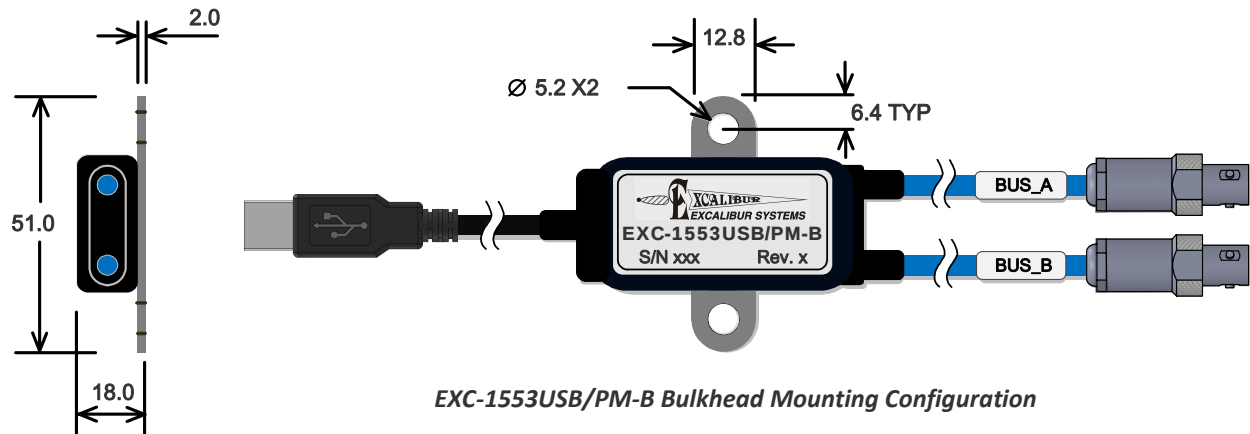
Dimensions



EXC-1553USB/PM Configuration



EXC-1553USB/PM-H Harness Mounting Configuration



EXC-1553USB/PM-B Bulkhead Mounting Configuration

Dimensions

Connectors

The *EXC-1553USB/PM* has three connectors:

- 1 USB Type A plug
- 2 female twinax connectors (Trompeter CJ70 or equivalent)

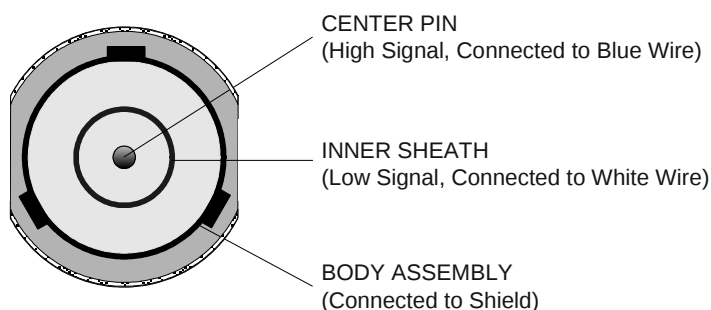
USB Type A Plug Connector

Standard USB Type A plug connector.

Twinax Connectors

The two female twinax connectors for Bus A and Bus B are Trompeter CJ70 or equivalent.

The twinax connectors mate, for example, with Trompeter PL75 male twinax connectors. These connectors are not supplied by Excalibur.



Twinax Connector – Front View

	Twinax Conn. Pin Position	Signal Name	Description
Bus A	CENTER PIN	BUSHI	Bus A Connection Hi
	INNER SHEATH	BUSLO	Bus A Connection Lo
	BODY ASSEMBLY	SHIELD	Provided for 1553 cables shield connection. This signal is connected to the case of the computer
Bus B	CENTER PIN	BUSHI	Bus B Connection Hi
	INNER SHEATH	BUSLO	Bus B Connection Lo
	BODY ASSEMBLY	SHIELD	Provided for 1553 cables shield connection. This signal is connected to the case of the computer

Twinax Connector Pin Assignments

Power Requirements

The maximum power requirements for the *EXC-1553USB/PM* are 5V @ 350mA (max.).

Ordering Information

This section describes the part numbers to indicate when ordering an *EXC-1553USB/PM* card.

Part Number	Option	Description
EXC-1553USB/PM		Bus monitor, MIL-STD-1553 device with USB Host interface.
	-1760	Add this suffix for 1760 protocol support.
	-D	Add this suffix for Direct Bus Coupling.
	-H	Add this suffix for Harness Mounting Configuration.
	-B	Add this suffix for Bulkhead Mounting Configuration.

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October 2018, Rev A-1