

EXC-1553mPCleD/P2

The EXC-1553mPCleD/P2 is an intelligent, dual-channel, memory-mapped MIL-STD-1553 interface card. It complies with the PCI Express™ Mini Card standard. The card's small size and suitability for Mini Card compatible computers make it a complete solution for developing, testing, integrating 1553 interfaces and for performing system simulation of the MIL-STD-1553 bus, both in the lab and in the field.

The EXC-1553mPCleD/P2S is a single function version of the card with a single RT and no error injection.

General Features

- ◆ Dual redundant MIL-STD-1553A/B channel
- ◆ MIL-STD-1760 Option
- ◆ Real-time operation
- ◆ 32-bit Time Tag
- ◆ Programmable Time Tag resolution (RT & MON)
- ◆ Transformer or Direct Bus Coupling
- ◆ Programmable Interrupts
- ◆ Time Tag can be read in real-time
- ◆ 14-pin 2mm pitch connector with crimp type mating connector
- ◆ Hard-wired cable connection (optional)

Channel Specifications

- ◆ 64K x 8 dual-port RAM
- ◆ Independent MIL-STD-1553 dual-redundant channel
- ◆ Operates as RT, BC/Concurrent-RT 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)
- ◆ Major/Minor frames (BC)
- ◆ Asynchronous frames (BC)
- ◆ Automatic retry (BC)
- ◆ Programmable broadcast mode
- ◆ Multi-mode triggerable Monitor
- ◆ Extensive interrupt features
- ◆ Service Request Processing
- ◆ Loopback mode (Bus A to Bus B) enables complete built-in test; plus cable testing
- ◆ Error injection capabilities:
 - 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

- ◆ PCI Express Mini Card Electromechanical Specification Rev 1.2
- ◆ Dimensions: 50.95mm x 30.00mm x 8.5mm
- ◆ Weight: 13.3g

Operating Environment

- ◆ Temperature: 0° - 70°C
- 40° to +85°C ext. temp. (optional)
- ◆ Humidity: 5% to 90% noncondensing
- ◆ MTBF: 642,100 hours at 25°C, G_F, S217F

Host Interface

- ◆ PCI Express compliance: x1 lane PCIe
- ◆ Memory space occupied: 512 KB
- ◆ Interrupts: INTA# virtual wire
- ◆ Power (2 ch. @ 70% duty cycle): 3.3V @ 1.1A

Software Support

- ◆ 1553Px Software Tools: Advanced API with C source code.
 - ◆ Compatible with 32/64-bit Windows 7/8/10 & Linux kernel 3.x/4.x/5.x
 - ◆ Includes application interface for NI LabView & CVI
- ◆ Exalt Plus: Excalibur Analysis Laboratory Tools for Windows (optional)
- ◆ MerlinPlus Bus Analyzer for Windows

Ordering Information

- ◆ **EXC-1553mPCleD/P2**
Multifunction, MIL-STD-1553 Mini PCIe Card
- ◆ **EXC-1553mPCleD/P2S**
Single function, MIL-STD-1553 Mini PCIe Card
- ◆ **EXC-1553mPCleD/P2M**
Monitor-only, MIL-STD-1553 Mini PCIe Card
- ◆ Additional Options:
 - 1760** 1760 protocol option
 - 001** With conformal coating
 - E** Extended temperature card
 - B** Ruggedized design with bonded components
 - D** Direct Bus Coupling
 - R** Hardwired cable connection



November 2023, Rev A-1

These specifications are subject to change without notification

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