

# EXC-1553mPCIe/P1

The EXC-1553mPCIe/P1 is an intelligent, single-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.

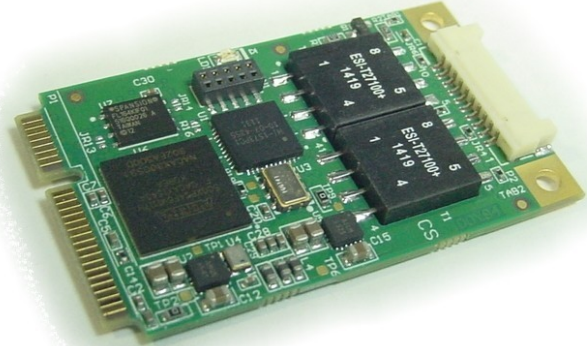
The EXC-1553mPCIe/P1S is a single function version of the card with a single RT and no error injection.

## 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
- ◆ 10 pin 1.27mm pitch connector with crimp type mating connector
- ◆ Optional soldered cable connection

## 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 4.85mm
- ◆ Weight: 7.6g

## Operating Environment

- ◆ Temperature: 0° - 70°C
- 40° to +85°C ext. temp. (optional)
- ◆ Humidity: 5% - 90% noncondensing
- ◆ MTBF: 490,200 hours at 25°C, G<sub>F</sub>, S217F

## Host Interface

- ◆ PCI Express compliance: x1 lane PCIe
- ◆ Memory space occupied: 512 KB
- ◆ Interrupts: INTA# virtual wire
- ◆ Power (maximum): 3.3V @ 720mA

## Software Support

- ◆ *Software Tools:* Advanced API with C source code. The Software Tools are available for several operating systems. See the **Downloads** section of our website.
- ◆ MerlinPlus MIL-STD-1553 Bus Analyzer for Windows
- ◆ *Exalt Plus:* Excalibur Analysis Laboratory Tools for Windows (optional)

## Ordering Information

- ◆ **EXC-1553mPCIe/P1**  
Multifunction, MIL-STD-1553 Mini PCIe Card
- ◆ **EXC-1553mPCIe/P1S**  
Single function, MIL-STD-1553 Mini PCIe Card
- ◆ **EXC-1553mPCIe/P1M**  
Monitor-only, MIL-STD-1553 Mini PCIe Card
- ◆ Additional Options:
  - 1760 1760 protocol option
  - 001 With conformal coating
  - E Extended temperature card
  - R With ruggedized, hard-wired cable connection
  - D Direct Bus Coupling

July 2016, Rev A-2

*These specifications are subject to change without notification*



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