

EXC-4000PCIe64

The EXC-4000PCIe64 is part of the 4000 family of multiprotocol carrier boards. This PCI Express interface board supports up to four independent, removable modules. Each module can be any of the 4000 family modules.

The EXC-4000PCIe64 supports Direct Memory Access (DMA), which enables the board to access system memory for reading and writing independently of the computer's CPU. This results in faster data transfer to and from the board, with much less CPU overhead than when not using DMA.

General Features

- ◆ Supported Protocols:
 - Ethernet
 - ARINC 429/575 (5 or 10 ch. per module)
 - ARINC 708/453 (2 ch. per module)
 - MIL-STD-1553 (single function or multifunction)
 - MIL-STD-1760
 - Discrete I/O (20 ch. per module)
 - Serial RS485/RS422/RS232 (2 or 4 ch. per mod.)
 - H009
 - ARINC 825 (CAN)
 - ARINC 717
 - MMSI
- ◆ 16-bit Count Down Timer
 - 1–65,635 μ s resolution
 - Interrupt or global reset upon count down



IRIG B Time Code Input

- ◆ Carrier wave:
 - 1KHz Amplitude modulated sine wave
- ◆ Rate Designation: 100 peaks per second
- ◆ Modulation ratio: 3:1
- ◆ Input Amplitude: 0.8–3.5 Vpp (3 Vpp Typ)
- ◆ Coded Expressions supported:
 - BCD time-of-year code word
 - Control functions
 - Straight Binary Seconds (SBS) time-of-day
- ◆ Application:
 - Synchronization of Time Tags, display and IRIG B time

Physical Characteristics

- ◆ Dimensions: 188.0 mm x 106.9 mm
- ◆ Weight: 133 g (without modules)

Operation Environment

- ◆ Temperature: 0°–70°C standard temperature
-40° to +85°C extended temperature (optional)
- ◆ Humidity: 5%–90% noncondensing
- ◆ MTBF: 359,100 hours at 25°C, G_F, S217F

Compliance

- ◆ EN 61010-1:2010 Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1: General requirements
- ◆ EN 61326-1:2006 Electrical equipment for measurement, control and laboratory use – EMC requirements

System Requirements

- ◆ Operating system: 64-bit Windows
- ◆ CPU: Intel® Core™ i3 Processors or equivalent (recommended)
- ◆ RAM: 8 GB host interface (recommended)
- ◆ PCI Express compliance: x1 lane PCIe v1.1
- ◆ Memory space occupied: 256MB
- ◆ Interrupts: INTA# virtual wire
- ◆ Power: 480mA @ 3.3V for the carrier board. Additional power is required for each of the installed module. See the user's manual for each module.

Software Support

- ◆ C drivers with source code
- ◆ Menu driven software for most of the supported protocols
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools for Windows 32/64-bit (optional)
- ◆ Additional software may be available on our website

Ordering Information

- ◆ **EXC-4000PCIe64/xx**
Multi-protocol interface board for PCIe compatible systems
- Note:** Replace "xx" with the carrier board modules ordered. Use the module code specified in the *Module Ordering Information* on our website, or in the *User's Manual* of the board.
- ◆ Additional Options:

- E Extended temperature option
- 001 With conformal coating

These specifications are subject to change without notification

December 2017, A-2

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