your NTDS specialist

SABTECH INDUSTRIES

SPARROW™

PCI SERIAL ATDS BOARD

Sparrow™ PCI Serial ATDS Board

The Sparrow™ PCI Serial ATDS board installs in a standard PCI 3.3V, 5V, or Universal signaling slot to provide an interface to a Tactical Digital Information Link (TADIL) A serial channel (MIL-STD-188-203-1A, Appendix D2). The Sparrow™ is easy to program and offers a variety of input and output modes to support all ATDS protocols. In addition to conventional input and output operations, the Sparrow™ has a built-in passive tap mode that provides interface monitoring and data capturing capability. A software enabled embedded time-stamp generator tags input words with 125 ns resolution. The time-stamp clock can be synchronized between multiple boards by using a small interconnect cable, and can be driven by an external clock source.

Reliability and flexibility are designed into the Sparrow™. An internal loop-back path allows the Sparrow™ to be tested without disconnecting cables. Field upgrades can be done easily by running a simple utility to update the onboard Field Programmable Gate Array (FPGA).

The interface comes standard with a driver for any one of the supported operating systems, a loop-back module, an excellent documentation package, and sample C language code that can be freely used in application software.

A powerful feature set combined with the high performance PCI bus allow the Sparrow™ to achieve superior levels of serial ATDS performance in COTS systems. For the most compact, powerful, and reliable serial ATDS interface available today, choose the Sparrow™ PCI Serial ATDS board from Sabtech.

Features

- Fully MIL-STD-188-203-1A, Appendix D2 compliant
- Transceiver Short Circuit Protection
- DTS or TDS Operation
- Frame Interval of 13.33 ms or 22.00 ms
- Full Picket Addressing and Sidetone Support
- Data Recirculation (Fault) Testing
- KG-40 Reset Signal
- DTS/TDS Mode LED
- Net Control LED
- User LED
- Interrupt, PIO & DMA operation
- Field Programmable Gate Array (FPGA) technology
- PCI 2.2 compliant
- PCI Master and Slave operation
- Internal loop-back test without disconnecting ATDS cables
- Software enabled time-stamp on input words with 125ns resolution
- Passive tap mode
- Fully Software Configurable (no programming switches or jumpers)

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Time-out Options

- Time-out values in 10 µs or 1 ms increments
- Time-out between words and/or total transfer times
- Start timeout at beginning of operation or upon transfer of first word

Software Support*

Choice of driver included with board purchase

- Windows® 2000/XP
- VxWorks®
- Solaris™
- Linux®

**Contact factory for new OS support*

Specifications

ATDS Interface:

- MIL-STD-188-203-1A, Appendix D2

PCI Bus Interface:

- PCI 2.2 Compliant 32-Bit,33 MHz, Universal Card (3.3V or 5V I/O Signaling)

Input Buffer:

- 4K x 32-Bit FIFO (standard)
- 64K x 32-Bit FIFO (optional)

ATDS I/O Connector:

- 25-pin Micro D (Molex 83614-9012)

Form Factor:

- Single Wide, Non-Extended PMC (Per IEEE P1386.1, Draft 2.0)

Weight:

- 6.3 oz.

Power Consumption:

- Average 5V current draw: 0.56A
- Average +12V current draw: 50mA
- Average +$V_{I/O}$ current draw: 5mA
- Average Power dissipated: 3.4W

Relative Humidity:

- 5% to 95% (non-condensing)

Operating Temperature:

- 0°C to +55°C

Options & Accessories

- Cable Assemblies

Visit the Accessories section of our website for more information on these products.

Ordering Information

Product	Description	Part Number
Sparrow™ ATDS PCI	Sparrow™ PCI Serial ATDS Board w/4K FIFO	SW-12101-00
	Sparrow™ PCI Serial ATDS Board w/64K FIFO	SW-12102-00

Specifications subject to change without notice (E&OE)