The Sparrow PMC ATDS Serial Board installs in an industry standard PCI Mezzanine Card (PMC) 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 125ns 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.

Design Features
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).

Product Overview
- Fully MIL-STD-188-203-1A, Appendix D2 compliant
- Transceiver short circuit protection
- DTS or TDS operation
- Frame interval of 13.33ms or 22.00ms
- Full packet 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)
General Product Features

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

Software Support*
- Choice of driver included with board purchase:
  Windows® 2000/XP, Solaris™, Linux®, VxWorks®
*Contact factory for new OS support

Options and Accessories
- Cable Assemblies

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Sparrow PMC ATDS Serial Board Technical Specs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>ATDS Interface</td>
<td>MIL-STD-188-203-1A, Appendix D2</td>
</tr>
<tr>
<td>PCI Bus Interface</td>
<td>PCI 2.2 Compliant 32-Bit, 33MHz, Universal Card (3.3V or 5V I/O Signaling)</td>
</tr>
<tr>
<td>Input Buffer</td>
<td>64K x 32-Bit FIFO</td>
</tr>
<tr>
<td>ATDS I/O Connector</td>
<td>25-pin Micro D (Molex 83614-9012)</td>
</tr>
<tr>
<td>Form Factor</td>
<td>Single Wide, Non-Extended PMC (Per IEEE P1386.1, Draft 2.0)</td>
</tr>
<tr>
<td>Weight</td>
<td>3.0 oz.</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Average +5V current draw: 0.56A</td>
</tr>
<tr>
<td></td>
<td>Average -12V current draw: 50mA</td>
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<tr>
<td></td>
<td>Average +VI/O current draw: 5mA</td>
</tr>
<tr>
<td></td>
<td>Average Power dissipated: 3.43W</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5% to 90% (non-condensing)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C to +55°C</td>
</tr>
</tbody>
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