These field replaceable modules are designed to support bootstrapping, application load, and data storage in a single 6U CompactPCI slot. They are perfectly suited for communications applications in benign environments as well as applications that require rugged disk drive performance.

- On-board ATA-4 controller supports hot swap and six different combinations of storage devices:
  - DVD+/-RW drive (others available)
  - 2.5" rotating or solid state flash drives
  - Compact Flash
- Supports board level hot swap removal per PICMG 2.1
- 2.5" rotating drive sizes up to 250 GB (formatted up to 128 GB); solid state flash drives up to 128 GB
- 32-bit, 33 MHz CompactPCI interface
- Operating systems supported: Linux, VxWorks, and Windows
- Front panel has activity LEDs and ejector handles for easy removal

Products for Embedded Systems
Specifications

General
Each module has an on-board ATA-4 controller, supporting hot swap removal and six different combinations of storage devices. See order information for available versions.

Physical
The system disk module is 6U high by 4HP (0.8") wide by 160mm deep, compatible with CompactPCI mechanical and electrical specifications. Weight: <2 pounds.

Input/Output
I/O is routed via the rear through the J5 connector. An I/O interconnect ribbon cable (18") is provided.

Compatibility
These modules are directly compatible with most CompactPCI SBCs. Contact us for details on modules for other platforms.

Electrical Specifications
- ATA-4 compliant disk controller uses Silicon Image PCI1646 chipset; PCI 2.1 compliant
- Supports PIO Mode 1 - 4, Ultra 33, UDMA-2

Power Requirements
Worst Case Input Power
- Hard Drive: +5V ± 5% @ 1A max
- DVD/RW Drive: +5V ± 5% @ 1.2A avg., 1.6A peak

Board Environmental Specifications
- DC Input Voltage: 5V ±5% @ .75A typical
- Operating Temperature: 0°C to 55°C
- Storage Temperature: 0°C to 70°C

Rotating Hard Drive Parameters
Drive capacities change frequently. Please call or visit our website for the most recent information.

<table>
<thead>
<tr>
<th>Capacity GB (5,400 rpm)</th>
<th>2.5&quot; Commercial</th>
<th>2.5&quot; Ext. Duty / Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 / 120 / 160 / 250 **</td>
<td>40 / 60 / 80</td>
<td></td>
</tr>
<tr>
<td>Average Seek Time</td>
<td>12 ms</td>
<td>12.5 ms</td>
</tr>
<tr>
<td>Average Latency</td>
<td>5.50 ms</td>
<td>5.6 ms</td>
</tr>
</tbody>
</table>

** Due to controller limitations, formatted capacities above 128 GB are not supported.

Solid State Flash Drive Parameters
Note: these drives rapidly evolve and improve. Please check with us for the latest performance specifications.

<table>
<thead>
<tr>
<th>Drive Sizes in GB</th>
<th>8, 16, 24, 32, 64, 128</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media (Read/Write)</td>
<td>Contact us for latest specs</td>
</tr>
<tr>
<td>Vibration (min.)</td>
<td>16.3 Gs (20 to 2,000 Hz) on x, y, z axis</td>
</tr>
<tr>
<td>Shock (half sine)</td>
<td>1,500 Gs (MIL-STD-810F compliant)</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>Operating: -40 to +85 Non-Operating: -55 to +95</td>
</tr>
<tr>
<td></td>
<td>Operating Altitude (max): 80,000 feet</td>
</tr>
</tbody>
</table>

DVD-ROM Drive Parameters
We can supply you with the latest available notebook style DVD drives. Please ask for details when ordering.

<table>
<thead>
<tr>
<th>Rotational Speed</th>
<th>16X in DVD-ROM mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Transfer Rate</td>
<td>16.6 MB/s, 33.3 burst</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vibration (min.)</th>
<th>Operating: 2 Gs (5 to 500 Hz) (except in record mode) Non-Operating: 2 Gs (5 to 500 Hz)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Operating Shock (half sine)</th>
<th>Operating: 5 Gs (11ms) CD-DA Play Mode: 2 Gs (11 ms)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Operating: 0 to +55 Non-Operating: -20 to +65</th>
</tr>
</thead>
</table>

CompactFlash Drive Parameters
Industrial CF is currently available in 2, 4, 8, 16 & 32GB. Please check manufacturers for specifications.

Order Information
Each CPC1Stor is shipped fully assembled and tested in six different configurations. Find the version you require and specify drive size(s) using the charts on this page.

6000-1-nGBy(-ZZ): 1 DVD+//-RW drive, 1 disk drive
6000-2-nCF: 1 DVD+//-RW, 1 CompactFlash drive
6000-3-nCF-nCF: 1 DVD+/+-RW, 2 CompactFlash drives
6000-4-nGBy-nGBy-nGBy(-ZZ): Up to three 2.5" ATA hard drives
6000-5-nGBy-nGBy(-ZZ)-nCF: Two 2¼" ATA drives, 1 CompactFlash drive
6000-6-nGBy-nGBy(-ZZ)-nCF-nCF: Up to two 2¼" ATA drives, up to two CF-II (one internal, one front access)

N = capacity for any drive type
y = rotating drive speed (rpm) ZZ = 2¼" drive options:
2 = 5,400 rpm ED = Enhanced Duty
4 = Solid State Flash SS = Solid State Comm

If conformal coating is required for salt/spray environments, please add "-C" to the end of the part number.

Part Number Examples:
6000-5-32GB4-80GB2-ED-16CF: One 32GB Solid State Flash drive, one 80GB Enhanced Duty 2¼" rotating drive, and one 16GB CF drive.
6000-1-250GB2: One DVD+/+-RW drive, one 250GB commercial rotating drive
6000-6-160GB2-160GB2-8CF-16CF: Two 160GB commercial rotating drives, one 8GB CF and one 16GB CF

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