The Cactus Technologies CFast Card - 220S Series is a high capacity solid state flash memory product that complies with the serial ATA 2.6 standard, CFast 1.0, ATA-8 and is functionally compatible with a SATA Hard Disk Drive. Cactus Technologies CFast cards provide up to 128GB of formatted storage capacity.

**CACTUS CFast Card Features**

- Industry Standard CFast Form Factor
- Card Capacities: 4GB to 128GB
- Supports SATA I/II 1.5/3.0 GBPS Transfer Rate
- Compliant with:
  - Serial ATA 2.6 Spec
  - ANSI ATA-8 Spec
  - CFA CFast 1.0 Spec
- 3.3V Operation
- Unique Electronic Device ID
- Traceability Barcode
- Smart Life Cycle Analysis Option
- Solid State Design
- Reliability:
  - Wear Leveling
  - Error Checking & Correction
  - Less Than 1 Error in 10^{14} Bits Read
  - MTBF 200,000 Hours
- 200K Hour MTBF
- 2-Year Warranty

**Performance**

- Read Data Transfer Rate: up to 240MB/sec
- Write Data Transfer Rate: up to 75MB/sec

**Reliability**

- Wear Leveling
- Error Checking & Correction
- Less Than 1 Error in 10^{14} Bits Read
- MTBF 200,000 Hours

**Environmental & Power**

- Operating Temperature Range:
  - Standard: 0°C to 70°C
  - Extended: Contact Cactus

**Power Consumption**

- 3.3V
  - Read: 170 mA
  - Write: 110 mA
  - Sleep: 75 mA

**Shock & Vibration**

- Shock: 3,000G
- Vibration: 20G peak-to-peak
## Commercial Grade CFast Card

### CFast Card 220S Series

#### Interface

<table>
<thead>
<tr>
<th>Interface</th>
<th>CFast 1.0 Spec; ANSI ATA 8 Spec; Serial ATA 2.6 Spec</th>
</tr>
</thead>
</table>

#### Interface Transfer Rate

<table>
<thead>
<tr>
<th>Transfer Rate</th>
<th>3.0Gb/sec</th>
</tr>
</thead>
</table>

#### Power Requirement

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Input Voltage</td>
<td>3.3V ± 10%</td>
</tr>
<tr>
<td>Sleep</td>
<td>75mA</td>
</tr>
<tr>
<td>Read</td>
<td>170mA</td>
</tr>
<tr>
<td>Write</td>
<td>110mA</td>
</tr>
</tbody>
</table>

#### Environmental Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Temperature</td>
<td>0°C to 70°C</td>
</tr>
<tr>
<td>Extended Temperature</td>
<td>Contact Cactus</td>
</tr>
<tr>
<td>Humidity</td>
<td>8-95%, non-condensing</td>
</tr>
<tr>
<td>Acoustic Noise</td>
<td>0dB</td>
</tr>
<tr>
<td>Vibration</td>
<td>20G peak to peak max.</td>
</tr>
<tr>
<td>Shock</td>
<td>3000G max.</td>
</tr>
<tr>
<td>Altitude</td>
<td>100,000 feet max.</td>
</tr>
</tbody>
</table>

#### Reliability and Maintenance

<table>
<thead>
<tr>
<th>Reliability and Maintenance</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endurance</td>
<td>100,000 erase cycles per block</td>
</tr>
<tr>
<td>MTBF</td>
<td>200,000 Hours</td>
</tr>
<tr>
<td>Data Reliability</td>
<td>less than 1 Error in $10^{14}$ bits read</td>
</tr>
</tbody>
</table>

#### Card Capacity

<table>
<thead>
<tr>
<th>Capacity</th>
<th>4GB to 128GB</th>
</tr>
</thead>
</table>