



## **Princeton Industrial CFast Card**

**CFast Version Code: B1**

### **Specifications**

**Document Revision History**  
Rev 1.0, Feb 2010 – Initial release.

## Product Overview

The Princeton Technology Industrial CFast card is a non-volatile data storage medium, compliant with the CFast™ 1.0 specification. It consists of an advanced flash memory controller and NAND-type flash memory available in standard and wide temperature grades. Princeton Industrial CFast cards are ideal for use in specialized applications under normal or harsh environmental conditions where high-speed data transfer and portability are essential requirements.

## Features

- CFast™ Card Specification 1.0 compliant
- CFast Type I form factor
- 7-pin (data) + 17-pin (power) interface
- Supports SATA I/II (1.5/3.0 Gbps)
- Supports Ultra DMA mode 5 and lower
- Supports fixed disk type
- BCH ECC of 8 bits or 15 bits in 512 bytes
- Reliable static wear-leveling algorithms for maximum flash endurance
- Power supply supports +3.3V ± 5%
- RoHS compliant

## Specifications

General		
Compatibility	CFast™ Card Specification 1.0 compliant	
Flash Technology	NAND type flash memory (Single Level Cell)	
Connector Type	CFast Type I, 7-pin (data) + 17-pin (power)	
Transfer Modes	UDMA-5, MWDMA-2, PIO-4	
Disk Mode	Fixed	
Performance		
Sequential Read	105.6 MB/sec (typ.)	
Sequential Write	100.8 MB/sec (typ.)	
Random Access	0.1 ms (typ.)	
Environmental		
Standard Temp.	Operation	0°C ~ +70°C
	Non-operation	-20°C ~ +80°C
Wide Temp.	Operation	-40°C ~ +85°C
	Non-operation	-50°C ~ +95°C
Humidity	10% ~ 95% non-condensing	
Vibration	15 G compliance to MIL-STD-810F	
Shock	1,500 G compliance to MIL-STD-810F	
Altitude	70,000 ft	

Reliability	
MTBF	> 2,000,000 hours
Error Correction	BCH ECC 8 bits or 15 bits in 512 bytes
Endurance	> 3,000,000 cycles logically determined by static wear-leveling and advanced bad sector management algorithms
Power	
Voltage	DC +3.3V ± 5%
Read	280 mA max.
Write	330 mA max.
Sleep	170 mA max.
Physical	
Length	36.4 mm
Width	42.8 mm
Thickness	3.3 mm
Weight	10.0 g max.

## Part Numbering

M<sup>1</sup>CFT<sup>2</sup>XXXXX<sup>3</sup>I<sup>4</sup>X<sup>5</sup> – B1<sup>6</sup>

1: Memory

2: CFast

3: Capacity

002GB: 2 Gigabytes

004GB: 4 Gigabytes

008GB: 9 Gigabytes

016GB: 16 Gigabytes

4: Flash Type

I: SLC

5: Operating Temperature

S: Standard (0°C ~ +70°C)

W: Wide (-40°C ~ +85°C)

6: Product Version Code

B1: These specifications

Example Part Numbers

2GB, Wide Temp	MCFT002GBIW-B1
16GB, Standard Temp	MCFT016GBIS-B1