Features

General
- 2 GB to 32 GB density
- CFast 2.0 Compliant
- SATA 3.3 Compliant
- SMART Functionality

Performance
- Sequential read from 65 MB/s up to 255 MB/s
- Sequential write from 45 MB/s up to 90 MB/s

Environment
- -40°C to +85°C Operating Temperature Range
- Shock: 12G Sawtooth pulse, 11 ms duration, 3 axes
- Sine Vibration: 10Hz ~2000Hz, 16.3 G peak to peak, 3 axes
- Random Vibration: 10Hz ~2000Hz, 1.49 GRMS, 3 axes
- Humidity: 10 – 95% RH, non-condensing

Reliability
- Data Retention:
  - 10 Years when up to 10% of the P/E cycles have been consumed
  - 1 year when 100% of the P/E cycles have been consumed
- Static and Global Wear Leveling
- BCH ECC error correction
- Bad Block Management
- Supports Secure Erase and Sanitize via ATA pass through commands
- Power loss detection and sudden power fail management
- Read disturb management
- MTBF: 2,000,000 hours at 0°C to 25°C

Product Description

The CFAST-B-XXG-SI is a USA-made product line of Industrial SLC-based CFast memory cards. These small form factor CFast cards provide SATA level performance while featuring robust features needed for industrial applications. These cards contain a locked-down Bill of Materials to ensure consistent product performance and future compatibility.

WINSYSTEMS' Industrial CFast Cards provide sophisticated error checking and flash management utilities such as SMART functionality. Static and dynamic wear-leveling methods ensure even wear of flash blocks across the entire card capacity. Background operations track erase counts, prioritize new writes to blocks with lower wear, and relocate static data to blocks with higher wear. The CFast controller applies an advanced BCH ECC algorithm to detect and correct errors during read processes. This ensures that the data is read correctly, all while protecting the data from corruption.

Industrial grade reliability and industry standard compatibility make WINSYSTEMS' CFast cards ideal for industrial, military, and other high endurance applications.

Parhelia B.V.
www.parheliabv.com
☎ +31(0)10 741 00 28

CFAST-B-XXG-SI

Technical Specifications

CFAST	**CFAST-B-XXG-SI** Industrial CFast card
MEMORY TYPE	• 2 GB to 32 GB density, SLC-based memory
POWER	• 3.3 VDC
SOFTWARE	• Compatible with Linux, Android, Windows 10 IoT Core
ENVIRONMENTAL	• Operational from -40°C to +85°C (-40 to +185°F) • Storage temperature: -50°C to 100°C • Shock: 12G Sawtooth pulse, 11 ms duration, 3 axes • Sine Vibration: 10Hz ~2000Hz, 16.3 G peak to peak, 3 axes • Random Vibration: 10Hz ~2000Hz, 1.49 GRMS, 3 axes • Humidity: 10 - 95% RH, non-condensing • RoHS compliant
MECHANICAL	• Dimensions: 1.433 in x 1.685 in x .142 in. (36.4 mm x 42.8 mm x 3.6 mm) • Weight: 0.42 oz (12.0 g)

Order Information

PART NUMBER			
	CFAST-B-2G-SI	2 GB	Industrial SLC CFast
	CFAST-B-4G-SI	4 GB	Industrial SLC CFast
	CFAST-B-8G-SI	8 GB	Industrial SLC CFast
	CFAST-B-16G-SI	16 GB	Industrial SLC CFast
	CFAST-B-32G-SI	32 GB	Industrial SLC CFast

Expansion and Customization Options

WinSystems provides industrial single board computers, expansion cards, power supplies, and solid-state drives to complete your embedded computing solution including data acquisition, communications, location, and other features. Our Application Engineers are available to guide you through product selection and customized options.

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