Apacer

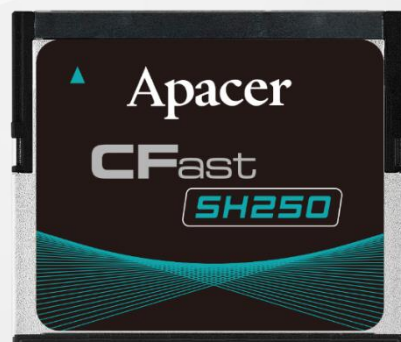## The Most **Reliable**
Storage For Industries

SH250-CFast

SH250-CFast

Overview

Apacer SH250-CFast, utilizing 3D NAND for higher capacity up to 320GB and providing more power efficiency than 2D NAND, is the latest enhancement of conventional CFast form factor that delivers various technological advantages. This new flash memory card comes with SATA 6 Gb/s interface for exceptional performance with data transfer rates up to 550 MB/s in sequential access and 63,000 IOPS in 4KB random access, and consists of SATA-based 7-pin signal segment and 17-pin for power and control purposes. Designed without DRAM on the internal controlling unit, SH250-CFast ensures data integrity by preventing data loss during a sudden power outage.

SH250-CFast guarantees reliability of applications in harsh environments by implementing intelligent Flash Management algorithms and LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability. With Apacer's SLC-liteX technology, SH250-M242 performs with higher number of P/E cycles up to 100,000 times. Furthermore, SH250-CFast is equipped with a built-in thermal sensor to monitor the temperature of the SSD via S.M.A.R.T commands to prevent overheating. Operating under 6 Gb/s interface, SH250-CFast is provided with Apacer latest S.M.A.R.T. that is primarily oriented for the latest SATA interface SSD, for drive lifetime monitoring and analysis. For highly-intensive applications, End-to-End Data Protection ensures that data integrity can be assured at multiple points in the path to enable reliable delivery of data transfers.

Security-wise, Advanced Encryption Standard (AES) ensures data security and provides users with peace of mind knowing their data is safeguarded at all times. SH250-CFast also adopts the latest page mapping file translation layer and comes with various implementations including power saving modes, wear leveling, flash block management, TRIM, DataDefender™ and SMART Read Refresh™. With exceptional performance, trustable reliability and enhanced data protection, SH250-CFast is definitely the ideal storage or cache solution for a variety of applications ranging from industrial, imaging, computing to enterprise markets.
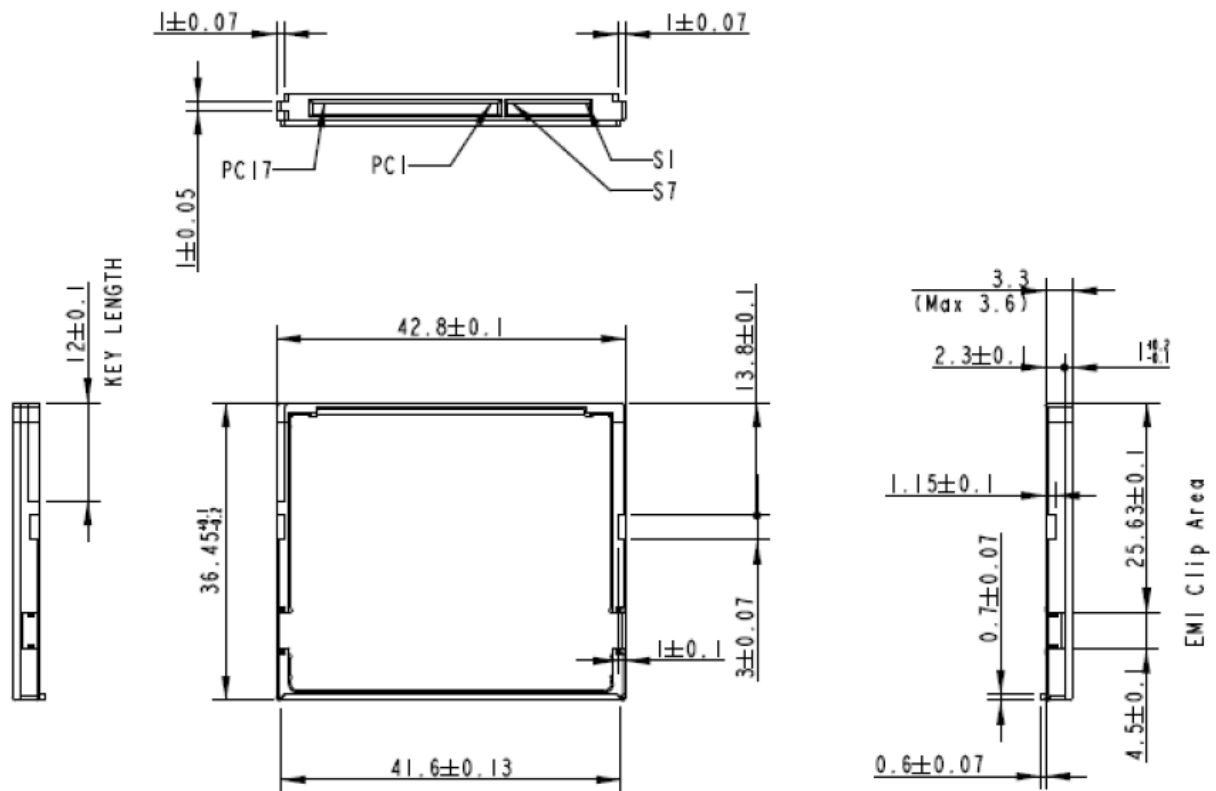
Feature

- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- DataDefender™
- S.M.A.R.T.
- Device Sleep
- ATA Secure Erase
- TRIM
- SMART Read Refresh™
- SLC-liteX (P/E cycle: 100K)

Specifications

Model	SH250-CFast
Interface	SATA 3.2 (6Gb/s)
Connector	(7+17) pin male
Form Factor	CFast
NAND Flash Type	3D TLC
Capacity	40GB ~ 320GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 550
Sustained Write Performance (MB/sec)	Up to 485
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPs (4K Random Write)	63K
Standard Operating Temperature (℃)	0 ~ + 70
Extended Operating Temperature (℃)	-40 ~ + 85
Storage Temperature (℃)	-55 ~ + 100
Thermal Sensor	Yes
Shock	Operation: 50G/11ms (compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (compliant with MIL-STD-883K)
Vibration	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 4.02 Grms, 15 ~ 2000 Hz/random (compliant with MIL-STD-810G)
Operating Voltage	3.3V ± 5%
Power Consumption	Active mode: 410 mA / Idle mode: 60 mA
Dimension (L x W x H)	42.80 x 36.45 x 3.60 mm
MTBF (hours)	>3,000,000

Mechanical Specification

Unit: mm

For more information,
contact your Apacer representative

Global Presence