Apacer

The Most **Reliable**
Storage For Industries

PT250-CFX

Overview

Apacer Industrial CFexpress PT250-CFX is the next generation Solid State Drive (SSD), providing full compliance with PCIe Gen4 x2 interface and NVMe 2.0 specifications. This allows it to operate in power management modes, greatly saving on power consumption. Built with a powerful PCIe controller that supports on-the-module ECC as well as an efficient wear-leveling scheme, PT250- CFX delivers exceptionally low latency and outstanding performance in data transfer. With its compact design and high-speed storage capabilities, PT250-CFX is the ideal choice for larger, faster hosts deployed in a wide range of applications that demand outstanding performance.

Utilizing 3D NAND technology for higher capacities up to 1920GB and offering superior power efficiency compared to 2D NAND, PT250-CFX is equipped with advanced features to enhance SSD performance and reliability. It incorporates an LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and enhance data reliability. Additionally, the SSD is equipped with a built-in thermal sensor that utilizes S.M.A.R.T commands to monitor temperature, along with thermal throttling functionality that dynamically adjusts frequency scaling to maintain optimal performance and prevent overheating. For demanding applications, PT250-CFX also features End-to-End Data Protection, which safeguards data integrity at multiple points along the data transfer path, enabling dependable delivery of data transfers.

From a security standpoint, PT250-CFX offers robust data protection with Advanced Encryption Standard, Trusted Computing Group (TCG) Opal (optional), and Write Protect to safeguard against unauthorized access. It also incorporates various features, including flash block management, page mapping, DataDefender, TRIM, Smart Read Refresh, and power saving modes.

With exceptional performance, proven reliability, and enhanced data protection, PT250-CFX is the ideal storage or cache solution for a variety of applications, including industrial, imaging, computing, and enterprise markets.

PT250-CFX

Features

· Low-Density Parity-Check (LDPC) Code

· Global Wear-leveling

· Flash Bad Block Management

· Flash Translation Layer: Page Mapping

· S.M.A.R.T.

· TRIM

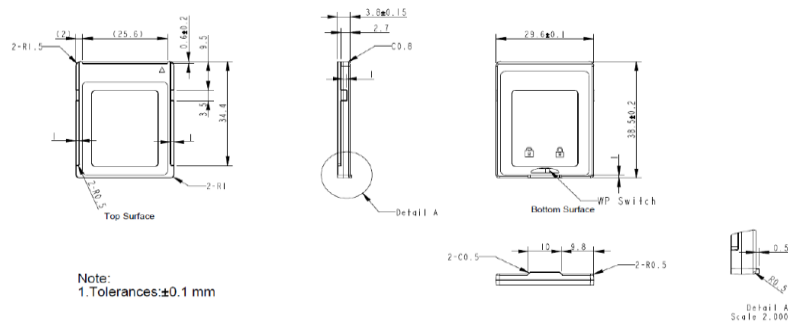· Hyper Cache Technology

· SMART Read Refresh™

Specifications

Model Name	PT250-CFX
Interface	PCIe Gen4 x2
Connector	-
Form Factor	CFexpress 2.0 Type B
NAND Flash Type	3D TLC
Capacity	128GB~1024GB
External DRAM	No
Sustained Read Performance (MB/sec.)	Up to 3735
Sustained Write Performance (MB/sec.)	Up to 2995
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	598K
Standard Operating Temperature (°C)	0°C ~ 70°C
Extended Operating Temperature (°C)	-
Storage Temperature (°C)	-55°C ~ 100°C
Housing	No
Thermal Sensor	Yes
Shock	Operation: Acceleration, 50(G)/11(ms)/half sine (Compliant with MIL-STD-202G) Non-operation: Acceleration, 1500(G)/0.5(ms)/half sine (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: 1170 mA / Idle Mode: 150mA
Dimension (L x W x H)	29.60 x 38.50 x 3.80 (max.)
MTBF (Hours)	>3,000,000

Mechanical Specifications

10.2 With Write Protect Switch

Table 10-1 Physical Information with Write Protect Switch

Parameter	Unit	128 GB	256 GB	512 GB	1 TB
Length	mm	38.50 ± 0.20			
Width		29.60 ± 0.10			
Height		3.80 ± 0.15			
Weight	g ± 5%	5.9	6.3	6.3	6.43

Note:
1.Tolerances:±0.1 mm

10.1 Without Write Protect Switch

Table 10-1 Physical Information without Write Protect Switch

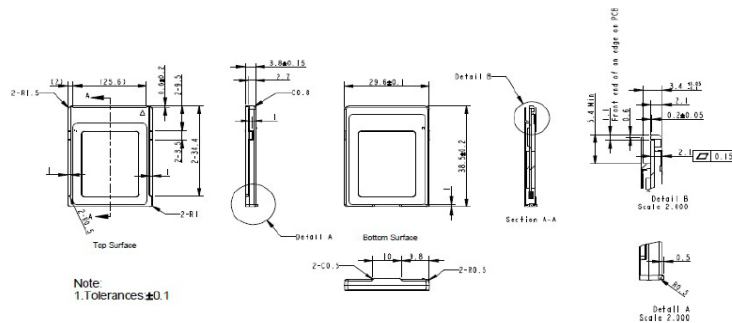| Parameter	Unit	128 GB	256 GB	512 GB	1 TB
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Note:
1.Tolerances:±0.1

Figure 10-1 Physical Dimensions without Write Protect Switch

For more information,
contact your Apacer representative

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