



California Peripherals & Components, Inc.

Commercial Temperature Solid State Flash Storage

CompactFlash Commercial Temperature



The California PC FLASH Commercial CompactFlash Cards combine advanced Flash controller technology and **NAND Type SLC flash memory**. The California PC FLASH Commercial CompactFlash Cards are **Commercial Temperature Grade (0°C ~+70°C)** to fulfill various specialized applications in normal or harsh operating environments. With the great advantages of non-volatile and solid state, the CompactFlash™ Cards are more durable than conventional

hard disk drives and consume around 5% of the power required by small disk drives. CompactFlash Cards are typically used with Handheld PCs, Data Collection, GPS units, Measuring and Test Equipment, Laptops and data storage devices. When a CompactFlash Card is inserted in an IDE adapter, it performs as an IDE Flash disk. California PC FLASH's Commercial CompactFlash Cards are the best solutions for critical applications. Please inquire about our various CF adapters.

Features: CompactFlash Specification 3.0 compliant - True IDE Mode compatible - Supports Wear-leveling and advanced bad sector management algorithms - Advanced ECC (Error Code Correction) technology +5 V \pm 10% or +3.3 V \pm 5% operation. Commercial Grade capacities from 16MB up to 16GB – Plug into a CF socket or, with an adapter (FCFPC-ADPT), into a standard Type II PC Card slot.

- CompactFlash™ Card Specification 3.0 compliant
- Operation Modes: PC Card Memory, PC Card I/O and True-IDE Mode
- Ultra DMA Mode supported up to Mode 4
- Internal Error Correcting Code (ECC) function
- Wear-Leveling algorithm to ensure the best of flash endurance
- Very low power consumption
- Rugged for harsh environments
- Automatic error correction and retry capabilities
- Supports power down commands and Auto Stand-by / Sleep Mode
- +5 V \pm 10% or +3.3 V \pm 5% operation
- Low weight
- Noiseless
- MTBF > 2,000,000 hours
- Minimum 10,000 insertions
- Supports O/S: Win 31/95/98/Me/NT/2000/XP/2003/Vista/WinCE, QNX, Linux, DOS, Windows 7, and more
- Capacity: 16MB, 32MB, 64MB, 128MB, 256MB, 512MB, 1GB, 2GB, 4GB, 8GB, 16GB, and 32GB
- RoHS Compliant

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Commercial Grade

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For more product info. visit:
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Performance

Data Transfer Rate To/From Flash		20 Mbytes/sec burst
Date Transfer Rate	Ultra DMA mode 4	66.6 Mbytes/sec burst
To/From Host	PIO mode 4/ DMA2	16.6 Mbytes/sec burst
Maximum Performance	Sequential Read Sequential Write	29 Mbytes/sec Max. 19 Mbytes/sec Max.

Environmental Specification

Commercial Temperature	Operating Non-operating	0°C + 70°C
Vibration	Operating Max Non-operating	15G peak-to peak Max. 15G peak-to peak Max.
Humidity	Operating Max Non-operating Max	5 ~ 95% non-condensing 5 ~ 95% non-condensing
Shock	Operating Max Non-operating Max	2000G Max. 2000G Max.

Power Consumption

DC Input Voltage 100mV max. ripple (p-p) +3.3V ± 5% +5V ± 10%		Temperature	
+5V Current (Maximum average value)	Sleep Mode	2.3mA (Typ.)	2.3mA (Typ.)
	Read Mode	57.7mA (Typ.)	57.7mA (Typ.)
	Write Mode	60mA (Typ.)	60mA (Typ.)

Reliability

MTBF (Main Time Between Failure)	> 2,000,000 hours
Data Reliability	< 1 non-recoverable error in 10 ¹⁴ bits read < 1 erroneous correction in 10 ²⁰ bits read
Wear-leveling Algorithms	Supported
ECC Technology	4 bits Error Connection Code
Endurance	Greater than 2,000,000 cycles logically contributed by Wear-leveling and advanced bad sector management
Data Retention	10 years
Warranty	3 Years
Certification	CE and FCC Class B

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Physical Specifications

Weight (maximum)	36.4 mm (L) x 42.8 mm (W) x 3.3 mm (H)
Length	36.40 ± 0.15 mm (1.433 ± 0.006 in.)
Width	42.8 ± 0.10 mm (1.685 ± 0.004 in.)
Thickness	3.3 ± 0.10 mm (0.130 ± 0.004 in.)

Part Numbers*

16MB	FCF-16MB-02	1GB	FCF-1024MB
32MB	FCF-32MB	2GB	FCF-2048MB
64MB	FCF-64MB	4GB	FCF-4096MB
128MB	FCF-128MB	8GB	FCF-8192MB
256MB	FCF-256MB	16GB	FCF-16384MB
512MB	FCF-512MB	CF to PC Card Adapter	FCFPC-ADPT

*Removable, PIO 4 Disk Mode is Default

Available Options:

- F = Fixed
- A = Auto Detect
- D2 = Removable, D2
- U4 = Removable, U4
- D2A = D2A, Auto Detect
- U4A = U4A, Auto Detect
- D2F = D2, Fixed
- U4F = U4F, Fixed

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