阅读申明
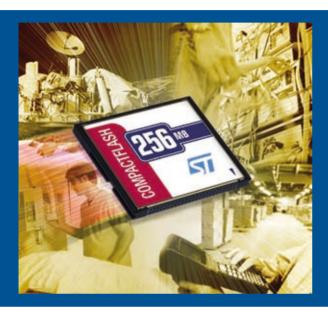
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Industrial grade CompactFlash Cards

for industrial equipment and professional warranty

CompactFlash is a non-volatile memory card with a small form factor that provides high capacity data storage. Engineered for performance and reliability, ST Industrial CompactFlash Cards are robust and durable, ideal for providing maximum security for harsh industrial applications and professional environments.

ST Industrial CompactFlash Cards are designed to meet the growing Enterprise System OEMs demand for high performance, high reliability, compact size and reliable operation in extreme environments. Featuring sustained write speed increases, small form factor, shock and vibration resistance, as well as extended working temperature range, they are the perfect solution for industries requiring higher qualitative and performance functions to replace failing hard disk drives with solid state Flash drives.

ST CompactFlash Cards target a variety of markets, such as telecom networks, military, industrial and medical sectors. Typical applications include broadband data and voice networking, military systems, flight avionics, portable medical diagnostic equipment, industrial control systems and interactive kiosks. ST CompactFlash Cards feature sustained write speed increases, small form factor, shock and vibration resistance, as well as extended working temperature range (-40° to 85°).

First generation AF family is available in capacities ranging from 32MB to 512MB, and is intended for applications requiring balanced performances on small density cards. Second generation BF family, available in capacities ranging from 512MB to 4GB, is especially designed to suit applications that need a large sequential data transfer capacity.

For complete integrated solutions, ST also offers dedicated software tools. Fixed or Removable lets you modify storage media configuration in True IDE mode, and Read-only CompactFlash provides additional protection against involuntary or illegal write operations.

Key features

- Custom designed, highly integrated memory controller:
  - Fully compliant with PCMCIA specification
  - PC card ATA interface supported
  - True IDE mode compatible
- Low power CMOS technology
- Power-saving mode (with automatic wake-up)
- Hot swappable

- High reliability:
  - MTBF >3,000,000 hours
  - Data reliability <1 non-recoverable error per 10^{14} bits read
  - Endurance: >2,000,000 erase/program cycles
  - Number of card insertions/removals >10,000

Distinct features – SMCxxxAF

Fully compliant with CompactFlash specifications 2.0

High performance:
- Up to 16.6MB/s transfer rate
- Sustained write performance (Host to card): 7.2MB/s
- Sustained read performance: 12.2MB/s

Part number	Memory size
SMC064AFF6E	64MB
SMC128AFB6E	128MB
SMC256AFB6E	256MB
SMC512AFB6E	512MB

Distinct features – SMCxxxBF

Fully compliant with CompactFlash specifications 3.0:
- Up to PIO mode 6 supported
- Up to Multi-Word DMA Mode 4
- Hardware RS-code ECC
  (4 Bytes/528 Bytes correction)

High performance:
- Up to 23.8MB/s transfer rate
- Sustained write performance (Host to card): 12.7MB/s
- Sustained read performance: 18MB/s

Part number	Memory size
SMC512BFI6E	512MB
SMC01GBFI6E	1GB
SMC02GBFI6E	2GB
SMC04GBF16E	4GB

Solutions and applications

- HD replacement
- Networking
- Aerospace
- Gaming
- Medical
- Telecom infrastructures (switches, base stations)
- Industrial computers
- Data collection
- Manufacturing
- Military
- Embedded systems
- System security

Professional warranty

- Industrial temperature range guaranteed by characterization and production monitor
- Parametric tests (open, shorts, leakage, current consumption) performed 100% with a testing machine
- CF dedicated SMD production line in ST:
  - Automated assembly
  - 100% PCB visual inspection
  - Outgoing CQ flow
  - Full traceability of components
- Professional product managing by PCN, PTN and all the semiconductor industry's tools
- SW utilities (read only – fixed removable)