

SM2236

4-channel CompactFlash Card Controller

The SM2236 is the world's highest performance and the lowest power consumption CompactFlash card controller. Fully compliant with CFA 6.0, the controller supports UDMA transfer on True-IDE and PCMCIA modes, especially designed for professional DSLR.

The SM2236's ECC can support most major NAND flash vendor's new generation MLC/SLC NAND and perform global wear-leveling to evenly distribute the write and erase counts to each block. Incorporating the advanced ECC and global wear-leveling algorithm, the SM2236 can operate with various NAND flash memories/process geometries and maximize the life expectancy of CompactFlash card.

Applications

- CompactFlash Card
- PATA Solid State Disk
- High-Speed NAND Storage

Package

- 144-pin TFBGA package
- Lead-free and RoHS Compliant

Key Features

- **Host interface**
 - Compliant with CFA Specification v6.0
 - Supports IDE PIO modes 0~6 and UDMA modes 0~7
 - Supports PCMCIA UDMA modes 0~6
 - Supports Multi-word DMA modes 0~4
- **Flash interface and firmware**
 - Quad channel: 4 channels and 8 chip enable (CE) pins per channel
 - Supports 2/4/8 KB per page
 - Supports 2-plane and interleave to optimize performance
 - Enhanced configurable BCH ECC engine
 - Global wear-leveling algorithm to effectively extend the product life expectancy
 - In-System Programming (ISP) provides flexibility for new Flash and device compatibility support
- **Operating temperature**
 - Commercial 0~70°C
- **Power consumption**
 - 40 mA (write)*, 70 mA (read)*
 - 180 uA (standby mode)*

*Figures may vary among platforms