

Secure Digital Card

W7SDxxxx1XA-H60Px ROHS Compliant

The Wintec Industries W7SDxxxxx1XA-H60Px series of ROHS Compliant Secure Digital Cards are constructed with Samsung NAND-type single-level-cell (SLC) flash memory devices paired to a powerful 32-bit RISC/DSP-based system controller for virtual-to-physical address mapping and other flash management functions.

Wintec Secure Digital Cards employ a variety of sophisticated error checking and flash management utilities allowing for maximum levels of data reliability and card endurance. Patented wear-leveling methods ensure even wear of flash blocks across the entire card capacity. Background operations track erase counts, prioritize new writes to blocks with lower wear, and relocate static data to blocks with higher wear. Bad-block Management routines replace worn blocks with spare blocks reserved by the controller on card initialization. Reed-Solomon based ECC algorithms capable of correcting 4 bytes in a 512 byte sector are implemented on the fly without performance degradation to ensure data reliability through user data transfers and background wear-leveling operations. Additional information regarding the specifics of wear leveling, ECC methods, and application-specific card life calculations are available upon request and under NDA.

Key Features

GENERAL

- Density up to 8GB
- 32-bit RISC/DSP Controller
- Solid State Data Storage
- Dual 3.3V / 1.8V Interface
- Industry Standard Compatibility
- ROHS Compliant

PERFORMANCE

- High Performance 24 MB/s (Sustained Read)
- High Performance 23 MB/s (Sustained Write)
- Dual Channel operation
- Low Power Consumption

RELIABILITY

- > 2,000,000 Program/Erase Cycles
- Industrial Wear Leveling
 - Includes Static Block Management
- Spares & Bad Block Management
- On-chip ECC and CRC16 unit for flash data protection
- Hardware support for CPRM

COMPATIBILITY

- SD standard, rev. 1.01 / 1.10 / 2.0



Wintec Secure Digital Card

Product Ordering Information

Card Capacity	Part Number
128 MB	W7SD128M1XA(I)-H60PC-002.01
256 MB	W7SD256M1XA(I)-H60PB-002.01
512 MB	W7SD512M1XA(I)-H60PB-002.01
1 GB	W7SD001G1XA(I)-H60PB-002.01
2 GB	W7SD002G1XA(I)-H60PB-02D.01
4 GB	W7SD004GHXA(I)-H60PB-2Q2.01
8 GB	W7SD008GHXA(I)-H60PB-2Q2.01

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About Wintec Industries, Inc.

Wintec, founded in 1988, is headquartered in Milpitas, California. Wintec, a leading third party memory module manufacturer, specializes in a variety of module design and manufacturing, such as memory module, flash module, Handspring module, modem module, game module, etc. Besides a complete line of DDR, SDR, and EDO/FPM legacy memory modules, Wintec also distribute CPU, motherboard, peripherals, PC software, and consumer Flash products (such as MMC, SD, SMC, CompactFlash, PC Card, etc.). With excellent design engineering and manufacturing capability, Wintec provides a wide range of design and manufacturing services for our valuable customers from concept design to final product delivery. Wintec is ISO9001-2000 certified.

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