

Memory Modules

Flash Products

Communication Products

IDE Flash Drive Family



IDE Flash Memory Drive

SMART's IDE Flash Drives are designed for applications which require high random access performance, high reliability and low power consumption under a wide range of operating temperatures and conditions.

These rugged solid-state drives are an ideal code and data storage solution realized in industry standard 1.8", 2.5" & 3.5" and 40-pin & 44-pin Mini IDE form factors.

SMART's IDE Flash Drives work like standard hard drives but offer the speed, transportability and reliability of solid state devices. These drives contain no moving parts, enabling zero noise emission systems, and they also afford extreme device longevity in mobile and embedded computing, Internet appliances, telecom and networking applications. They are available in densities from 16MB to 1GB with optional enclosures*.

SMART's IDE Flash Drives offer much faster random access time than mechanical hard disks, and this increased performance means that operating systems boot considerably faster and application programs start up more quickly.

**3.5" available enclosed only and all Mini IDE drives only available without enclosure.*

FEATURES

IDE Flash Memory Drive

- 100% compatibility with IDE (PC/AT) interface for seamless incorporation in most embedded platforms
- Capacities from 16MB to 1GB
- Interface transfer rate 16.6MB/s (PIO Mode 4)
- Low power consumption: 55mA (max)
- High Reliability: 300K erase/program cycles/sector
- Minimum 10 years data retention
- Operates at 5V and 3.3V
- Internal ECC for max. Data Integrity
- Drop-in replacement for HDD

Mechanical Form Factors

- 1.8" IDE with enclosure
- 2.5" IDE with enclosure
- 2.5" IDE without enclosure
- 3.5" IDE with enclosure only
- 40-pin Mini IDE
- 44-pin Mini IDE

Specifications

Transfer Rates:

- Sustained Write (Host to Flash): 1MB/s (typ)
- Burst Rate (to/from Host): up to 16.6 MB/s (PIO Mode 4)

Power Requirements:

- Voltage (VCC): 5.0V±5% 3.3V±10%
- Read: 55mA(max) 40mA(max)
- Write: 55mA(max) 40mA(max)

Physical Size: Length x Width x Height

- 1.8" IDE with enclosure 3.00" x 2.00" x 0.35"
- 2.5" IDE with enclosure 3.95" x 2.75" x 0.25"
- 2.5" IDE without enclosure 3.95" x 2.75" x 0.20"
- 3.5" IDE with enclosure 5.74" x 4.0" x 1.112"
- 40-pin Mini-IDE 2.135" x 1.145" x 0.5"
- 44-pin Mini-IDE 1.25" x 2.25" x 0.35"

Environmental Characteristics:

- Operating Temperature: 0°C to +70°C (Commercial)
- & -40°C to +85°C (Industrial)

IDE SMART Part Numbers*

WITH ENCLOSURE				
DENSITY	DEVICE SIZE	1.8" IDE	2.5" IDE	3.5" IDE
16MB	128Mb	SM9FLAD1AE16M8(I)	SM9FLAD2BE16M8(I)	
48MB	128Mb	SM9FLAD1AE48M8(I)	SM9FLAD2BE48M8(I)	
80MB	128Mb	SM9FLAD1AE80M8(I)	SM9FLAD2BE80M8(I)	
32MB	128Mb			SM9FLAD3AE32M8(I)
32MB	256Mb	SM9FLAD1AE32M6(I)	SM9FLAD2BE32M6(I)	SM9FLAD3AE32M6(I)
96MB	256Mb	SM9FLAD1AE96M6(I)	SM9FLAD2BE96M6(I)	
160MB	256Mb	SM9FLAD1AE160M6(I)	SM9FLAD2BE160M6(I)	
64MB	512Mb	SM9FLAD1AE64M5(I)	SM9FLAD2BE64M5(I)	SM9FLAD3AE64M5(I)
128MB	512Mb	SM9FLAD1AE128M5(I)	SM9FLAD2BE128M5(I)	
192MB	512Mb	SM9FLAD1AE192M5(I)	SM9FLAD2BE192M5(I)	
256MB	512Mb	SM9FLAD1AE256M5(I)	SM9FLAD2BE256M5(I)	
320MB	512Mb	SM9FLAD1AE320M5(I)	SM9FLAD2BE320M5(I)	
128MB	1GB			SM9FLAD3AE128M1(I)
256MB	1GB			SM9FLAD3AE256M1(I)
512MB	1GB	SM9FLAD1AE512M1(I)	SM9FLAD2BE512M1(I)	SM9FLAD3AE512M1(I)
1024MB	1GB			SM9FLAD3AE1024M1(I)

WITHOUT ENCLOSURE				
DENSITY	DEVICE SIZE	2.5" IDE	44-pin Mini IDE	40-pin Mini IDE
16MB	128Mb	SM9FLAD2AE16M8(I)	SM9FLAM2AE16M8(I)	SM9FLAM3AE16M8(I)
48MB	128Mb	SM9FLAD2AE48M8(I)	SM9FLAM2AE48M8(I)	
80MB	128Mb	SM9FLAD2AE80M8(I)	SM9FLAM2AE80M8(I)	
32MB	256Mb	SM9FLAD2AE32M6(I)	SM9FLAM2AE32M6(I)	SM9FLAM3AE64M6(I)
64MB	256Mb	SM9FLAD2AE64M6(I)	SM9FLAM2AE64M6(I)	SM9FLAM3A64M5(I)
96MB	256Mb	SM9FLAD2AE96M6(I)	SM9FLAM2AE96M6(I)	
160MB	256Mb	SM9FLAD2AE160M6(I)	SM9FLAM2AE160M6(I)	
64MB	512Mb	SM9FLAD2AE64M5(I)	SM9FLAM2AE64M5(I)	
128MB	512Mb	SM9FLAD2AE128M5(I)	SM9FLAM2AE128M5(I)	SM9FLAM3AE128M5(I)
192MB	512Mb	SM9FLAD2AE192M5(I)	SM9FLAM2AE192M5(I)	
256MB	512Mb	SM9FLAD2AE256M5(I)	SM9FLAM2AE256M5(I)	
320MB	512Mb	SM9FLAD2AE320M5(I)	SM9FLAM2AE320M5(I)	
128MB	1GB			SM9FLAM3AE128M1(I)
256MB	1GB			SM9FLAM3AE256M1(I)
512MB	1GB	SM9FLAD2AE512M1(I)	SM9FLAM2AE512M1(I)	

* e.g.: SM9FLAD1AE16M8 (Commercial Temp) SM9FLAD1AE16M8I (Industrial Temp)

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