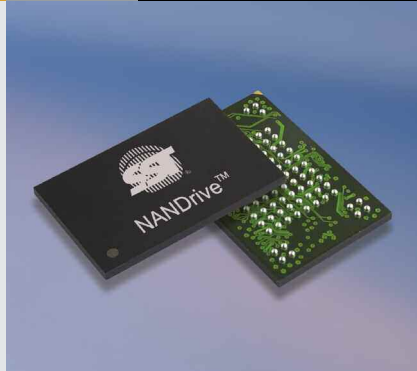




### Product Description

The NANDrive™ family consists of high-performance, fully-integrated, embedded flash, solid-state drives. These products combine an integrated ATA Controller and one or more NAND flash dies in a multi-chip package. NANDrive products are well suited for solid state mass storage in embedded and mobile applications because they offer new and expanded functionality while enabling cost effective designs. This product family also includes additional security features to protect confidential information stored in the flash memory.

NANDrive products provide complete IDE Hard Disk Drive functionality and compatibility in a small BGA package for easy, space saving, and cost effective mounting to a system motherboard. These products are a perfect solution for applications requiring smaller and more reliable data storage. Their built-in microcontroller and file management firmware replaces the need for host-side Flash File System (FFS) and Memory Technology Driver (MTD) software.



### Key Features

#### Industry's Smallest Package

- micro NANDrive: 12 x 18 x 1.4 mm
- mini NANDrive: 12 x 24 x 1.4 mm

#### Industry Standard ATA/IDE Bus Interface

- Host Interface: 8- or 16-bit access
- Supports up to PIO Mode-6
- Supports up to multi-word DMA Mode-4
- Supports up to ultra DMA Mode-4

#### Multi-tasking Technology Increases Performance

- Fast, Sustained Read Performance (Flash to Host), up to 30 MB/sec

- Fast, Sustained Write Performance (Host to Flash), up to 30 MB/sec without extended NAND flash

#### Built-in ECC

- Corrects up to 8 bits of error per 512 Byte sector

#### Pre-programmed Embedded Firmware

- Executes industry standard ATA/IDE commands
- Implements dynamic wear-leveling algorithms to substantially increase the endurance of flash media
- Embedded flash file system

#### Expanded Data Protection

- WP\_PD# pin configurable by firmware for prevention of data overwrites
- Added data security through user-selectable protection zones

#### Multiple Densities

- 128 MB, 256 MB, 512 MB, 1 GB, 2 GB, 4 GB, 8 GB

#### Commercial and Industrial Temperatures

- 0°C to 70°C for commercial operation
- -40°C to +85°C for industrial operation



### Applications

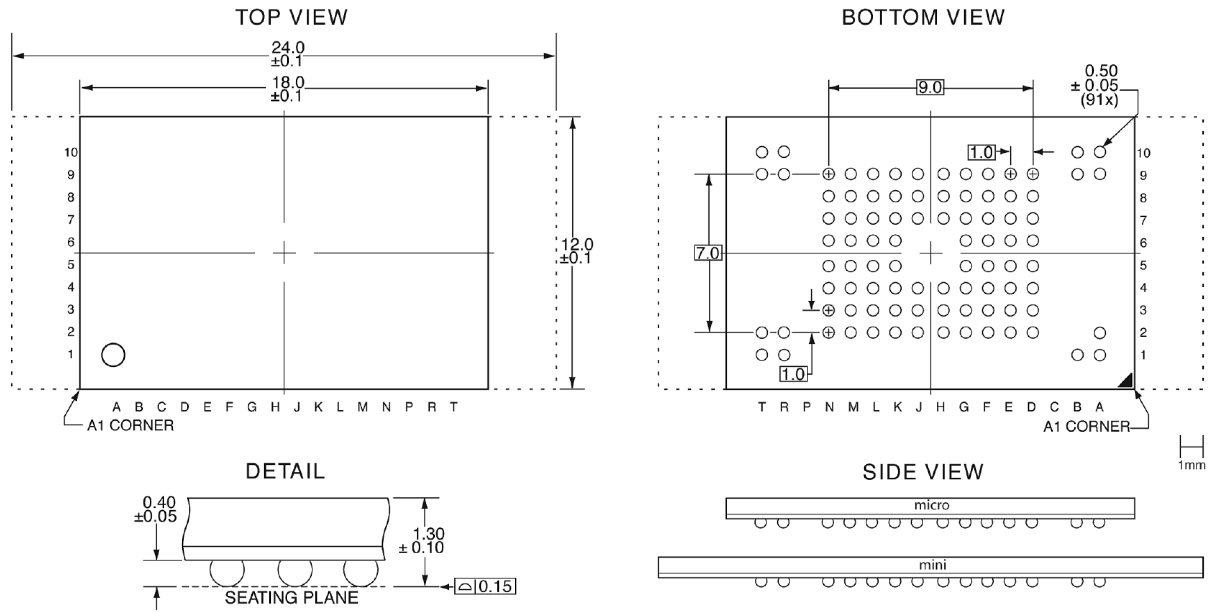
- Set-top boxes
- Personal media player
- GPS
- Portable and desktop computers
- Digital cameras
- Digital TV
- Music players
- Handheld data collection scanners
- Cellular phones
- PCS phones
- PDAs
- Handy terminals
- Personal communicators
- Advanced two-way pagers
- Audio recorders
- Monitoring devices

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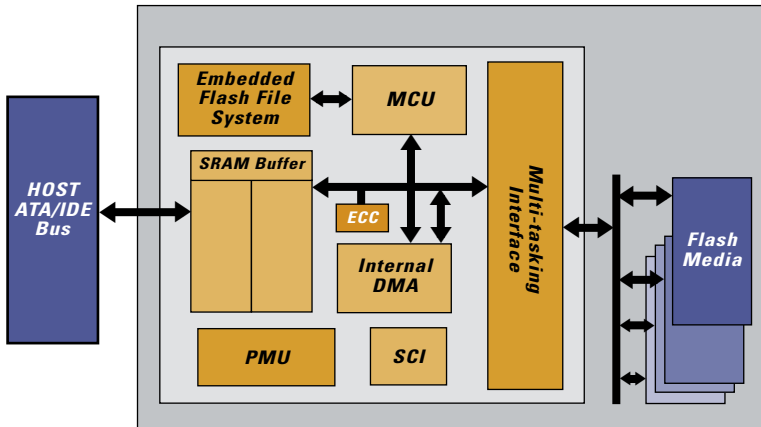
[www.SST.com](http://www.SST.com)  
[www.SuperFlash.com](http://www.SuperFlash.com)

## NANDrive Package



micro NANDrive: 12 x 18 mm, mini NANDrive: 12 x 24 mm

## NANDrive Block Diagram



### 85 Series: NANDrive

Device	Host Access Time (nS)	Density	Packages
SST85LD0128-120-C/I-LBZE	120	128 MB	micro NANDrive
SST85LD0256-120-C/I-LBZE	120	256 MB	micro NANDrive
SST85LD0512-120-C/I-LBZE	120	512 MB	micro NANDrive
SST85LD1001M-60-C/I-LBTE	60	1 GB	mini NANDrive
SST85LD1002M-60-C/I-LBTE	60	2 GB	mini NANDrive
SST85LD1004M-60-C/I-LBTE	60	4 GB	mini NANDrive
SST85LD1008M-60-C/I-LBTE	60	8 GB	mini NANDrive



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**www.SST.com**  
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[www.SuperFlash.com](http://www.SuperFlash.com)

For more information please contact your local SST Sales Representative. See the "Sales" page of [www.SST.com](http://www.SST.com) for complete listings.

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