

# AS3SSDxxGBxPBG

4 / 8 & 16GB NAND (SLC)  
FLASH MEMORY SUBSYSTEM



## Solid State Disk On Chip

### BENEFITS:

- **Small, Rugged Compact Design: 7.5K cubic mm, (31mm sq x 7.41mm max height)**
- **MTBF > 2 Million Hours**
- **SLC (Single-Level Cell) NAND Flash**
- **Harsh Environment Operation (0-70°C operations with future -40°C to +85°C)**

### BENEFITS:

- NAND FLASH Controller
- (2) stacks, each containing (2 or 4) NAND components
- Each NAND component, either a 4,8 or 16Gb device, based on the use of single silicon and stacked silicon solutions
- Providing a total bit density of either 4,8 or 16GB
- Controller contained in base interposer
- Fast ATA host to buffer transfer rates supporting True IDE, PIO/4 mode support
- 512Byte Sector Buffers
- Flash Memory power-down logic
- ECC correction = 6 Bytes within a 512 Byte sector
- Automatic Sleep Mode
- Burst Transfer rate, 16.67MB per second
- Sustained Transfer rate: 6.7MB per second
- Sophisticated Wear Leveling

### PRODUCT OFFERINGS:

- AS3SSD4GB8PBG                      4 GB,  
5.0V/3.3V, 7.7MB/sec sustained,  
31mm sq x 5.01mm High
- AS3SSD8GB8PBG                    8 GB,  
5.0V/3.3V, 7.7MB/sec sustained,  
31mm sq x 7.41 mm High
- AS3SSD16GB5PBG                  16GB,  
5.0V/3.3V, 5.0MB/sec sustained,  
31mm sq x 7.41 mm High

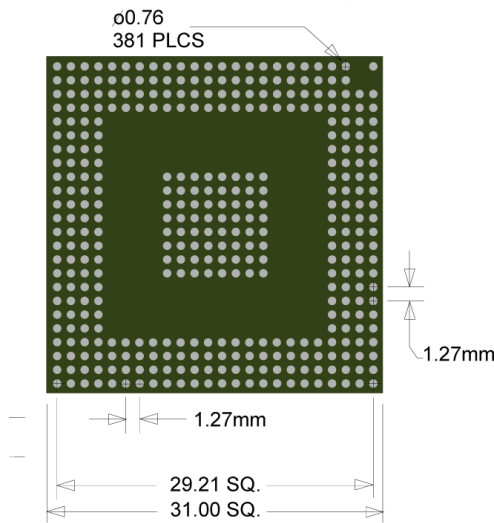
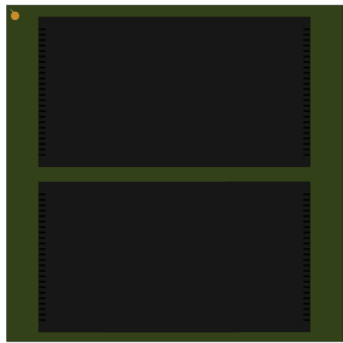
### APPLICATIONS:

- Military, Aerospace & Industrial Applications
- Embedded Computing Applications
- Mobile Computing, Digital Radio
- Transportation
- High-Speed Networking and Enterprise Applications
- Ultra Portables
- Handheld Devices

# SPECIFICATIONS

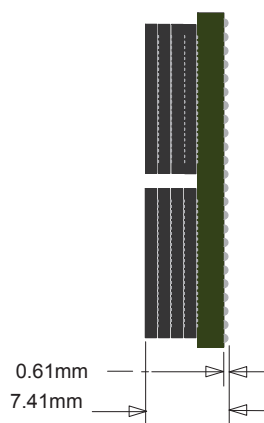
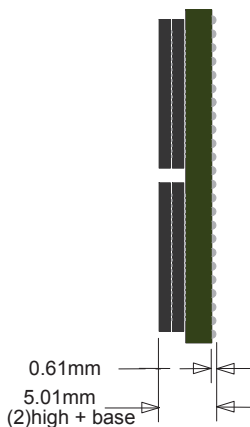
<b>Dimensions / Package</b>	31mm x 31mm square x 5.01mm-7.41mm height
<b>Interface</b>	Embedded IDE Controller w/ ATA-IDE, also supports PIO mode 4, multi-word DMA-mode 2
<b>Capacity</b>	4, 8, 16 GB
<b>Performance (sustained)</b>	6.7MB/sec w/ burst of 16.67 MB/sec
<b>Solid State Storage</b>	SLC NAND Flash
<b>Sectors</b>	512 Byte Sectors
<b>Operating Temperature</b>	0°C - 70°C (Future -40°C to +85°C)
<b>Storage Temperature</b>	-40°C to +85°C
<b>Humidity</b>	5-95% relative non-condensing
<b>Altitude</b>	>85,000 feet
<b>Data Integrity</b>	Built in wear leveling
<b>Shock</b>	1500G MIL-STD-810F testing
<b>Vibration</b>	15G RMS MIL-STD0810F
<b>Power</b>	5.0V or 3.3V ±10%
<b>Temp Cycle</b>	500/1000 cycles, JEDEC AI04 Condition B -55°C to 125°C
<b>Low Power Consumption</b>	Active Mode = 160mA Idle / Sleep Mode = 60mA
<b>MTBF</b>	> 2,000,000 Hours (est.)
<b>Program / Erase</b>	> 1,000,000 Times (est.)
<b>Standard Warranty</b>	2 Years

# MECHANICAL DEFINITIONS



4GB

8GB & 16GB



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