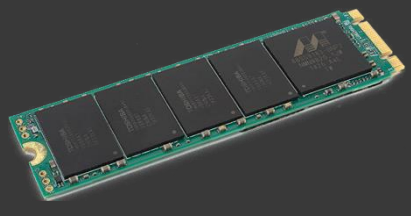
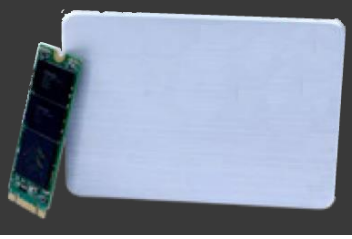




INSIGNIS TECHNOLOGY CORPORATION

Industrial Solid-State Drive Solutions

Best-in Class SSD with Power Loss Protection, High-Reliability, Manageability, and Durability.

Extended temperature solutions for demanding Applications

POWER LOSS PROTECTION (PLP)

In the event of an unexpected power loss several types of faults inside an SSD may occur. Write data stored in volatile memory can be lost, information about the file system or configuration can be corrupted and metadata pointers to physical storage locations can be misdirected. With a PLP based drive the writes in progress will be completed without corruption and the drive will complete a proper power-down sequence.

Even if the user is not concerned about retaining the last data writes PLP still protects against corruption of the FTL table and metadata to ensure that when power is restored the drive will be immediately functional and all data intact. Without PLP the file system of the device may need to be repaired or rebuilt to ensure data integrity. Using a drive with a damaged file system can lead to unpredictable system behavior or data corruption at any time after the system resumes operation. PLP protects data and ensures the device is ready to use immediately and reliably when power is restored.

CIRCUIT PROTECTION FOR ROBUST OPERATION

Insignis's industrial series SSD is designed to withstand over-current and voltage spikes with additional protective circuit designs. High performance memories and controllers used in the construction of an SSD are sensitive to voltage transients which may occur in environments with unstable or intermittent power delivery. Likewise, in the event of an unexpected natural disaster power loss and recovery can be erratic. Ordinary consumer electronics may fail at the worst possible time due to these power fluctuations or even if they do survive, may suffer from corruption of the data on the device.

THERMAL THROTTLING FOR FAILSAFE OPERATION

Insignis's thermal throttling technology will reduce power usage and subsequent self-heating if the system level cooling environment fails. Operating the device above temperature specifications can lead to an increase in bit error rates as well as reducing the reliability and MTBF of the device.

PSEUDO-SLC TECHNOLOGY

The P-SLC solution uses MLC NAND to emulate SLC reliability by overprovisioning the drive and increasing Program Erase (PE) cycles by more than 10x over competitor's MLC based devices. The controller and firmware solution of the Insignis SSDs can ensure reliability and performance exceeding SSDs intended for consumer applications.

FEATURES

- SHOCK AND VIBRATION RESISTANT
- WIDE-TEMPERATURE RANGE OPTION 2.5" & M.2: -40°C TO 85°C
- INTERNAL TEMPERATURE MONITORING SYSTEM
- THERMAL THROTTLING
- SELF-MONITORING AND REPORTING TECHNOLOGY (SMART)
- POWER LOSS PROTECTION (PLP) AVAILABLE
- P-SLC (PSEUDO-SLC) TECHNOLOGY AVAILABLE
- ISO/TS16949 CERTIFIED
- AVAILABLE IN 16 GB TO 1TB CAPACITIES
- VARIETY OF FORM FACTORS AND INTERFACES

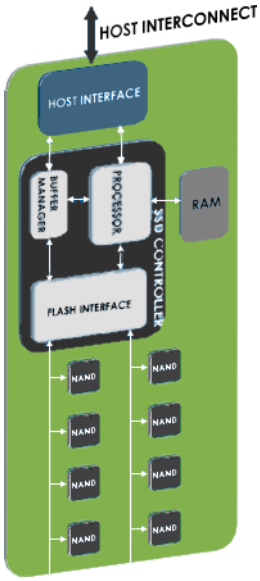
APPLICATION WORKLOADS

- SYSTEM BOOT DEVICE
- COMPACT, HIGH PERFORMANCE STORAGE
- DATA RECORDING
- AUTONOMOUS CAR BLACK BOX RECORDING
- BUFFER FOR AUTONOMOUS 3D HIGH RESOLUTION MAP
- BUFFER FOR CONNECTED CAR APPLICATIONS

Engineering Specifications are available upon request by emailing info@insignis-tech.com

INSIGNIS TECHNOLOGY CORPORATION

SOLID-STATE DRIVE COMPONENTS



ISO TS16949

Industrial SSD Solutions

Technical Specifications			
Model Name	NSS9	NSMS	NSM2
Capacity	64GB - 1TB	32 - 128 GB	16 - 128 GB
Performance			
Sequential R/W (MB/s)[1]	500/450	500/280	520/210
4K Random R/W (IOPS)[1]	80K/80K	58K/60K	75K/50K
Compatibility			
Host Interface	SATA	SATA	SATA
Form Factor	2.5”	mSATA MO-300	M.2 2260 / 80
Reliability			
Power On/Off Cycle	25000 cycles		
MTBF[2]	2 million hours		
Environment			
Operating Temperature	Industrial Temp: -40°C ~ 85°C / Extended Test: 0°C ~ 70°C		
Non-operating Temperature	-40°C ~ 95°C		
Shock	1500G (Max), at 1 msec half-sine		
Vibration (OP)	2.17Grms (Max), 7~800 Hz		
Vibration (OP)	3.08Grms (Max), 7~800 Hz		
Applications	Industrial; Networking; Digital Signage; Infrastructure; Transportation; IOT		

1. Based on internal testing, performance, may vary depending on host device, OS and application

2. MTBF - Mean Time Between Failures based on parts stress analysis

Engineering Specifications are available upon request by emailing
info@insignis-tech.com

For more information, please visit
http://insignis-tech.com/

INSIGNIS TECHNOLOGY CORPORATION

Insignis Technology Corporation offers customized solutions and superior firmware to Industrial Solutions, Automotive, Enterprise, and Cloud Computing environments.

Specifications and data are subject to change without notice.