2.5 inch SATA SSD Series

2.5 inch SATA SSD for Industrial Embedded Applications

Features

- Advanced Flash Management including static and dynamic wear leveling, bad block management, TRIM, SMART, over-provision, and firmware update
- Low Power Management including DEVSLP mode (optional) and DIPM/HIPM mode
- Operating temperature range: up to -40°C to 85°C
- MTBF of more than 2,000,000 hours
- Vibration and shock resistance
- RoHS compliant



Introduction

ADLINK's industrial 2.5 inch SATA SSD Series delivers all the advantages of today's flash disk technologies with SATA 6Gb/s interface, and is fully compliant with the standard 2.5" form factor, providing low power consumption and hot-swap capability. Capacities of up to 2TB are available and read/write speeds of up to 560MB/s and 500MB/s respectively are supported.

Ordering Information

- **SSB064GTLCG-SBA-2A**
  2.5" SSD, SATA III 6Gbps, 64GB, PS3111-S11, Toshiba 3D TLC Bics4 TSOP, 540MB/s read speed, 280MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB128GTLCG-SBD-2A**
  2.5" SSD, SATA III 6Gbps, 128GB, PS3111-S11, Toshiba 3D TLC Bics4 BGA, 550MB/s read speed, 465MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB256GTLCG-SBD-2A**
  2.5" SSD, SATA III 6Gbps, 256GB, PS3111-S11, Toshiba 3D TLC Bics4 BGA, 540MB/s read speed, 450MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB512GTLCG-SBD-2A**
  2.5" SSD, SATA III 6Gbps, 512GB, PS3111-S11, Toshiba 3D TLC Bics4 BGA, 540MB/s read speed, 480MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB01TBTLCG-SBD-4A**
  2.5" SSD, SATA III 6Gbps, 1TB, PS3111-S11, Toshiba 3D TLC Bics4 BGA, 520MB/s read speed, 485MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB128GTTC7-SBA-4A**
  2.5" SSD, SATA 6Gb/s, 128GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 465MB/s write speed, 0°C to 70°C operating temperature
- **SSB256GTTC7-SBD-4A**
  2.5" SSD, SATA 6Gb/s, 256GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, 0°C to 70°C operating temperature
- **SSB064GTTS7-SBA-4A**
  2.5" SSD, SATA 6Gb/s, 64GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 310MB/s write speed, -15°C to 85°C operating temperature
- **SSB128GTTS7-SBA-4A**
  2.5" SSD, SATA 6Gb/s, 128GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 465MB/s write speed, -15°C to 85°C operating temperature
- **SSB256GTTS7-SBD-4A**
  2.5" SSD, SATA 6Gb/s, 256GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, -15°C to 85°C operating temperature

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- **SSB512GTTS7-SBD-4A**
  2.5" SSD, SATA 6Gb/s, 512GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, -15°C to 85°C operating temperature
- **SSB064GTLC9-SB0-2A**
  2.5" SSD, SATA 6Gb/s, 64GB, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 255MB/s write speed, 0°C to 70°C operating temperature
- **SSB128GTLC9-SB0-2A**
  2.5" SSD, SATA 6Gb/s, 128GB, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 450MB/s write speed, 0°C to 70°C operating temperature
- **SSB256GTLC9-SB0-4A**
  2.5" SSD, SATA 6Gb/s, 256GB, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 490MB/s write speed, 0°C to 70°C operating temperature
- **SSB512GTLC9-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 512GB, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 490MB/s write speed, 0°C to 70°C operating temperature
- **SSB01TBTLC9-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 1TB, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 500MB/s write speed, 0°C to 70°C operating temperature
- **SSB256GTTG7-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 256GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, -25°C to 85°C operating temperature
- **SSB064GTTE7-SB0-4A**
  2.5" SSD, SATA 6Gb/s, 64GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 310MB/s write speed, -40°C to 85°C operating temperature
- **SSB128GTTE7-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 128GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 465MB/s write speed, -40°C to 85°C operating temperature
- **SSB256GTTE7-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 256GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, -40°C to 85°C operating temperature
- **SSB512GTTE7-SB2-4A**
  2.5" SSD, SATA 6Gb/s, 512GB, PS3111-S11, 15nm MLC, 550MB/s read speed, 490MB/s write speed, -40°C to 85°C operating temperature
- **SSB01TBTTE7-SA2-8A**
  2.5" SSD, SATA 6Gb/s, 1TB, PS3110-S10, 15nm MLC, 520MB/s read speed, 500MB/s write speed, -40°C to 85°C operating temperature
- **SSB02TBTTE7-SA2-16A**
  2.5" SSD, SATA 6Gb/s, 2TB, PS3110-S10, 15nm MLC, 560MB/s read speed, 500MB/s write speed, -40°C to 85°C operating temperature
- **SSB02TBTLC9-12C-16A**
  2.5" SATA SSD, 2TB 6GB/s, PS3112-S12, BiCS3 3D TLC, 550MB/s read speed, 530MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB04TBTLC9-122-16A**
  2.5" SATA SSD, 4TB 6GB/s, PS3112-S12, BiCS3 3D TLC, 550MB/s read speed, 530MB/s write speed, 0°C ~ 70°C operating temperature
- **SSB064GTLE9-SB0-2A**
  2.5" SATA SSD, 64GB 6GB/s, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 225MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB128GTLE9-SB0-4A**
  2.5" SATA SSD, 128GB 6GB/s, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 450MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB256GTLE9-SB2-2A**
  2.5" SATA SSD, 256GB 6GB/s, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 490MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB512GTLE9-SB2-4A**
  2.5" SATA SSD, 512GB 6GB/s, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 490MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB01TBTLE9-SB2-4A**
  2.5" SATA SSD, 1TB 6GB/s, PS3111-S11, BiCS3 3D TLC, 550MB/s read speed, 500MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB02TBTLE9-122-16A**
  2.5" SATA SSD, 2TB 6GB/s, PS3112-S12, BiCS3 3D TLC, 550MB/s read speed, 530MB/s write speed, -40°C ~ 85°C operating temperature
- **SSB04TBTLE9-122-16A**
  2.5" SATA SSD, 4TB 6GB/s, PS3112-S12, BiCS3 3D TLC, 550MB/s read speed, 530MB/s write speed, -40°C ~ 85°C operating temperature

Specifications

Model Name		2.5" SATA SSD Series				
Controller		PS3111-S11			PS3112-S12	PS3110-S10
Capacity[1]		64GB to 512GB	64GB to 1TB		2TB, 4TB	1TB, 2TB
Form Factor		2.5" SATA 100.00mm(L) x 69.85mm(W) x 7.00mm(H)				
SATA Interface		SATA Revision 3.2 SATA 1.5Gb/s, 3Gb/s, and 6Gb/s interface				
Flash Type		15nm MLC	BiCS3 3D TLC	BiCS4 3D TLC	BiCS3 3D TLC	15nm MLC
Performance[4]		Read: up to 550 MB/s Write: up to 490 MB/s	Read: up to 550 MB/s Write: up to 500 MB/s	Read: up to 550 MB/s Write: up to 485 MB/s	Read: up to 550 MB/s Write: up to 530 MB/s	Read: up to 560 MB/s Write: up to 500 MB/s
Power Consumption		Active mode: < 2,650 mW Idle mode: < 315 mW DEVSLP mode: < 5mW	Active mode: < 1,680 mW Idle mode: < 325 mW DEVSLP mode: < 5mW	Active mode: TBD Idle mode: TBD DEVSLP mode: TBD	Active mode: < 1,680 mW Idle mode: < 325 mW DEVSLP mode: < 5mW	Active mode: < 5,500mW Idle mode: < 450mW
MTBF		More than 2,000,000 hours				
Advanced Flash Management		Static and Dynamic Wear Leveling Bad Block Management TRIM SMART NCQ Over-Provision Firmware Update				Static and Dynamic Wear Leveling Bad Block Management TRIM SMART Over-Provision Firmware Update
Low Power Management		DEVSLP Mode (Optional) DIPM/HIPM Mode				DIPM/HIPM Mode
Temperature Range[2]	Operating[3]	Diamond: -40°C to 85°C Gold: -25°C to 85°C Silver: -15°C to 85°C C-TEMP: 0°C to 70°C		C-TEMP: 0°C to 70°C	Diamond: -40°C to 85°C C-TEMP: 0°C to 70°C	Diamond: -40°C to 85°C Gold: -25°C to 85°C Silver: -15°C to 85°C C-TEMP: 0°C to 70°C
	Storage	-40°C to 85°C				
Environment		Vibration: 80Hz to 2000Hz @20G Shock (operation/non-operating): 1500G @0.5ms				
RoHS compliant		Yes				

Notes:
1. Other capacities may be supported in the future.
2. As measured by SMART temperature. Active airflow is recommended within the system for maintaining proper device operating temperature on heavier workloads.
3. Actual operating temperature specification may vary by model.
4. Performance benchmarked by CrystalDiskMark.

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