

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

- **SSB064GTL CG-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
- **SSB128GTL CG-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
- **SSB256GTL CG-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
- **SSB512GTL CG-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
- **SSB01TBTL CG-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
- **SSB128GTT C7-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
- **SSB256GTT C7-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
- **SSB064GTT S7-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
- **SSB128GTT S7-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
- **SSB256GTT S7-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

- **SSB512GTT57-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
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
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
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:

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