

SOLID STATE DRIVE (SSD)

2.5 Inch SATA III SSD Internal



Product Highlights:

- High-speed performance
- Increased reliability and durability over traditional hard drives
- Increased performance for faster boot and application load times
- Warranty support*

Breathe new life into your PC

Bitbox 2.5" SATA-III SSD which adopts MAS1102 SSD controller and YMTC X2-6070 3D QLC Nand Flash. It supports 4K LDPC ECC and RAID 5 ECC function to ensure full End-to-End data path protection that secures the data transmission between host system and NAND Flash.

The 2.5" SATA-III SSD's capacity up to 2TB. It fully compliant with SATA 3.0 protocol, delivers stable and outstanding performance up to 550MB/s read performance but low power consumption. With it effectively reduces the booting time of operation system and consumes less power than hard disk drive (HDD), the SSD is optimal for PC's boot drive and embedded system's storage.



Improve performance



Easy installation



Warranty support

bitboxpc.com

Model: SSD5126Gb



Target Applications

- Embedded / Industrial Systems
- PC
- Notebook

Product Features

Capacity	512GB
Type flash built in	YMTC X2-6070 3D QLC NAND
Form Factor	2.5" 7mm
HIPM/DIPM/DeviceSleep	Optional
Support	Hot-plug
Supports Interface	1-port 1.5/3.0/6.0Gbps SATA I/II/III
Feature set	SMART feature set and 48-bit Address feature set
Compatibility	Full SATA hard disk compatible
Data retention	JESD47 compliant
Algorithm support	Proprietary wear leveling algorithms
Compliance	RoHS, CE, FCC
Operating Voltage Requirement	Vcc = 5.0V ±5%
Operating System	Supported by all operating systems
Interface	SATA 6.0Gbps (SATA-III) or SATA 3.0Gbps (SATA-II) or SATA 1.5Gbps (SATA-I)
Installation Requirements	System Hardware which supports SATA-II/SATA-III System Hardware includes SATA socket or transfer board

Physical Specifications

Length	99.70 ± 0.48 mm
Width	69.80 ± 0.25 mm
Thickness	7.00 + 0.20/ -0.50 mm

Environmental Specifications

Commercial Grade	0°C to +70°C
Storage Temperature	-45°C to +95°C
Humidity	5% to ~98% RH (Non-condensing)
Operating Shock	1500G at 0.5ms
Operating Vibration	15G(7 to 2000Hz)
Operating Altitude	Operation: 120,000f

Performance Specifications

Capacity	Data Transfer Speed (R/W)—MB/s Up to			
	1M sequential read@Q8T1	1M sequential write@Q8T1	4K random read@Q32T1	4K random write@Q32T1
512GB	550	450	95	250
1TB	550	450	160	250
2TB	550	450	200	250

3.2 Power Conditions

Symbol	Rating	Value	Unit
V _{IN}	Input Voltage	5V ±5%	V

Capacity	Power Consumption (W)		
	Idle	Read	Write
512GB	0.20	0.85	0.95
1TB	0.20	0.90	1.08
2TB	0.20	0.95	1.20

3.3 Total Bytes Written

Capacity	TBW	Daily Usage Guideline
512GB	125TB	115GB/day
1TB	250TB	230GB/day
2TB	500TB	460GB/day

ABOUT BITBOX:

Bitbox is a leading technology brand based in India, proudly contributing to the government's "Make in India" initiative and committed to promoting domestic manufacturing, innovation, and technological advancements in the country. With a vision to drive India's digital transformation, we focus on developing cutting-edge technology solutions. Leveraging a highly skilled workforce, state-of-the-art infrastructure, and strategic partnerships, the brand strives to provide world-class products and services that meet global standards.