

2.5-inch SATA SSD TLC  
SSD-xxxS-2TP series



\* Specifications, color and design of the products are subject to change without notice.

Specifications

Item	Specifications	
Host interface	SATA III (6.0Gbps)	
Installed Memory	TLC NAND Flash memory	
	Total capacity	SSD-128GS-2TP: 114,473 MB SSD-256GS-2TP: 228,936 MB SSD-512GS-2TP: 457,862 MB SSD-1TS-2TP: 915,715 MB
Transfer velocity	LBA	SSD-128GS-2TP: 234,441,648 SSD-256GS-2TP: 468,862,128 SSD-512GS-2TP: 937,703,088 SSD-1TS-2TP: 1,875,385,008
	Read*1	SSD-128GS-2TP: 430 MB/sec SSD-256GS-2TP: 550 MB/sec SSD-512GS-2TP: 550 MB/sec SSD-1TS-2TP: 550 MB/sec
Input voltage	Write*1	SSD-128GS-2TP: 210 MB/sec SSD-256GS-2TP: 440 MB/sec SSD-512GS-2TP: 510 MB/sec SSD-1TS-2TP: 490 MB/sec
	+5VDC (±5%)	
Current consumption	Idle (Typ.)	SSD-128GS-2TP: 155mA SSD-256GS-2TP: 160mA SSD-512GS-2TP: 180mA SSD-1TS-2TP: 189mA
	Read (Typ.)	SSD-128GS-2TP: 285mA SSD-256GS-2TP: 303mA SSD-512GS-2TP: 310mA SSD-1TS-2TP: 310mA
	Write (Typ.)	SSD-128GS-2TP: 228mA SSD-256GS-2TP: 301mA SSD-512GS-2TP: 308mA SSD-1TS-2TP: 310mA
Environment Requirements	Operating temperature	0 - +70°C
	Storage temperature	-40 - +85°C
	Humidity	10 - 95%RH (With no condensation)
	Corrosive gases	None
	Swept sine vibration	20G or less (7 - 2,000Hz)
Shock	1500G or less (0.5ms)	
NAND Flash memory life span	3,000cycles	
Physical dimensions (mm)	69.85(W)×100.0(D)×7.0(H)	
Weight (Max)	60g (approx.)	

\*1 It might differs depending on the software or host to be used.

Packing List

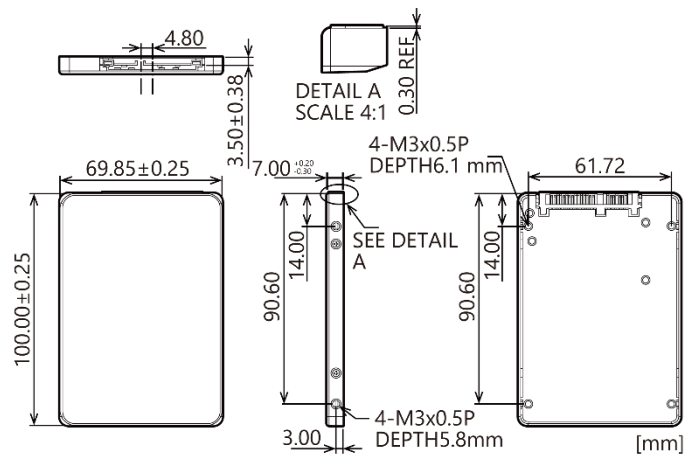
- Product ...1
- Product Guide ...1
- Warranty Certificate ...1
- Serial Number Label ... 1

This product is a solid state drive in accordance with 2.5-inch SATA standard.

SSD-128GS-2TP	2.5inch 128GB SATA SSD TLC
SSD-256GS-2TP	2.5inch 256GB SATA SSD TLC
SSD-512GS-2TP	2.5inch 512GB SATA SSD TLC
SSD-1TS-2TP	2.5inch 1TB SATA SSD TLC

- \* The contents in this document are subject to change without notice.
- \* Visit the CONTEC website to check the latest details.
- \* The information in the data sheets is as of December 2021.

Physical Dimensions



Connector Pin Assignment

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
S1	GND	S2	A+	S3	A-	S4	GND
S5	B-	S6	B+	S7	GND		
P1	N.C.	P2	N.C.	P3	N.C.	P4	GND
P5	GND	P6	GND	P7	5V	P8	5V
P9	5V	P10	GND	P11	DAS/DSS	P12	GND
P13	N.C.	P14	N.C.	P15	N.C.		

\*1 POWER NOT CONENECTED

About write endurance

SSD has write endurance which limits the number of times each memory may be writ-ten, due to the characteristic of the memory that is used. Write endurance can be calculated by the following formula as a reference value:

$$\text{Write endurance (years)} = \frac{\text{Total rewrite life (cycles)}}{\text{(The number of annual consumed blocks / The total number of blocks)}}$$

Example :

Capacity: 128GB, Rewrite life: 3,000cycles

When the file of 4MB is made, and it rewrites it once per 10 seconds.

$$\text{The number of annual consumed blocks} = (4 \times (60 / 10) \times 60 \times 24 \times 365) / 18 = 700,800(\text{blocks})$$

$$\text{Life} = 3,000 / (700,800 / 7,200) \approx 30.82 (\text{years})$$

For other capacities, replace the number of annual consumed blocks and the total number of blocks with the following.

In the case of SSD-256GS-2TP, the number of annual consumed blocks: 700,800, the total number of blocks: 14,400

For the SSD-512GS-2TP, the number of annual consumed blocks: 700,800, total number of blocks: 28,800

For the SSD-1TS-2TP, the number of annual consumed blocks: 700,800, total number of blocks: 57,600

These are reference values. Confirm its longevity by the following S.M.A.R.T. after installing the specific software (\*) and implement tentative writing.

\* Life expectancy can be obtained by installing the self- diagnosis program that ac-quires S.M.A.R.T. information of SSD.