

2.5-inch 256GB SATA SSD, RAID

SSD-256GS-2TR

No Image
Available

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

Specifications

Item	Specifications
Model name / Maker	TS256GSSD452K / TRANCEND
Form factor	2.5inch
Host interface	SATA III (6.0Gbps)
Installed Memory	3D TLC NAND Flash memory
	Total capacity 249,157,628 KByte
	LBA 498,315,256
Transfer velocity	Read 560 Mbit/sec *1
	Write 410 Mbit/sec *1
Input voltage	+5VDC (±5%)
Current consumption	Idle 80mA (typ.)
	Read 480mA (typ.)
	Write 520mA (typ.)
Environment	
Operating	Temperature 0 - +70°C
	Humidity 5 - 95%RH (With no condensation)
	Corrosive gases None
	Swept sine vibration 20G or less (7 - 2,000Hz)
	Shock 1500G or less (0.5ms, 3axis)
Non-operating	Temperature -40 - +85°C
	Humidity 5 - 95%RH (With no condensation)
	Corrosive gases None
	Swept sine vibration 20G or less (7 - 2,000Hz)
	Shock 1500G or less (0.5ms, 3axis)
Total capacity (TBW)	440TB
Physical dimensions (mm)	69.85(W)×100.0(D)×6.8(H)
Weight	54g (Max)

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

Packing List

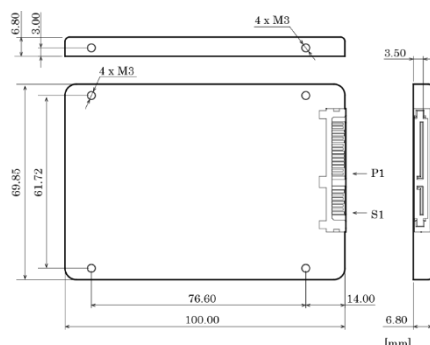
Product [SSD-256GS-2TR] ...1

Product Guide ...1

Warranty Certificate ...1

Serial Number Label ... 1

Physical Appearance



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

- * 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 October 2020.

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	DEVSLP	P4	GND
P5	GND	P6	GND	P7	5V	P8	5V
P9	5V	P10	GND	P11	DAS	P12	GND
P13	N.C.	P14	N.C.	P15	N.C.		

*1 POWER NOT CONENCTED

About write endurance

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

The write endurance of SSD is determined with the total capacity.
Life expectancy can be calculated by the number of writing per day.

$$\text{The number of writing into drive per day (DWPD)} = \frac{\text{SSD's TBW(TB)} \times 1000}{365 \text{ days} \times \text{years} \times \text{SSD user capacity}}$$

The actual TBW is determined by the free space (available space for user).

If the SSD has 128GB capacity and TBW = 80TB, and the user available space (rewrite area) is 1/2 size, the expected life can be calculated with an assumption that TBW is half of 40TB.

When the 4MB file of 128GB capacity and TBW = 80TB, user available space (rewrite area) is 2/3 size is made, and rewrites once per 10 seconds.

Writing size per day = 4 x 6 x 60 x 24 = 34.56GB

Write endurance = 80(TB) x 2/3 x 1000 / 34.56(GB) / 365 ≈ 4.3(years)

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 acquires S.M.A.R.T. information of SSD.

Target Products

This product is the FA computer (VPC series) and custom-made PC (Solution-ePC)

* The RAID model requires two hard disks of the same type.