

BON Series

Industrial Rugged Metal 1.8" SATA II SLC SSD

supports Fast Erase and Secure Erase

APRO Co., Ltd.

Advanced Performance & Rugged Orientation



Product features

- SLC - NAND type flash technology
- Extremely rugged metal casing to endure harsh environments
- Support Fast Erase by Hardware and Software definition
- Performance up to 184.2MB/sec
- Support Secure Erase by Software ATA command vendor code
- Capacity from 8GB up to 64GB

Product specifications

Compatibility		Power consumption	
SATA 1.0a and SATA 2.6 specification compliance		Power requirement	+5V ± 10%
Flash technology		Reading mode	280mA (Max.)
SLC-NAND type flash based		Writing mode	340mA (Max.)
Form-factor		Sleeping mode	150mA (Max.)
Rugged Metal 1.8" SATA SSD		Reliability	
Host Interface		Wear-leveling	Static wear-leveling algorithms
SATA 7-pin (data) + 15-pin (power)		MTBF	> 3,000,000 hours
Performance		ECC	8 bits or 15 bits per 512bytes block
Data transfer rate	Serial ATA Gen-I and Gen-II (1.5Gb/s and 3.0Gb/s)	Endurance	> 2,000,000 cycles
Sequential read	184.2 MB/sec (Max.)	Data retention	10 years
Sequential write	153.3 MB/sec (Max.)	Physical specification	
Average access time	0.2ms	Weight (max.)	55g ± 5g / 1.94 oz.
Environmental specification		Dimension(W x L x H)	69.80 x 59.90 x 9.50 (mm)
Operating temp.	STD. 0°C ~ 70°C / IND. -40°C ~ +85°C	Conformal coating	
Non-operating temp.	STD. -20°C ~ +80°C / IND. -50°C ~ +95°C	Option for special request	
Humidity	10% ~ 95% non-condensing	Warranty	
Vibration	15G compliance to MIL-STD-810F	Standard grade	3 years
Shock	1,500G compliance to MIL-STD-810F	Industrial grade	5 years
Altitude	70,000 feet	Functionality	
Functionality		Hardware	Fast Erase the media data by hardware trigger
		Software	Fast Erase the media data by ATA command vendor code Secure Erase the media data by ATA command vendor code
Sanitization Procedure		Sanitization Procedure	Default sanitizing by erase block data to 0xFF on file table for Fast Erase Sanitizing Based on NSA Manual 130-2 for Secure Erase Sanitizing Based on USA Air Force AFSSI 5020 for Secure Erase

Operating temperature supports Standard grade 0°C ~ 70°C and Industrial grade -40°C ~ +85°C

Part number list - Industrial 1.8" rugged metal SATA II SLC SSD supports FE/SE

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	8GB	SR8SF008G-JACSC-UFE(USE)	WR8SF008G-JAISI-UFE(USE)
	16GB	SR8SF016G-JACSC-UFE(USE)	WR8SF016G-JAISI-UFE(USE)
	32GB	SR8SF032G-JACSC-UFE(USE)	WR8SF032G-JAISI-UFE(USE)
	64GB	SR8SF064G-JACSC-UFE(USE)	WR8SF064G-JAISI-UFE(USE)

Remarks:

UFE - Hardware and software ATA command code for Fast Erase function

USE - Secure Erase Procedure by Project Base

Part number decoder

X1	X2	X3	X4	X5	X6	X7	X8	X9	—	X11	X12	X13	X14	X15	—	Z1	Z2	Z3	C
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Example

S	R	8	S	F	0	6	4	G	—	J	A	C	S	C	—	U	F	E	
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X1 Grade

S : Standard grade operating temp. 0°C ~ 70 °C
W : Industrial grade operating temp. -40°C ~ +85 °C

X2 The material of casing

R : Rugged metal casing

X3 X4 X5 Product category

8SF : 1.8" SATA II SSD

X6 X7 X8 X9 Capacity

008G : 8GB **032G** : 32GB
016G : 16GB **064G** : 64GB

X11 Controller

J : JMicon (BON Series supports FE/SE)

X12 Controller version

A,B,C.....

X13 Controller grade

C : Commercial grade
I : Industrial grade

X14 Flash IC

S : Samsung SLC-NAND flash IC

X15 Flash IC grade

C : Commercial grade
I : Industrial grade

Z1 Z2 Z3 Special function

UFE : Hardware and software ATA command code for Fast Erase function
USE : Secure Erase procedure by project base

C Reserved for specific requirement

C : Conformal-coating

CF
Industrial CompactFlash Card

CFast
Industrial CFast Card

ATA
Industrial PCMCIA ATA Card

MIF
Industrial micro IDE Flash Module

MSE
Industrial micro SATA Flash Module

MUM
Industrial micro USB Module

SSD
Industrial Solid State Disk

USB
Industrial Rugged Metal USB Flash Disk

SD
Industrial SD & SDHC Memory Card

AD
Industrial Adapter Card-Drive

CF
Industrial CompactFlash Card

CFast
Industrial CFast Card

ATA
Industrial PCMCIA ATA Card

MIF
Industrial micro IDE Flash Module

MSE
Industrial micro SATA Flash Module

MUM
Industrial micro USB Module

SSD
Industrial Solid State Disk

USB
Industrial Rugged Metal USB Flash Disk

SD
Industrial SD & SDHC Memory Card

AD
Industrial Adapter Card-Drive