BON Series

Industrial Rugged Metal 1.8" SATA II SLC SSD supports Fast Erase and Secure Erase

Product features

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

Product specifications

Compatibility	SATA 1.0a and SATA 2.6 specification compliance
Flash technology	SLC-NAND type flash based
Form-factor	Rugged Metal 1.8" SATA SSD
Host Interface	Standard SATA 7 pins (data) + 15 pins (power)

Performance

Data transfer rate	Serial ATA Gen-I and Gen-II (1.5Gb/s and 3.0Gb/s)
Sequential read	184.2 MB/sec (Max.)
Sequential write	153.3 MB/sec (Max.)
Average access time	0.2 ms

Environmental specification

Operating temp.	STD. 0˚C ~ 70˚C / IND. -40˚C ~ +85˚C
Non-operating temp.	STD. -20˚C ~ +80˚C / IND. -50˚C ~ +95˚C
Humidity	10% ~ 95% non-condensing
Vibration	15G compliance to MIL-STD-810F
Shock	1,500G compliance to MIL-STD-810F
Altitude	70,000 feet

Power consumption

Power requirement	+5V ± 10%
Reading mode	280 mA (Max.)
Writing mode	340 mA (Max.)
Sleeping mode	150 mA (Max.)

Reliability

Wear-leveling	Static wear-leveling algorithms
MTBF	> 3,000,000 hours
ECC	8 bits or 15 bits per 512 bytes block
Endurance	> 2,000,000 cycles
Data retention	10 years

Physical specification

Weight (max.)	55 g ± 5 g / 1.94 oz.
Dimension(W x L x H)	69.80 x 59.90 x 9.50 (mm)
Conformal coating	Option for special request

Warranty

Standard grade	3 years
Industrial grade	5 years

Functionality

Hardware	Fast Erase the media data by hardware trigger
Software	Fast Erase the media data by ATA command vender code Secure Erase the media data by ATA command vender code
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

Example

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

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
016G : 16GB
032G : 32GB
064G : 64GB

X11 Controller

J : JMicron (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