

BON Series

Rugged Metal 2.5" SATA II MLC SSD
supports Fast Erase and Secure Erase



Product features

- MLC - NAND type flash technology
- Support Fast Erase by Hardware and Software definition
- Support Secure Erase by Software ATA command vendor code
- Performance up to 167.8MB/sec
- Capacity from 8GB up to 256GB

Product specifications

Compatibility	SATA 1.0a and SATA 2.6 specification compliance	Power consumption	Power requirement +5V ± 10%
Flash technology	MLC-NAND type flash based	Reading mode	450mA (Max.)
Form-factor	Rugged Metal 2.5" SATA SSD	Writing mode	500mA (Max.)
Host Interface	SATA 7-pin (data) + 15-pin (power)	Sleeping mode	320mA (Max.)
Performance		Reliability	
Data transfer rate	Serial ATA Gen-I and Gen-II (1.5Gb/s and 3.0Gb/s)	Wear-leveling	Static wear-leveling algorithms
Sequential read	167.8 MB/sec (Max.)	ECC	8 bits or 15 bits per 512bytes block
Sequential write	92.1 MB/sec (Max.)	Endurance	> 2,000,000 cycles
Average access time	0.1ms (estimated)	Physical specification	
Environmental specification		Weight (max.)	115g ± 5g /4.06 oz.
Operating temp.	STD. 0°C ~ 70°C / IND. -40°C ~ +85°C	Dimension(W x L x H)	69.90 x 99.70 x 9.50 (mm)
Non-operating temp.	STD. -20°C ~ +80°C /IND. -50°C ~ +95°C	Conformal coating	Option for wide temperature
Humidity	10% ~ 95% non-condensing	Warranty	
Vibration	15G compliance to MIL-STD-810F	Standard grade	1 year
Shock	1,500G compliance to MIL-STD-810F	Industrial grade	3 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	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 - 2.5" rugged metal SATA II MLC SSD supports FE/SE

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	8GB	SM2SF008G-JACMC-UFE(USE)	WM2SF008G-JACMC-UFE(USE)C
	16GB	SM2SF016G-JACMC-UFE(USE)	WM2SF016G-JACMC-UFE(USE)C
	32GB	SM2SF032G-JACMC-UFE(USE)	WM2SF032G-JACMC-UFE(USE)C
	64GB	SM2SF064G-JACMC-UFE(USE)	WM2SF064G-JACMC-UFE(USE)C
	128GB	SM2SF128G-JACMC-UFE(USE)	WM2SF128G-JACMC-UFE(USE)C
	256GB	SM2SF256G-JACMC-UFE(USE)	WM2SF256G-JACMC-UFE(USE)C

Remarks:

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

USE - Secure Erase Procedure by Project Base

Industrial grade -40°C ~ +85°C (With special conformal coating treatment on PCBA)

Part number decoder

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

Example

S M 2 S F 1 2 8 G — J A C M 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

M : Rugged metal casing

X3 X4 X5 Product category

2SF : 2.5" SATA II SSD

X6 X7 X8 X9 Capacity

008G : 8GB **064G** : 64GB
016G : 16GB **128G** : 128GB
032G : 32GB **256G** : 256GB

X11 Controller

J : JMicon (BON Series supports FE/SE)

X12 Controller version

A,B,C.....

X13 Controller grade

C : Commercial grade

X14 Flash IC

M : MLC-NAND flash IC

X15 Flash IC grade

C : Commercial 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

MLC CF

MLC CompactFlash Card

MLC CFast

MLC CFast Card

MLC PCMCIA ATA

MLC PCMCIA ATA Card

MLC MIF

MLC micro IDE Flash Module

MLC M5F

MLC micro SATA Flash Module

MLC MUM

MLC micro USB Module

MLC SSD

MLC Solid State Disk

MLC USB

MLC Rugged Metal USB Flash Disk

MLC SD

MLC SD & SDHC Memory Card

AD

Industrial Adapter Card-Drive

MLC CF

MLC CompactFlash Card

MLC CFast

MLC CFast Card

MLC PCMCIA ATA

MLC PCMCIA ATA Card

MLC MIF

MLC micro IDE Flash Module

MLC M5F

MLC micro SATA Flash Module

MLC MUM

MLC micro USB Module

MLC SSD

MLC Solid State Disk

MLC USB

MLC Rugged Metal USB Flash Disk

MLC SD

MLC SD & SDHC Memory Card

AD

Industrial Adapter Card-Drive