

MUSE-B Series

Industrial Metal 2.5" SATA III SLC SSD
supports DDRIII SDRAM Cache



Product features

- SLC - NAND type flash technology
- High performance of random write IOPS, up to 20K.
- 2.5" SATA SSD form-factor
- Maximum sequential read speed 475 MB/sec (AHCI mode)
- Supports Windows-7 TRIM Command
- Maximum sequential write speed 356 MB/sec (AHCI mode)
- Supports Native Command Queuing (NCQ) command
- Capacity from 32GB up to 128GB

Product specifications

Compatibility	<ul style="list-style-type: none"> SATA 1.0a, SATA 2.6 and SATA 3.0 Specification compliance 	Power consumption	<ul style="list-style-type: none"> Power requirement $\pm 5V \pm 10\%$ Reading mode 290 mA (Max.) Writing mode 380 mA (Max.) Idle mode 70 mA (Max.)
Flash technology	<ul style="list-style-type: none"> SLC-NAND type flash based 	Reliability	<ul style="list-style-type: none"> Wear-leveling Global wear-leveling algorithms MTBF $> 1,500,000$ hours Endurance $> 2,000,000$ cycles ECC 48 bits per 2K bytes block Data retention 10 Years
Form-factor	<ul style="list-style-type: none"> Metal 2.5" SATA SSD 	Physical specification	<ul style="list-style-type: none"> Weight $73 \text{ g} \pm 5 \text{ g} / 2.57 \text{ oz.}$ Dimension(W x L x H) $69.90 \times 99.90 \times 9.50 \text{ (mm)}$
Host Interface	<ul style="list-style-type: none"> SATA 7-pin (data) + 15-pin (power) 	Environmental specification	<ul style="list-style-type: none"> Operating temp. STD. $0^\circ\text{C} \sim 70^\circ\text{C} / \text{W.T. } -40^\circ\text{C} \sim +85^\circ\text{C}$ Non-operating temp. STD. $-20^\circ\text{C} \sim +80^\circ\text{C} / \text{W.T. } -50^\circ\text{C} \sim +95^\circ\text{C}$ Humidity 10% ~ 95% non-condensing Vibration 15G compliance to MIL-STD-810F Shock 1,500G compliance to MIL-STD-810F Altitude 70,000 feet
Performance	<ul style="list-style-type: none"> Cache buffer DDRIII SDRAM 128MB Data transfer rate Serial ATA Gen-I, Gen-II and Gen-III Sequential read 540.4 MB/sec (AHCI mode, max.) Sequential write 444.2 MB/sec (AHCI mode, max.) 4K Random IOPS Read : 20K / Write : 18K Random access time 0.2ms (estimated) 	Conformal coating	<ul style="list-style-type: none"> Option for special request
		Warranty	<ul style="list-style-type: none"> Standard grade 3 years Industrial grade 5 years

Operating temperature supports Standard grade $0^\circ\text{C} \sim 70^\circ\text{C}$ and Industrial grade $-40^\circ\text{C} \sim +85^\circ\text{C}$

Part number list - Industrial 2.5" metal SATA III SLC SSD MUSE-B Series

Product Picture	Capacity	$0^\circ\text{C} \sim 70^\circ\text{C}$	$-40^\circ\text{C} \sim +85^\circ\text{C}$
	32GB	SM2SR032G-VBCTC(/C)	WM2SR032G-VBITI(/C)
	64GB	SM2SR064G-VBCTC(/C)	WM2SR064G-VBITI(/C)
	128GB	SM2SR128G-VBCTC(/C)	WM2SR128G-VBITI(/C)

Part number decoder

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

Example

W M 2 S R 1 2 8 G — V B I T I / C

X1 Grade

X13 Controller grade

S : Standard grade operating temp. $0^\circ\text{C} \sim 70^\circ\text{C}$

C : Commercial grade

W : Industrial grade operating temp. $-40^\circ\text{C} \sim +85^\circ\text{C}$

I : Industrial grade

X2 The material of casing

X14 Flash IC

M : Metal casing

T : Toshiba SLC-NAND flash IC

X3 X4 X5 Product category

X15 Flash IC grade

2SR : 2.5" SATA III SSD supports DDRIII SDRAM
128MB as cache

C : Commercial grade

I : Industrial grade

X6 X7 X8 X9 Capacity

C Reserved for specific requirement

032G : 32GB

C : Conformal-coating

064G : 64GB

128G : 128GB

X11 Controller

V : MUSE Series

X12 Controller version

A,B,C.....

CF Industrial CompactFlash Card

CFast Industrial CFast Card

ATA Industrial PCMCIA ATA Card

MIF Industrial micro IDE Flash Module

MSF Industrial micro SATA Flash Module

MUM Industrial micro USB Flash Module

MPM Industrial mini PCI-e Flash Module

MSM Industrial mini SATA Flash Module

SSD Industrial Solid State Disk

UFD 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

MSF Industrial micro SATA Flash Module

MUM Industrial micro USB Flash Module

MPM Industrial mini PCI-e Flash Module

MSM Industrial mini SATA Flash Module

SSD Industrial Solid State Disk

UFD Industrial Rugged Metal USB Flash Disk

SD Industrial SD & SDHC Memory Card

AD Industrial Adapter Card-Drive