

MUSE-D Series

MLC SATA III CFast™ card



Product Feature

- MLC - NAND type flash technology
- Optional rugged metal frame
- S.M.A.R.T. supported
- RoHS & REACH compliant
- Capacity from 8GB up to 256GB

Product Specification

Compatibility

- SATA Revision 3.1
- CFast™ Specification v2.0
- Compliant with ATA/ATAPI-8 ACS2

Flash technology

- MLC-NAND type flash memory

Form-factor

- CFast™ Type I

Host Interface

- 7 pins (data) + 17 pins (power)
CFast™ connector

Performance

- Data transfer rate
 - SATA 1.5Gbps/3.0Gbps/6.0Gbps data transfer rate
- Sequential read
 - 530 MB/sec (Max.)
- Sequential write
 - 210 MB/sec (Max.)
- 4KB random read
 - 32K IOPS
- 4KB random write
 - 26K IOPS

Environmental specification

- Operating temp.
 - STD. 0°C~70°C/W.T. -40°C~+85°C
- Non-operating temp.
 - STD. -20°C~+80°C/W.T. -50°C~+95°C

Conformal coating

- For wide temperature
- Humidity
 - 10% ~ 95% non-condensing
- Vibration
 - 7 Hz to 2K Hz, 20G, 3 axes
- Shock
 - 0.5ms, 1500 G, 3 axes
- Altitude
 - 70,000 feet

Power consumption

- Power requirement
 - +3.3V±5%
- Reading mode
 - 150 mA (Max.)
- Writing mode
 - 260 mA (Max.)
- Idle mode
 - 100mA (Max.)

Reliability

- Wear-leveling
 - Static wear-leveling algorithms
- Erase counts
 - Up to 3,000 times
- ECC
 - Hardware design LDPC (Low Density Parity Check)

Physical specification

- Weight (max.)
 - Plastic frame CFA : 10.0 ± 1 g / 0.4 oz.
 - Rugged metal frame CFA : 13.0 ± 1 g / 0.46 oz.
 - 42.8 x 36.4 x 3.5 (mm)

Dimension(W x L x H)

Warranty

- MLC(standard/wide temp.)
 - 2 years or within 3K Erasing counts

Part Number List

Standard plastic frame CFA ▶

Product Picture	Capacity	0°C ~ 70°C	- 40°C ~ + 85°C
	8GB	SPCFA008G-VDCTM-(T)	WPCFA008G-VDCTM-(T)C
	16GB	SPCFA016G-VDCTM-(T)	WPCFA016G-VDCTM-(T)C
	32GB	SPCFA032G-VDCTM-(T)	WPCFA032G-VDCTM-(T)C
	64GB	SPCFA064G-VDCTM-(T)	WPCFA064G-VDCTM-(T)C
	128GB	SPCFA128G-VDCTM-(T)	WPCFA128G-VDCTM-(T)C
	256GB	SPCFA256G-VDCTM-(T)	WPCFA256G-VDCTM-(T)C

Optional rugged metal frame CFA ▶

Product Picture	Capacity	0°C ~ 70°C	- 40°C ~ + 85°C
	8GB	SRCFA008G-VDCTM-(T)	WRCFA008G-VDCTM-(T)C
	16GB	SRCFA016G-VDCTM-(T)	WRCFA016G-VDCTM-(T)C
	32GB	SRCFA032G-VDCTM-(T)	WRCFA032G-VDCTM-(T)C
	64GB	SRCFA064G-VDCTM-(T)	WRCFA064G-VDCTM-(T)C
	128GB	SRCFA128G-VDCTM-(T)	WRCFA128G-VDCTM-(T)C
	256GB	SRCFA256G-VDCTM-(T)	WRCFA256G-VDCTM-(T)C

Part Number Decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 — X17 X18 X19 X20

Example ▶

W R C F A 2 5 6 G — V D C T M — C

X1 Grade

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

X2 The material of casing

P : Plastic frame
R : Rugged metal frame

X3 X4 X5 Product category

CFA : CFast™ card

X6 X7 X8 X9 Capacity

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

X11 Controller

V : MUSE Series

X12 Controller version

A, B, C, D

X13 Controller grade

C : Commercial grade

X14 Flash IC brand

T : Toshiba NAND flash IC

X15 Flash IC type

M : MLC-NAND flash IC

X17 X18 X19 X20 Reserved for specific requirement

Blank : Standard product w/o thermal sensor and conformal-coating
T : Thermal Sensor.
C : Conformal coating for wide temp. grade