

HERMES-D Series

MLC mini SATA Module Half Size(MSH) mSATA mini



Product features

- ✦ MLC - NAND type flash technology
- ✦ S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology)
- ✦ mSATA mini compatible with JEDEC Standard : MO-300B specification
- ✦ Bootable for O.S. installation
- ✦ Compliant with SATA 1.0a and SATA 2.6 specification
- ✦ Maximum sequential read speed 66.0MB/sec
- ✦ Maximum sequential write speed 20.5MB/sec
- ✦ Capacity from 4GB up to 64GB

Product specifications

- | | | | |
|------------------------------------|----------------------------------------------------------|-------------------------------|-------------------------------------------------|
| Compatibility | ✦ SATA 1.0a and SATA 2.6 Specification compliance | Power consumption | Power requirement ✦ +3.3 V 5% |
| Form-factor | ✦ mSATA mini form factor
Compliant with JEDEC MO-300B | Reading mode | ✦ 190mA (Max.) |
| Flash technology | ✦ MLC-NAND type flash based | Writing mode | ✦ 235mA (Max.) |
| Host Interface | ✦ mini PCI-e connector with 52 pins
SATA-II pin out | Idle mode | ✦ 140mA (Max.) |
| Performance | Data transfer rate ✦ Serial ATA Gen-I and Gen-II | Reliability | Wear-leveling ✦ Static wear-leveling algorithms |
| Sequential read | ✦ 66.0 MB/sec (Max.) | ECC | ✦ 24 bits per 1024 bytes block |
| Sequential write | ✦ 20.5 MB/sec (Max.) | Physical specification | Weight ✦ 4.0 g 0.5 g / 0.14 oz. |
| Random access time | ✦ 0.1ms (estimated) | Dimension(W x L x H) | ✦ 29.80 x 26.8 x 3.20 (mm) |
| Environmental specification | Operating temp. ✦ STD. 0°C~70°C/W.T. -40°C~+85°C | Warranty | ✦ 2 years |
| | Non-operating temp. ✦ STD. -20°C~+80°C/W.T. -50°C~+95°C | | |
| Conformal coating | ✦ Option for wide temperature | | |
| Humidity | ✦ 10% ~ 95% non-condensing | | |
| Vibration | ✦ 15G compliance to MIL-STD-810F | | |
| Shock | ✦ 1,500G compliance to MIL-STD-810F | | |
| Altitude | ✦ 70,000 feet | | |

Operating temperature supports Standard grade 0°C ~ 70°C and Wide temp. grade -40°C ~ +85°C

Part number list - MLC mSATA mini

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	4GB	SBMSH004G-JDCMM	WBMSH004G-JDCMM/C
	8GB	SBMSH008G-JDCMM	WBMSH008G-JDCMM/C
	16GB	SBMSH016G-JDCMM	WBMSH016G-JDCMM/C
	32GB	SBMSH032G-JDCMM	WBMSH032G-JDCMM/C
	64GB	SBMSH064G-JDCMM	WBMSH064G-JDCMM/C

Remarks:

Wide temperature 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 / C

Example

W B M S H 0 6 4 G — J D C M M / C

X1 ✦ Grade

S : Standard grade operating temp. 0°C ~ 70°C

W : Wide temp. Grade operating temp. -40°C ~ +85°C

X12 ✦ Controller version

A, B, C,

X13 ✦ Controller grade

C : Commercial grade

X2 ✦ The material of casing

B : Bare (without casing)

X14 ✦ Flash IC

M : Micron flash IC

X3 X4 X5 ✦ Product category

MSH : mSATA mini (MSM half size)

X15 ✦ Flash IC grade

M : MLC-NAND flash IC

X6 X7 X8 X9 ✦ Capacity

004G : 4GB 032G : 32GB

008G : 8GB 064G : 64GB

016G : 16GB

C ✦ Reserved for specific requirement

C : Conformal-coating

X11 ✦ Controller

J : JMicron (HERMES Series)

CFC
CompactFlash
Card

CFA
CFast Card

AFC
PCMCIA ATA
Card

MIF
micro IDE Flash
Module

MSF
micro SATA Flash
Module

MUM
micro USB Flash
Module

MPM
mini PCI-e Flash
Module

MSH
Mini SATA Module
Half size

SSD
Solid State
Disk

UFD
Rugged Metal
USB Flash Disk

SDC/H
SD & SDHC
Memory Card

AD
Adapter
Card-Drive

CFC
CompactFlash
Card

CFA
CFast Card

AFC
PCMCIA ATA
Card

MIF
micro IDE Flash
Module

MSF
micro SATA Flash
Module

MUM
micro USB Flash
Module

MPM
mini PCI-e Flash
Module

MSH
mini SATA Flash
Module

SSD
Solid State
Disk

UFD
Rugged Metal
USB Flash Disk

SDC/H
SD & SDHC
Memory Card

AD
Adapter
Card-Drive