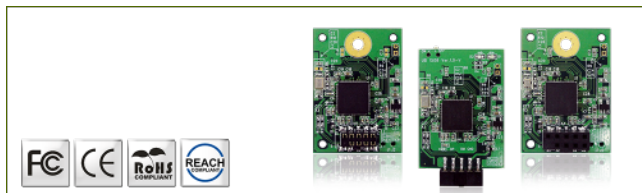


◆ Features

- MLC-NAND flash technology
- 2x5 header, x86 internal USB standard
- High random read/write speed
- Support S.M.A.R.T. command set and utility
- Capacities from 4GB up to 128GB



◆ Specification

■ Compatibility	USB 2.0
■ Declarations	RoHS & REACH compliant
■ Flash technology	MLC-NAND flash technology
■ Form-factor	
➤ Vertical type	Standard (VS) – 2.54 mm pin pitch
➤ Horizontal type with mounting hole	Standard (HS) – 2.54 mm pin pitch Low-profile (HL) – 2.00 mm pin pitch
■ Host Interface	Standard –10 pins 2.54 mm pin pitch Low-profile –10 pins 2.00 mm pin pitch
■ Performance	
➤ Data transfer rate	FullSpeed, HighSpeed
➤ Sequential read	27.9 MB/sec (Max.)
➤ Sequential write	19.4 MB/sec (Max.)
➤ Random read	7.9 MB/sec (Max.)
➤ Random write	4.5 MB/sec (Max.)
■ Environmental	
➤ 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
➤ Humidity	10%~95% non-condensing
➤ Vibration	70 Hz to 2K Hz, 15G, 3 axes
➤ Shock	0.5ms, 1500G, 3 axes
➤ Altitude	70,000 feet

■ OS supported	Windows series Embedded O.S. Linux, VxWorks and DOS
■ Power consumption	
➤ Power requirement	5V ± 10% via USB port
➤ Reading mode	83.4 mA(Max.)
➤ Writing mode	90.9 mA(Max.)
➤ Idle mode	36.2 mA(Max.)
■ Reliability	
➤ Wear-leveling	Static wear-leveling algorithms
➤ TBW	Up to 251.4 TBW at 128GB Capacity (Client workload by JESD-219A)
➤ Erase counts	Up to 3,000 times
➤ ECC	96 bits per 1024 bytes block
■ Physical specification	
➤ Weight (Max.)	VS type: 10g HS type & VL type: 10g
➤ Dimension (WxL)	VS type in 2.5mm pin pitch: 26.7 x 42.0 (mm) HS type in 2.5mm pin pitch: 26.7 x 37.0 (mm) HL type in 2.0mm pin pitch: 26.7 x 37.0 (mm) Optional
■ Conformal coating	Optional
■ Warranty	2 years or within 3,000 erasing counts

◆ Part Number List

MUM (USB DOM) in Vertical type Standard (VS) form factor with pin pitch 2.54mm				
Capacity	0°C~+70°C		-40°C~+85°C	
4GB	SBMUM004G-HCCTMB-VS		4GB	WBMUM004G-HCCTMB-VSC
8GB	SBMUM008G-HCCTMB-VS		8GB	WBMUM008G-HCCTMB-VSC
16GB	SBMUM016G-HCCTMB-VS		16GB	WBMUM016G-HCCTMB-VSC
32GB	SBMUM032G-HCCTMB-VS		32GB	WBMUM032G-HCCTMB-VSC
64GB	SBMUM064G-HCCTMB-VS		64GB	WBMUM064G-HCCTMB-VSC
128GB	SBMUM128G-HCCTMB-VS		128GB	WBMUM128G-HCCTMB-VSC
MUM (USB DOM) in Horizontal type Standard (HS) form factor with pin pitch 2.54mm				
Capacity	0°C~+70°C		-40°C~+85°C	
4GB	SBMUM004G-HCCTMB-HS		4GB	WBMUM004G-HCCTMB-HSC
8GB	SBMUM008G-HCCTMB-HS		8GB	WBMUM008G-HCCTMB-HSC
16GB	SBMUM016G-HCCTMB-HS		16GB	WBMUM016G-HCCTMB-HSC
32GB	SBMUM032G-HCCTMB-HS		32GB	WBMUM032G-HCCTMB-HSC
64GB	SBMUM064G-HCCTMB-HS		64GB	WBMUM064G-HCCTMB-HSC
128GB	SBMUM128G-HCCTMB-HS		128GB	WBMUM128G-HCCTMB-HSC
MUM (USB DOM) in Horizontal type Low-profile (HL) form factor with pin pitch 2.00mm				
Capacity	0°C~+70°C		-40°C~+85°C	
4GB	SBMUM004G-HCCTMB-HL		4GB	WBMUM004G-HCCTMB-HLC
8GB	SBMUM008G-HCCTMB-HL		8GB	WBMUM008G-HCCTMB-HLC
16GB	SBMUM016G-HCCTMB-HL		16GB	WBMUM016G-HCCTMB-HLC
32GB	SBMUM032G-HCCTMB-HL		32GB	WBMUM032G-HCCTMB-HLC
64GB	SBMUM064G-HCCTMB-HL		64GB	WBMUM064G-HCCTMB-HLC
128GB	SBMUM128G-HCCTMB-HL		128GB	WBMUM128G-HCCTMB-HLC

❖ Part Number Decoder

X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20
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Example

W	B	M	U	M	1	2	8	G	—	H	C	C	T	M	B	—	V	S	C
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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

B : Bare (without casing)

X3 **X4** **X5** Product category

MUM : Micro USB Module (USB DOM)

X6 **X7** **X8** **X9** Capacity

004G : 4GB **032G** : 32GB
008G : 8GB **064G** : 64GB
016G : 16GB **128G** : 128GB

X11 Controller

H : HERMIT 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 grade

M : MLC - NAND Flash IC

X16 MLC Technology

B : Toshiba 15nm MLC

X18 **X19** MUM form-factor only

VS : Vertical type standard form factor pin pitch 2.54 mm
HS : Horizontal type standard form factor pin pitch 2.54 mm
HL : Horizontal type low profile form factor pin pitch 2.00 mm

X20 Reserved for specific requirements

C : Conformal coating (optional)

- SLC
- oSLC
- MLC
- 3D-NAND
- DRAM Module
- Adapter
- Card-drive