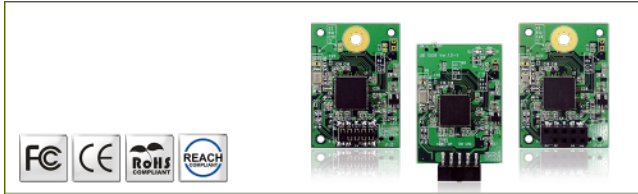


Features

- SLC-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 128MB up to 32GB



Specification

■ Compatibility	USB 2.0
■ Declarations	RoHS & REACH compliant
■ Flash technology	SLC-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	27.5 MB/sec (Max.)
➤ Sequential write	18.8 MB/sec (Max.)
➤ Random read	7.2 MB/sec (Max.)
➤ Random write	5.2 MB/sec (Max.)
■ Environmental	
➤ Operating temp.	STD. 0°C~+70°C/IND. -40°C~+85°C
➤ Non-operating temp.	STD. -20°C~+80°C/IND. -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	83.7 mA(Max.)
➤ Writing mode	79.2 mA(Max.)
➤ Idle mode	33.3 mA(Max.)
■ Reliability	
➤ Wear-leveling	Static wear-leveling algorithms
➤ TBW	Up to 225.6 TBW at 32GB Capacity (Client workload by JESD-219A)
➤ MTBF	> 3,000,000 hours
➤ Erase counts	Up to 60,000 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	
■ Warranty	
➤ SLC STD. grade	3 years or within 60,000 erasing counts
➤ SLC IND. grade	5 years or within 60,000 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	Capacity	-40°C~+85°C
128MB	SBMUM128M-HCCTC-VS	128MB	WBMUM128M-HCITI-VS
256MB	SBMUM256M-HCCTC-VS	256MB	WBMUM256M-HCITI-VS
512MB	SBMUM512M-HCCTC-VS	512MB	WBMUM512M-HCITI-VS
1GB	SBMUM001G-HCCTC-VS	1GB	WBMUM001G-HCITI-VS
2GB	SBMUM002G-HCCTC-VS	2GB	WBMUM002G-HCITI-VS
4GB	SBMUM004G-HCCTC-VS	4GB	WBMUM004G-HCITI-VS
8GB	SBMUM008G-HCCTC-VS	8GB	WBMUM008G-HCITI-VS
16GB	SBMUM016G-HCCTC-VS	16GB	WBMUM016G-HCITI-VS
32GB	SBMUM032G-HCCTC-VS	32GB	WBMUM032G-HCITI-VS

MUM (USB DOM) in Horizontal type Standard (HS) form factor with pin pitch 2.54mm

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
128MB	SBMUM128M-HCCTC-HS	128MB	WBMUM128M-HCITI-HS
256MB	SBMUM256M-HCCTC-HS	256MB	WBMUM256M-HCITI-HS
512MB	SBMUM512M-HCCTC-HS	512MB	WBMUM512M-HCITI-HS
1GB	SBMUM001G-HCCTC-HS	1GB	WBMUM001G-HCITI-HS
2GB	SBMUM002G-HCCTC-HS	2GB	WBMUM002G-HCITI-HS
4GB	SBMUM004G-HCCTC-HS	4GB	WBMUM004G-HCITI-HS
8GB	SBMUM008G-HCCTC-HS	8GB	WBMUM008G-HCITI-HS
16GB	SBMUM016G-HCCTC-HS	16GB	WBMUM016G-HCITI-HS
32GB	SBMUM032G-HCCTC-HS	32GB	WBMUM032G-HCITI-HS

MUM (USB DOM) in Horizontal type Low-profile (HL) form factor with pin pitch 2.00mm

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
128MB	SBMUM128M-HCCTC-HL	128MB	WBMUM128M-HCITI-HL
256MB	SBMUM256M-HCCTC-HL	256MB	WBMUM256M-HCITI-HL
512MB	SBMUM512M-HCCTC-HL	512MB	WBMUM512M-HCITI-HL
1GB	SBMUM001G-HCCTC-HL	1GB	WBMUM001G-HCITI-HL
2GB	SBMUM002G-HCCTC-HL	2GB	WBMUM002G-HCITI-HL
4GB	SBMUM004G-HCCTC-HL	4GB	WBMUM004G-HCITI-HL
8GB	SBMUM008G-HCCTC-HL	8GB	WBMUM008G-HCITI-HL
16GB	SBMUM016G-HCCTC-HL	16GB	WBMUM016G-HCITI-HL
32GB	SBMUM032G-HCCTC-HL	32GB	WBMUM032G-HCITI-HL

❖ 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	0	3	2	G	—	H	C	I	T	I	—	H	S	C	
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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

B : Bare (without casing)

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

MUM : Micro USB Module (USB DOM)

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

128M : 128MB 004G : 4GB
 256M : 256MB 008G : 8GB
 512M : 512MB 016G : 16GB
 001G : 1GB 032G : 32GB
 002G : 2GB

X11 Controller

H : HERMIT Series

X12 Controller version

A, B, C, D.....

X13 Controller grade

C : Commercial grade
 I : Industrial grade

X14 Flash IC brand

T : Toshiba SLC-NAND flash IC

X15 Flash IC grade

C : Commercial grade
 I : Industrial grade

X17 **X18** 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

X19 **X20** Reserved for specific requirements

C : Conformal coating (optional)

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