



**Features**

- SLC-NAND flash technology
- 40-pin MIF with 5V power cable
- Master / Slave selectable
- Support True IDE mode
- Support S.M.A.R.T. command set and utility
- Support C.H.S./LBA customization
- Capacities from 16MB up to 8GB

**Specification**

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| <ul style="list-style-type: none"> <li>■ <b>Compatibility</b> ATAPI-6 and True IDE mode</li> <li>■ <b>Declarations</b> RoHS &amp; REACH compliant</li> <li>■ <b>Flash technology</b> SLC-NAND flash technology</li> <li>■ <b>Form-factor</b> Vertical Type<br/>Horizontal-Right and Horizontal-Left Types</li> <li>■ <b>Host Interface</b> Female 40 or 44 pins</li> <li>■ <b>Master/Slave</b> By switch</li> <li>■ <b>Performance</b></li> <li>➤ <b>Data transfer rate</b> PIO 0~6, MWDMA 0~2, UDMA 0~4</li> <li>➤ <b>Sequential read</b> 39.5 MB/sec (Max.)</li> <li>➤ <b>Sequential write</b> 28 MB/sec (Max.)</li> <li>■ <b>Environmental</b></li> <li>➤ <b>Operating temp.</b> STD. 0°C~+70°C/IND. -40°C~+85°C</li> <li>➤ <b>Non-operating temp.</b> STD. -20°C~+80°C/IND. -50°C~+95°C</li> <li>➤ <b>Humidity</b> 10% ~ 95% non-condensing</li> <li>➤ <b>Vibration</b> 70 Hz to 2K Hz, 20G, 3 axes</li> <li>➤ <b>Shock</b> 0.5ms, 1,500 G, 3 axes</li> <li>➤ <b>Altitude</b> 70,000 feet</li> <li>■ <b>Power consumption</b></li> <li>➤ <b>Power requirement</b> +5V ± 10% / +3.3V ± 10%</li> <li>➤ <b>Reading mode</b> 178 mA (Max.)</li> </ul> | <ul style="list-style-type: none"> <li>➤ <b>Writing mode</b> 142.5 mA(Max.)</li> <li>➤ <b>Idle mode</b> 0.9 mA (Max.)</li> <li>■ <b>Reliability</b></li> <li>➤ <b>Wear-leveling</b> Static wear-leveling algorithms</li> <li>➤ <b>TBW</b> Up to 421.8 TBW at 8GB Capacity (Sequential Write)</li> <li>➤ <b>MTBF</b> &gt; 3,000,000 hours</li> <li>➤ <b>Erase counts</b> Up to 60,000 times</li> <li>➤ <b>ECC</b> 4 bits per 512 bytes block</li> <li>■ <b>Physical specification</b></li> <li>➤ <b>Weight (Max.)</b> 40 V : 20g / 44 V : 15g<br/>40 H : 15g / 44 H : 12g<br/>40 V : 60.20 x 27.79 x 6.40 (mm)<br/>40 H : 55.00 x 32.40 (mm)<br/>44 V : 50.25 x 27.27 x 5.80 (mm)<br/>44 H : 48.00 x 32.40 (mm)</li> <li>➤ <b>Dimension (WxLxH)</b></li> <li>■ <b>Conformal coating</b> Optional for horizontal type (w/o casing)</li> <li>■ <b>Warranty</b></li> <li>➤ <b>SLC STD. grade</b> 3 years or within 60,000 erasing counts</li> <li>➤ <b>SLC IND. grade</b> 5 years or within 60,000 erasing counts</li> </ul> |
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**Part Number List**

40-pin IDE DOM (MIF)			
Capacity	Form-factor	0°C~+70°C	- 40°C~+85°C
16MB	Vertical	SPMIF016M-HACTC-0V(P)(U)(A)	WPMIF016M-HAITI-0V(P)(U)(A)
	Right	SBMIF016M-HACTC-0R(P)(U)(A)	WBMIF016M-HAITI-0R(P)(U)(A)
	Left	SBMIF016M-HACTC-0L(P)(U)(A)	WBMIF016M-HAITI-0L(P)(U)(A)
32MB	Vertical	SPMIF032M-HACTC-0V(P)(U)(A)	WPMIF032M-HAITI-0V(P)(U)(A)
	Right	SBMIF032M-HACTC-0R(P)(U)(A)	WBMIF032M-HAITI-0R(P)(U)(A)
	Left	SBMIF032M-HACTC-0L(P)(U)(A)	WBMIF032M-HAITI-0L(P)(U)(A)
64MB	Vertical	SPMIF064M-HACTC-0V(P)(U)(A)	WPMIF064M-HAITI-0V(P)(U)(A)
	Right	SBMIF064M-HACTC-0R(P)(U)(A)	WBMIF064M-HAITI-0R(P)(U)(A)
	Left	SBMIF064M-HACTC-0L(P)(U)(A)	WBMIF064M-HAITI-0L(P)(U)(A)
128MB	Vertical	SPMIF128M-HACTC-0V(P)(U)(A)	WPMIF128M-HAITI-0V(P)(U)(A)
	Right	SBMIF128M-HACTC-0R(P)(U)(A)	WBMIF128M-HAITI-0R(P)(U)(A)
	Left	SBMIF128M-HACTC-0L(P)(U)(A)	WBMIF128M-HAITI-0L(P)(U)(A)
256MB	Vertical	SPMIF256M-HACTC-0V(P)(U)(A)	WPMIF256M-HAITI-0V(P)(U)(A)
	Right	SBMIF256M-HACTC-0R(P)(U)(A)	WBMIF256M-HAITI-0R(P)(U)(A)
	Left	SBMIF256M-HACTC-0L(P)(U)(A)	WBMIF256M-HAITI-0L(P)(U)(A)
512MB	Vertical	SPMIF512M-HACTC-0V(P)(U)(A)	WPMIF512M-HAITI-0V(P)(U)(A)
	Right	SBMIF512M-HACTC-0R(P)(U)(A)	WBMIF512M-HAITI-0R(P)(U)(A)
	Left	SBMIF512M-HACTC-0L(P)(U)(A)	WBMIF512M-HAITI-0L(P)(U)(A)
1GB	Vertical	SPMIF001G-HACTC-0V(P)(U)(A)	WPMIF001G-HAITI-0V(P)(U)(A)
	Right	SBMIF001G-HACTC-0R(P)(U)(A)	WBMIF001G-HAITI-0R(P)(U)(A)
	Left	SBMIF001G-HACTC-0L(P)(U)(A)	WBMIF001G-HAITI-0L(P)(U)(A)
2GB	Vertical	SPMIF002G-HACTC-0V(P)(U)(A)	WPMIF002G-HAITI-0V(P)(U)(A)
	Right	SBMIF002G-HACTC-0R(P)(U)(A)	WBMIF002G-HAITI-0R(P)(U)(A)
	Left	SBMIF002G-HACTC-0L(P)(U)(A)	WBMIF002G-HAITI-0L(P)(U)(A)
4GB	Vertical	SPMIF004G-HACTC-0V(P)(U)(A)	WPMIF004G-HAITI-0V(P)(U)(A)
	Right	SBMIF004G-HACTC-0R(P)(U)(A)	WBMIF004G-HAITI-0R(P)(U)(A)
	Left	SBMIF004G-HACTC-0L(P)(U)(A)	WBMIF004G-HAITI-0L(P)(U)(A)
8GB	Vertical	Do not support	Do not support
	Right	SBMIF008G-HACTC-0R(P)(U)(A)	WBMIF008G-HAITI-0R(P)(U)(A)
	Left	SBMIF008G-HACTC-0L(P)(U)(A)	WBMIF008G-HAITI-0L(P)(U)(A)

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

❖ Part Number List

44-pin IDE DOM (MIF)			
Capacity	Form-factor	0°C~+70°C	- 40°C~+85°C
16MB	Vertical	SPMIF016M-HACTC-4V(P)(U)(A)	WPMIF016M-HAITI-4V(P)(U)(A)
	Right	SBMIF016M-HACTC-4R(P)(U)(A)	WBMIF016M-HAITI-4R(P)(U)(A)
	Left	SBMIF016M-HACTC-4L(P)(U)(A)	WBMIF016M-HAITI-4L(P)(U)(A)
32MB	Vertical	SPMIF032M-HACTC-4V(P)(U)(A)	WPMIF032M-HAITI-4V(P)(U)(A)
	Right	SBMIF032M-HACTC-4R(P)(U)(A)	WBMIF032M-HAITI-4R(P)(U)(A)
	Left	SBMIF032M-HACTC-4L(P)(U)(A)	WBMIF032M-HAITI-4L(P)(U)(A)
64MB	Vertical	SPMIF064M-HACTC-4V(P)(U)(A)	WPMIF064M-HAITI-4V(P)(U)(A)
	Right	SBMIF064M-HACTC-4R(P)(U)(A)	WBMIF064M-HAITI-4R(P)(U)(A)
	Left	SBMIF064M-HACTC-4L(P)(U)(A)	WBMIF064M-HAITI-4L(P)(U)(A)
128MB	Vertical	SPMIF128M-HACTC-4V(P)(U)(A)	WPMIF128M-HAITI-4V(P)(U)(A)
	Right	SBMIF128M-HACTC-4R(P)(U)(A)	WBMIF128M-HAITI-4R(P)(U)(A)
	Left	SBMIF128M-HACTC-4L(P)(U)(A)	WBMIF128M-HAITI-4L(P)(U)(A)
256MB	Vertical	SPMIF256M-HACTC-4V(P)(U)(A)	WPMIF256M-HAITI-4V(P)(U)(A)
	Right	SBMIF256M-HACTC-4R(P)(U)(A)	WBMIF256M-HAITI-4R(P)(U)(A)
	Left	SBMIF256M-HACTC-4L(P)(U)(A)	WBMIF256M-HAITI-4L(P)(U)(A)
512MB	Vertical	SPMIF512M-HACTC-4V(P)(U)(A)	WPMIF512M-HAITI-4V(P)(U)(A)
	Right	SBMIF512M-HACTC-4R(P)(U)(A)	WBMIF512M-HAITI-4R(P)(U)(A)
	Left	SBMIF512M-HACTC-4L(P)(U)(A)	WBMIF512M-HAITI-4L(P)(U)(A)
1GB	Vertical	SPMIF001G-HACTC-4V(P)(U)(A)	WPMIF001G-HAITI-4V(P)(U)(A)
	Right	SBMIF001G-HACTC-4R(P)(U)(A)	WBMIF001G-HAITI-4R(P)(U)(A)
	Left	SBMIF001G-HACTC-4L(P)(U)(A)	WBMIF001G-HAITI-4L(P)(U)(A)
2GB	Vertical	SPMIF002G-HACTC-4V(P)(U)(A)	WPMIF002G-HAITI-4V(P)(U)(A)
	Right	SBMIF002G-HACTC-4R(P)(U)(A)	WBMIF002G-HAITI-4R(P)(U)(A)
	Left	SBMIF002G-HACTC-4L(P)(U)(A)	WBMIF002G-HAITI-4L(P)(U)(A)
4GB	Vertical	SPMIF004G-HACTC-4V(P)(U)(A)	WPMIF004G-HAITI-4V(P)(U)(A)
	Right	SBMIF004G-HACTC-4R(P)(U)(A)	WBMIF004G-HAITI-4R(P)(U)(A)
	Left	SBMIF004G-HACTC-4L(P)(U)(A)	WBMIF004G-HAITI-4L(P)(U)(A)
8GB	Vertical	Do not support	Do not support
	Right	SBMIF008G-HACTC-4R(P)(U)(A)	WBMIF008G-HAITI-4R(P)(U)(A)
	Left	SBMIF008G-HACTC-4L(P)(U)(A)	WBMIF008G-HAITI-4L(P)(U)(A)

❖ 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	I	F	0	0	8	G	-	H	A	I	T	I	-	0	R	U	
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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) for horizontal type  
 P : Plastic casing for vertical type

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

MIF : Micro IDE Flash module (IDE DOM)

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

016M : 16MB      512M : 512MB  
 032M : 32MB      001G : 1GB  
 064M : 64MB      002G : 2GB  
 128M : 128MB      004G : 4GB  
 256M : 256MB      008G : 8GB

**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** MIF oriented only

0V : 40-pin IDE Vertical MIF  
 0R : 40-pin IDE Rightward-oriented MIF  
 0L : 40-pin IDE Leftward-oriented MIF  
 4V : 44-pin IDE Vertical MIF  
 4R : 44-pin IDE Rightward-oriented MIF  
 4L : 44-pin IDE Leftward-oriented MIF

**X19** Data transfer rate / Disk type

IDE interface is always Fixed Disk Mode  
 P : PIO-6 mode / Fixed disk type  
 U : Defaulted as UDMA-4 mode / Fixed disk type  
 A : Autosense UDMA or PIO mode

**X20** Reserved for specific requirements

C : Conformal coating optional for H-type MIF w/o casing  
 Note : 40/44-pin MIF with casing do not support conformal coating

SLC

aSLC

MLC

3D-NAND

DRAM Module

Adapter

Card-drive