

HAMMER Series

Industrial Semi-Metal USB Flash Disk Generation 3



Product features

- Tiny and semi-metal casing design
- USB 2.0 interface downwards compatible to USB 1.1
- Supports Ready Boost for Microsoft Vista O.S.
- USB 2.0 Mass Storage compliant
- Capacities from 128MB up to 8GB
- Performance up to 21.9 MB/sec

Product specifications

Compatibility	USB 2.0 and USB 1.1 backwards	Functionality	Supports auto-run function
Flash technology	SLC-NAND type flash based		A bootable disk for system recovery
Performance			Supports partition management, password and security
Data transfer rate	USB 2.0 supports transfer rates up to 480 Mb/s (60MB/s)	Power consumption	
Sequential read	21.9 MB/sec (Max.)	Power requirement	5V ± 10% via USB port
Sequential write	19.1 MB/sec (Max.)	Reading mode	78.2 mA (Max.)
Average access time	0.6 ms (estimated)	Writing mode	80.5 mA (Max.)
Environmental specification		Sleeping mode	68.3 mA (Max.)
Operating temp.	STD. 0°C ~ 70°C / IND. -40°C ~ +85°C	Reliability	
Non-operating temp.	STD. -20°C ~ +80°C / IND. -50°C ~ +95°C	Wear-leveling	Dynamic wear-leveling algorithms
Humidity	10% ~ 95% non-condensing	MTBF	> 1,000,000 hours
Vibration	15G compliance to MIL-STD-810F	ECC	4 bits per 512 bytes block
Shock	1,500G compliance to MIL-STD-810F	Endurance	> 2,000,000 cycles
Altitude	70,000 feet	Physical specification	
LED Indicator	Operating with blue light LED	Weight (max.)	15 g ± 1 g / 0.53 oz.
OS supported	Windows ME / 2000 / XP / Vista Mac9.x , Mac OS X / Win98SE need driver	Dimension(W x L x T)	17.60 x 47.30 x 8.40 (mm)
		Warranty	Standard grade : 3 years Industrial grade : 5 years



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Advanced Performance & Rugged Orientation

Operating temperature supports Standard grade 0°C ~ 70°C and Industrial grade -40°C ~ +85°C

Part number list - Industrial semi-metal USB flash disk - Generation 3

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	128MB	SMUFD128M-ACCSC/3	WMUFD128M-ACISI/3
	256MB	SMUFD256M-ACCSC/3	WMUFD256M-ACISI/3
	512MB	SMUFD512M-ACCSC/3	WMUFD512M-ACISI/3
	1GB	SMUFD001G-ACCSC/3	WMUFD001G-ACISI/3
	2GB	SMUFD002G-ACCSC/3	WMUFD002G-ACISI/3
	4GB	SMUFD004G-ACCSC/3	WMUFD004G-ACISI/3
	8GB	SMUFD008G-ACCSC/3	WMUFD008G-ACISI/3

Part number decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 / C

Example

W M U F D 1 2 8 M — A C I S I / 3

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

M : Semi-metal / metal casing

X3 X4 X5 Product category

UFD : USB flash disk

X6 X7 X8 X9 Capacity

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

X11 Controller

A : Alcor (HAMMER Series)

X12 Controller version

A,B,C.....

X13 Controller grade

C : Commercial grade
 I : Industrial grade

X14 Flash IC

S : Samsung SLC-NAND flash IC

X15 Flash IC grade

C : Commercial grade
 I : Industrial grade

C Reserved for specific requirement

3 : Generation 3 housing