

# HERMES Series

## Industrial Rugged Metal GDK-2010 High Capacity USB Flash Disk



### Product features

- RoHS Compliant
- Bulky size USB flash disk
- High-speed USB 2.0 interface
- Samsung NAND type of SLC or MLC flash (Optional)
- Complies with Microsoft Vista Ready-Boost® requirements
- Fixed disk type; optional for removable disk type
- Samsung SLC-NAND flash disk available from 16GB, 32GB and 64GB
- MLC-NAND flash disk available from 32GB, 64GB and 128GB
- Operating commercial grade and industrial grade

### Product specifications

- |                                    |   |                               |  |
|------------------------------------|---|-------------------------------|--|
| <b>Compatibility</b>               | USB 2.0 and USB 1.1 backwards compatible  | <b>Functionality</b>          | Default in removable disk  |
| <b>Flash technology</b>            | Samsung NAND type of SLC or MLC flash (Optional)  |                               | Optional for fixed disk mode and works as bootable disk  |
| <b>Form-factor</b>                 | Bulky size USB in rugged metal alloy  |                               | Microsoft Vista Ready-Boost® requirements  |
| <b>Performance</b>                 |   | <b>Power consumption</b>      |  |
| <b>Data transfer rate</b>          | USB 2.0 supports transfer rates up to 480 Mb/s (60MB/s)   | <b>Power requirement</b>      | 5V ± 10% via on board USB port   |
| <b>Sequential read</b>             | SLC : 30.0MB/sec (Dual Channel)<br>MLC : 30.0MB/sec (Dual Channel)  | <b>Reading mode</b>           | SLC : 155 mA (Max.) / MLC : 160 mA (Max.)  |
| <b>Sequential write</b>            | SLC : 29.24MB/sec (Dual Channel)<br>MLC : 29.0MB/sec (Dual Channel)   | <b>Writing mode</b>           | SLC : 175 mA (Max.) / MLC : 180 mA (Max.)  |
| <b>Average access time</b>         | 0.4ms (estimated)   | <b>Idle mode</b>              | SLC : 90 mA (Max.) / MLC : 90 mA (Max.)  |
| <b>Environmental specification</b> |   | <b>Reliability</b>            |  |
| <b>Operating temp.</b>             | SLC : STD. 0°C ~ 70°C / IND. -40°C ~ +85°C<br>MLC : STD. 0°C ~ 70°C   | <b>Wear-leveling</b>          | Static wear-leveling algorithms  |
| <b>Non-operating temp.</b>         | SLC : STD. -20°C ~ +80°C / IND. -50°C ~ +95°C<br>MLC : STD. -20°C ~ +80°C   | <b>MTBF</b>                   | Samsung SLC-NAND flash > 3,000,000 hours<br>MLC-NAND flash > 1,000,000 hours   |
| <b>Humidity</b>                    | 10% ~ 95% non-condensing  | <b>ECC</b>                    | Enhanced management 8 bits per 512bytes block  |
| <b>Acoustic noise</b>              | 0dB   | <b>Endurance</b>              | Samsung SLC-NAND flash > 2,000,000 cycles<br>MLC-NAND flash > 1,000,000 cycles<br>Logically contributed by wear-leveling and advanced bad sector management algorithms |
| <b>Vibration</b>                   | 15G compliance to MIL-STD-810F  | <b>Physical specification</b> |  |
| <b>Shock</b>                       | 1,500G compliance to MIL-STD-810F   | <b>Weight (max.)</b>          | 40 g ± 3 g / 1.40 oz.  |
| <b>Altitude</b>                    | 70,000 feet   | <b>Dimension (W x L x H)</b>  | 32.00 x 89.30 x 11.30 (mm)   |
| <b>OS supported (Microsoft)</b>    | Windows Vista / XP Pro / XP Embedded /<br>Point of Service / Win CE / Server 2003 /<br>Linux and DOS / Mac9.x, Mac OS X | <b>Warranty</b>               | Standard grade : 3 years<br>Industrial grade : 5 years<br>MLC-NAND flash : 1 year  |
| <b>Conformal coating</b>           | Option for special request  |                               |  |

### CF

Industrial CompactFlash Card

### CFast

Industrial CFast Card

### ATA

Industrial PCMCIA ATA Card

### MIF

Industrial micro IDE Flash Module

### MSE

Industrial micro SATA Flash Module

### MUM

Industrial micro USB Module

### SSD

Industrial Solid State Disk

### USB

Industrial Rugged Metal USB Flash Disk

### SD

Industrial SD & SDHC Memory Card

### AD

Industrial Adapter Card-Drive



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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 - Rugged metal GDK-2010 High Capacity USB 2.0 flash disk

Product Picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C	MLC Flash (*)
	16GB	GDKUF016G-JCCSC-F	GDKUF016G-JCISI-F	N/A
	32GB	GDKUF032G-JCCSC-F	GDKUF032G-JCISI-F	GDKUF032G-JCCMC-F
	64GB	GDKUF064G-JCCSC-F	GDKUF064G-JCISI-F	GDKUF064G-JCCMC-F
	128GB	N/A	N/A	GDKUF128G-JCCMC-F

Remarks: The optional disk types are:

F: defaulted as Fixed disk type

R: optional as Removable USB flash disk

\* MLC solution supports operating temperature standard grade 0°C ~ 70°C

Part number decoder



Example



X1 X2 X3 ➤ The size of casing

GDK : Bulky size casing

X4 X5 ➤ Product category

UF : USB 2.0 Flash Disk

X6 X7 X8 X9 ➤ Capacity

016G : 16GB

032G : 32GB

064G : 64GB

128G : 128GB

X11 ➤ Controller

J : JMicron (HERMES 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

M : Unrestricted MLC-NAND flash IC

X15 ➤ Flash IC grade

C : Commercial grade

I : Industrial grade

Z1 ➤ Disk types

F: defaulted as Fixed disk type

R: optional as Removable USB flash disk

C ➤ Reserved for specific requirement

C : Conformal coating (Optional)