

# HERMIT-D Series

Industrial SLC SD & SDHC Memory Card / SD Memory Card Specification 3.0




## Product Feature

- SLC - NAND type flash technology
- Support SD mode and SPI mode
- Support CPRM
- Support industrial grade operating temp -40°C~+85°C
- Support UHS-1
- RoHS & REACH compliant
- Capacity from 128MB up to 32GB


## Product Specification

<b>Compatibility</b>	<ul style="list-style-type: none"> <li>▶ SD Memory Card Specifications, Part 1 Physical Layer Specification, version 4.10</li> <li>▶ SD Memory Card Specifications, Part 2, File System Specification, Version 3.0</li> <li>▶ SD Memory Card Specifications, Part 3, Security Specification, Version 3.0</li> </ul>		
<b>SD Spec. Ver. 1.01</b>	▶ Capacity supports from 128MB up to 2GB, 9-pin contact pad, FAT file system		
<b>SDHC Spec. Ver. 2.0</b>	▶ Capacity supports from 4GB up to 32GB, 9-pin contact pad, FAT32 file system, Class 10		
<b>Flash technology</b>	▶ SLC-NAND type flash memory	<b>Power consumption</b>	
<b>Form-factor</b>	▶ Standard SD card form-factor	Power requirement	▶ +3.3V ± 5%
<b>Host Interface</b>	▶ 9-pin connector	Reading mode	▶ 43 mA (Max.)
<b>Write Protection</b>	▶ Mechanical switch	Writing mode	▶ 69 mA (Max.)
<b>Performance</b>	▶ Class-10	Standby mode	▶ 1.1 mA (Max.)
Sequential read	▶ SD : 29.4 MB/sec	<b>Reliability</b>	
	▶ SDHC : 29.3 MB/sec	Durability	▶ 10,000 inserting cycles
Sequential write	▶ SD : 19.6 MB/sec	Torque	▶ 0.15N ± 2.5 deg.
	▶ SDHC : 22.9 MB/sec	W.P. Switch Cycle	▶ 1,000 cycle @ slide force 0.4N to 5N
<b>Environmental specification</b>		Wear-leveling	▶ Global wear-leveling algorithms
Operating temp.	▶ IND. -40°C~+85°C	ECC	▶ 96 bits per 1024 bytes
Non-operating temp.	▶ IND. -50°C~+95°C	<b>Physical specification</b>	
Humidity	▶ 10% - 95% non-condensing	Weight	▶ 2.5 g / 0.09 oz. (Max.)
Vibration	▶ 7 Hz to 2K Hz, 20G, 3 axes	Dimension(W x L x H)	▶ 32.0 x 24.0 x 2.1 (mm) /
Shock	▶ 0.5ms, 1500 G, 3 axes		▶ 1.26 x 0.95 x 0.08 (inch)
Altitude	▶ 70,000 feet	<b>Warranty</b>	
		IND Grade SLC	▶ 5 years or within 60K Erasing counts

## Part Number List

Product Picture	Capacity	- 40°C ~ + 85°C
	128MB	WPSDC128M-HDITI
	256MB	WPSDC256M-HDITI
	512MB	WPSDC512M-HDITI
	1GB	WPSDC001G-HDITI
	2GB	WPSDC002G-HDITI

## SDHC memory card ▶

Product Picture	Capacity	- 40°C ~ + 85°C
	4GB	WPSDH004G-HDITI
	8GB	WPSDH008G-HDITI
	16GB	WPSDH016G-HDITI
	32GB	WPSDH032G-HDITI

## Part Number Decoder

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

## Example ▶

W P S D H 0 3 2 G — H D I T I —

## X1 Grade

W : Industrial grade operating temp. -40°C ~ +85°C

## X2 The material of casing

P : Plastic casing

## X3 X4 X5 Product category

SDC : SD memory card

SDH : SDHC memory card

## 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

I : Industrial grade

## X14 Flash IC brand

T : Toshiba SLC-NAND flash IC

## X15 Flash IC grade

I : Industrial grade

X17 X18 X19 X20 Reserved for specific requirement