

PHANES-F 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

Compatibility	<ul style="list-style-type: none"> ■ SD Memory Card Specifications, Part 1 Physical Layer Specification, version 4.10 ■ SD Memory Card Specifications, Part 2, File System Specification, Version 3.0 ■ SD Memory Card Specifications, Part 3, Security Specification, Version 3.0 		
SD Spec. Ver. 1.01	■ Capacity supports from 128MB up to 2GB, 9-pin contact pad, FAT file system		
SDHC Spec. Ver. 2.0	■ Capacity supports from 4GB up to 32GB, 9-pin contact pad, FAT32 file system, Class 10		
Flash technology	■ SLC-NAND type flash memory	Power consumption	
Form-factor	■ Standard SD card form-factor	Power requirement	▶ +3.3V ± 10%
Host Interface	■ 9-pin connector	Reading mode	▶ 400 mA (Max.)
Write Protection	■ Mechanical switch	Writing mode	▶ 400 mA (Max.)
Performance	■ Class-10	Standby mode	▶ 1000 uA (Max.)
Sequential read	■ SD : 21.9 MB/sec	Reliability	
	■ SDHC : 65 MB/sec	Wear-leveling	▶ Static and Dynamic wearLeveling algorithms
Sequential write	■ SD : 20 MB/sec	ECC	▶ BCH ECC
	■ SDHC : 55 MB/sec	Physical specification	
Environmental specification		Weight	▶ 2.5 g / 0.09 oz. (Max.)
Operating temp.	■ IND. -40°C~+85°C	Dimension(W x L x H)	▶ 32.0 x 24.0 x 2.1 (mm)
Non-operating temp.	■ IND. -50°C~+95°C	Warranty	
Humidity	■ 10% - 95% non-condensing	IND Grade SLC	▶ 5 years or within 60K Erasing counts
Vibration	■ 20 Hz to 2K Hz, 20G, 3 axes		
Shock	■ 0.5ms, 1500 G, 3 axes		
Altitude	■ 70,000 feet		

Part Number List

Product Picture	Capacity	- 40°C ~ + 85°C
	128MB	WPSDC128M-PFITI
	256MB	WPSDC256M-PFITI
	512MB	WPSDC512M-PFITI
	1GB	WPSDC001G-PFITI
	2GB	WPSDC002G-PFITI
	4GB	WPSDH004G-PFITI
	8GB	WPSDH008G-PFITI
	16GB	WPSDH016G-PFITI
	32GB	WPSDH032G-PFITI

Part Number Decoder

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

Example 1 ▶

W P S D C 0 0 2 G — P F I T I —

Example 2 ▶

W P S D H 0 3 2 G — P F 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

P : PHANES 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