

SGDK350A provides SD Card / eMMC comprehensive solution for design engineers, field application engineers and quality engineers.

- 1. Failure analysis SD Card / eMMC
- 2. Quick performance measurement
- 3. Speed Class measurement for SDXC and SDHC
- 4. SD Card/eMMC access library for Microsoft Visual Studio

Supported media

SD Card

- SDSC, SDHC, SDXC
- UHS-I
- DS, HS, SDR12, 25, 50, 104,

Easy to use

SGDK350A provides simple and straightforward user interface to operate. By using the application software on Windows PC, conditions for performing

DDR50

- Max 208MHz
- 1bit/4bit bus
- VDD = 2.7V ~ 3.6V

eMMC

- eMMC Ver 5.1
- HS200
- Max 200MHz
- 1bit/4bit/8bit bus、SDR/DDR
- VCC/VCCQ = 1.65V ~ 3.6V

SD/eMMC commands can be easily set

SD Card eMMC access library

The user can issue any SD/eMMC Command with any sequence and measure busy time by using access library. (API For Microsoft Visual Studio)

SolidGear www.solidgear.tdk.com

Failure Analysis

Single command issuing function and unique sequence execution of using API or interpreter allows for quick media analysis.

50 SGDK355PRo(S/W180509 F/W000000	000 H/W00000000) - I
Menu	
Setting Socket SD socket SD Bus Mode Not UHS-I DDR50 SDR104	Power OFF Power ON Mount
eMMC Bus Mode OSDR ODDR I HS200 HS400 Bus Width O 1bit O 4bit I 8bit	Voltage SD VCC 3.3V eMMC VCC
Frequency 200MHz Reverse Latch Phase	a.3V ↓ eMMC VCCQ 1.8V ↓

			CMD	Parameter	Mode	Data/Sec Size(10)
Data Pattern Media Type OCDDAM (ASSND) Media Size		Execute	36	0	Read Single 🕔	512
OSDRAM (256MB) Media Size		Execute	0	0	R1 、	/0
LBA and Inc Pattern RCA		Execute	0	0	R1 、	/ 0
	Benchmark test Finish condition	Execute	0	0	R1	/0
Start LBA 0	Loop 496 * Area Size	Execute	0	0	R1 🔨	/ 0
End LBA 1D5A000	O Time 0 sec	Execute	0	0	R1 、	/ 0
Sectors per CMD 100	LBA update	Execute	0	0	R1 N	/ 0
Loop count 1 Data Pattern 259E4B3C	Sequential O Random	Execute	0	0	R1 、	/ 0
Data Pattern 259E4B3C	Unit Size 128KB 🗸	Execute	0	0	R1 、	/ 0
Read Data Write Data Read Verify	Area Size 16GB 🗸	Execute	0	0	R1 、	/ 0
	Start LBA 0	Execute	0	0	R1 N	/ 0
LBA 0	Ins Gap time 0 us	Execute	0	0	R1 、	/ 0
Read 1sector Write 1sector	☑ No opcode mode (350A)	Execute	0	0	R1 、	/ 0
Start I DA	No logging mode	Execute	0	0	R1	/ 0
Start LBA U Sector Size 0	Read Write	Write Data	(e.g. 012)	ABCD FE01243	2)	
Media=>PC File PC File => Meida	SD A1:4KB/256MB(Rand) 4MB/1GB(Seq)					
SDRAM Address 0 (0x200 unit) 0 Byte Size 0 (0x200 unit) 0 SDRAM=>PC File PC File => SDRAM	Save log Clear log		ive Settir ad Settir	ng Tune by	st mode (Frq,Widt y CMD19(SD)/8(e	MMC)
				Set 1.t	3V after CMD11 i	ssued

Quick performance measurement

SGDK350A can measure performance of sequential/random access in specified area. The user can set transfer mode, bus width, VCC and frequency. SGDK350A can generate write data which has CRC Error to check error handling of the SD Card.

Speed Class measurement

SGDK350A can automatically set conditions and measure Speed Class from 2 to 10. Measured performance of each AU and SD Command are displayed on the PC screen and are stored in log file.

SGDK350A SET

SD Card / eMMC Media Tester (Silver Box + Main Pod)

USB cable

5V Output AC Adaptor (100-240V) x2



Windows Application Software (CD-ROM)

Recommended Control PC

Windows 7/8/10

Intel Pentium4 2GHz and more

4GB RAM

USB 2.0 Port

For further Information

SolidGear

www.solidgear.tdk.com

ShinYokohama Kaneko Bldg 8F 2-3-9 ShinYokohama, Kohoku-ku, Yokohama, 222-0033 Japan

Tel: +81-45-470-4511 Fax: +81-45-470-4311 e-Mail: sg_info@tdk.co.jp