FORESEE®

UFS

Product Functions

- UFS 2.2 protocol
- Full-cycle bad block management
- 2-lane
- Emergency power failure protection
- Supports HS-GEAR3
- LDPC ECC algorithm
- Supports Write Boost (WB) and Host Performance Boost (HPB)
- Supports mainstream compatible platforms
- Smart health monitoring
- FFU upgrade support
- Supports mainstream compatible platforms
- Global wear balance management

Application Scope

Smartphones

Tablets

High-speed cameras

VR/AR

Smart cars

This version is to be updated on August 1st, 2024.Actual conditions are subject to the Longsys website.

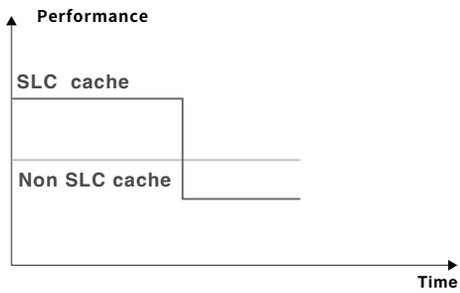
Product Advantages

Write Boost(WB)

- The burst writing performance is boosted when the firmware algorithms utilize free block acceleration (FBA) to use TLC as SLC.

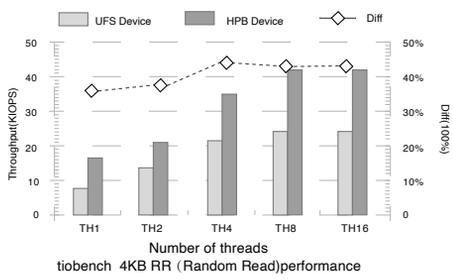
Flash memory type	SLC	TLC
Number of bits per cell	1	3
Read time	25	75
Write time	150	600
Erase time	3000	4500

*Note: The above is for reference only. Data may vary according to flash memory.



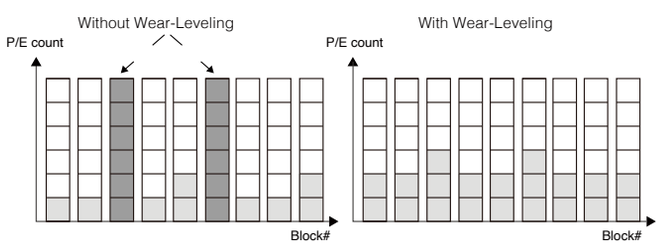
Host Performance Booster (HPB)

- Due to fragmentation of mobile phone data storage, the L2PMAP becomes larger with further usage, making it diffcult to retrieve data. During random read, the L2P MAP must be loaded frequently，deteriorating read performance.
- HPB technology reads the L2P MAP to the memory. This allowsthe host end to have larger memory space and store more L2PMAP data, reducing the UFS burden and improving random readperformance.



Wear Leveling

- When the data write operation is updated continuously,the physical flash memory block is also erased frequently.When the number of times a block has been erased reaches the threshold,the block will be scrapped,reducing the lifespan of flash memory.If all flash memory blocks bear erasing operations together, they can undertake more data write operations.



UFS Line-up

	64GB	128GB	256GB	512GB
Part Number	FEUDNN064G-C2G07	FEUDNN128G-C2G07	FEUDNN256G-C2G07	FEUDNN512G-C2G07
Protocol	UFS 2.2	UFS 2.2 / 3.1	UFS 2.2 / 3.1	UFS 3.1
Package	11.5*13*1.0mm	11.5*13*1.0mm	11.5*13*1.0mm	11.5*13*1.0mm
Interface	Up to HS-GEAR3 2Lane	Up to HS-GEAR3 2Lane	Up to HS-GEAR3 2Lane	Up to HS-GEAR3 2Lane
NAND Flash	3D TLC	3D TLC	3D TLC	3D TLC
Operation Temp(Tc)	-25°C~85°C	-25°C~85°C	-25°C~85°C	-25°C~85°C
Storage Temp(Ta)	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Operating Voltage	VCC：2.7-3.6V VCCQ2：1.7-1.95V	VCC：2.7-3.6V VCCQ2：1.7-1.95V	VCC：2.7-3.6V VCCQ2：1.7-1.95V	VCC：2.7-3.6V VCCQ2：1.7-1.95V
Endurance①	3000P/E	3000P/E	3000P/E	3000P/E
Data Retention	100% P/E:1 years	100% P/E:1 years	100% P/E:1 years	100% P/E:1 years

①WAI=1

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