Long-Term Support World Class Quality

UFS

Managed NAND Solutions for the Automotive, Industrial, & Medical Markets

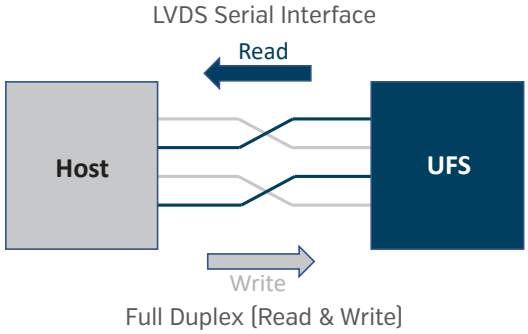
Key Features:

- Low Voltage Differential Signaling (LVDS) signaling
- High Performance with High-Speed Serial Interface
- Full-duplex interface supporting simultaneous read and write
- Low Energy Consumption
- Reliable advanced physical, link, and command protocol layers
- Supports advanced features like Deep Sleep, Write Booster, Host Performance Booster (HPB2.0), and Throttling notifications to the host
- Security Features
- UFS 2.1 and 3.1 interface
- Density: 64GB to 256GB
- Automotive Grade Qualified

Product Description:

UFS is an advanced storage interface ideal for applications requiring high-performance and low power consumption. UFS is an open standard defined by JEDEC and incorporates standards from the Mobile Industry Processor Interface (MIPI) alliance. UFS utilizes the well-known Small Computer System Interface (SCSI) Architecture Model and command protocols that support multiple simultaneous commands and command queuing features to enable highly efficient multi-thread programming. UFS improves read and write performance of flash memory in two ways. First, unlike eMMC, there are dedicated channels for reading and writing data allowing for simultaneous read/write data flow. The second advantage of UFS is Command Queuing, the efficient grouping and reordering of read or write commands, to maximize the performance throughput.

ISSI's UFS product family provides the ideal embedded storage solution for the Automotive, Industrial, Medical, Networking, and Consumer applications, which require high performance, endurance, and low power across a wide range of operating temperatures, and long-term support. These products are available in Industrial as well as Automotive grade. ISSI's UFS integrates NAND flash memory and an intelligent UFS controller in a single small formfactor BGA package. The controller implements all the algorithms for reliable NAND flash management in addition to all the UFS functionality and advanced features. ISSI's UFS products are optimized for efficient throughput, system performance and reliability, delivering superior sequential and random read/write performance, while offering near zero idle power consumption.



Full Duplex (Read & Write)

ISSI's UFS solution includes both the UFS 2.1 (uses 1.8V IO Voltage) devices, and the UFS 3.1 (uses 1.2V IO Voltage) devices. The UFS 3.1 products support advanced data refresh and temperature notification features for superior system reliability for automotive applications.

ISSI Part Numbers:

ISSI P/N	I/F		Capacity	Temperature	Operating Volt.		Sequential Rd/Wr (MB/s)	Random Rd/Wr (IOPS)
					Vcc	VccQ		
IS27TH064G21	HS-G3x2	UFS2.1	64GB	-40°C~105°C	3.3V	1.8V	R800/W400	R40,000/W60,000
IS27TH128G21	HS-G3x2	UFS2.1	128GB	-40°C~105°C	3.3V	1.8V	R1100/W800	R85,000/W115,000
IS27TH256G21	HS-G3x2	UFS2.1	256GB	-40°C~105°C	3.3V	1.8V	R1100/W1000	R120,000/W165,000
IS27TH064G31	HS-G4x2	UFS3.1	64GB	-40°C~105°C	2.5V	1.2V	R800/W400	R40,000/W60,000
IS27TH128G31	HS-G4x2	UFS3.1	128GB	-40°C~105°C	2.5V	1.2V	R1500/W800	R85,000/W115,000
IS27TH256G31	HS-G4x2	UFS3.1	256GB	-40°C~105°C	2.5V	1.2V	R1650/W1100	R150,000/W190,000

For UFS sample requests and enquiries, please contact flash@issi.com