



SPI Flash:

A Complete Offering from 256Kb to 128Mb

IS25xxx Series of High Performance Multi-I/O Flash

ISSI's Industrial and Automotive grade series of Multi-I/O Flash memories feature the popular Serial Peripheral Interface (SPI). The IS25xxx family offers high performance, long term support, and reliability for all your mission critical applications.

The IS25xxx family is offered in 2.5/3V and 1.8V devices. The IS25LQ/WQ family supports SPI, Dual SPI, Quad SPI, Dual-I/O SPI, and Quad I/O SPI. These high performance parts support 104MHz, an equivalent 416MHz [52MBytes/sec], quadrupling standard SPI throughputs.

The latest family, IS25LPxxx, continues to build upon the success of the IS25LQ/WQ family by introducing leading edge features such as DTR (double transfer rate), SFDP, and the popular 2 cycle instruction input (QPI).

The IS25LPxxx family increases performance to 133MHz and offers a DTR option that supports 66MHz, providing an equivalent 532Mb/s [66MBytes/sec] of read throughput.

The inherent advantages of ISSI's Multi-I/O SPI Flash offers increased throughput to enable XIP operation and can offer improved boot time for code shadowing applications. The low pin count and industry standard packages enable seamless density migration and flexibility from 256Kbit to 256Mbit.

Applications:

- Instrument Clusters
- Infotainment consoles
- Smart TV STB
- HDD
- Printers
- Gaming
- Industrial Controls
- Medical Devices
- Military & Aerospace
- Wireless Access Points
- 4G LTE Base Stations
- Routers & Switches
- Home Networking
- Energy Smart Grid Management
- Automotive Control Systems
- Automotive Infotainment Telematics

► Multi-I/O QSPI Family: IS25LP/LQ/WQ

- Low Power Consumption
- Freq: 104MHz burst read single/dual/quad & Multi-IO [Up to 133MHz in LP family]
- Enhanced Protection Features
 - One Time Programmable Array [OTP]
 - Protection at all time [Software/Hardware protection]
- DTR Options Available [IS25LPxxx]
- Data Retention: Min 20 years after 100K cycles

► Automotive Certified

Automotive industry's rich innovation of Electronics such as infotainment, ADAS, navigation, digital console, speech recognition, advanced diagnostics and other emerging segments require automotive grade flash memory.

ISSI's serial flash products are now AEC-Q100 and TS16949 compliant.

► ISSI Flash Portfolio

Serial Flash [SPI]	256K	512K	1M	2M	4M	8M	16M	32M	64M	128M	256M	512M	1G
2.5/3V	■	■	■	■	■	■	■	■	■	■	■	■	■
1.8V		■	■	■	■	■	■	■	■	■	■	■	■
Parallel Flash [ISA]	512K	1M	4M	32M	64M	128M	256M	512M	1G				
3V Uniform Block	■	■	■	■ *1									
3V IS29GL-Series Page Mode					■ *1,*2	■ *2	■ *2	■	■				
1.8V IS29GL-Series Page Mode					■	■	■	■	■				
SLC NAND	1G	2G	4G	8G									
3V: x8 and x16 options	■ *3	■ *3	■ *3	■ *4									
1.8V: x8 and x16 options	■ *3	■ *3	■ *3	■ *4									

Industrial/Automotive Temperature, Long Term Support, Leaded/Lead Free

STATUS

■ Production

■ Roadmap

■ Under Consideration

*1 - Top/Bottom, *2 - High/Low, *3 - 1 or 4 bit ECC, *4 - 4bit ECC