



Long-Term Support
World Class Quality



SPI Flash (1.8/3V)

Complete Offering from 512Kb to 2Gb
Automotive Grade Flash Available up to 125°C

ISSI's latest generation of Quad SPI devices from the IS25LP [2.5/3V] and IS25WP/WJ [1.8V] series combine high performance, efficiency, and reliability for a wide range of applications. Densities ranging from 512Kb to 2Gb are available and support operating temperatures of up to 125°C. In addition, Automotive AEC-Q100 support is available.

These families of devices offer leading edge features such as double data rate* [DTR/DDR] interface modes, SFDP support, and the popular 2 cycle instruction input [QPI mode]. Read speeds have been increased to 166Mhz in Single/Dual/Quad I/O and 80 MHz in double data rate [DTR/DDR] modes, delivering up to 664Mb/s [equivalent 83MB/sec] of read throughput.

ISSI's SPI NOR Flash are ideal for a broad range of applications in areas such as Automotive, Industrial, Medical, Communications, Networking, Smart Meters, FPGA, Digital Cameras, Printers, Bluetooth, and IOT. The family is also ideal for code shadowing, execute in place [XIP], and data storage operations.

Industry Standard Serial Interface

- IS25LP[WP]02GG/Gj: 2Gb/256MB
- IS25LP[WP]01GG/Gj: 1Gb/128MB
- IS25LP[WP]512MG/Mj: 512Mb/64MB
- IS25LP[WP]256D: 256Mb/32MB
- IS25LP[WP/WJ]128F: 128Mb/16MB
- IS25LP[WP]064D/WJ064F: 64Mb/8MB
- IS25LP[WP]032D/WJ032F: 32Mb/4MB
- IS25LP[WP]016D: 16Mb/2MB
- IS25LP[WP]080D: 8Mb/1MB
- IS25LP040E/IS25WP040E: 4Mb/512KB
- IS25LP020E/IS25WP020E: 2Mb/256KB
- IS25LP010E: 1Mb/128KB
- IS25LP512E: 512Kb/64KB

*Double data rate [DTR/DDR] available on WP/LP family over 4Mbit densities.

Applications

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

High Performance Serial Flash [LP/WP/WJ Series]

- 80MHz Normal and up to 166Mhz Fast Read
- 664 MHz equivalent QPI SPI
- DTR [Dual Transfer Rate] up to 80MHz
- Selectable dummy cycles
- Configurable drive strength
- Supports SPI Modes 0 and 3
- More than 100,000 erase/program cycles
- More than 20-year data retention

Flexible & Efficient Memory Architecture

- Chip Erase: Uniform: Sector and Block Erase [4K/32K/64K-Byte]
- Program 1 to 256 bytes per page
- Program/Erase Suspend & Resume

Efficient Read and Program Modes

- Low Instruction Overhead Operations
- Continuous Read 8/16/32/64-Byte Wrap
- Selectable burst length
- QPI for reduced instruction overhead
- Allows XIP operations [execute in place]

Low Power with Wide Temp. Ranges

- Single Voltage Supply
- Low Standby Current
- Deep Power Down mode
- Temperature Grades:
 - Extended: -40°C to +105°C
 - Auto Grades: up to +125°C



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Advanced Security Protection

- Software and Hardware Write Protection
- Power Supply lock protect
- 4x256-Byte dedicated security area with user-lockable bits, [OTP] One Time Programmable Memory
- 128 bit Unique ID for each device [Call Factory]

Serial Flash Clock Rate & Data Throughput

SPI Protocols	256K	512K	1M	2M	4M	8M	16M	32M	64M	128M	256M	512M	1G	2G
Single I/O	104	104	104	104	104	104	104	133	166	166	166	166	166	166
	104	104	104	104	104	104	104	133	166	166	166	166	166	166
Dual I/O	208	208	208	208	208	208	208	266	332	332	332	332	332	332
	104	104	104	104	104	104	104	133	166	166	166	166	166	166
Dual I/O with Double Transfer Rate								264	320	320	320	320	320	320
								66	80	80	80	80	80	80
Quad I/O	416	416	416	416	416	416	416	532	664	664	664	664	664	664
	104	104	104	104	104	104	104	133	166	166	166	166	166	166
Quad I/O with Double Transfer Rate								528	640	640	640	640	640	640
								66	80	80	80	80	80	80

Throughput Unit: Mb/s

Clock Rate Unit: MHz

