

Low Power 1.8V Flash Available Now



SPI Flash (1.8/3V): Complete Offering from 256Kb to 256Mb Automotive Grade Flash Available up to 125°C

ISSI introduces its new Family of IS25LP (2.5/3V) and IS25WP (1.8V) series of flash devices. The family builds upon the success of ISSI's IS25LQ (2.5/3V) and IS25WQ (1.8V) family by introducing leading edge features such as double data rate (DTR/DDR) interface modes, SFDP support, and the popular 2 cycle instruction input (QPI mode).

The new product family offers read speeds up to 133MHz in Single/Dual/Quad I/O and 66 MHz in double data rate (DTR/DDR) modes, delivering up to 532Mb/s (equivalent 66MB/sec) of read throughput.

ISSI's SPI NOR Flash are ideal for a broad range of applications, 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.

The LP-series of 3V Flash is currently available in 32Mb, 64Mb, and 128Mb while the WP-series of 1.8V Flash is offered in densities starting at 2Mb through 128Mb. For lower densities, ISSI continues to offer 256Kb through 32Mbit in its IS25LQ(WQ) series.

ISSI 25LP(WP) FAMILY FEATURES

- **Industry Standard Serial Interface**
 - IS25LP(WP)128: 128M-bit/16M-byte
 - IS25LP(WP)064: 64M-bit/8M-byte
 - IS25LP(WP)032: 32M-bit/4M-byte
 - IS25WP016: 16M-bit/2M-byte
 - IS25WP080: 8M-bit/1M-byte
 - IS25WP040: 4M-bit/512K-byte
 - IS25WP020: 2M-bit/256K-byte
 - 256-bytes per Programmable Page
 - Supports standard SPI, Fast, Dual/Dual IO, Quad/Quad IO, QPI/QPI-DTR, Dual/Quad DTR
 - Supports Serial Flash Discoverable Parameters (SFDP)
- **High Performance Serial Flash (SPI)**
 - 50MHz Normal and 133MHz Fast Read
 - 532 MHz equivalent QPI SPI
 - DTR (Dual Transfer Rate) up to 66MHz
 - 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
 - Temp Grades:
 - Extended: -40°C to +105°C
 - Auto Grades: up to +125°C
- **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)

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

Serial Flash Clock Rate and Data Throughput

SPI Protocols	256K	512K	1M	2M	4M	8M	16M	32M	64M	128M
Single I/O	104	104	104	104	104	104	104	133	133	133
	104	104	104	104	104	104	104	133	133	133
Dual I/O	208	208	208	208	208	208	208	266	266	266
	104	104	104	104	104	104	104	133	133	133
Dual I/O with Double Transfer Rate								266	266	266
								66	66	66
Quad I/O	416	416	416	416	416	416	416	532	532	532
	104	104	104	104	104	104	104	133	133	133
Quad I/O with Double Transfer Rate								532	532	532
								66	66	66

Throughput Unit: Mb/s
Clock Rate Unit: MHz

*ISSI offers a complete portfolio of Flash, SRAM, DRAM, and Analog solutions. For KGD or WLSCP (Contact Factory)