



SPI Flash

A Complete Offering
from 256Kb to 256Mb

► Standard Features:

ISSI's full portfolio of Standard Grade and Automotive grade IS25LD/WD and IS25LQ/WQ serial flash multi-I/O memories feature the popular Serial Peripheral. The 25LD family offers highest performance & endurance of 200K cycles (best in the industry) and 20 years of data retention. The IS25LD/WD family supports Dual-SPI effectively doubling standard SPI clock rates. Whereas, the IS25 LQ/WQ family supports single, Dual-I/O and Quad-I/O for even higher performance. These parts can support up to 104MHz an equivalent of 416Mhz (50Mb/sec throughput) when using Quad mode.

The Serial Flash is widely used due to the inherent advantages it offers such as low pin count, small footprints, increased throughput that enables XIP operation and/or offer improved boot time for code shadowing applications. 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 AEC-Q100 and TS-grade compliant parts will be available in 2013.

► IS25LD/WD Family: *pFlash*® Technology (< 8Mb)

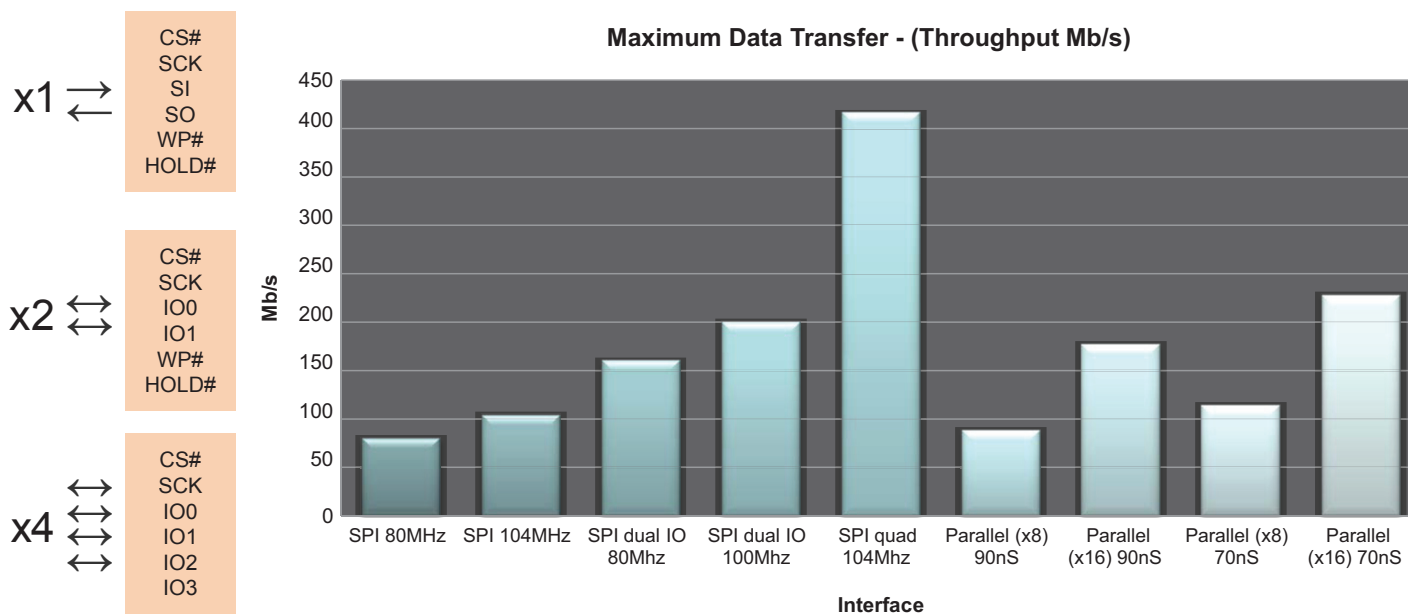
- **Data Retention:** Superior Endurance Min 20 yrs after 200K cycles (Best in the industry)
- **Temperature Range:** - 40°C ~ + 105°C
- **Frequency:** 80/100MHz burst read in single/dual IO
- **Low Power Consumption:**
(LD) 2.5V : 10mA read & 15mA erase/pgm current at 33MHz
10ms sector erase time
(WD) 1.8V : 2mA read & 106mA erase/pgm current at 30MHz
7ms sector erase time
- **Safeguard (OTP):** Protection at all time

► IS25LQ/WQ: *nFlash*® Technology (> 4Mb to 256Mb and growing)

- **Data Retention:** Min 20 years after 100k
- **Temperature Range:** - 40°C ~ + 125°C
- **Frequency:** 104 MHz burst read single/dual/quad IO and QPI
- **Low Power Consumption**
(LD) 2.5V : Max 10mA read & 15mA erase/pgm current at 33MHz
Max 0.7ms burst page program, 1~256B length
(WD) 1.8V : Max 10mA read & 15mA erase/pgm current at 33MHz
Max 0.7ms burst page program, 1~256B length
- **Safeguard (OTP):** Protection at all time

* ISSI offers a complete portfolio of SRAM, DRAM, and Analog solutions

NOR Based SPI Products are Available with x1, x2 and x4 Bus Widths



► Temperature Grade

- E= Extended grade (-40C to +105C)
- A1 = Automotive grade (-40C to +85C)
- A2 = Automotive grade (-40C to +105C)
- A3 = Automotive grade (-40C to +125C)
- KGD (Call Facotry)

► Applications:

- Medical
- Industrial Controls
- Energy Management
- Automotive Telematics
- ADAS
- Infotainment
- Rear Front Camera
- Telecommunications
- GPS
- Cluster
- Navigation