# LPC Firmware Flash/FirmwareHub

# **49 Series**

# **Product Brief**

October 2010

### **Product Description**

LPC Firmware Flash/Firmware Hub is a family of flash memories designed for system code and data storage. SST LPC (Low Pin Count) Flash and Firmware Hub Flash complies with the Intel LPC Interface specification supporting multi-byte Firmware Memory and single-byte LPC Memory cycle types. The low pin count interface allows ASIC host controllers to have more free pins resulting in lower overall system costs.

LPC Firmware Flash/Firmware Hub products are ideally suited for embedded systems and processor applications. Available in an array of package and density combinations, this family of devices also offers all of the benefits of SuperFlash® technology: high performance, low power and reliability.

### **Key Features**

### Intel Support

- Compliant with Intel Low Pin Count (LPC) Interface Specification 1.1
- Compatible with Intel 82802 Firmware Hub (FWH) component

### High Bandwidth

- Up to 33 MHz operating frequency - Parallel Programming (PP) for fast
- production programming
- Unique features for 16 Mbit devices
  - 128 byte burst programming
- Up to 15.6 MB/s data transfer rate
- Auto Address Increment (AAI)

### Protection/Security

- 256 bit secure ID space
- Boot block options
- Hardware write protection

### SuperFlash Technology

- Endurance, 100,000 cycles (typical)
- Greater than 100 years data retention
- Fast Sector Erase and Block Erase time: 25 ms (max)
- Low power

# Applications

- Embedded System Firmware
- Medical
- Industrial Control
- PC BIOS
- Communications Infrastructure
- Optical Drives
- Print Imaging
- Military Equipment

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# The 49 Series family enables BIOS and system code storage in applications such as embedded

PCs, industrial controls, gaming machines, interactive clients, infotainment and medical devices where high bandwidth and a low pin count are required.

| 49 Series: LPC/Firmware Hub Flash |         |          |                        |                       |                  |                           |
|-----------------------------------|---------|----------|------------------------|-----------------------|------------------|---------------------------|
| Device                            | Density | Voltage  | Access Frequency (MHz) | Operating Temperature | Operational Mode | Packages                  |
| SST49LF008A                       | 8 Mbit  | 3.0-3.6V | 33                     | 0°C to 85°C           | FWH/PP           | PLCC-32, TSOP-32, TSOP-40 |
| SST49LF080A                       | 8 Mbit  | 3.0-3.6V | 33                     | 0°C to 85°C           | LPC/PP           | PLCC-32, TSOP-32          |
| SST49LF016C                       | 16 Mbit | 3.0-3.6V | 33                     | 0°C to 85°C           | FWH/AAI          | PLCC-32, TSOP-32, TSOP-40 |
| SST49LF160C                       | 16 Mbit | 3.0-3.6V | 33                     | 0°C to 85°C           | LPC/AAI          | PLCC-32                   |

# Package Diagram PLCC-32 (NHE)



# Package Diagram TSOP-32 (WHE)



## Package Diagram TSOP-40 (EIE)



# Legacy-Free PC Systems





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