



## DataFlash®-L | Page Erase Serial Flash

Code and Data Storage Solutions  
for the Connected World

*Low-power, high-performance semiconductor technologies enabling designers to develop next generation solutions for consumer, communication, mobile and industrial applications*

As modern electronics evolve, the need for new low density, low energy data and code storage memory devices has emerged to meet the needs of mobile, wearable, and industrial applications in a connected world.

System designers manage their total energy budget by selecting the most energy efficient semiconductor devices available and employ careful design in their software and hardware.

Adesto® offers a complete portfolio of code and data storage memory solutions that help designers extend the battery life of devices in many applications. Applications include wireless and wired protocols such as Bluetooth low energy products, DECT ULE (Ultra Low Energy), ZigBee RF4CE, Z-Wave and other Wi-Fi and Wi-Fi Direct platforms.

### Applications:

**Digital images, digital voice, text, data and program code in industrial, computer, communications, security, medical and consumer electronics**

*DataFlash-L is low pin count, wide voltage range Ultra Low Power, feature rich, Page Erase sequential access memory. DataFlash-L enables energy efficient, lower cost systems through its advanced command rich interface and granular architecture. Its ultra-low energy consumption and advanced features reduce the CPU/MCU overheads, reduce the power signature and extend battery life.*

### DataFlash-L: Features and Benefits

- **Ultra low power operation extends system battery life — ultra deep power down operates at <400 nA**
- **Wide VCC 1.7V to 3.6V operating range allows the system memory to operate over the entire battery voltage range**
- **Efficient byte-write and internal page program and page erase commands reduce CPU overhead by offloading memory management tasks**
- **Comprehensive security and unique ID features to protect the device and prevent outside tampering**

| Density | Vcc Range | Speed (MHz) | Page Write | Erase Block     | Ultra-Deep Power Down | Byte Write Capability | Low Power Read | Dual SRAM Buffers | Unique UID Number |
|---------|-----------|-------------|------------|-----------------|-----------------------|-----------------------|----------------|-------------------|-------------------|
| 2-Mbit  | 1.65-3.6V | 85          | 256 Bytes  | 256B, 2KB, 64KB | ✓                     | ✓                     | ✓              |                   | ✓                 |
| 4-Mbit  | 1.65-3.6V | 85          | 256 Bytes  | 256B, 2KB, 64KB | ✓                     | ✓                     | ✓              | ✓                 | ✓                 |
| 8-Mbit  | 1.70-3.6V | 85          | 256 Bytes  | 256B, 2KB, 64KB | ✓                     | ✓                     | ✓              | ✓                 | ✓                 |
| 16-Mbit | 2.30-3.6V | 85          | 512 Bytes  | 512B, 4KB, 64KB | ✓                     | ✓                     | ✓              | ✓                 | ✓                 |

\* See product datasheets for complete operating parameters.

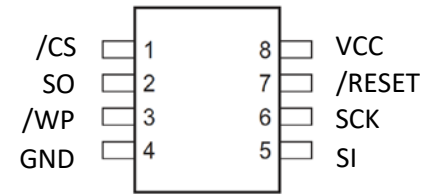
## AT25PExxx Family

- ✓ Micron M25PE Compatible
- ✓ Provides Page Erase
- ✓ Provides Read-Modify-Write
- ✓ Longevity Support
- ✓ DataFlash Based Architecture
- ✓ High Performance Low Power

## Signal AT25PE

|                    |               |
|--------------------|---------------|
| Serial Data Input  | SI            |
| Serial Data Output | SO            |
| Serial Clock       | SCK           |
| Reset              | /RESET        |
| Hold               | Not Available |
| Chip Select        | /CS           |
| Write Protect      | /WP           |
| VCC                | VCC           |
| GND                | GND           |

## Pinout



SOIC 150Mil Narrow SOIC

SOIC 208Mil Wide SOIC

DFN5x6mm Leadless Array Package

| Part Number        | Density | Package     | VCC Range | Page Size | Temp Range | Delivery Options     |
|--------------------|---------|-------------|-----------|-----------|------------|----------------------|
| AT25PE20-SSH-N-B/T | 2Mbit   | SOIC 150mil | 1.7V-3.6V | 256 Bytes | -40°C+85°C | -T (T&R) / -B (Tube) |
| AT25PE20-SHN-B/T   |         | SOIC 208Mil |           |           |            | -T (T&R) / -Y (Tray) |
| AT25PE20-MHN-Y/T   |         | DFN5x6mm    |           |           |            |                      |
| AT25PE40-SSH-N-B/T | 4Mbit   | SOIC 150mil | 1.7V-3.6V | 256 Bytes | -40°C+85°C | -T (T&R) / -B (Tube) |
| AT25PE40-SHN-B/T   |         | SOIC 208Mil |           |           |            | -T (T&R) / -Y (Tray) |
| AT25PE40-MHN-Y/T   |         | DFN5x6mm    |           |           |            |                      |
| AT25PE80-SSH-N-B/T | 8Mbit   | SOIC 150mil | 1.7V-3.6V | 256 Bytes | -40°C+85°C | -T (T&R) / -B (Tube) |
| AT25PE80-SHN-B/T   |         | SOIC 208Mil |           |           |            | -T (T&R) / -Y (Tray) |
| AT25PE80-MHN-Y/T   |         | DFN5x6mm    |           |           |            |                      |
| AT25PE16-SSH-F-B/T | 16Mbit  | SOIC 150mil | 2.3V-3.6V | 512 Bytes | -40°C+85°C | -T (T&R) / -B (Tube) |
| AT25PE16-SHF-B/T   |         | SOIC 208Mil |           |           |            | -T (T&R) / -Y (Tray) |
| AT25PE16-MHF-Y/T   |         | DFN5x6mm    |           |           |            |                      |



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