# Migration from EN25P32 to EN25F32

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|---|---|
| **Part No. :** | **EN25F32** |
| **Issued date :** | **2008 / 12/ 18** |
| **Prepared by :** | **FAE engineer: Dragon Chiang** |
| **Approval by :** | **FAE Manager: Jason Tseng** |

# 1. Purpose

EN25P32 will EOL and be replaced by EN25F32 which can offer uniform 4Kbytes sector and allow for greater flexibility in applications. This note highlights the difference between those two devices. And it helps customers to migrate into new device.

# 2. Difference

When customers want to replace EN25P32 with EN25F32, the difference of device ID needs to take care only. Other items in the list below are the additional features of EN25F32 compared with EN25P32.

- **Manufacturer and Device Identification**

**EN25F32：**

| OP Code | (M7-M0) | (ID15-ID0) | (ID7-ID0) |
|---|---|---|---|
| ABh | | | 15h |
| 90h | 1Ch | | 15h |
| 9Fh | 1Ch | 3116h | |

**EN25P32：**

| OP Code | (M7-M0) | (ID15-ID0) | (ID7-ID0) |
|---|---|---|---|
| ABh | | | 15h |
| 90h | 1Ch | | 15h |
| 9Fh | 1Ch | 2016h | |

- **Protected Area Sizes Sector Organization**

**EN25F32：**

| Status Register Content | | | Memory Content | | | |
|---|---|---|---|---|---|---|
| BP2 Bit | BP1 Bit | BP0 Bit | Protect Blocks | Addresses | Density(KB) | Portion |
| 1 | 1 | 1 | All | 000000h-3FFFFFh | 4096KB | All |
| 1 | 1 | 0 | RFU | RFU | RFU | RFU |
| 1 | 0 | 1 | | | | |
| 1 | 0 | 0 | | | | |
| 0 | 1 | 1 | | | | |
| 0 | 1 | 0 | | | | |
| 0 | 0 | 1 | | | | |
| 0 | 0 | 0 | None | None | None | None |

**EN25P32：**

**Protected Area Sizes Sector Organization**

| Status Register Content | | | Memory Content | | | |
|---|---|---|---|---|---|---|
| BP2 Bit | BP1 Bit | BP0 Bit | Protect Sectors | Addresses | Density(KB) | Portion |
| 1 | 1 | 1 | All | 000000h-3FFFFFh | 4096KB | All |
| 1 | 1 | 0 | Sector 32 to 63 | 200000h-3FFFFFh | 2048KB | Upper 1/2 |
| 1 | 0 | 1 | Sector 48 to 63 | 300000h-3FFFFFh | 1024KB | Upper 1/4 |
| 1 | 0 | 0 | Sector 56 to 63 | 380000h-3FFFFFh | 512KB | Upper 1/8 |
| 0 | 1 | 1 | Sector 60 to 63 | 3C0000h-3FFFFFh | 256KB | Upper 1/16 |
| 0 | 1 | 0 | Sector 62 to 63 | 3E0000h-3FFFFFh | 128KB | Upper 1/32 |
| 0 | 0 | 1 | Sector 63 | 3F0000h-3FFFFFh | 64KB | Upper 1/64 |
| 0 | 0 | 0 | None | None | None | None |

- **High Performance**
  EN25F32---100MHz clock rate
  EN25P32---100MHz clock rate

- **Block Sector Architecture**
  EN25F32：Small uniform sector Architecture
  - 1024 sectors of 4KB
  - 64 blocks of 64KB
  - Any sector or block can be erased individually

  EN25P32：Uniform sector Architecture
  - 64 sectors of 64KB
  - Any sector can be erased individually

- **Erasable**
  EN25F32--- Sector, Block or Chip erasable
  EN25P32--- Sector or Chip erasable

- **Support Lockable 512 byte OTP security sector**
  EN25F32---Yes
  EN25P32---No

- **Instruction Set Comparison**

**EN25F32：**

| Instruction Name | Byte 1 Code | Byte 2 | Byte 3 | Byte 4 | Byte 5 | Byte 6 | n-Bytes |
|---|---|---|---|---|---|---|---|
| Sector Erase | 20h | A23-A16 | A15-A8 | A7-A0 | | | |
| Block Erase | D8h/ 52h | A23-A16 | A15-A8 | A7-A0 | | | |
| Chip Erase | C7h/ 60h | | | | | | |
| Enter OTP mode | 3Ah | | | | | | |

**EN25P32：**

| Instruction Name | Byte 1 Code | Byte 2 | Byte 3 | Byte 4 | Byte 5 | Byte 6 | n-Bytes |
|---|---|---|---|---|---|---|---|
| Sector Erase | D8h | A23-A16 | A15-A8 | A7-A0 | | | |
| Bulk Erase | C7h | | | | | | |

## Revisions History

| Revision No | Description | Date |
|---|---|---|
| A | Initial Release. | 2008/12/18 |