
Migrating from AT25Fxxxx to AT25FSxxx Serial Flash

Atmel® has developed the next generation of Serial Flash Products and below is a list of some advantages and considerations to be aware of between the two device families.

Benefits of New AT25FSxxx Small Sector Flash Devices

1. Operating speed has been increased from 33 MHz to 50 MHz
2. Small 4K byte sector sizes increases speed and flexibility for re-programming
3. Increased data security options for data protection
4. Software op-code compatible with other industry manufacturer devices

Operational Differences

1. The AT25FSxxx Read Identification (RDID) command sequence changed to the 3-byte JEDEC identification standard. The JEDEC assigned Atmel I.D. is 1Fh and is followed by two additional bytes of product information for memory type and memory capacity. The previous flash device AT25Fxxxx RDID was a 2 byte sequence.
2. The CHIP ERASE op-code command has changed to either 60h or D8h for the AT25FSxxx from the previous 62h of the AT25Fxxx series. This change was made to support compatibility with other major industry manufacturers.
3. The BLOCK ERASE op-code command for the AT25FSxxx devices has replaced the AT25Fxxxx SECTOR ERASE command and performs the same function with the same op-code 52h. Additionally the op-code D8h can be used for this command on the AT25FSxxx which is compatible with other industry manufacturers.
4. The AT25FSxxx SECTOR ERASE command 20h or D7h has been added to allow for small sector erase capabilities. Not used for the AT25Fxxxx devices.
5. The FAST READ command 0Bh has been added to be compatible with other industry manufacturers. Not used on the AT25Fxxxx devices.
6. The AT25FSxxx uses a 50MHz timing set for AC specifications. The AT25Fxxxx uses a 33MHz timing set for AC specification.



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AT25FSxxx





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