ACEH25D128G

128M-Bit Serial Flash Memory

Description

The ACEH25D128G is a 128M-bit (16,384K-byte) Serial Flash memory, operating in wide voltage range. The ACEH25D128G supports the standard Serial Peripheral Interface (SPI), Dual/Quad I/O as well as 2-clock instruction cycle Quad Peripheral Interface (QPI).

The ACEH25D128G can be programmed 1 to 256 bytes at a time, using the Page Program instruction. It is designed to allow either single Sector/Block at a time or full chip erase operation. The ACEH25D128G can be configured to protect part of the memory as the software protected mode. The device can sustain a minimum of 100K program/erase cycles on each sector or block.

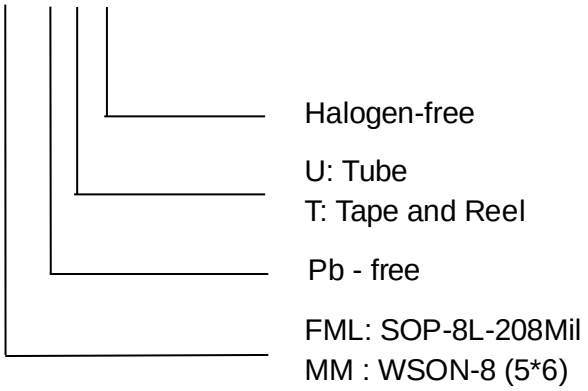
Features

- 128Mbit of Flash memory
  - 4096 uniform sectors with 4K-byte each
  - 256 uniform blocks with 64K-byte each or
  - 512 uniform blocks with 32K-byte each
  - 256 bytes per programmable page
- Serial Interface
  - Standard SPI: CLK, CS#, DI, DO, WP#
  - Dual SPI: CLK, CS#, DQ0, DQ1, WP#
  - Quad SPI: CLK, CS#, DQ0, DQ1, DQ2, DQ3
  - QPI: CLK, CS#, DQ0, DQ1, DQ2, DQ3
  - Continuous READ mode support
  - Program / Erase Suspend and Resume support
  - Allow true XIP (execute in place) operation
- High Performance
  - Max FAST_READ clock frequency: 100MHz
  - Max READ clock frequency: 50MHz
  - Typical page program time: 0.7ms
  - Typical sector erase time: 45ms
  - Typical block erase time: 200/250ms
  - Typical chip erase time: 50s
- Supply Voltage: 2.3V to 3.6V
- Industrial Temperature Rage
- Flexible Architecture with 4KB Sectors
  - Uniform Sector Erase (4K-bytes)
  - Uniform Block Erase (32K and 64K-bytes)
  - Program 1 to 256 bytes per programmable page
  - Erase/Program Suspend & Resume

- Advanced Security Features
  - Software and hardware write protection
  - Top/Bottom, 4KB complement array protection
  - Power Supply Lock-Down and OTP protection
  - Individual Block/Sector array protection
  - Lockable 4X256-Byte OTP Security Register
  - Discoverable Parameters (SFDP) Register
  - 64-Bit Unique ID for each device
  - Volatile & Non-volatile Status Register Bits
- Green Package
  - SOP-8L-208Mil
  - WSON-8 (5*6)
  - All Packages are RoHS Compliant and Halogen-free

Ordering Information

ACEH25D128G XXX + X H



Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.