ACE25QC800H

8M BIT SPI NOR FLASH

Description

The ACE25QC800H is 8M-bit Serial Peripheral Interface (SPI) Flash memory and supports the Dual/Quad SPI: Serial Clock, Chip Select, Serial Data I/O0 (SI), I/O1 (SO), I/O2 (/WP), and I/O3 (/HOLD). The device uses a single low voltage power supply, ranging from 2.7 Volt to 3.6 Volt. The Dual I/O data is transferred with speed of 216Mbits/s and the Quad I/O & Quad output data is transferred with speed of 432Mbits/s. Additionally, the device supports JEDEC standard manufacturer and device ID and three 1024bytes Security Registers.

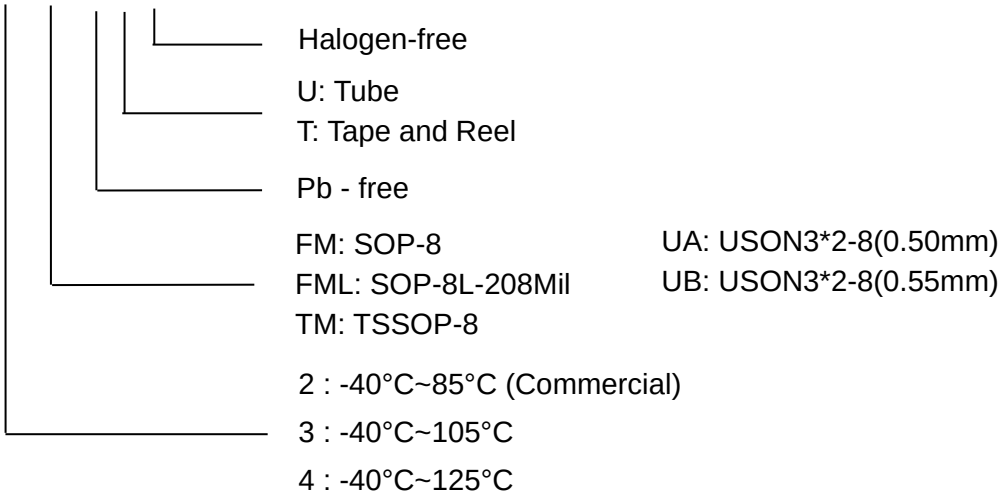
Features

- Serial Peripheral Interface
  Standard SPI: SCLK, /CS, SI, SO, /WP, /HOLD
  Dual SPI: SCLK, /CS, IO0, IO1, /WP, /HOLD
  Quad SPI: SCLK, /CS, IO0, IO1, IO2, IO3
- Single Supply Voltage: Full voltage range: 2.7~3.6V
- Temperature Range
  Commercial (-40℃ to 85℃)
  Industrial (-40℃ to 105℃)
  Industrial (-40℃ to 125℃)
- Flexible Architecture
  Sector of 4K-byte
  Block of 32/64K-byte
- Read
  Normal Read (Serial): 108MHz clock rate
  Fast Read (Serial): 120MHz clock rate with 30PF load
  Dual I/O data transfer up to 240Mbits/S
  Quad I/O data transfer up to 480Mbits/S
  Allows XIP (execute in place) Operation: Continuous Read with 8/16/32/64-byte Wrap
- Program
  Serial-input Page Program up to 256bytes
  Program Suspend and Resume
- Erase
  Block Erase (64/32 KB)
  Sector Erase (4 KB)
  Chip Erase
  Erase Suspend and Resume

- Program/Erase Speed
  Page Program time: 0.4ms typical
  Sector Erase time: 15ms typical
  Block Erase time: 0.08/0.15s typical
  Chip Erase time: 3s typical
- Cycling Endurance/Data Retention
  Typical 100k Program-Erase cycles on any sector
  Typical 20-year data retention
- Low Power Consumption
  10mA maximum active current
  5uA maximum power down current
- Software/Hardware Write Protection
  3x1024-Byte Security Registers with OTP Locks
  Discoverable Parameters (SFDP) register
  Enable/Disable protection with WP Pin
  Write protect all/portion of memory via software
  Top or Bottom, Sector or Block selection

Ordering Information

ACE25QC800H X 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.