ACE24AC128B

Two-wire Serial EEPROM

Description

The ACE24AC128B series are 131,072 bits of serial Electrical Erasable and Programmable Read Only Memory, commonly known as EEPROM. They are organized as 16,384 words of 8 bits (one byte) each. They offer an additional page (Identification Page) of 64 bytes. They also provide the Write Device Address instruction for users to implement configurable device address features. The devices are fabricated with proprietary advanced CMOS process for low power and low voltage applications. The device features programmable software write protection which provides partial as well as full memory array protection. These devices are available in thin 4-ball CSP package. A standard 2-wire serial interface is used to address all read and write functions. Our extended VCC range (1.7V to 5.5V) devices enable wide spectrum of applications.

Features

- Low voltage and low power operations:
  ACE24AC128B: VCC = 1.7V to 5.5V
- Maximum Standby current < 1μA (typically 0.02μA and 0.06μA @ 1.7V and 5.5V respectively).
- 64 bytes page write mode.
- Partial page write operation allowed.
- Internally organized: 16,384 × 8 (128K).
- Addition identification page.
- Configurable device address.
- Programmable Software Write protect:
  Upper quarter memory array
  Upper half memory array
  Upper 3/4 memory array
  Whole memory array
- Standard 2-wire bi-directional serial interface.
- Schmitt trigger, filtered inputs for noise protection.
- Self-timed Write Cycle (5ms maximum).
- 1000 kHz (2.5V~5V), 400 kHz (1.7V) Compatibility.
- Automatic erase before write operation.
- High reliability: typically, 1,000,000 cycles endurance.
- 100 years data retention.
- Industrial temperature range (-40℃ to 85℃).
- Standard CSP Pb-free package.

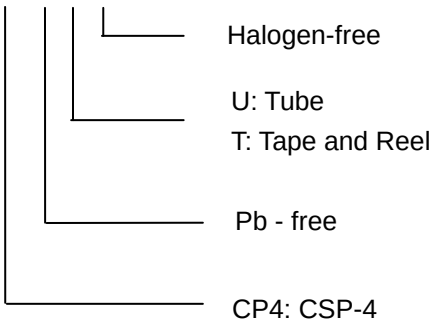
Absolute Maximum Ratings

Industrial operating temperature:	-40℃ to 85℃
Storage temperature:	-50℃ to 125℃
Input voltage on any pin relative to ground:	-0.3V to VCC + 0.3V
Maximum voltage:	8V
ESD Protection on all pins:	>600V

Notice: Stresses exceed those listed under “Absolute Maximum Rating” may cause permanent damage to the device. Functional operation of the device at conditions beyond those listed in the specification is not guaranteed. Prolonged exposure to extreme conditions may affect device reliability or functionality.

Ordering information

ACE24AC128BXX+ 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.