



# ACE24LA128A

## Two-wire Serial EEPROM

### Description

The ACE24LA128A provides 131,072 bits of serial electrically erasable and programmable read-only memory (EEPROM), organized as 16,384 words of 8 bits each. The device is optimized for use in many industrial and commercial applications where low-power and low-voltage operation are essential. The ACE24LA128A is available in space-saving 8-lead PDIP, 8-lead SOP, and 8-lead TSSOP packages and is accessed via a two-wire serial interface. In addition, the ACE24LA128A is available in 1.7V (1.7V to 5.5V) version.

### Features

- Compatible with all I2C bidirectional data transfer protocol
- Memory array:
  - 128 Kbits (16 Kbytes) of EEPROM
  - Page size: 64 bytes
  - Additional Write lockable page
- Single supply voltage and high speed: 1 MHz
- Random and sequential Read modes
- Write:
  - Byte Write within 3 ms
  - Page Write within 3 ms
- High-reliability
  - Endurance: 1 Million Write Cycles
  - Data Retention: 100 Years
- Two-wire Serial Interface
- Schmitt Trigger, Filtered Inputs for Noise Suppression
- Bidirectional Data Transfer Protocol
- Write Protect Pin for Hardware Data Protection
- Partial Page Writes Allowed
- Self-timed Write Cycle (5 ms max)
- 8-lead DIP/SOP/TSSOP and USON3\*2-8 packages

### Absolute Maximum Ratings

DC Supply Voltage	-0.3V to 6.5V
Input / Output Voltage	GND-0.3V to $V_{CC}+0.3V$
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
Electrostatic pulse (Human Body model)	8000V

Notice: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to this device. These are stress ratings only. Functional operation of this device at these or any other conditions above those indicated in the operational sections of this specification is not implied or intended. Exposure to the absolute maximum rating conditions for extended periods may affect device reliability.

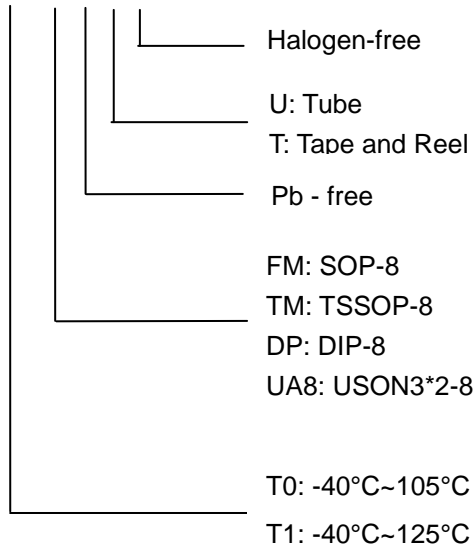


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### Ordering information

ACE24LA128A XX XX+ X H





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### 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 whose 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.