

Product Overview

CAT24C16: EEPROM Serial 16-Kb I²C

For complete documentation, see the data sheet.

The CAT24C16 is a EEPROM Serial 16-Kb I²C device organized internally as 128 pages of 16 bytes each. This device support both the Standard (100 kHz) as well as Fast (400 kHz) I²C protocol. Data is written by providing a starting address, then loading 1 to 16 contiguous bytes into a Page Write Buffer, and then writing all data to non-volatile memory in one internal write cycle. Data is read by providing a starting address and then shifting out data serially while automatically incrementing the internal address count. External address pins make it possible to address up to one CAT24C16 devices on the same bus.

Features

- Supports Standard and Fast I²C Protocol
- 1.7 V to 5.5 V Supply Voltage Range
- 16-Byte Page Write Buffer
- Hardware Write Protection for Entire Memory
- Schmitt Triggers and Noise Suppression Filters on I²C Bus Inputs (SCL and SDA)
- Low Power CMOS Technology
- More than 1,000,000 Program/Erase Cycles
- 100 Year Data Retention
- Industrial Temperature Range
- 8-lead SOIC and TSSOP, WLCS P 4 and 5-ball, 8-pad UDFN and 5-lead TSOT-23 packages

For more features, see the data sheet

Applications

- Alarm Systems
- Audio Players
- Automotive Systems
- Cable Modems
- CDRW

Part Electrical Specifications

| Product | Compliance | Status | Type | Density | Organization | Data Transmission Standard | f _{cycle} Max (kHz) | t _{ACC} Max ns | V _{CC} Min (V) | V _{CC} Max (V) | I _{standby} Max (μA) | I _{act} Max (mA) | T Min (°C) | T Max (°C) | Package Type |
|------------------|-------------|--------|--------|---------|--------------|----------------------------|------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|---------------------------|------------|------------|--------------|
| CAT24C16C4ATR | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | WLCS P-4 |
| | Halide free | | | | | | | | | | | | | | |
| CAT24C16C5ATR | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | WLCS P-5 |
| | Halide free | | | | | | | | | | | | | | |
| CAT24C16HU4I-GT3 | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | UDFN-8 |
| | Halide free | | | | | | | | | | | | | | |
| CAT24C16TDI-GT3 | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | TSOT-23-5 |
| | Halide free | | | | | | | | | | | | | | |
| CAT24C16WI-GT3 | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | SOIC-8 |
| | Halide free | | | | | | | | | | | | | | |
| CAT24C16YI-GT3 | Pb-free | Active | Serial | 16 kb | 2k x 8 | I ² C | 400 | 900 | 1.7 | 5.5 | 1 | 1 | -40 | 85 | TSSOP-8 |
| | Halide free | | | | | | | | | | | | | | |

For more information please contact your local sales support at www.onsemi.com.

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