

Product Overview

CAT24C512: EEPROM Serial 512-Kb I²C

For complete documentation, see the data sheet.

The CAT24C512 is a EEPROM Serial 512-Kb I²C, internally organized as 65,536 words of 8 bits each. It features a 128-byte page write buffer and supports the Standard (100 kHz), Fast (400 kHz) and Fast-Plus (1 MHz) I²C protocol. Write operations can be inhibited by taking the WP pin High (this protects the entire memory). External address pins make it possible to address up to eight CAT24C512 devices on the same bus. On-Chip ECC (Error Correction Code) makes the device suitable for high reliability applications.

Features

- Supports Standard, Fast and Fast-Plus I²C Protocol
- 1.8 V to 5.5 V Supply Voltage Range
- 8-lead SOIC and TSSOP and 8-pad UDFN packages
- 128-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
- 1,000,000 Program/Erase Cycles
- 100 Year Data Retention
- Industrial Temperature Range

For more features, see the data sheet

Benefits

- Simple interface protocol / industry standard; 1 MHz clock enables faster operation.
- Single power supply from 1.8 V to 5.5 V: allows multiple applications / various V_{CC} values using the same device.
- Space-Efficient Packaging

Part Electrical Specifications

Product	Pricing (\$/Unit)	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
CAT24C512HU5IGT3	0.8893	Pb-free Halide free non AEC-Q and PPAP	Active	Serial	512 kb	64k x 8	I ² C	1000	400	1.8	5.5	2	1	-40	85	UDFN-8
CAT24C512WI-GT3	0.4133	Pb-free Halide free non AEC-Q and PPAP	Active	Serial	512 kb	64k x 8	I ² C	1000	400	1.8	5.5	2	1	-40	85	SOIC-8
CAT24C512XI-T2	0.76	Pb-free Halide free non AEC-Q and PPAP	Active	Serial	512 kb	64k x 8	I ² C	1000	400	1.8	5.5	2	1	-40	85	SOIC-8
CAT24C512YI-GT3	0.4133	Pb-free Halide free non AEC-Q and PPAP	Active	Serial	512 kb	64k x 8	I ² C	1000	400	1.8	5.5	2	1	-40	85	TSSOP-8

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

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