

## Product Overview

### CAT24C512: EEPROM Serial 512-Kb I<sup>2</sup>C

For complete documentation, see the data sheet.

The CAT24C512 is a EEPROM Serial 512-Kb I<sup>2</sup>C, 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) I<sup>2</sup>C 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 I<sup>2</sup>C Protocol
- 1.8 V to 5.5 V Supply Voltage Range
- 8-pin PDIP, SOIC, TSSOP, MSOP and 8-pad UDFN Packages
- 128-Byte Page Write Buffer
- Hardware Write Protection for Entire Memory
- Schmitt Triggers and Noise Suppression Filters on I<sup>2</sup>C Bus Inputs (SCL and SDA)
- Low Power CMOS Technology
- 1,000,000 Program/Erase Cycles
- 100 Year Data Retention
- Industrial and Extended 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 VCC values using the same device.
- Space-Efficient Packaging

### Part Electrical Specifications

Product	Compliance	Status	Type	Density	Organization	Data Transmission Standard	f <sub>cycle</sub> Max (kHz)	t <sub>acc</sub> Max ns	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	I <sub>standby</sub> Max (μA)	I <sub>act</sub> Max (mA)	T Min (°C)	T Max (°C)	Package Type
CAT24C512HU5EGT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	400	900	2.5	5.5	5	1	-40	125	UDFN-8
CAT24C512HU5IGT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	1000	400	1.8	5.5	2	1	-40	85	UDFN-8
CAT24C512WE-GT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	400	900	2.5	5.5	5	1	-40	125	SOIC-8
CAT24C512WI-GT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	1000	400	1.8	5.5	2	1	-40	85	SOIC-8
CAT24C512XE-T2	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	400	900	2.5	5.5	5	1	-40	125	SOIC-8
CAT24C512XI-T2	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	1000	400	1.8	5.5	2	1	-40	85	SOIC-8
CAT24C512YE-GT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	400	900	2.5	5.5	5	1	-40	125	TSSOP-8
CAT24C512YI-GT3	Pb-free Halide free	Active	Serial	512 kb	64k x 8	I2C	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](http://www.onsemi.com).

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