# Product Overview

## CAT93C86: 16 Kb Microwire Serial EEPROM Memory

**For complete documentation, see the data sheet**

## Product Description

The CAT93C86 is a 16 Kb Serial EEPROM memory device which is configured as either registers of 16 bits (ORG pin at $V_{CC}$) or 8 bits (ORG pin at GND). Each register can be written (or read) serially by using the DI (or DO) pin. The CAT93C86 features a self-timed internal write with auto-clear. On-chip Power-On Reset circuit protects the internal logic against powering up in the wrong state.

## Features

- High Speed Operation: 4 MHz (5 V), 2 MHz (1.8 V)
- 1.8 V (1.65 V) to 5.5 V Supply Voltage Range
- Selectable x8 or x16 Memory Organization
- Self-timed Write Cycle with Auto-clear
- Sequential Read
- Hardware and Software Write Protection
- Power-up Inadvertent Write Protection
- Low Power CMOS Technology
- Program Enable (PE) Pin
- 1,000,000 Program/Erase Cycles

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAT93C86HU4E-GT3 | Pb-free<br>Halide free | ProductPreview | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 125 | UDFN-8 |
| CAT93C86HU4I-GT3 | Pb-free<br>Halide free | ProductPreview | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | UDFN-8 |
| CAT93C86LI-G | Pb-free<br>Halide free | Active | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | PDIP-8 |
| CAT93C86VE-GT3 | Pb-free<br>Halide free | ProductPreview | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 125 | SOIC-8 |
| CAT93C86VI-G | Pb-free<br>Halide free | Active | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | SOIC-8 |
| CAT93C86VI-GT3 | Pb-free<br>Halide free | Active | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | SOIC-8 |
| CAT93C86YI-G | Pb-free<br>Halide free | ProductPreview | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | TSSOP-8 |
| CAT93C86YI-GT3 | Pb-free<br>Halide free | ProductPreview | Serial | 16 kb | 2k x 8 | Micro Wire | 2000 | 150 | 1.8 | 5.5 | 10 | 3 | -40 | 85 | TSSOP-8 |

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

**Created on: 6/13/2013**