

## Product Overview

### LC898123F40XC: Optical Image Stabilization (OIS) / Auto Focus (AF) Controller & Driver with 40 KB Flash Memory

For complete documentation, see the data sheet.

LC898123F40XC is a system solution integrating an ultra-low-power 32-bit DSP, Flash Memory, and analog peripherals for OIS (Optical Image Stabilization) /AF (Auto Focus) control, H-bridge, and linear drivers. Available in a tiny 3.22 mm x 2.30 mm chip-scale package, this device's 40 KB Flash memory enables high level commands and user data for greater system flexibility.

#### Features

- Flash Memory 40 kByte Flash memory to store data and DSP program
  - Hall AD converter 14-bit Input 4 ch
  - Onchip 32-bit DSP Built-in software digital servo filter Built-in software Gyro filter
  - DA converter for Hall Offset setting : 3-bit / 3 ch
  - DA converter for Hall Bias : 8-bit / Output 3 ch
  - Built-in Serial I/F circuit (2-wire Bus with clock stretch function) [1 MHz]
  - Built-in Hall Amp (Gain of Op-amp : x5, x10, x13, x20, x40, x60)
  - Built-in OSC (Oscillator) : typ 41 MHz
  - Built-in LDO (Low Drop-Out regulator)
  - Digital Gyro I/F for various types of gyro (SPI Bus)
- For more features, see the data sheet

#### Benefits

- The Onchip 40 kByte Flash allows to store the calibration data and DSP program. No external NVM is necessary for this.
- Lowest power consumption (17 mA)

#### Applications

- Optical Image Stabilization (OIS) / Auto Focus (AF) Camera Modules

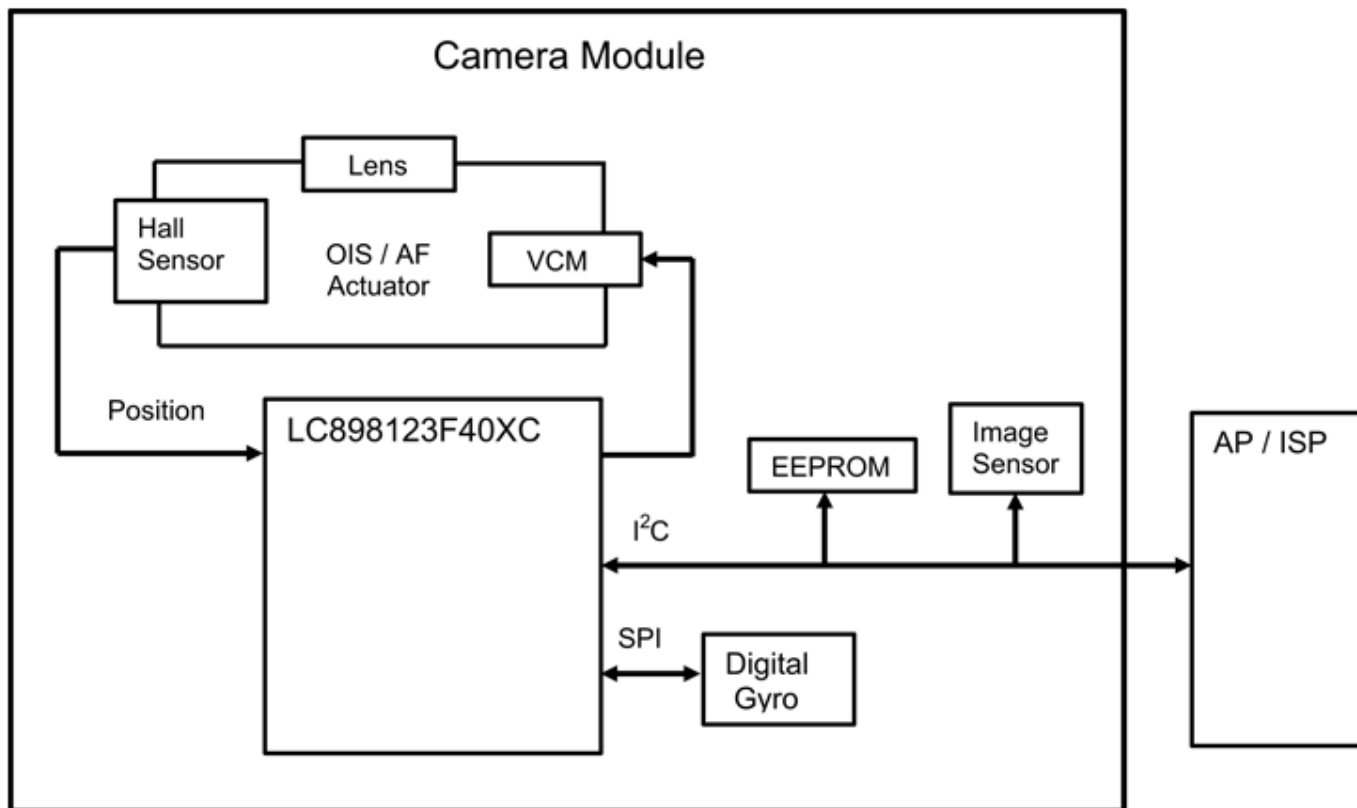
#### End Products

- Smart Phone
- Tablet
- DSC
- DSLR

### Part Electrical Specifications

Product	Compliance	Status	Phase	V <sub>M</sub> Min (V)	V <sub>M</sub> Max (V)	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	I <sub>O</sub> Max (A)	I <sub>O</sub> Peak Max (A)	Control Type	Package Type
LC898123F40XC-VH	Pb-free Halide free	Active		1.75/2.6	3.3	2.6	3.3	0.210/0.1575	0.2/0.15	SPI	WLCSP-35

# Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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