

## Product Overview

### LC898124EP3XC: Optical Image Stabilization (OIS) / Open-Auto Focus (AF) Controller & Driver integrating an on-chip 32-bit DSP

For complete documentation, see the data sheet.

LC898124EP3XC is a system LSI integrating an onchip 32-bit DSP, an EEPROM and peripherals including analog circuits for OIS (Optical Image Stabilization) / Open- AF (Auto Focus) control and constant current drivers.

#### Features

- On-chip 32-bit DSP
  - Built-in software for digital servo filter
  - Built-in software for Gyro filter
- Memory
  - EEPROM
  - ROM
  - SRAM
- Package
  - WLCSP27 (3.89 mm x 1.30 mm), thickness Max. 0.33 mm, with back coat
  - Pb-Free and Halogen Free compliance
- Peripherals
  - AD converter : Input 4-ch
  - DA converter : Output 2-ch
  - 2-wire Serial I/F circuit (with clock stretch function)
  - Hall Bias circuit x2-ch
  - Hall Amp x2-ch
  - OSC (Oscillator)
  - LDO (Low Drop-Out regulator)
  - Digital Gyro I/F for various types of gyro (SPI Bus)
  - Interrupt I/F
- Driver
  - OIS : Constant current linear driver (x2-ch, Ifull = 200 mA)
  - OP-AF (bidirection) : Constant current linear driver (x1-ch, Ifull = 130 mA)
- Power Supply Voltage
  - AD / DA / VGA / LDO / OSC : AVDD30 = 2.6 V to 3.3 V
  - Driver : VM = 1.8 V to 3.3 V
  - 1.8 V I/O : IOVDD = 1.7 V to 3.3 V
  - Core Logic : Generated by on-chip LDO DVDD15 = typ. 1.59 V

#### Benefits

- The onchip DSP allows the OIS algorithm to be flexible and achieve the high OIS performance. Command decoder can be implemented, which is demanded mainly by China customers.
- The Onchip EEPROM allows to store the calibration data and DSP program.
- Small chip size (1.3 x3.89 x0.33 mm)

#### Applications

- OIS / AF Camera Module

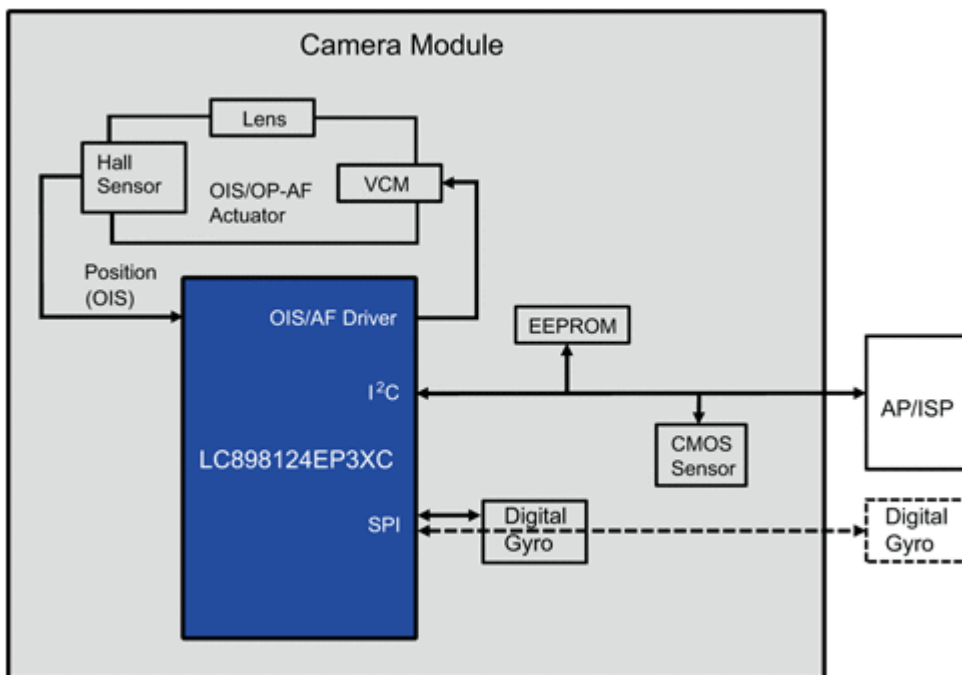
#### End Products

- Smart Phones
- Tablets

#### 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
LC898124EP3XC-MH	Pb-free Halide free	Active		1.8	3.3	2.6/1.7	3.3	0.21/0.136 5		Serial	WLCSP-27

## Application Diagram



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

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