# LC898212XC

# CMOS LSI AF Controller



#### **Overview**

This LSI is AF control LSI. It consists of 1 system of feed back circuit for AF control.

#### Features

- Built-in equalizer circuit using digital operation
  - AF control equalize circuit
  - Any coefficient can be specified by  $I^2 C \ I/F$
- I<sup>2</sup>C Interface
- Built-in A/D converter
  - Maximum 10-bit
  - Input 2 channel
- Built-in D/A converter
  - 8-bit
  - Output 2-channel (Hall offset, Constant current Bias)
- Built-in OP Amp
  - 1 channel
  - Hall Amp
- Built-in OSC
  - 48MHz (Frequency adjustment function)
- Built-in PWM pulse generator circuit
  PWM circuit for AF control
- 1-chip motor driver
  - Saturation drive H bridge 1 channel
- Package
  - WL-CSP 12-pin
  - Lead-free, halogen-free
- Supply voltage
  - Logic unit : Internal core typ 1.2V, AVDD (2.6V to 3.6V)
  - Driver unit : VM (2.6V to 3.6V)



#### **ORDERING INFORMATION**

See detailed ordering and shipping information on page 4 of this data sheet.



WLP12K(1.77X1.37)

## **Pin Description**

	ТҮРЕ							
I	INPUT	Р	Power supply, GND	NC	NOT CONNECT			
0	OUTPUT							
В	BIDIRECTION							
■ I <sup>2</sup> C i	nterface I2CCK	I <sup>2</sup> C Clock pin						
	I2CDT	В	I <sup>2</sup> C Data pin					
■D/A interface BIASO		0	D/A output (Ha	D/A output (Hall bias input)				
■Op-Amp interface								
OPINP		Ι	Op-Amp input					
	OPINM	Ι	Op-Amp input	Op-Amp input				
■Drive	■Driver interface OUT1		-	Actuator output pin				
	OUT2	0	Actuator outpu	Actuator output pin				
■Powe	er supply pin							
	VDD	Р		Digital power supply				
	VSS	Р	Digital GND					
VDDO P LDO power supp				ut				
	VM	P	Motor power supply					
	PGND	Р	Power GND					

PIN TYPE "O" – Ensure that it is set to OPEN.

PIN TYPE "I" – OPEN is inhibited. Ensure that it is connected to the V<sub>DD</sub> or V<sub>SS</sub> even when it is unused.

(Please contact our company for more information about selection of  $V_{\mbox{DD}}$  or  $V_{\mbox{SS}}.)$ 

PIN TYPE "B" - If you are unsure about processing method on the pin description of pin layout table, please contact us.

Note that incorrect processing of unused pins may result in defects. If you have any question, please feel free to contact us.

# **Pin Layout**

Circuit Name	Number of Pins	Circuit Name	Number of Pins
Analog	4	Driver	4
Logic	4		

Backside pin layout diagram (Top View from the mold side)



## **Block Diagram**



#### Package Dimensions

WLP12K(1.77X1.37)

unit : mm



# **ORDERING INFORMATION**

Device	Package	Shipping (Qty / Packing)
LC898212XC-MH	WLP12K(1.77X1.37) (Pb-Free / Halogen Free)	5000 / Tape & Reel

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