

Product Overview

LC898201: Drive Controller, Iris/Zoom/Focus, and Day-Night Switch

For complete documentation, see the data sheet

Product Description

LC898201 is the appropriate motor control LSI for the surveillance camera usage, and it can drive iris, focus, zoom and Day/Night switching simultaneously. It incorporates two feedback circuits for iris and focus control, and two stepper motor control circuits for zoom and Day/Night switching. Moreover, the feedback control applies iris control, and stepper motor controls apply focus, zoom and Day/Night switching at the mode selection. Stepper motor control circuits can drive the stepping motor efficiently (It is called "ECO(GREEN)-driver").

Features

- Built-in equalizer circuit by digital operation
 - Iris control equalizer circuit
 - Focus control equalizer circuit (MR sensor can be connected.)
 - Coefficients can be set arbitrarily through the SPI interface.
 - Computed values in the equalizer can be monitored.
- Built-in 3ch stepping motor control circuits (2ch are equipped with "ECO(GREEN)-driver" circuits)
- SPI bus interface
- PI control circuit
 - 30mA Sink output terminal
 - Built-in PI detecting function (A/D method)
- A/D converter
 - 12bit (6ch)
 - Iris, Focus, ECO, PI detection
- D/A converter
 - 8bit (5ch)
 - Hall offset, Constant current bias, MR Sensor offset, ECO offset
- Operation Amplifier
 - 4ch (ECO x1, Iris control x1, Focus control x2)
- PWM pulse generator
 - PWM Pulse generator for feedback control (Up to 12bit accuracy)
 - PWM pulse generator for stepper motor control (Up to 1024 micro steps)
 - PWM pulse generator for general-purpose H-Bridge (128 voltage levels)
- Motor Driver
 - ch1 to ch6 : $I_{O\max}=200\text{mA}$
 - ch7 : $I_{O\max}=300\text{mA}$
 - Built-in thermal protection circuit
 - Built-in low-voltage malfunction prevention circuit
- OSC (Type. 48MHz)

End Products

Part Electrical Specifications

Product	Compliance	Status	Type	V _M Min (V)	V _M Max (V)	V _{CC} Min (V)	V _{CC} Max (V)	I _O Max (A)	I _O Peak Max (A)	Step Resolution	Control Type	Feedback Method	Current Sense	Regulator Output	Fault Detection	Flyback Protection	R _{DS(on)} Typ (Ω)	Package Type
LC898201RA-NH	Pb-free Halide free	Active	Drivers	2.7	5.5	2.7	3.6	0.2/0.3	0.3/0.45	1/1024	SPI	Back EMF / Sensorless	External Resistor	No	Thermal	Integrated Active	1.3	FBGA-64
LC898201TA-NH	Pb-free Halide free	Active	Drivers	2.7	5.5	2.7	3.6	0.2/0.3	0.3/0.45	1/1024	SPI	Back EMF / Sensorless	External Resistor	No	Thermal	Integrated Active	1.3	TQFP-64

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

Created on: 7/11/2015