

"I-NIT", Ambient Light Sensor (PWM Output)

GENERAL DESCRIPTION

The ACA-ALS002-2449 is an ambient light sensing board containing a visible light sensing photo-diode. An on-board microcontroller is programmed to interpret the ambient light conditions and provide an appropriate output dimming signal, which can be used with any of ACI's standard LED driver products (I-Drive).

In situations where the LED driver is built into the LED backlit LCD, I-NIT can be connected to the driver brightness control pin.

A minimum brightness level, rate of change from dim to bright and/or bright to dim are just some of the operating parameters that can be supported for the users application.

The I-NIT has a very small footprint (0.523sq-in), allowing it to be placed just about anywhere where ambient light can fall upon the photo-diode.

MECHANICAL/ENVIRONMENTAL

Weight = 1.1 grams

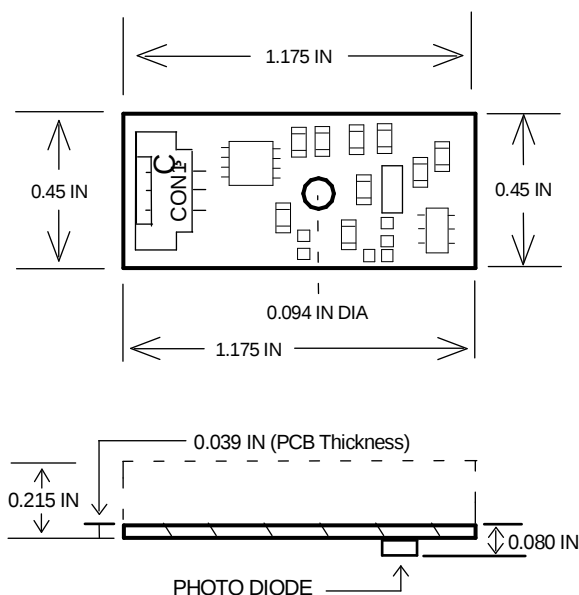
Size (L x W x H) = 1.175 IN X 0.45 IN X 0.215 IN

PCB thickness = 0.039 IN

Mounting Holes = 0.094 IN diameter

Input Power and ALS output = CON1

RoHS Compliant



CON1
MOLEX 53261-0371

PIN #	FUNCTION
1	+5VIN
2	ALS PWM OUT
3	GND(PWR)

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 5.5	Vdc
Top	Operating Temperature (Still air ambient around Dimmer)	-30 to +85	°C
Tstg	Storage Temperature	-40 to +105	°C

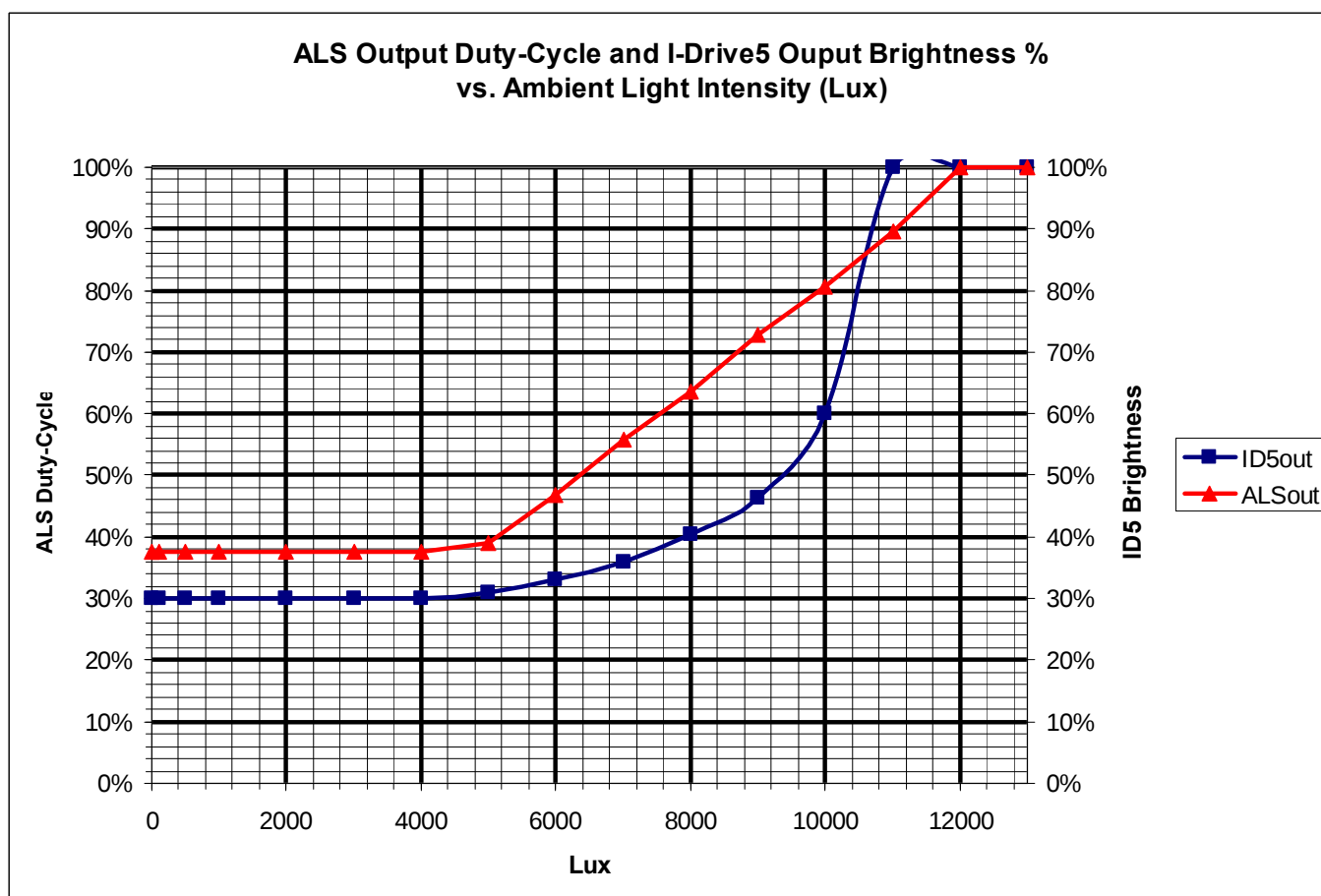
*Maximum Ratings are those values beyond which damage to the ALS may occur.

ELECTRICAL CHARACTERISTICS

Vin = +5V (+/- 5%) unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
ALSA	Ambient to PWM out rate of change	Dark to full sun Full sun to dark		20 20		Sec Sec
ALS	Ambient Light Sensor PWM output duty-cycle	Photo diode covered Photo diode direct sun	*40		100	% %
PWMout	PWM output frequency			325		Hz
PWMVoh	PWM out high logic level		4.9			Vdc
PWMVol	PWM out low logic level				0.1	Vdc

*When used to control a standard I-Drive product, Minimum Output Brightness will be 30%



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