

"I-NIT", Ambient Light Sensor (Inverted Analog Output)

GENERAL DESCRIPTION

The ACA-ALS003-2451 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 (0.523sg-in), allowing it to be placed just about anywhere where ambient light can fall upon the photo-diode.

MECHANICAL/ENVIRONMENTAL

Weight = 1.1 grams

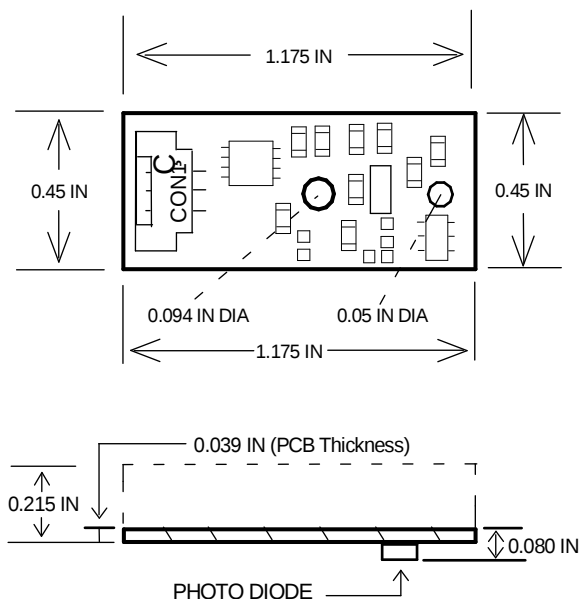
Size (L x W x H) = 1.175 IN X 0.45 IN X 0.215 IN

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 (PWR)
2	ALS ANALOG OUT
3	GND (PWR)



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ACA-ALS003-2451

PRODUCT DATA SHEET

1/31/14

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

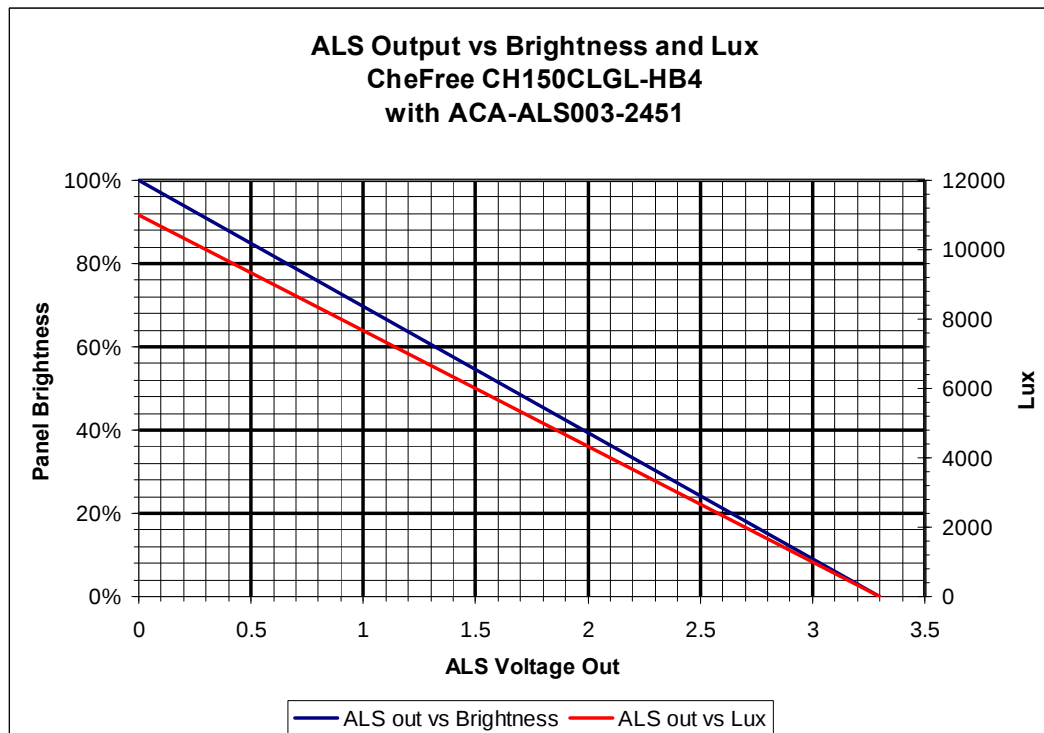
*Maximum Ratings are those values beyond which damage to the ALS may occur.

ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
ALSΔ	Ambient to Analog out rate of change	Dark to full sun Full sun to dark		20 20		Sec Sec
ALSout	ALS output voltage		0*		3.3	Vdc

* The ACA-ALS003-2451 has been adjusted to output its minimum voltage (0V) in the brightest light and its maximum voltage (3.3V) in the dimmest light. This was done to conform to the **CheFree 15.0" CH150CLGL HB4 15 0 LCM** Panel.



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