



PRODUCT DATA SHEET

09/01/11

(Single Channel)

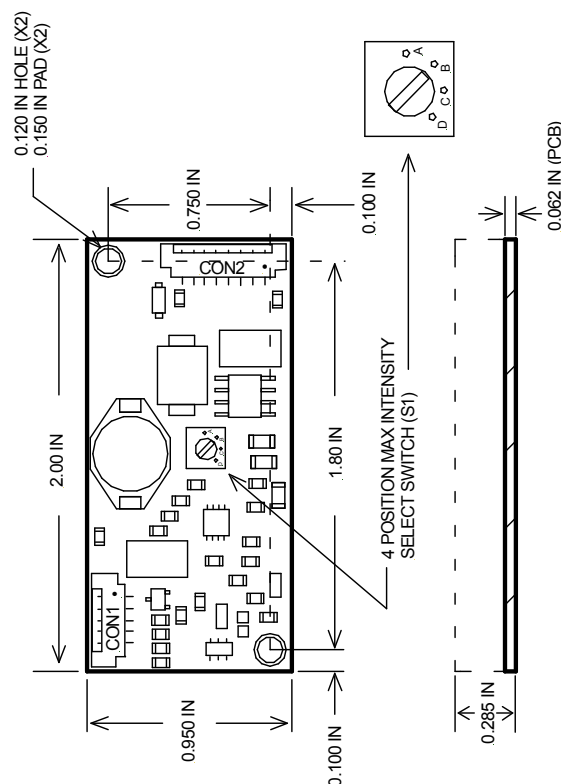
The ACI-A040040-1998 represents the I-Lite technology used for powering LED backlights.

Operating as a true constant current source and capable of driving up to 13 LEDs in series, this driver can provide an adjustable output current from 0 to 10, 20, 30 or 40mA, based on the setting of an on-board, four-position rotary switch.

This driver provides a complete integrated solution that operates from a nominal +8 to +17 VDC source.

Simple to connect and operate, the driver solution is capable of providing precise control to support dimming applications of over 5,000 to 1.

This unit also features enable and intensity control inputs.



MECHANICAL/ENVIRONMENTAL

Weight = 7.2 grams

Altitude = 35,000 ft max.

Humidity < 95% non-condensing

Size (L x W x H) = 2.0 IN x 0.95 IN x 0.285 IN

PCB thickness = 0.062 IN

Mounting Holes = 0.120 IN diameter (X2)

Input Power & Control Connector = CON1

LED Output Connector = CON2

RoHS Compliant

INPUT CONNECTOR		OUTPUT CONNECTOR	
CON1		CON2	
MOLEX 53261-0571		MOLEX 53261-0871	
PIN #	FUNCTION	PIN #	FUNCTION
1	+VIN(PWR)	1	LED ANODE
2	GND(PWR)	2	NC
3	ENABLE (IN)	3	NC
4	INTENSITY CNTL (IN)	4	NC
5	+3.3V REF (OUT)	5	NC
		6	NC
		7	NC
		8	LED CATHODE

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MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 18	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.3 to 3.6	Vdc
Iop	Current sourced or sinked from any Output Control Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	2.0	W
Top	Operating Temperature (Still air ambient around Driver)	-30 to +85	°C
Tstg	Storage Temperature	-40 to +105	°C

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

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	8	17	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	**Vin + 1	40	Vdc
Icctl	LED Intensity Control Voltage	0.25	3.0	Vdc

** Vin must be less than the minimum Forward-Drop Voltage (Vf).

ELECTRICAL CHARACTERISTICS

Vin = +12V, Vf = 36V, Icctl = +3.0V, Enable = +3V, S1 = A, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	45	50	55	Vdc
Iout-a	Output Current for Setting A	Switch S1 = A	38	40	42	mADC
Iout-b	Output Current for Setting B	Switch S1 = B	28	30	32	mADC
Iout-c	Output Current for Setting C	Switch S1 = C	18	20	22	mADC
Iout-d	Output Current for Setting D	Switch S1 = D	9	10	11	mADC
ICNTL	Nominal Output Current Adjustable Range	ICNTL (Pin 4) = +0.25V to +3.0V	0		40	mADC
ENoff	Enable Control, Unit Off	Enable (Pin 3)			0.4	Vdc
ENon	Enable Control, Unit ON	Enable (Pin 3)	1.8			Vdc
+3.3Vref	+3.3V Output Reference Voltage	1K Ohm Load to Ground (Pin 5)	3.13	3.3	3.47	Vdc
Iin	Input Current Draw			0.13		
Iind	Input Current Draw (Disabled)	Enable (Pin 3) = 0V		0.001	0.06	Adc
Eff	Electrical Efficiency			90		%

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