



397 Route 281
Tully, New York 13159
Phone: 315 696-6676
Fax: 315 696 9923
Email: sales@acipower.com
www.acipower.com

ACI-2513

PRODUCT DATA SHEET

06/10/14

I-DRIVE, 45.4 WATT LED DRIVER

(Single Channel 28V, 0-1620mA)

GENERAL DESCRIPTION

The ACI-2513 operates as a true constant current source and is capable of driving one bank of series connected LEDs with a forward voltage drop up to 28V. This driver provides a complete integrated solution that is regulated over an input voltage range from +10V to +15V DC.

This driver is designed to power the backlight of the **LITEMAX DLF2126-ENN-A01** 21.5" display to its stock power specification.

Simple to connect and operate, this driver solution is capable of providing precise control to support wide dimming applications.

This unit features enable and intensity control inputs.

MECHANICAL/ENVIRONMENTAL

Weight = 40.2 grams

Altitude = 40,000 ft max.

Humidity < 95% non-condensing

Size (L x W x H) = 5.50 IN x 1.75 IN x 0.380 IN

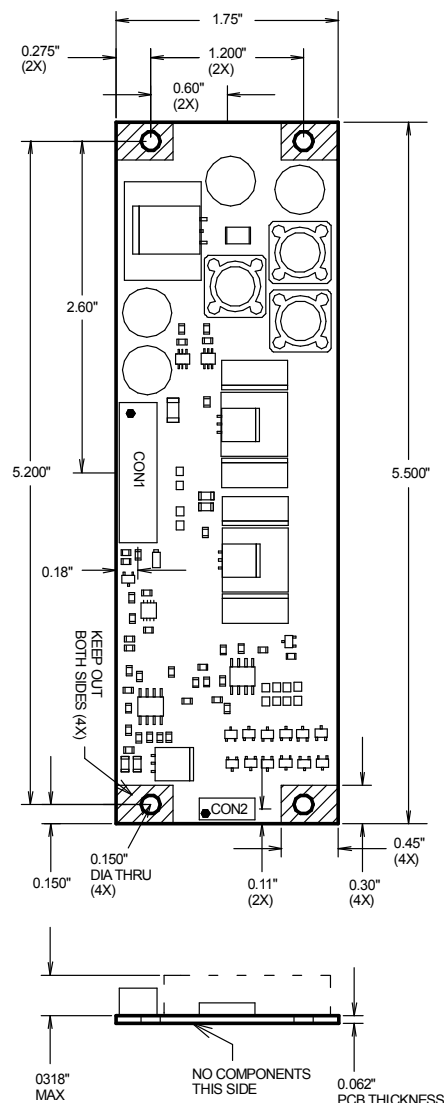
PCB thickness = 0.062 IN

Mounting Holes = 0.150 IN diameter (X4)

Input Power & Control Connector = CON1

LED Output Connector = CON2

RoHS Compliant



Please refer to Page 3, for input and output connector pin assignments.

PRODUCT DATA SHEET

06/10/14

MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 18	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Control Pin	+/- 10	mAdc
Pin	Input Power (DC Input Voltage x DC Input Current)	56	W
Top	Operating Temperature (Still air ambient around Driver)	-30 to +70	°C
Tstg	Storage Temperature	-40 to +105	°C

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

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.0	15.0	Vdc
VinShutDown	Supply Voltage Shutdown (Reference to Ground)	9.3	9.7	Vdc
Vf	Series Connected Cumulative LED Forward-Drop Voltage	**Vin + 1	28	Vdc
Icntl	LED Intensity Control Voltage	0.0	5.0	Vdc

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

ELECTRICAL CHARACTERISTICS

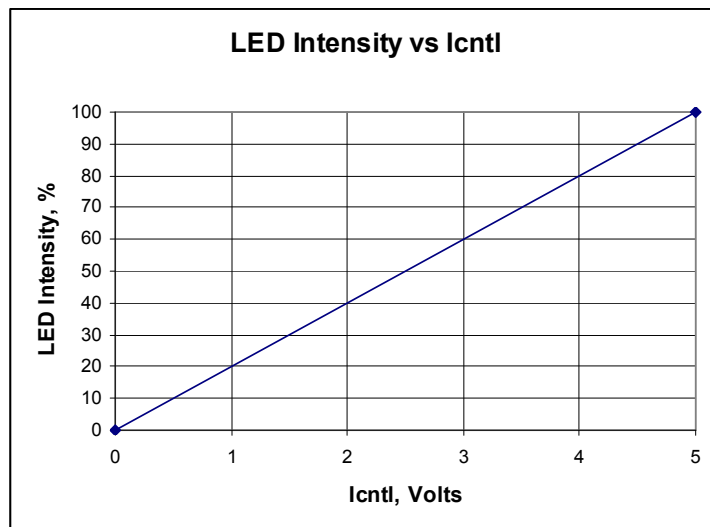
Vin = +12V, Vf = 28V, Icntl = +5.0V, Enable = +5V, unless otherwise specified.

Symbol	Parameter	Test Conditions	Min	Nom	Max	Unit
OCV	Open Circuit Voltage	No Load	30	35	40	Vdc
Iout	Output Current		1539	1620	1701	mAdc
Iadj	Nominal Output Current Adjust Range	Icntl(Pin 12) <= +0.0V	0			mAdc
		Icntl(Pin 12) >= +5.0V			1620	mAdc
ENoff	Enable Control, Unit Off				0.5	Vdc
ENon	Enable Control, Unit ON		2.0			Vdc
+5Vref	+5V Output Reference Voltage	1K Ohm Load to Ground (Pin 10)	4.75	5.0	5.25	Vdc
Iin	Input Current Draw			4.25		Adc
Iind	Input Current Draw (Disabled)	Enable (Pin 11) = 0V			0.06	Adc
Eff	Electrical Efficiency			89		%

PRODUCT DATA SHEET

06/10/14

BRIGHTNESS CURVE



INPUT AND OUTPUT CONNETOR PIN ASSIGNMENTS

INPUT CONNECTOR CON1 JST S12B-PH-SM4-TB(LF)(SN) 12 POS, 2.00MM SIDE ENTRY	OUTPUT CONNECTOR CON2 CVILUX CI1408M1HR0-NH 8 POS, 1.00MM SIDE ENTRY HEADER																																												
<table> <tr><th colspan="2">PIN# FUNCTION</th></tr> <tr><td>1</td><td>+10 to +15V (PWR)</td></tr> <tr><td>2</td><td>+10 to +15V (PWR)</td></tr> <tr><td>3</td><td>+10 to +15V (PWR)</td></tr> <tr><td>4</td><td>+10 to +15V (PWR)</td></tr> <tr><td>5</td><td>GND (PWR)</td></tr> <tr><td>6</td><td>GND (PWR)</td></tr> <tr><td>7</td><td>GND (PWR)</td></tr> <tr><td>8</td><td>GND (PWR)</td></tr> <tr><td>9</td><td>GND (SIGNAL)</td></tr> <tr><td>10</td><td>+5VDC REF OUT</td></tr> <tr><td>11</td><td>ENABLE</td></tr> <tr><td>12</td><td>ICNTL</td></tr> </table>	PIN# FUNCTION		1	+10 to +15V (PWR)	2	+10 to +15V (PWR)	3	+10 to +15V (PWR)	4	+10 to +15V (PWR)	5	GND (PWR)	6	GND (PWR)	7	GND (PWR)	8	GND (PWR)	9	GND (SIGNAL)	10	+5VDC REF OUT	11	ENABLE	12	ICNTL	<table> <tr><th colspan="2">PIN# FUNCTION</th></tr> <tr><td>1</td><td>-LED (CATHODE)</td></tr> <tr><td>2</td><td>-LED (CATHODE)</td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td>+LED (ANODE)</td></tr> <tr><td>5</td><td>+LED (ANODE)</td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> <tr><td>8</td><td></td></tr> </table>	PIN# FUNCTION		1	-LED (CATHODE)	2	-LED (CATHODE)	3		4	+LED (ANODE)	5	+LED (ANODE)	6		7		8	
PIN# FUNCTION																																													
1	+10 to +15V (PWR)																																												
2	+10 to +15V (PWR)																																												
3	+10 to +15V (PWR)																																												
4	+10 to +15V (PWR)																																												
5	GND (PWR)																																												
6	GND (PWR)																																												
7	GND (PWR)																																												
8	GND (PWR)																																												
9	GND (SIGNAL)																																												
10	+5VDC REF OUT																																												
11	ENABLE																																												
12	ICNTL																																												
PIN# FUNCTION																																													
1	-LED (CATHODE)																																												
2	-LED (CATHODE)																																												
3																																													
4	+LED (ANODE)																																												
5	+LED (ANODE)																																												
6																																													
7																																													
8																																													