Applied Concepts
INNOVATION IN POWER CONVERSION TECHNOLOGY

397 Route 281
Tully, New York 13159-1175
Phone: 315 696-6676
Email: sales@acipower.com
www.acipower.com

ACR-3227

PRODUCT DATASHEET

21.00" DUAL MODE LED RAIL

(Day LEDs: Tri-Bank, 90V @ 100mA)
(NVIS LEDs: Dual Bank, 64V @ 12.5mA)

1/11/2023

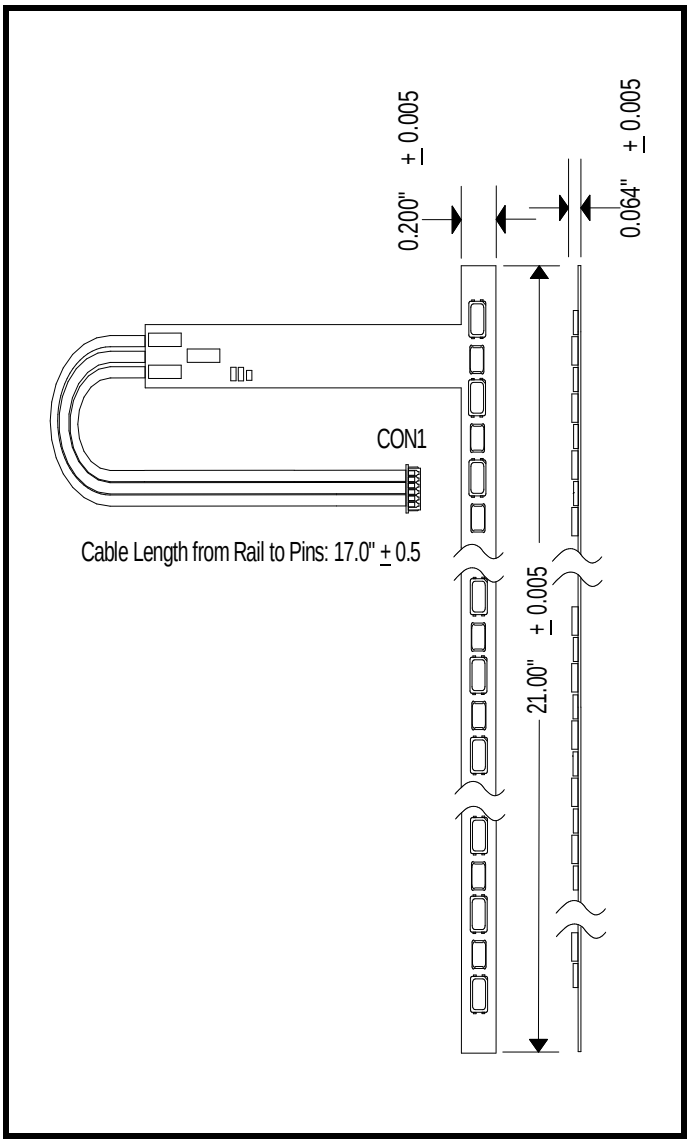
GENERAL DESCRIPTION

The ACR-3227 is designed as a replacement for edge lit 24" LED displays.

The rail uses high performance LEDs capable of Day and NVIS White operations.

The rail requires the use of a constant current source to properly drive the LED's.

The LED rail is compatible with any of ACI's I-Drive series of LED Drivers.



MECHANICAL / ENVIRONMENTAL

Weight = 35 grams

Altitude = 35,000 Ft maximum

Humidity < 95% non-condensing

Size (L x W x H) = 21.00 IN x 0.200 IN x 0.064 IN

Flex PCB thickness = 0.007 IN

Input connector = CON1 (Molex 51021-0600)

RoHS compliant

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DAY MODE

MAXIMUM RATINGS

1/11/2023

Symbol	Parameter	Value	Unit
Tled	Operating temperature of LED edge light (light rail contact)	-30 to +85	Deg-C
Tstg	LED Rail storage temperature	-40 to +100	Deg-C
Ifwd	Maximum LED forward current (DC)	120	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

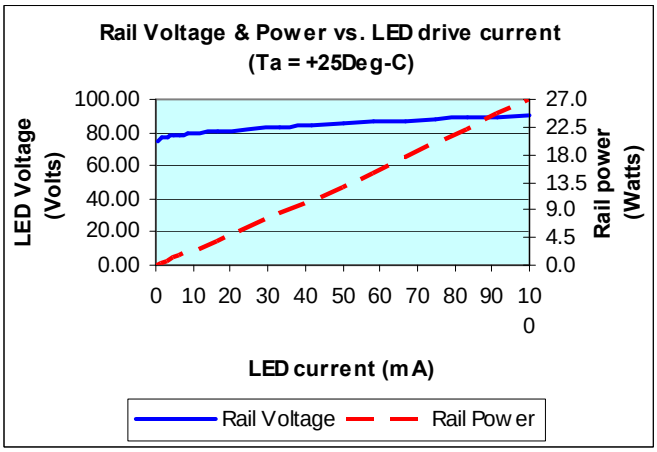
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 93mA	14.1		18.1	cd
X	White X coordinate			0.280		
Y	White Y coordinate			0.295		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 100mA (3 banks per rail), Tled = +75Deg-C (LED's without heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		81	90	99	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS



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NVIS MODE

MAXIMUM RATINGS

1/11/2023

Symbol	Parameter	Value	Unit
Tled	Operating temperature of LED edge light (light rail contact)	-30 to +85	Deg-C
Tstg	LED Rail storage temperature	-40 to +100	Deg-C
Ifwd	Maximum LED forward current (DC)	15	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 20mA			150	mcd
X	White X coordinate			0.302		
Y	White Y coordinate			0.676		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 12.5mA (2 banks per rail), Tled = +75Deg-C (LED's without heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		58	64	70	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS