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ACR-3102

PRODUCT DATA SHEET

12.40" DUAL MODE LED RAIL

(Day LEDs: Tri Bank, 75V @ 60mA)

(NVIS LEDs: Dual Bank, 70V @ 6.25mA)

4/20/2022

GENERAL DESCRIPTION

The ACR-3102 is designed as a replacement for dual rail, dual edge lit 15" 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 dual mode I-Drive series of LED Drivers.

MECHANICAL / ENVIRONMENTAL

Weight = 6 grams

Altitude = 35,000 Ft maximum

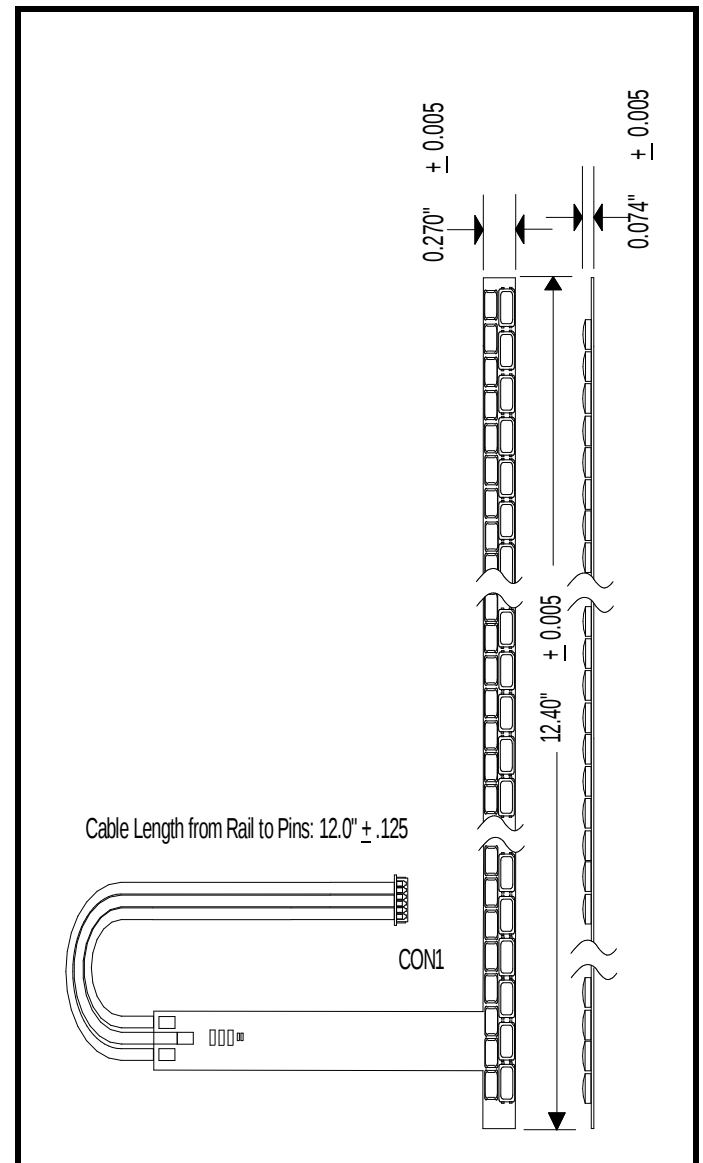
Humidity < 95% non-condensing

Size (L x W x H) = 17.62 IN x 0.270 IN x 0.074IN

Flex PCB thickness = 0.007 IN

Input connector = CON1

RoHS compliant



DAY MODE

MAXIMUM RATINGS

4/20/2022

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)	72	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

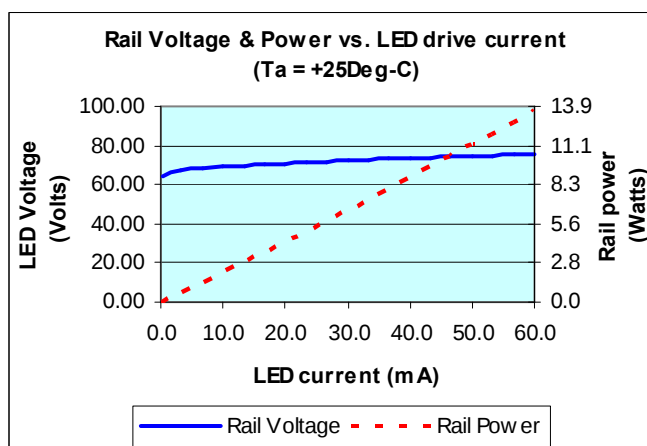
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 93mA		21.4		cd
X	White X coordinate			0.265		
Y	White Y coordinate			0.260		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 60mA (3 banks per rail), Tled = +75Deg-C (LED's heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		67	75	83	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS



NVIS MODE

MAXIMUM RATINGS

4/20/2022

Symbol	Parameter	Value	Unit
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +85	Deg-C
Tstg	LED Rail storage temperature	-40 to +85	Deg-C
Ifwd	Maximum LED forward current (DC)	9	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 20mA			50	mcd
X	White X coordinate			0.280		
Y	White Y coordinate			0.320		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 7.5mA (2 banks per rail), Tled = +75Deg-C (LED's heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		63	70	77	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS

