

Features

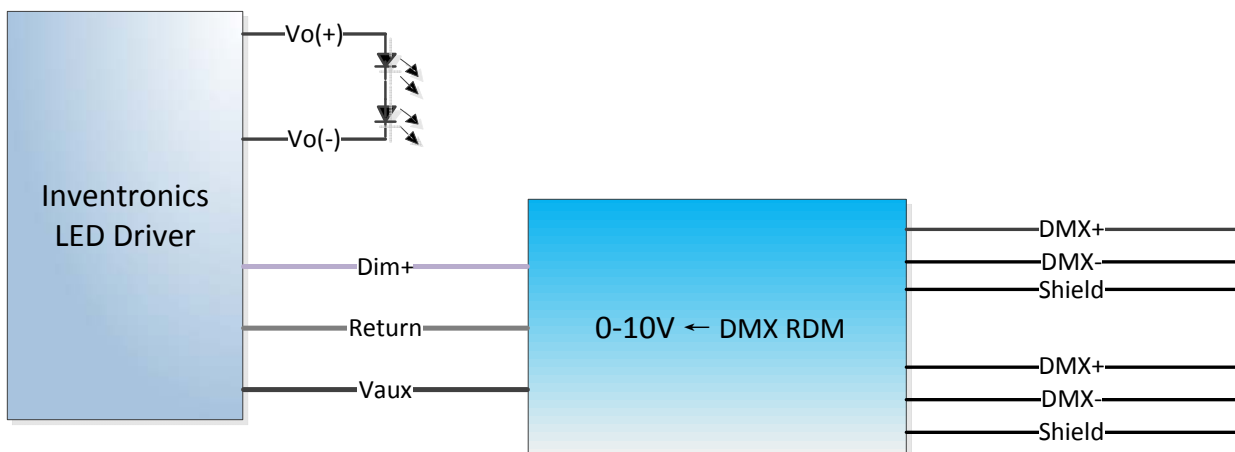
- Converts DMX Signal to 0-10V Dimming Signal
- Complies with both DMX RDM and Traditional DMX Networks
- Use Driver Dim-to-Off Capability to Eliminate AC Switch or Relay
- Powered by 12Vdc with Simple 3-Wire Connection to Driver
- Low Standby Power < 0.5W
- At Power on the 0-10V Output Remains at 0V until DMX Signal is Received
- In the Event of DMX Signal Loss, the 0-10V Output Will Not Change
- Waterproof (IP67) and UL Dry / Damp / Wet Location
- Suitable for Built-in Use



Description

The CNV-DMXR is a DMX RDM to 0-10V converter that enables one or more Inventronics Controls-Ready drivers to be controlled by a DMX system. The CNV-DMXR is compatible with LED drivers with dim-to-off capability, 12V/200mA auxiliary power supply and 0-10V dimming input.

The CNV-DMXR is DMX RDM compatible. DMX RDM (Remote Device Management) permits intelligent bi-directional communication between devices from multiple manufacturers utilizing a modified DMX512 data link. This allows the DMX RDM compatible device to be addressed and configured remotely, using a compatible DMX RDM master. DMX RDM devices are inherently compatible with standard DMX networks.



Models

P/N	Connection to LED Driver	Connection to DMX System
CNV-DMXR	UL Wire(black/white, purple, gray)	UL Wire(black/white, purple, gray)

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Vaux Voltage	10.8 V	12 V	13.2 V	Support the maximum output current of LED driver to 100%Io
Iaux (Vaux Current)	-	30 mA	200 mA	200mA when transmitting, 30mA at standby
DMX+ to DMX-	-6 V	-	6 V	
DMX+ to Chassis	22M ohm	-	-	
DMX- to Chassis	22M ohm	-	-	
Logic 0 Input	-	-	-0.2 V	DMX+ to DMX-
Logic 1 Input	0.2 V	-	-	DMX+ to DMX-

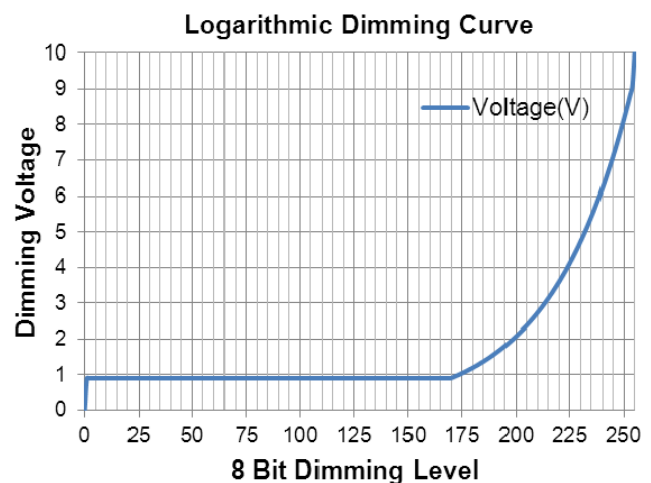
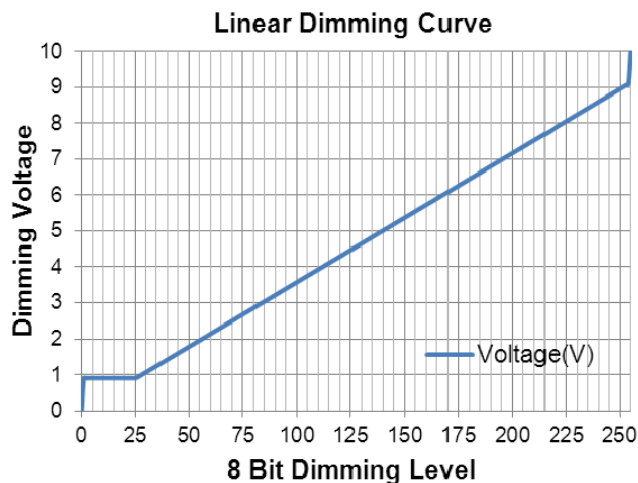
Dimming Specifications

Parameter	Min.	Typ.	Max.	Notes
Dim+ Voltage	0 V	-	10 V	Vaux>12.5V
	0 V	-	(Vaux-2.5)V	Vaux≤12.5V
Dim+ Sink Current	0 mA	-	5 mA	-

Note: All specifications are typical at 25°C unless otherwise stated.

Output Dimming Curve

This controller integrates a linear curve and logarithmic curve.



General Specifications

Parameter	Min.	Typ.	Max.	Notes
Dimensions Inches (L × W × H) Millimeters (L × W × H)	2.72 × 1.50 × 1.06 69 × 38 × 27			With mounting ear 3.54 × 1.50 × 1.06 90 × 38 × 27
Net Weight	-	155 g	-	

Note: All specifications are typical at 25°C unless otherwise stated.

Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-40 °C	-	+70 °C	
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

Safety & EMC Compliance

Safety Category	Standard
UL/CUL	UL 8750, CAN/CSA-C22.2 No. 250.13
CB	IEC 61347-1 IEC 61347-2-11
EMI(1) Standards	Notes
EN 55015 ⁽²⁾	Conducted emission Test & Radiated emission Test
EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
FCC Part 15 ⁽²⁾	ANSI C63.4 Class B
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: [1] this device may not cause harmful interference, and [2] this device must accept any interference received, including interference that may cause undesired operation.
EMS(1) Standards	Notes
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

Notes: (1) The EMI and EMS test results are tested with Inventronics LED drivers.

(2) The CNV-DMXR is considered as a component that will be operated in combination with final equipment. Since EMI performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMI Directive on the complete installation again.

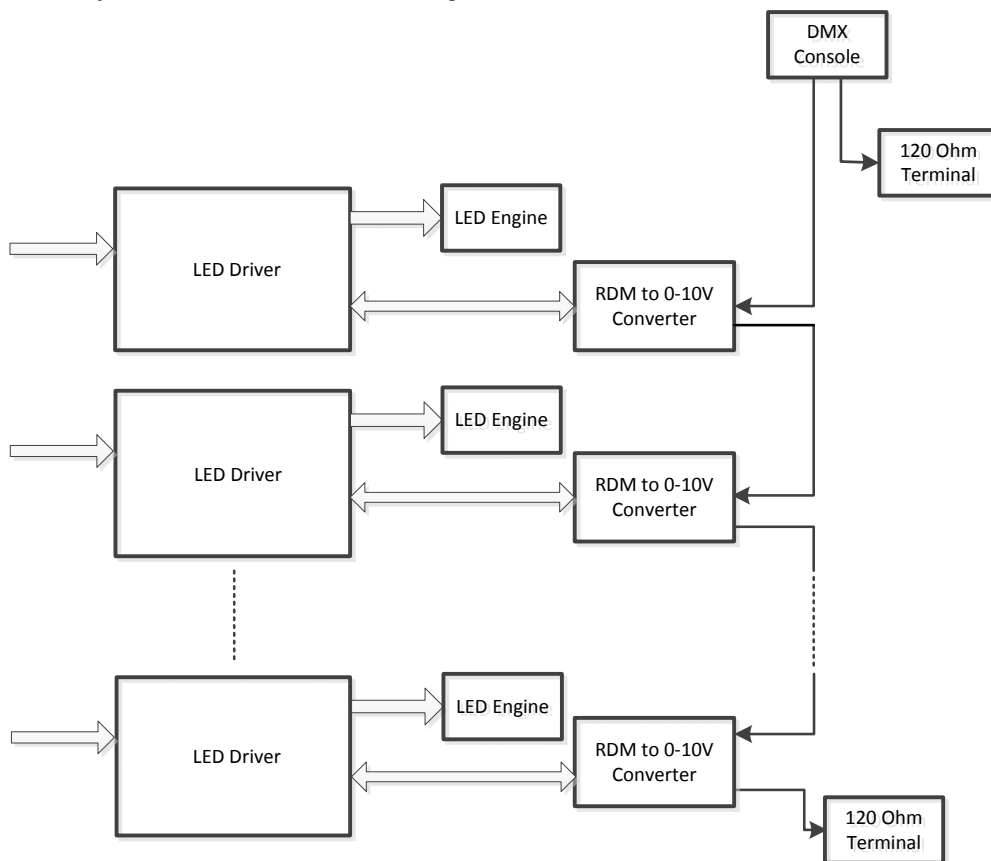
Function Definition of Interface(Connection to LED Driver)

Wire Color	Function	Notes
BLACK/WHITE	Vaux	To LED driver's auxiliary power
PURPLE	Dim+	Output to driver's 0-10V dimming line
GRAY	Return	Return for auxiliary power and dimming signal
PURPLE	DMX+	To DMX Console
GRAY	DMX-	To DMX Console
BLACK/WHITE	Shield	Connect with DMX shield

Operation Notes

● Wiring

- DMX-RDM daisy chain connection see the diagram below:



- Up to 32 converters may be daisy-chained, terminated by a 120 ohm resistor (connected between DMX+ & DMX- at the last converter).
- 100m maximum distance between converters.
- For best performance, a characteristic impedance of 120 ohms should be maintained for the entire length of the control line.

● **Loss of DMX Signal and Power on Events**

- In the event the DMX signal is lost, the 0-10V output of the CNV-DMXR will remain the same until another DMX command is received.
- At power on, the CNV-DMXR will output 0V until the dimming state is changed via DMX

● **Addressability**

The CNV-DMXR can be addressed in two different ways.

- If the converter is being used in a DMX RDM environment, the easiest way to address the CNV-DMXR is addressing and configuring via the RDM protocol.
- If you are using the CNV-DMXR in a traditional DMX environment, the address may be set using the Inventronics CNV-DMXR Tool Software. Please contact Inventronics for any questions regarding this process.

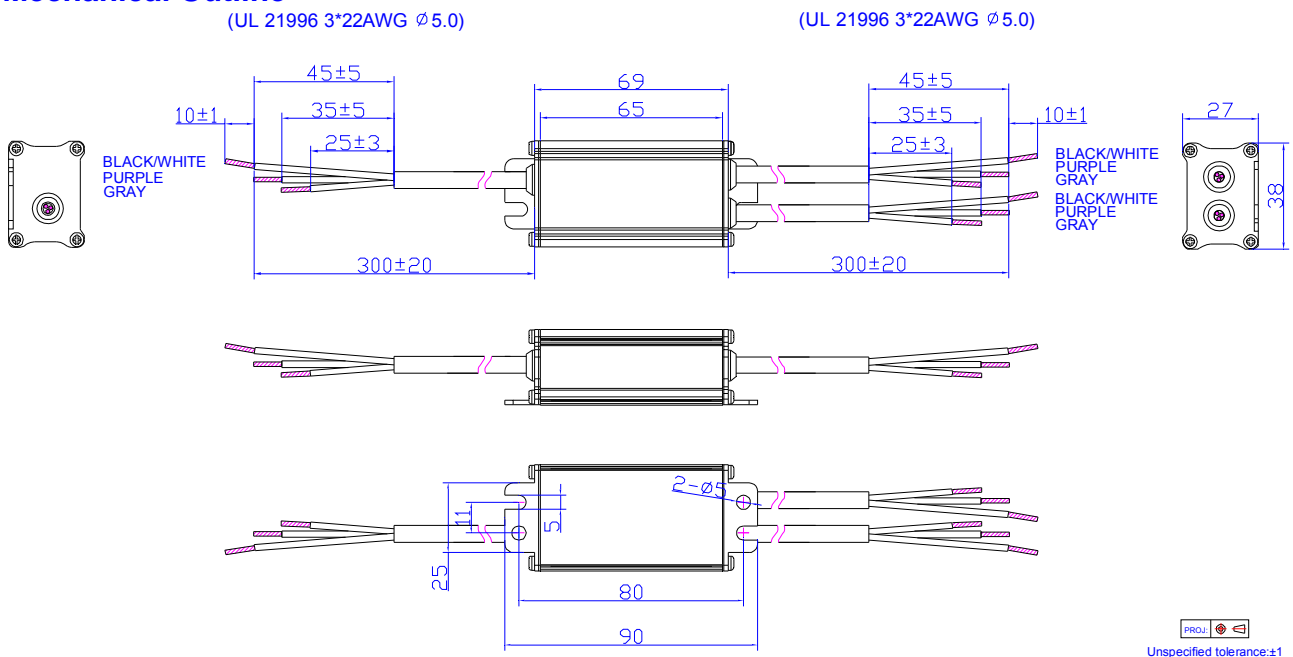
● **Software Interface and User Manual Download**

- To download the CNV-DMXR software interface, please click here: [CNV-DMXR Tool](#).
- More operation details please click here see the: [CNV-DMXR Tool User Manual](#).

Compatible Driver List

- Compatible driver list please refer to the: [CNV-DMXR Compatible List](#).

Mechanical Outline



RoHS Compliance

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2017-05-26	A	Datasheet Release	/	/
2017-07-28	B	Function Definition of Interface	/	Corrected
2017-09-26	C	Operation Notes - Tool Software Interface and User Manual Download	/	Added
		Compatible Driver List	/	Added
		Iaux (Vaux Current) - Typ.	/	Added
2018-02-11	D	Link in the Operation Notes and Compatible Driver List	/	Updated