

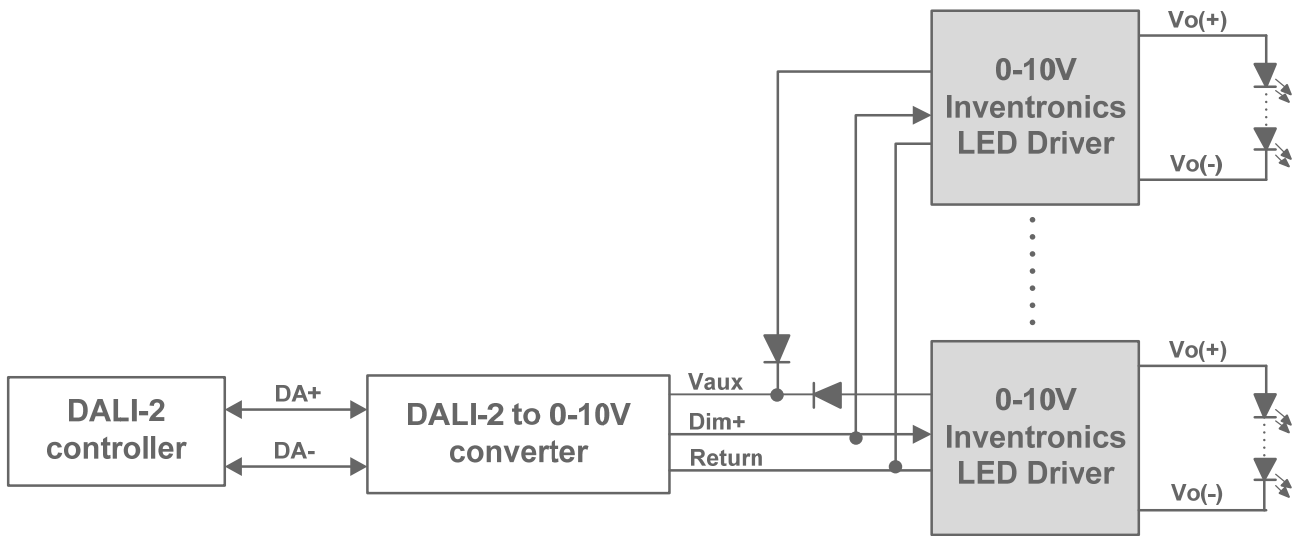
Features

- Convert DALI-2 Signal to 0~10V Dimming Signal
- Comply with DALI-2 Protocol
- Powered by Auxiliary Power with 3-Wire Connection to Driver
- IP66/IP67



Description

The CNV-DALI2 converter can convert DALI-2 command to control the LED lamp's current via LED driver's 0~10V interface. It complies with DALI-2 protocol IEC62386-101,102 and 206. Typical application is shown as below:



Note: Normally the converter is powered by 1 driver. If the converter is powered by more than 1 driver, each Vaux line should have a diode mounted to prevent current streaming between the drivers, because current streaming may cause dimming failure.

Models

Connection to LED driver	Connection to DALI bus	Model Number
UL Wire (black/white, purple, pink)	UL Wire (purple, pink)	CNV-DALI2

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Vaux Voltage	10.8V	12-24V	26.4V	
Iaux (Vaux Current)	-	-	20mA	
DA+, DA- High Level	9.5V	16V	22.5V	
DA+, DA- Low Level	-6.5V	0V	6.5V	
DA+, DA- Current	0mA	-	2mA	

Dimming Output Specifications

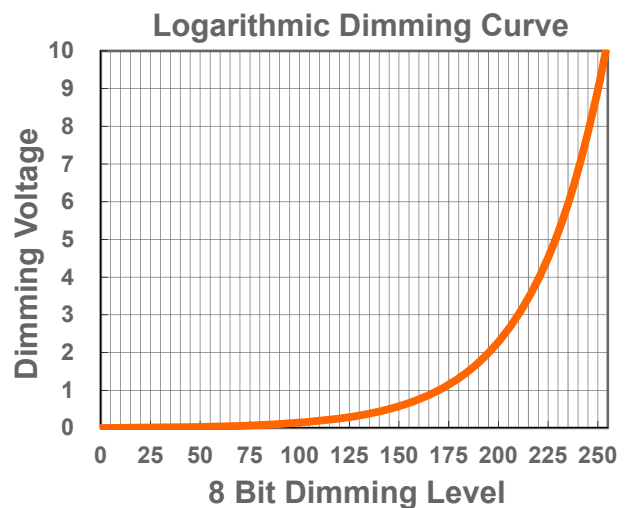
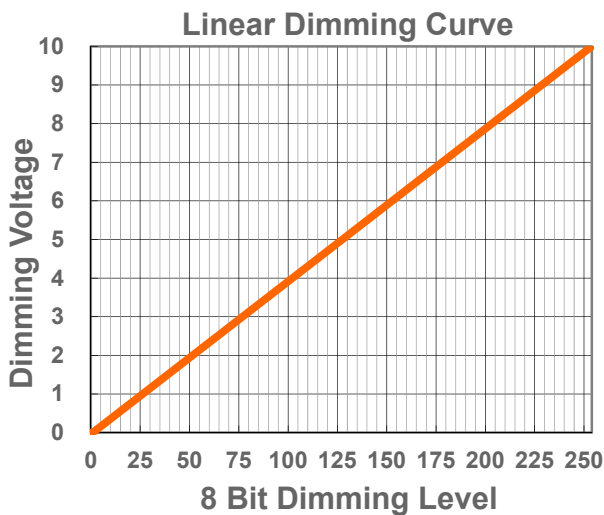
Parameter	Min.	Typ.	Max.	Notes
Dim+ Voltage	0V	-	10V	Vaux>11.5V
	0V	-	(Vaux-1.5)V	Vaux≤11.5V
Dim+ Sink Current	0mA	-	15mA	

Output Dimming Curve

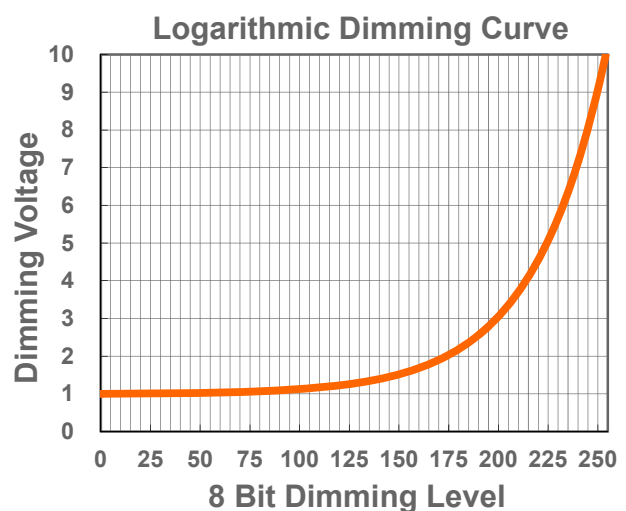
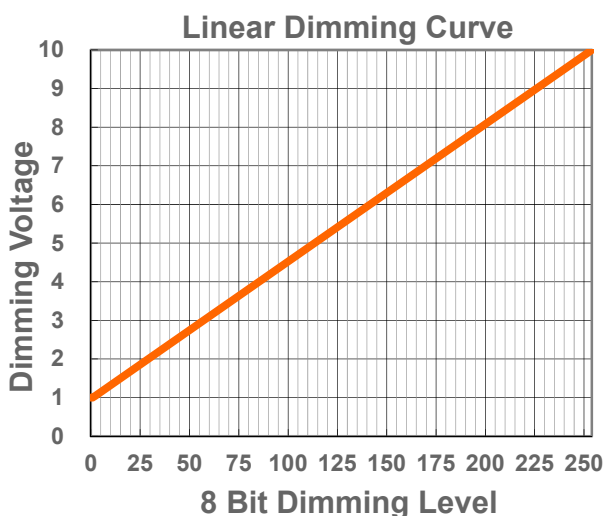
The converter integrates linear curve and logarithmic curve with 0-10V output or 1-10V output.

Customer can change the types of curve by sending command 229. Choosing 1-10V output by sending command 224, or choosing 0-10V output by sending command 225.

● 0-10V Dimming Curve

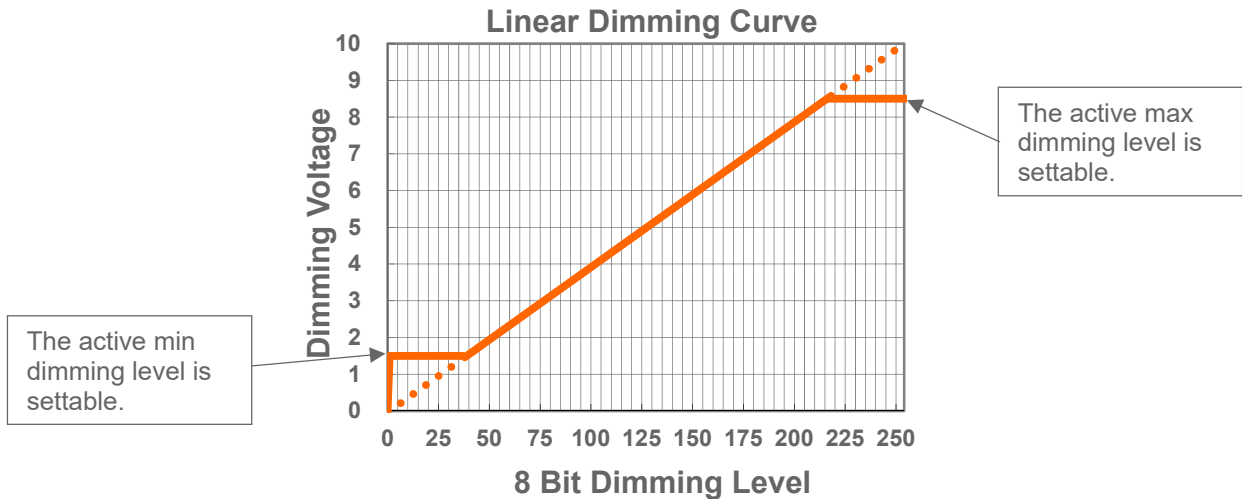


● 1-10V Dimming Curve

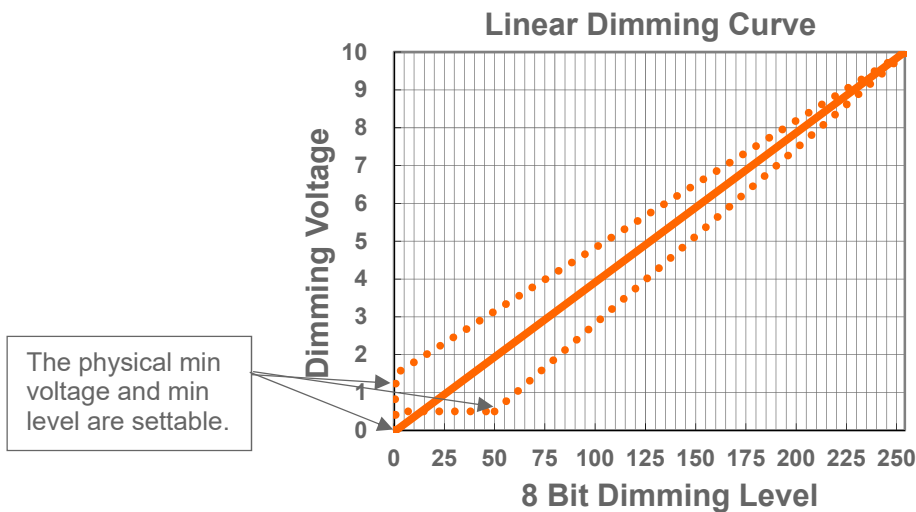


For each kind of curve, the user can modify it as follows by the [CNV-DALI2 Tool](#) and [PRG-MUL2](#).

● **Modify the Initial Dimming Voltage Level**



● **Modify the Physical Min Value**



Note: (1) The logarithmic dimming curve can be modified in the same way.
 (2) The default factory cure is the 0~10V linear dimming curve.

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Dimensions Inches (L × W × H) Millimeters (L × W × H)		2.13 × 1.50 × 1.06 54 × 38 × 27		With mounting ear 2.95 × 1.50 × 1.06 75 × 38 × 27
Net Weight	-	120 g	-	

Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Case temperature for Safety Tc _s	-40 °C	-	+90 °C	
Operating Case Temperature for Warranty Tc _w	-40 °C	-	+75 °C	Case temperature for 5 years warranty Humidity: 10% RH to 95% RH;
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5%RH to 95%RH

Safety & EMC Compliance

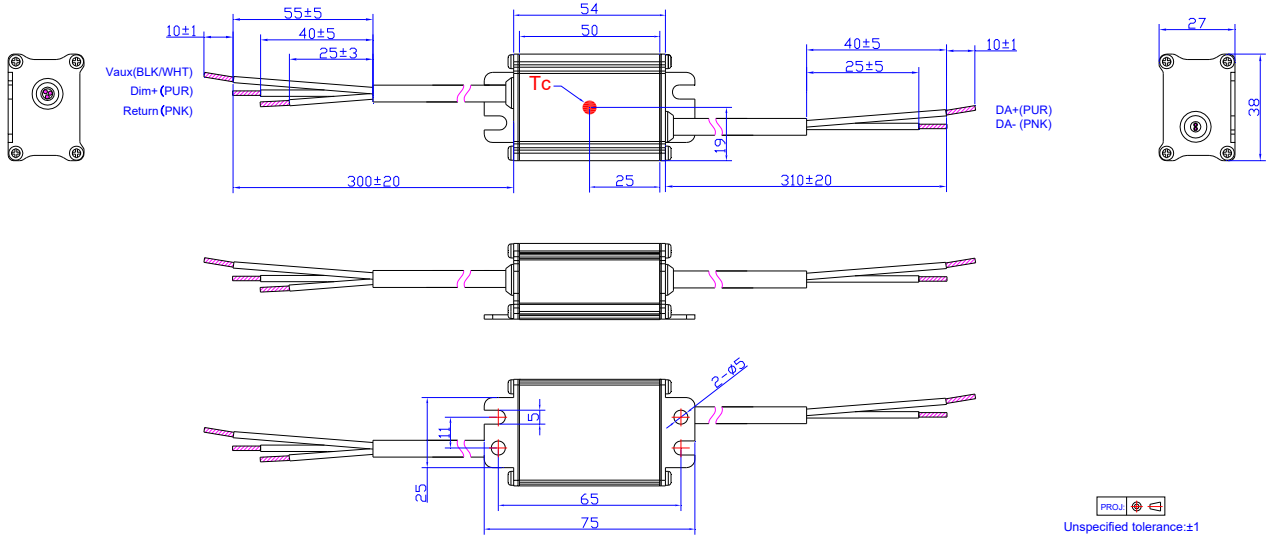
Safety Category	Standard
UL/CUL	UL 8750, CAN/CSA-C22.2 No. 250.13
CE	EN 61347-1, EN61347-2-11
CB	IEC 61347-1, IEC61347-2-11
EMI Standards	Notes
EN 55015 ⁽¹⁾	Conducted emission Test & Radiated emission Test
FCC Part 15 ⁽¹⁾	ANSI C63.4 Class B
	This device complies with Part 15 of the FCC Rules. Operation 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 Standards	Notes
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

Note: (1) The CNV-DALI2 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 requalify EMI Directive on the complete installation again.

Mechanical Outline

(UL 21996 3*22AWG Ø5.0)

(UL 21996 2*22AWG Ø5.0)



Function Definition of Interface

Connection to LED driver			Connection to DALI bus		
Wire Color	Function	Connection	Wire Color	Function	Connection
BLACK/WHITE	Vaux_in	To LED driver's auxiliary power	PURPLE	DA+	To DALI bus without polarity
PURPLE	Vdim_out	To LED driver's dimming	PINK	DA-	
PINK	Return	Return for auxiliary power and dimming signal	-	-	-

RoHS Compliance

Our products comply with reference to RoHS Directive (EU) 2015/863 amending 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
2023-11-14	A	Datasheet Release	/	/
2024-07-23	B	Product Photograph	/	Updated
		UL logo	/	Added
		Features	/	Updated
		Safety & EMC Compliance	/	Updated