



DL-M-RDM Decoder

DL-M-RDM Decoder SPEC V1.0



contents

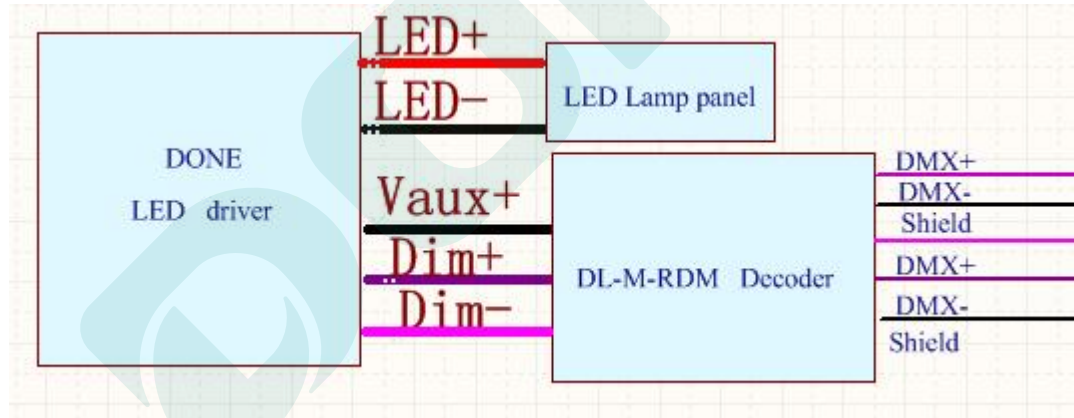
Feature	3
Product description	3
Input characteristics	4
Dimming characteristic	4
Specification	4
Environmental	4
Connection	5

Feature

- Convert the DMX signal to a 0-10V dimming signal
- Compatible with both DMX RDM and traditional DMX networks
- Support LED driver's dimmable turn-off capability
- Support driver auxiliary source 12V DC input
- Standby power consumption <0.5W
- After power-on, the 0-10V output remains at 0V until the DMX signal is input
- If the DMX signal is lost during operation, the 0-10V output will not change
- IP67 and suitable for UL dry, wet and watery environments
- Lifetime design: 5 years

Product description

DL-M-RDMdecoder is a DMX RDM to 0-10V decoder that can control one or more Dongling LED drivers through the DMX RDM system. Compatible with LED drivers with dimmable turn-off function, 12Vdc/200mA auxiliary source and 0-10V dimming function. The Remote Device Management Protocol (RDM) allows two-way communication between devices from multiple manufacturers using DMX512 data. As a result, DMX RDM compatible devices can be remotely addressed and configured using a compatible DMX RDM host. DMX RDM devices are compatible with standard DMX networks.



Input characteristics

Parameter	Least value	Typical value	Maximum value	Remark
Auxiliary source voltage	10.8 V	12 V	13.2 V	
Auxiliary source current	1	≤30 mA	200 mA	200mA for communication, less than 30mA for standby.
DMX+ to DMX-	-6 V		6 V	
Input logic 0	-		0.2 V	DMX+ to DMX-
Input logic 1	0.2 V	-		DMX+ to DMX-
DMX+ to case	22M ohm	-		
DMX- to case	22M ohm	-		

Dimming characteristic

Parameter	Least value	Least value	Maximum value	Maximum value
Dim+ voltage	0V		10 V	
Dim+ sinking current			20 mA	200mA for communication, less than 30mA for standby.
Output voltage error		0.5%		

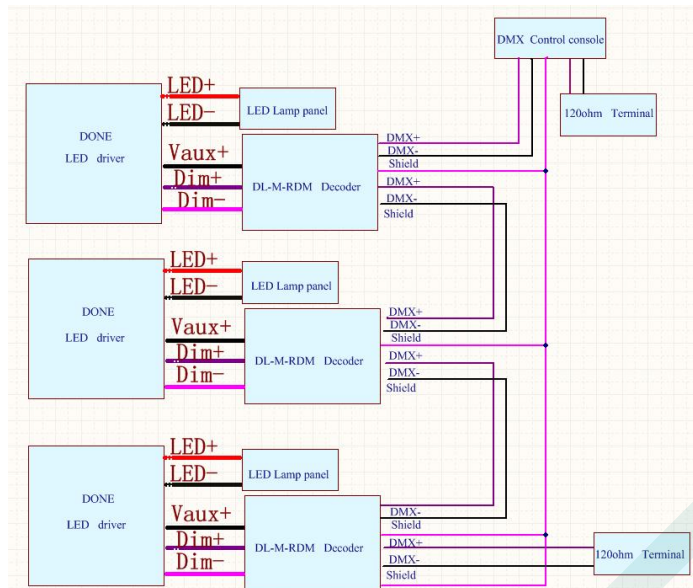
Specification

Parameter	Least value	Least value	Maximum value	Maximum value
Size (mm) (L × W × H)		80*41*27.5		mounting hole 86.5*24

Environmental

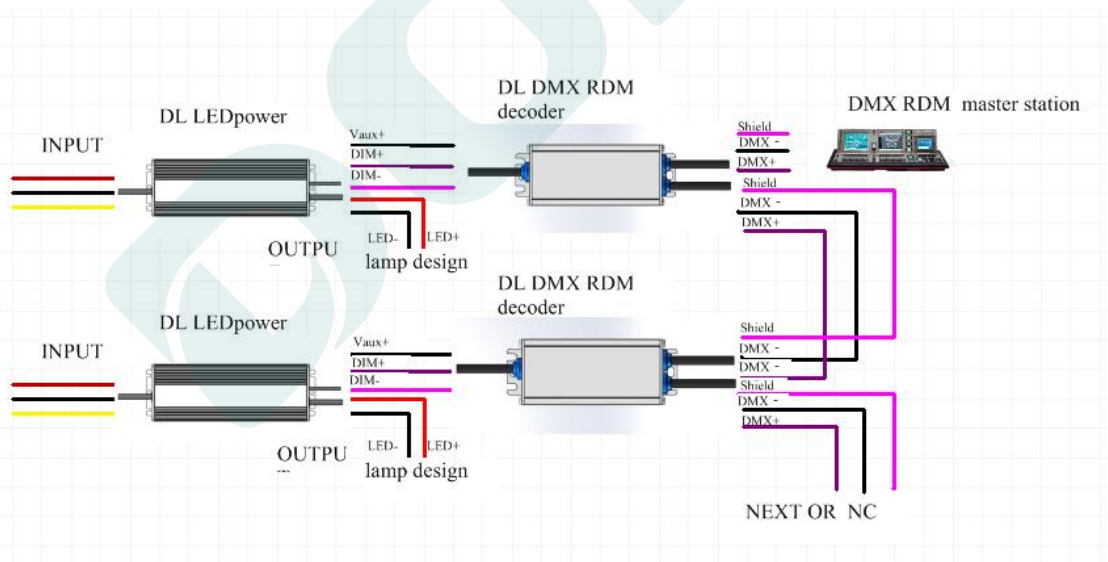
Environment class	parameter
Working temperature	-40 ~ +55℃、-40 ~ +45℃
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、humidity	-40~+80℃, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25℃)

Connection



- Up to 32 decoders can be connected in series with a 120 ohm resistor at the end (between DMX+ and DMX- of the last decoder).
- The distance between decoders must not exceed 100m
- Loss of DMX signal and power-on operation If the DMX signal is lost, the 0-10V output remains unchanged until another DMX command is received.
- When powered on, the DL-DMX RDM decoder will output OV until the dimming state is changed via DMX

Note : EMI and EMS are tested with Done LED drivers.



Version

DATE	DESCRIPTION	REV.	CHECK
2024.8.22	Initial version.	V1.0	

Done Confirmation field		
Editor	check	Ratify