

DIM-DMX1CH DMX decoder for LED strip

Product Description

This DMX decoder is a 4 channel module that is compatible with DMX protocols and can control single colour, tunable white, RGB & RGBW LED strips. The DIM-DMX1CH has a digital display that allows manual selection of DMX addresses.

Features

- Select between 1, 2, 3, 4 channels.
- DMX512 compliant control interface, DMX address can be set freely and shown on the digital numeric display
- Control single colour, tunable white, RGB and RGB/W LED Lighting.
- Smooth PWM dimming.



Technical Specification

DMX decoder	
Order Code	DIM-DMX1CH
Type	DMX decoder
Input Voltage	12-36VDC
Current	4x5A
Output	4x(60-180)W
Note	Constant voltage
Dimension	45.5x170.4x18.6mm (WxLxH)

Recommendation

DMX is a standard protocol for digital communication which allows control of DMX devices / lighting from a compatible DMX controller. We recommend using the WP-DMX controller when controlling all lighting as a single zone. Please

note that without an ON signal from a controller the DIM-DMX1CH will not switch on the connected LED strips.

- When expanding your lighting always try and use a signal repeater (PR-RGB) where possible.
- If using DMX over 55mtrs it is recommended to use DIM-DMXAMP (amplifier) for longer distances.
- Can be used with DMX control systems

Safety

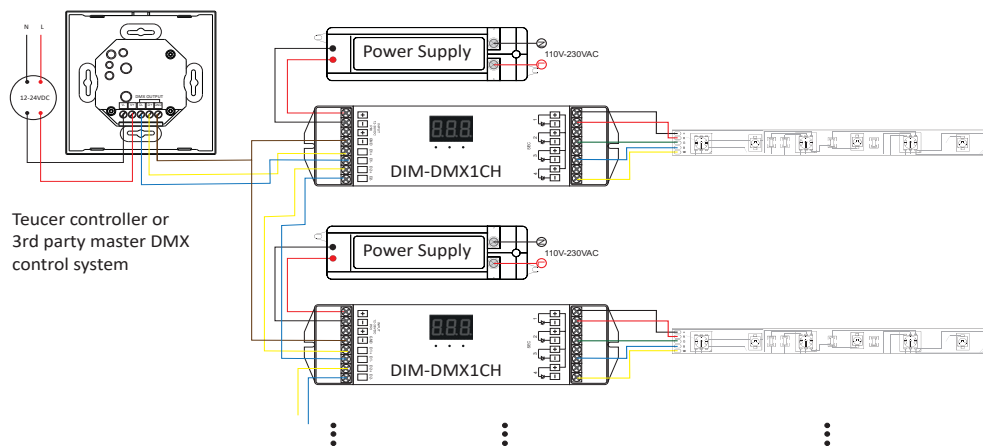
- Products must be installed and serviced by qualified electrician.
- Please ensure the receiver is mounted in a water proof enclosure if installed in an outdoor environment, avoiding metallic enclosures.
- Always ensure products are mounted in areas with adequate ventilation to avoid overheating.
- Please ensure outputs of any power suppliers used in conjunction with this product comply with its working voltage.
- Never install product whilst connected to power and double check connections before switching on to avoid short circuits.

Warranty

Should this product fail during the 3 year warranty period it will be replaced free of charge, subject to the correct installation of the original product in accordance with applicable and appropriate electrical codes and instructions provided by Teucer, as well as subsequent return of the faulty unit. Teucer does not accept responsibility for any installation costs associated with the replacement of this product and Teucer reserves the right to alter specifications without prior notice. Teucer can offer 5 year warranty upon request. For further information, please see our Terms and Conditions. www.teucerled.co.uk/terms-and-conditions/

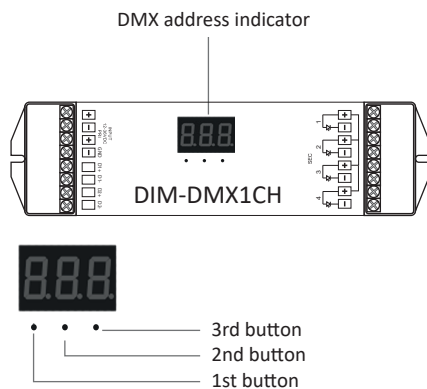
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Decoder wiring diagram



When wiring the decoders, it is important to make sure the total wattage of the LED strips does not exceed the maximum rated wattage per channel of the decoder. Each channel is rated at 5A, so the maximum wattage per channel is $24 \times 5A = 120W$. The power supply has to match the rated voltage and be superior to the total LED strip wattage by a recommended 10%.

Decoder layout

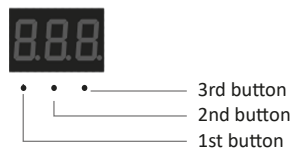


DIM-DMX1CH

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Manual Addressing

To manually allocate a DMX address press the 1st button for 2 seconds, digital display flashes to allow setting of the required DMX address then press each button to cycle through the address settings. 1st key is to set “hundreds” position, 2nd is to set “ten” position, 3rd is to set “a” bit.



The desired address will be displayed with the chosen number on the address indicator display, then press any button for longer than 2 seconds to confirm. Once the setting is completed the desired address will be displayed.

When used with a Teucer wall panel the address indicator should display 001 for zone 1, 005 for zone 2, 009 for zone 3 and 013 for zone 4.

Default DMX decoder addresses	
Zone 1	001
Zone 2	005
Zone 3	009
Zone 4	013

Channel selection

Press the 2nd button and 3rd button at the same time for 2 seconds, cH digital display flashes, then press the 1st button to choose 3/4, (3channel / 4 channel) for the number of output channels required.



Choose between 1/2/3/4, (3 meaning total 3 output channels, 4 means total 4 output channels). Press any button for > 2 seconds to confirm 1,2,3 or 4 channels. The factory preset default is 4 channels output.

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For example, when the address is set to 001

For 1ch, all four channels will be the same address 001.

For 2ch, channel one and channel three will be the same address 001, channel two and channel four will be 002.

For 3ch, channel 1,2,3 will be address 001,002,003, and channel 4 address is also 001

For 4ch, channel 1, 2, 3,4 will be address 001, 002,003,004.

Set DMX address

Press 1st button for 2 seconds, digital display flashes to set the required DMX address, then press any button for >2 seconds to confirm.

Choosing the PWM frequency

Press the 1st button and 3rd button for 2 seconds, digital display flashes displaying P-c.

P means PWM frequency, press the 1st button to show "1", for 1500Hz, "2" for 200Hz.

c means dimming options, press 3rd button to show "1", means logarithmic dimming, "2" means linear dimming.

The factory preset default is PWM frequency 200Hz with linear dimming. 2-2 and it is advised not to change this unless necessary / required.



Troubleshoot

Problem	Cause	Corrective
No light	<ul style="list-style-type: none">No power.Wrong connection or unsecure connection.	<ul style="list-style-type: none">Check the power.Check the connection.
Wrong Colour	<ul style="list-style-type: none">Wrong connection of tunable, RGB/W wires.	<ul style="list-style-type: none">Retrace and reconnect tunable, RGB/W wires.
Uneven intensity between front and rear of the strip, with voltage drop	<ul style="list-style-type: none">Output cable is too long.Cable diameter is too small.Overload beyond driver capability.Overload beyond receiver capability.	<ul style="list-style-type: none">Reduce cable or loop supply.Change to a thicker cable.Replace with a suitable higher power driver.Add a power repeater.

Teucer (UK) Ltd
Head office

Bedford House, Fulham Green, Fulham High Street,
London, SW6 3JW, UK
Tel: +44 (0)20 7350 4429
Fax: +44(0)20 7228 4647
www.teucerled.co.uk
sales@teucer.eu

Logistics Centre

Trident Court,
1 Oakcroft Road,
Chessington,
Surrey, KT9 1BD, London, UK
Tel: +44(0)20 7350 4429, extension: 401
warehouse@teucer.eu