

Led Driver User Manual

220007 EN



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1. Description

Controller for WS2813 led strip with three modes:

1. Wave patterns depending on audio frequency and amplitude (tone / loudness)
2. Light up the full LED strip depending on frequency and amplitude
3. Static, selectable color and brightness

3.5 mm barrel input connector for audio.

2. Usage



Image 1

1. Connect the barrel connector for power input
2. Connect your audio source to the 3.5 mm *AUDIO IN* jack
3. Connect the LED strip data pin to screw terminal 2 (D) and GND to *GND*. Be sure to [connect the led strip B-signal correctly](#).
4. Adjust the gain so that the 7-segment display ranges from 10-99 as music plays

2.1. Modes

2.1.1. Mode 1: Audio Waves

Wave intensity will vary slightly depending on music amplitude. Colors range with audio input frequency from red – green – blue.

2.1.2. Mode 2: Audio Full Strip Control

Same as Mode 1, but affects all LEDs on the strip (maximum defined in the [characteristics](#) - section).

2.1.3. Mode 3: Static Color

Select color and brightness using the pushbuttons.

3. Technical specification

3.1. Power supply

Standard wall adapter for the driver provided. LED strips need to be powered separately. No power supply for the LED strips included.

The unit can also be powered through a standard 5.08 mm screw terminal connector (Phoenix Contact 1757019). See [Characteristics](#) for details.

3.2. Audio signal

Connect the audio to the 3.5 mm audio input. The 7-segment display presents the peak amplitude. Occasional figures of more than 95 are acceptable. If the amplitude never drops below 95, you should consider lowering the gain.

3.3. LED Strip output

4-pin 5.08 mm pitch terminal connector (Phoenix Contact 1757035). Provides GND reference and data bus to the LED strip. Do not connect power or any other output to this connector.

You can connect the data to multiple strips for more impressive effect. The controller will only light up the number of LEDs defined in the [Characteristics](#) -section.

3.3.1. B-signal

WS2813 strip also requires you to short the B-pin to GND at the connection point of the strip. You can achieve that by also connecting the B-wire in the *GND* terminal.

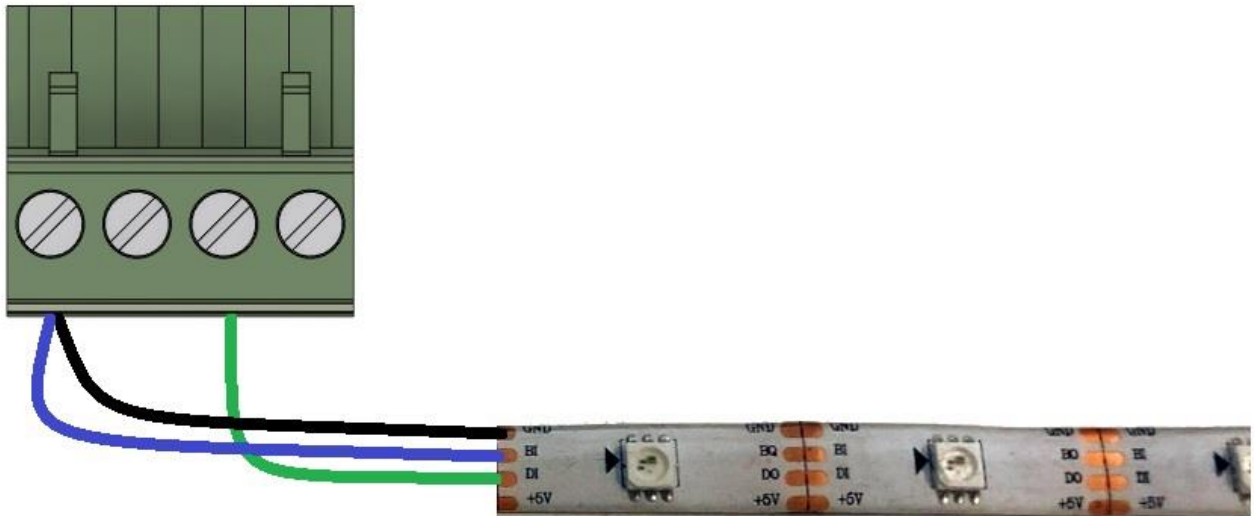


Image 2

3.4. Characteristics

Description	Conditions	Min	Typical	Max	Unit
Power Supply					
Supply Voltage		8		30	V
Supply Current				500	mA
Audio Signal					
Level		0		2.5	V
Input		20		24	kOhm
Gain		1		75	
LED Strip					
Number of LEDs		1		100	Pcs
Parallel strips		1		10	Pcs
Thermal					
Operating	Non-condensing	0		60	°C
Storage	Non-condensing				°C

Table 1

3.5. Mechanical

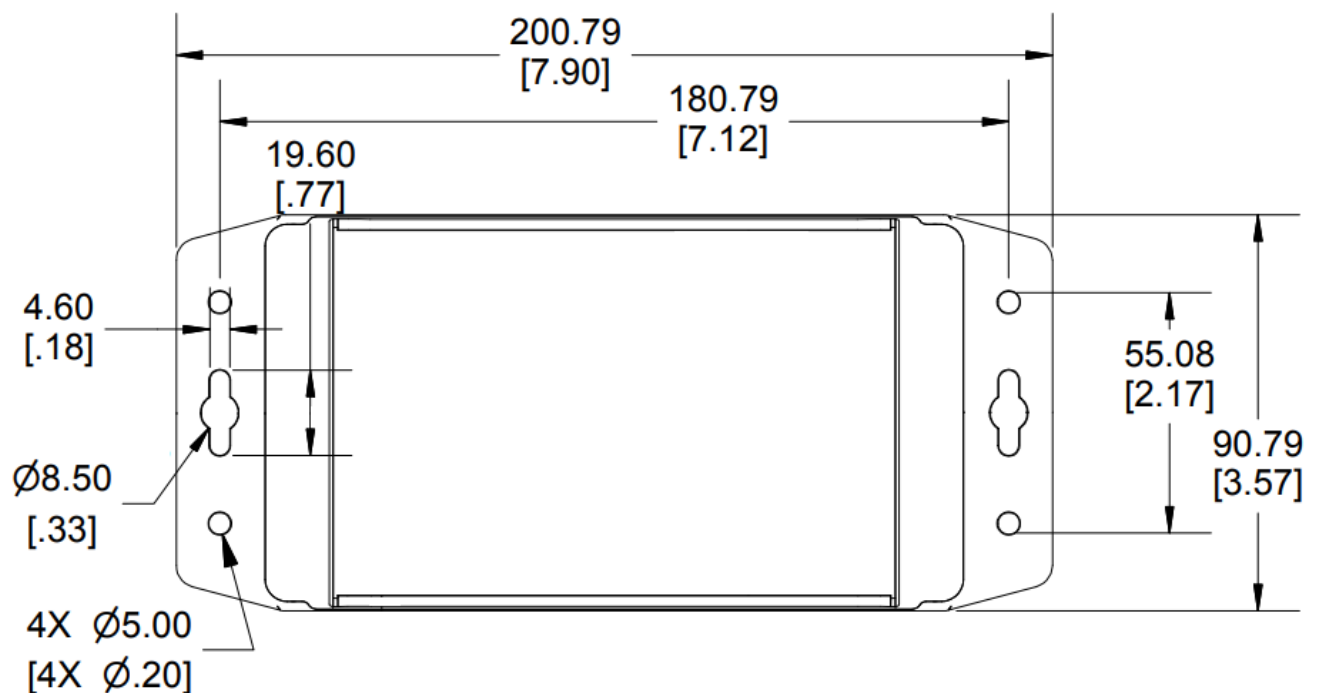


Image 3

4. Connection example

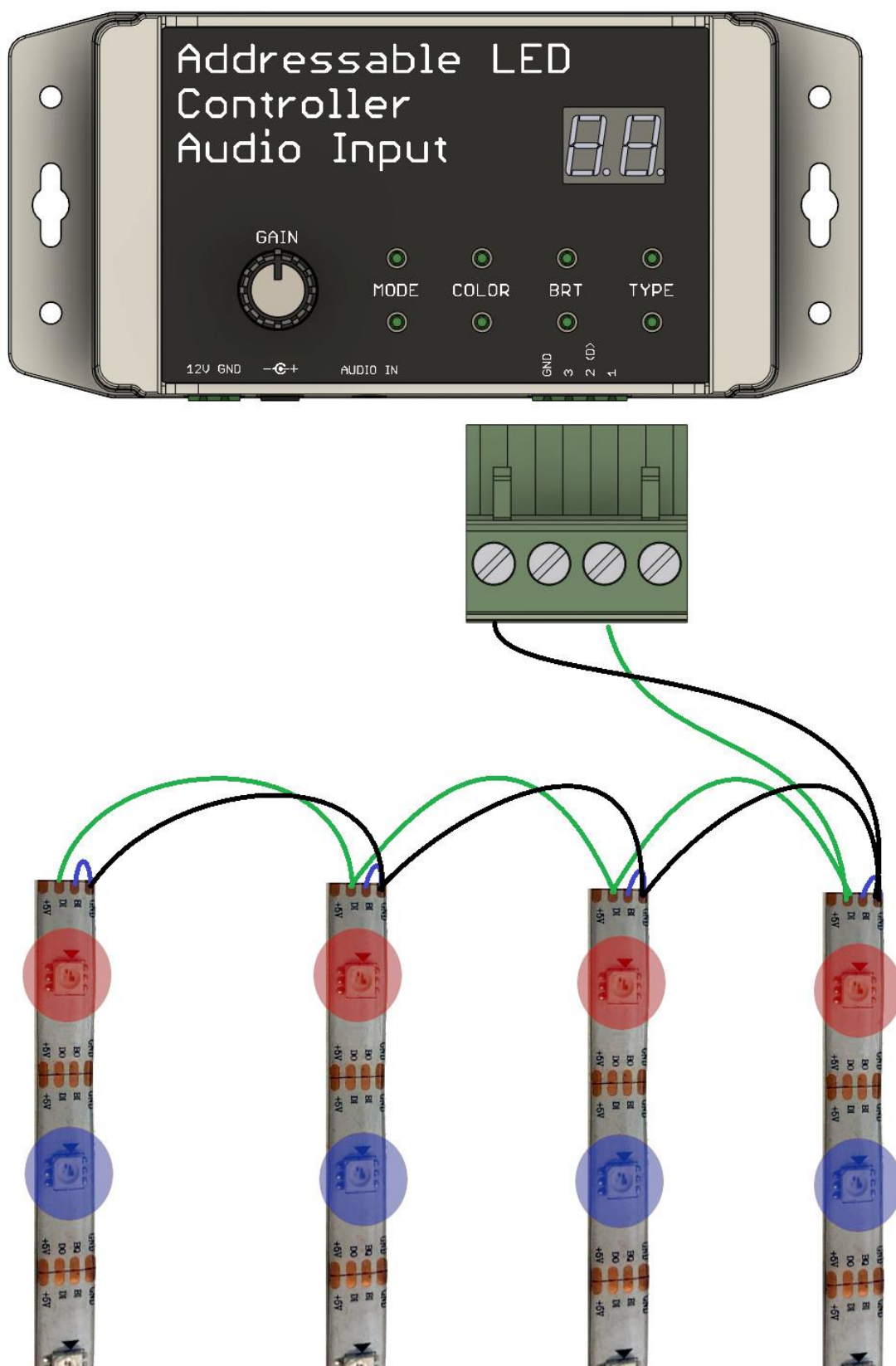


Image 4