Urbantainer DMX to LED Strip Specification v1.0

A. DMX Channel Specification

LED Strip	DMX Channel	Function(Value)	Description
1	Ch1	Red(0-255)	Changing Red Color of the Strip
	Ch2	Green(0-255)	Changing Green Color of the Strip
	Ch3	Blue(0-255)	Changing Blue Color of the Strip
	Ch4	Animation(0-255)	Changing Animation Presets
	Ch5	Strobe Speed / Animation Speed(0-255)	Changing the speed of Strobe or Animation
2	Ch6	Red(0-255)	
	Ch7	Green(0-255)	
	Ch8	Blue(0-255)	
	Ch9	Animation(0-255)	
	Ch10	Strobe Speed / Animation Speed(0-255)	
3	Ch11	Red(0-255)	
	Ch12	Green(0-255)	
	Ch13	Blue(0-255)	
	Ch14	Animation(0-255)	
	Ch15	Strobe Speed / Animation Speed(0-255)	
4	Ch16	Red(0-255)	
	Ch17	Green(0-255)	
	Ch18	Blue(0-255)	
	Ch19	Animation(0-255)	
	Ch20	Strobe Speed / Animation Speed(0-255)	
1,2,3,4	Ch21	Module Dimming Level(0-255)	Changing the dimming level of the module

B. Mode

1. Direct Mode

- Direct Mode controls RGB color of all LEDs in strip.
- When Animation Mode value is set to 0, the strip is work in Direct Mode.
- In Direct Mode, the strip has strobe effect and its frequency is set by changing the Ch5/Ch10/Ch/15/Ch20

2. Animation Mode

- An animation preset is selected by changing the value of Ch4/Ch9/Ch14/Ch19

- Animation Mode has 2 sub modes:
1. Direct Mode based Animation Mode: animaition color is based on direct mode color
    - Dot Flow: a certain length of dots are flowing
    - Sinwave Dimming: a strip's color dimming level is smoothly changing
2. Stand-alone Animation Mode: direct mode color is not used
    - Rainbow: a certain length of rainbow colored LED is flowing
    - Noise: noise pattern

- The speed of an animation preset is set by changing the value of Ch5/Ch10/Ch/15/Ch20

- Animation Mode details

DMX Value	Animation Mode	Description
0	Direct Mode	Direct Mode
1~31	Dot Flow	LED dots are flowing. number of LEDs are 1~31
32~63	Rainbow	Length of a rainbow is set by 32~63
64~95	Reserved	
96~123	Reserved	
124	Noise	set to noise
125	Sinewave Dimming	set to sinewave dimming
126	Reserved	
127	Reserved	

3. Module Dimming Level

- An extra Ch21 is used to dim up or down the module brightness(i.e. all strips).