

**WAND****DMX Protocol Specification**

V1.0

04/2024

## Overview

8 bit 1 channel per function	
DMX mode1	CCT & RGB
DMX mode 2	CCT
DMX mode 3	CCT&HSI
DMX mode 4	RGB
DMX mode 5	HSI

### Mode 1: CCT & RGB, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0-255	0-100	<b>Dimmer</b> closed → open
2	0-255	0-100	<b>Color temperature CCT</b> 2000K-20000K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 9-47 48-57 58-96 97-100	<b>Green / Magenta Point</b> neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	<b>Cross Fade to Color</b> White → RGB color
5	0-255	0-100	<b>Intensity red</b> 0%→100%
6	0-255	0-100	<b>Intensity green</b> 0%→100%
7	0-255	0-100	<b>Intensity blue</b> 0%→100%
8			<b>Reserved for future use</b>

### Mode 2: CCT, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0-255	0-100	<b>Dimmer</b> closed → open
2	0-255	0-100	<b>Color temperature CCT</b> 2000K-20000K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 9-47 48-57 58-96 97-100	<b>Green / Magenta Point</b> neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4			<b>Reserved for future use</b>

### Mode 3: CCT&HSI, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0-255	0-100	<b>Dimmer</b> closed → open
2	0-255	0-100	<b>Color temperature CCT</b> 2000K-20000K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 9-47 48-57 58-96 97-100	<b>Green / Magenta Point</b> neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	<b>Cross Fade to Color</b> White → RGB color
5	0-255	0-100	<b>Hue</b> 0°→360°
6	0-255	0-100	<b>Saturation</b> 0% →100%
7			<b>Reserved for future use</b>

**Mode 4: RGBW, 8 bit resolution per function**

<b>DMX Channel</b>	<b>Value</b>	<b>Percent</b>	<b>Function</b>
<b>1</b>	0-255	0-100	<b>Dimmer</b> closed → open
<b>2</b>	0-255	0-100	<b>Intensity red</b> 0% → 100%
<b>3</b>	0-255	0-100	<b>Intensity green</b> 0%→100%
<b>4</b>	0-255	0-100	<b>Intensity blue</b> 0%→100%
<b>5</b>			<b>Reserved for future use</b>

**Mode 5: HSI, 8bit resolution per function**

<b>DMX Channel</b>	<b>Value</b>	<b>Percent</b>	<b>Function</b>
<b>1</b>	0-255	0-100	<b>Dimmer</b> closed → open
<b>2</b>	0-255	0-100	<b>Hue</b> 0°→360°
<b>3</b>	0-255	0-100	<b>Saturation</b> 0% →100%
<b>4</b>			<b>Reserved for future use</b>

