

DMX格式

数据格式说明

16b高字节在前，低字节在后；可以理解为高字节粗调，低字节精调

Dimmer是归一化数据，对8位：就是 $(n/255) \times 1.0$ ；对16位： $(n/65535) \times 1.0$

CCT是归一化数据，对8位：就是 $(n/255) \times \text{range} + \text{low cct}$ 。

e.g. 双色最低3200K， $n=0$ ， $\text{CCT} = 3200$ ； $n=255$ ， $\text{CCT} = 5600$

e.g. 五色8Bit 最低2000K，最高14750K $n=0$ ， $\text{CCT} = 2000$ ； $n=255$ ， $\text{CCT} = 14750$

e.g. 五色16Bit 最低2000K，最高2000K $n=0$ ， $\text{CCT} = 2000$ ； $n=65535$ ， $\text{CCT} = 20000$

其它数据域，请参考 Value 一列

当DMX菜单 Reduce Channels为On时，Fan Control 数据域 以及 后面的数据域均不生效

双色

CCT

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	
02	03/04	CCT	3200K(2700K) -> 5600K	
03	05	Fan Control	Fan Control Param Table	0%~3% : Use Fan Mode of Fixture Menu 4%~22%: Auto 23%~41%: Off (reserved) 42%~50%: Low 61%~78%: Mid 79%~100% High

High Temp

CCT: 5600K

8b	16b	Parameter	Fuction
01	01/02	Dimmer	close -> open
02	03	Fan Control	Fan Control Param Table

Low Temp

CCT: 2700K/3200K

8b	16b	Parameter	Fuction
01	01/02	Dimmer	close -> open
02	03	Fan Control	Fan Control Param Table

多色

CCT

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	0% ~ 100 %
03	05/06	G/M	-1.0 -> +1.0	0%~4% : no effect; 5%~8%: full -green; 9%~47%: -99%~-1%; 48%~57%: no effect; 58%~96%: 1%~ 99%; 97%~100% full +green
04	07	Fan Control	Fan Control Param Table	0%~3% : Use Fan Mode of Fixture Menu 4%~22%: Auto 23%~41%: Off (reserved) 42%~50%: Low 61%~78%: Mid 79%~100% High

HSI

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	Hue	0~360	0% ~ 100%
03	05/06	Saturation	0 -> 1	0% ~ 100%
04	07/08	WP-CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT
05	09/10	WP-G/M	-1.0 ~ +1.0	参考CCT
06	11	Fan Control	Fan Control Param Table	参考CCT

xy

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	x	0 ~ 0.8	0% ~ 100%
03	05/06	y	0 ~ 0.8	0% ~ 100%
04	07	Fan Control	Fan Control Param Table	参考CCT

Gel

8b	16b	Parameter	Fuction	value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	CCT	3200K or 5600K	0%~49% 3200K 50%~100% 5600K
03	05	Match	Color(0), no color(2)	0%~33%. Best Color; 34%~66%: N/A; 67~100% : No Color Gel

8b	16b	Parameter	Fuction	value
04	06	Brand	Rosco, Lee	10~50%:Rosco; 51~100%: LEE
05	07	Category	TBD	started from 0%, step is 20%
06	08	Gel	Number	started from 0, step is 2
07	09	Fan Control	Fan Control Param Table	参考CCT

Category 依赖 Brand

Rosco: Color Correction/CalColor/Storaro Selection/CineLux

LEE: Color Correction/Color Filters/600 Series/Cosmetic Filters/700 Series

Gel Number 依赖 Brand+Category

Source Matching

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03	Category	started from 0, step is 20%. 目前只支持 Incandescent/Fluorescent/Discharge/Other	
03	04	Source	Number	started from 0, step is 2
04	05	Fan Control	Fan Control Param Table	参考CCT

Source Number 依赖 Category

RGBW

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	R	0.0 ~ 1.0	0% ~ 100%
03	05/06	G	0.0 ~ 1.0	0% ~ 100%
04	07/08	B	0.0 ~ 1.0	0% ~ 100%
05	09/10	W	0.0 ~ 1.0	0% ~ 100%
06	11/12	Y	0.0 ~ 1.0	0% ~ 100%
07	13/14	WP-CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT
08	15/16	WP-G/M	-1.0 ~ +1.0	参考CCT
09	17	Fan Control	Fan Control Param Table	参考CCT

CCT & RGBW

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT

8b	16b	Parameter	Fuction	Value
03	05/06	G/M	-1.0 ~ +1.0	参考CCT
04	07/08	Cross Fade	0.0 ~ 1.0	0% ~ 100%
05	09/10	R	0.0 ~ 1.0	0% ~ 100%
06	11/12	G	0.0 ~ 1.0	0% ~ 100%
07	13/14	B	0.0 ~ 1.0	0% ~ 100%
08	15/16	W	0.0 ~ 1.0	0% ~ 100%
09	17/18	WP-CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT
10	19/20	WP-G/M	-1.0 ~ +1.0	参考CCT
11	21	Fan Control	Fan Control Param Table	参考CCT

CCT & HSI

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03/04	CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT
03	05/06	G/M	-1.0 ~ +1.0	参考CCT
04	07/08	Cross Fade	0.0 ~ 1.0	0% ~ 100%
05	09/10	Hue	0~360	0% ~ 100%
06	11/12	Saturation	0.0 ~ 1.0	0% ~ 100%
07	13/14	WP-CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	参考CCT
08	15/16	WP-G/M	-1.0 ~ +1.0	参考CCT
09	17	Fan Control	Fan Control Param Table	参考CCT

Effect

8b	16b	Parameter	Fuction	Value
01	01/02	Dimmer	close -> open	0% ~ 100%
02	03	Effect Selection	(0~18)*10	参考Effect Selection Table
03	04/05	Effect Parameter 1		
04	06/07	Effect Parameter 2		
05	08/09	Effect Parameter 3		
06	10/11	Effect Parameter 4		
07	12/13	Effect Parameter 5		

8b	16b	Parameter	Fuction	Value
08	14/15	Effect Parameter 6		
09	16/17	Effect Parameter 7		
10	18/19	Effect Parameter 8		
11	20/21	Effect Parameter 9		
12	22/23	Effect Parameter 10		
13	23/24	Effect Parameter 11		
14	25	Fan Control	Fan Control Param Table	参考CCT

Effect Selection Table

8b	16b	Effect Selection	Toliman Support	Vega Support
0 - 4		No Effect	Y	Y
5 - 9		Candle	N	Y
10 - 14		Clouds Passing	Y	Y
15 - 19		Club Lights	N	Y
20 - 24		Cop Car	N	Y
25 - 29		Explosion	Y	Y
30 - 34		Fire	Y	Y
35 - 39		Fireworks	Y	Y
40 - 44		Fluorescent Flicker	N	Y
45 - 49		Lightning	Y	Y
50 - 54		Paparazzi	Y	Y
55 - 59		Party Effect	N	Y
60 - 64		Pulsing	Y	Y
65 - 69		Light Strobe	Y	Y
70 - 74		Television	Y	Y
75 - 79		Welding	Y	Y
80 - 84		Process Effect	Y	Y
85 - 89		Fade In/Out	Y	Y
90 - 94		Zone Random	N	Y
95 - 99		Rolling	N	Y
100 - 104		Color Chase	N	Y
105 - 109		Color Fade	N	Y

8b	16b	Effect Selection	Toliman Support	Vega Support
110 - 114		Color Cycle	N	Y
115 - 119		Color Gradient	N	Y
120 - 124		Color Rolling	N	Y
125 - 255		Reserved for future use	-	-

Effect Candle

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 85 86 - 171 172 - 255	0 - 21.015 21.016 - 43.859 43.860 - 65.535	0 - 33 34 - 68 69 - 100	CCT Range 100 1.400 → 1.700 K 1.700 → 2.000 K 2.000 → 2.300 K
2	0 - 255	0 - 65.535	0 - 100	Speed 0 → 120 changes / min

Effect Clouds Passing

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Offset Offset Number 0 - 50
2	0 - 127 128 - 255	0 - 32.767 32.768 - 65.535	0 - 50 51 - 100	Speed 2 x Slower → Default
3	255	65.535	100	Sync

Effect Club Lights

Effect Parameter	8b	16b	Percent Function	Function
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Effect Parameter	8b	16b	Percent Function	Function
1	0 - 27 28 - 55 56 - 83 84 - 111 112 - 139 140 - 167 168 - 195 196 - 223 224 - 255	0 - 7.167 7.168 - 14.335 14.336 - 21.503 21.504 - 28.671 28.672 - 35.839 35.840 - 43.007 43.008 - 50.175 50.176 - 57.343 57.344 - 65.535	0 - 11 12 - 21 22 - 32 33 - 43 44 - 54 55 - 65 66 - 76 77 - 87 88 - 100	Color Variety 3 Colors 6 Colors 9 Colors 12 Colors 15 Colors 18 Colors 21 Colors 24 Colors reserved
2	0 - 255	0 - 65.535	0 - 100	Speed 0 → 120 changes / min

Effect Cop Car

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 27 28 - 55 56 - 83 84 - 111 112 - 139 140 - 167 168 - 195 196 - 223 224 - 255	0 - 7.167 7.168 - 14.335 14.336 - 21.503 21.504 - 28.671 28.672 - 35.839 35.840 - 43.007 43.008 - 50.175 50.176 - 57.343 57.344 - 65.535	0 - 11 12 - 21 22 - 32 33 - 43 44 - 54 55 - 65 66 - 76 77 - 87 88 - 100	Color Combinations Just Blue Blue and Red Blue and White Blue, Red and White Blue and Amber Blue, Red and Amber Red and Amber Amber Red
2	0 - 27 28 - 55 56 - 83 84 - 111 112 - 139 140 - 167 168 - 255	0 - 7.167 7.168 - 14.335 14.336 - 21.503 21.504 - 28.671 28.672 - 35.839 35.840 - 43.007 43.008 - 65.535	0 - 11 12 - 21 22 - 32 33 - 43 44 - 54 55 - 65 66 - 100	Flash Pattern Single Flash Double Flash Quint All Flash Quint Flash Quad Flash Cycle All Reserved for future use

Effect Explosion

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Decay Decay 4 → 0.5 seconds
2	250 - 255	64.224 - 65.535	98 - 100	Trigger
3	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral</u> no effect 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Fire

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 85 86 - 171 172 - 255	0 - 21.015 21.016 - 43.859 43.860 - 65.535	0 - 33 34 - 68 69 -100	CCT Range 1.800 → 2.200 K 2.200 → 2.600 K 2.600 → 3.000 K
2	0 - 255	0 - 65.535	0 - 100	Speed 0 → 180 changes / min

Effect Fireworks

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 49 50 - 99 100 - 149 150 - 199 200 - 255	0 - 12.749 12.750 - 25.499 25.500 - 38.249 38.250 - 50.999 51.000 - 65.535	0~19 20~39 40~59 60~79 80~100	Color Combinations Colors White Colors and White Warm Colors Cool Colors
2	0 - 255	0 - 65.535	0 - 100	Speed 10 → 0,5 s between fireworks

Effect Fluorescent Flicker

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed 2 → 6 seconds of still
2	0 - 255	0 - 65.535	0 - 100	Frequency 3 → 10 flickers per second
3	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Lightning

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Frequency 2 → 14 lightning strikes set
2	0 - 255	0 - 65.535	0 - 100	Speed 0 → 10 flashes / second
3	0 - 255	0 - 65.535	0 - 100	Color Temperature CCT 2.000 → 20.000 K
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Paparazzi

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Frequency 6 → 120 Flashes / min
2	0 - 127 128 - 255	0 - 32.767 32.768 - 65.535	0 - 50 51 - 100	Flash Type Flash Bulb Modern Flash
3	0 - 255	0 - 65.535	0 - 100	Color Temperature CCT 2.000 → 20.000 K
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral</u> no effect 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Party Effect

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation
2	0 - 255	0 - 65.535	0 - 100	Speed Loop 60 s → 1 s

Effect Pulsing

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Frequency 5 → 90 Pulses / minute
2	0 - 255	0 - 65.535	0 - 100	Pulse Duration 4 → 0.25 seconds
3	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K

Effect Parameter	8b	16b	Percent Function	Function
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral</u> no effect 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Light Strobe

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed 1 → 25 flashes / second
2	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
3	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral</u> no effect 1% → 99% full plus green
4	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
5	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
6	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Television

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 85 86 - 171 172 - 255	0 - 23.929 23.930 - 43.859 43.860 - 65.535	0 - 33 34 - 68 69 -100	CCT Range 2.800 → 4.700 K 4.700 → 6.500 K 6.500 → 10.000 K

Effect Parameter	8b	16b	Percent Function	Function
2	0 - 255	0 - 65.535	0 - 100	Speed 4 → 24 changes / min

Effect Welding

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed Slow → fast
2	0 - 255	0 - 65.535	0 - 100	Min Intensity Level 0% → 75% minimum intensity level
3	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
4	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
5	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
6	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
7	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Process

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed 1s->10s
2	0 - 255	0 - 65.535	0 - 100	Min Intensity Level 0~100%
3	0 - 85 86 - 171 172 - 255	0 - 21.015 21.016 - 43.859 43.860 - 65.535	0 - 33 34 - 68 69 -100	Direction Dark → Bright (once) Bright → Dark (once) both direction (loop)
4	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K

Effect Parameter	8b	16b	Percent Function	Function
5	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
6	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
7	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
8	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation
9	0 - 127 128 - 255	0 - 32.767 32.768 - 65.535	0 - 49 50 - 100	Process Type Type0 Type1
10	0 - 255	0 - 255	0 - 100	Total Group Number

Effect Fade In/Out

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	In Intensity 0~100%
2	0 - 255	0 - 65.535	0 - 100	In Duration 0~60
3	0 - 255	0 - 65.535	0 - 100	Hold Duration 0~300
4	0 - 255	0 - 65.535	0 - 100	Out Intensity 0~100%
5	0 - 255	0 - 65.535	0 - 100	Out Duration 0~60
6	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
7	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
8	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
9	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
10	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Zone Random

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed 1~180

Effect Rolling

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Speed 1->10
2	0 - 255	0 - 65.535	0 - 100	Min Intensity Level 0~100%
3	0 - 85 86 - 171 172 - 255	0 - 23.929 23.930 - 43.859 43.860 - 65.535	0 - 33 34 - 68 69 -100	Direction Dark → Bright (once) Bright → Dark (once) both direction (loop)
4	0 - 85 86 - 171 172 - 255	0 - 23.929 23.930 - 43.859 43.860 - 65.535	0 - 33 34 - 66 67 -100	Size 1 2 3
5	0 - 255	0 - 65.535	0 - 100	Color Temperature 8bit (2000K) -> 14750K 16bit (2000K) -> 20000K
6	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4.587 4.588 - 9.830 9.831 - 30.145 30.146 - 39.976 39.977 - 60.292 60.293 - 65.535	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green-Magenta Point neutral <u>no effect</u> <u>full minus green</u> <u>-99% → -1%</u> <u>neutral no effect</u> 1% → 99% full plus green
7	0 - 255	0 - 65.535	0 - 100	Crossfade to Color White → RGBW Color
8	0 - 255	0 - 65.535	0 - 100	Hue 0 → 360°
9	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation
10	0 - 255	0 - 255	0 - 100	Total Groups

Effect Color Chase

Effect Parameter	8b	16b	Percent Function	Function
1	0 - 255	0 - 65.535	0 - 100	Saturation 0 → 1.0 Saturation

Effect Parameter	8b	16b	Percent Function	Function
2	0 - 255	0 - 65.535	0 - 100	Speed Loop 60 s → 1 s

Effect Color Fade | Effect Color Cycle | Effect Color Gradient

Effect Parameter	8b	16b	Percent Function	Function	Value
1	0 - 255	0 - 65.535	0 - 100	Speed 0 → 100	
2	0 - 85 86 - 255	0 - 22.015 22.016 - 65.535	0-33 34 - 100	Direction + -	
2	0 - 85 86 - 171 172 - 255	0 - 22.015 22.016 - 44.031 44.032 - 65.535	0-33 34 - 66 67 - 100	Binning 1 2 3	
4	0 - 255	0 - 65.535	0 - 100	Color 1	refer EffectColor
5	0 - 255	0 - 65.535	0 - 100	Color 2	refer EffectColor
6	0 - 255	0 - 65.535	0 - 100	Color 3	refer EffectColor
7	0 - 255	0 - 65.535	0 - 100	Color 4	refer EffectColor
8	0 - 255	0 - 65.535	0 - 100	Color 5	refer EffectColor
9	0 - 255	0 - 65.535	0 - 100	Color 6	refer EffectColor
10	0 - 255	0 - 65.535	0 - 100	Color 7	refer EffectColor
11	0 - 255	0 - 65.535	0 - 100	Color 8	refer EffectColor

Effect Color Rolling (Zebra Rolling)

Effect Parameter	8b	16b	Percent Function	Function	Value
1	0 - 255	0 - 65.535	0 - 100	Speed 0 → 30	
2	0 - 85 86 - 255	0 - 22.015 22.016 - 65.535	0-33 34 - 100	Direction + -	
3	0 - 250	0 - 64.000	0 - 100	Size	1~250
4	0 - 255	0 - 65.535	0 - 100	Color 1	refer EffectColor
5	0 - 255	0 - 65.535	0 - 100	Color 2	refer EffectColor
6	0 - 250	0 - 64.000	0 - 100	Group Total	1~250

EffectColor

Effect Color Name	8b	16b
EFFECT_COLOR_HUE_0	0~ 9	0~ 999
EFFECT_COLOR_HUE_30	10~ 19	1000~ 1999
EFFECT_COLOR_HUE_60	20~ 29	2000~ 2999
EFFECT_COLOR_HUE_90	30~ 39	3000~ 3999
EFFECT_COLOR_HUE_120	40~ 49	4000~ 4999
EFFECT_COLOR_HUE_150	50~ 59	5000~ 5999
EFFECT_COLOR_HUE_180	60~ 69	6000~ 6999
EFFECT_COLOR_HUE_210	70~ 79	7000~ 7999
EFFECT_COLOR_HUE_240	80~ 89	8000~ 8999
EFFECT_COLOR_HUE_270	90~ 99	9000~ 9999
EFFECT_COLOR_HUE_300	100~109	10000~10999
EFFECT_COLOR_HUE_330	110~119	11000~11999
EFFECT_COLOR_CCT_2000	120~129	12000~12999
EFFECT_COLOR_CCT_3200	130~139	13000~13999
EFFECT_COLOR_CCT_4000	140~149	14000~14999
EFFECT_COLOR_CCT_5600	150~159	15000~15999
EFFECT_COLOR_CCT_6500	160~169	16000~16999
EFFECT_COLOR_CCT_7500	170~179	17000~17999
EFFECT_COLOR_CCT_BLACK	180~189	18000~18999

Light Engine Ultimate

8b	16b	Parameter	Fuction
01	01/02	Dimmer	Master Dimmer
02	03/04	Mode	Color Mode Selection
03	05/06	Num	Light Engine Num
04	07/08	Param	Color Paramter #1
05	09/10	Param	Color Paramter #2
06	11/12	Param	Color Paramter #3
07	13/14	Param	Color Paramter #4
08	15/16	Param	Color Paramter #5
09	17/18	Param	Color Paramter #6

8b	16b	Parameter	Fuction
10	19/20	Param	Color Paramter #7
11	21/22	Param	Color Paramter #8
12	23/24	Param	Color Paramter #9
.
27	53/54	Param	Color Paramter #24
28	55	Fan Control	Fan Control Param Table

Color Mode Selection Mapping (Light Engine Ultimate)

8b	16b	Mode Selection
0 - 9	0 - 9	CCT Mode
10 - 19	10 - 19	HSI Mode
20 - 29	20 - 29	xyY Mode
30 - 39	30 - 39	Source Matching
40 - 255	40 - 255	Reserved

Light Engine Num Mapping (Light Engine Ultimate)

8b	16b	Engine Num
0 - 29	0 - 29	2 Engines
30 - 39	30 - 39	Reserved
40 - 49	40 - 49	4 Engines
50 - 79	50 - 79	Reserved
80 - 89	80 - 89	8 Engines
90 - 255	90 - 255	Reserved

Color Paramter #1~#24 for CCT Mode (Light Engine Ultimate)

Color Paramter	8b	16b	Parameter	Fuction	Value
#01	01	01/02	Engine 1th Dimmer	close -> open	0 ~ 100%
#02	02	03/04	Engine 1th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#03	03	05/06	Engine 1th G/M	-1.0 ~ 1.0	refer CCT
#04	04	07/08	Engine 2th Dimmer	close -> open	0 ~ 100%

Color Paramter	8b	16b	Parameter	Fuction	Value
#05	05	09/10	Engine 2th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#06	06	11/12	Engine 2th G/M	-1.0 ~ 1.0	refer CCT
#07	07	13/14	Engine 3th Dimmer	close -> open	0 ~ 100%
#08	08	15/16	Engine 3th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#09	09	17/18	Engine 3th G/M	-1.0 ~ 1.0	refer CCT
#10	10	19/20	Engine 4th Dimmer	close -> open	0 ~ 100%
#11	11	21/22	Engine 4th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#12	12	23/24	Engine 4th G/M	-1.0 ~ 1.0	refer CCT
#13	13	25/26	Engine 5th Dimmer	close -> open	0 ~ 100%
#14	14	27/28	Engine 5th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#15	15	29/30	Engine 5th G/M	-1.0 ~ 1.0	refer CCT
#16	16	31/32	Engine 6th Dimmer	close -> open	0 ~ 100%
#17	17	33/34	Engine 6th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#18	18	35/36	Engine 6th G/M	-1.0 ~ 1.0	refer CCT
#19	19	37/38	Engine 7th Dimmer	close -> open	0 ~ 100%
#20	20	39/40	Engine 7th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#21	21	41/42	Engine 7th G/M	-1.0 ~ 1.0	refer CCT
#22	22	43/44	Engine 8th Dimmer	close -> open	0 ~ 100%
#23	23	45/46	Engine 8th CCT	8bit (2000K) -> 14750K 16bit (2000K) -> 20000K	refer CCT
#24	24	47/48	Engine 8th G/M	-1.0 ~ 1.0	refer CCT

When Light Engine Num == 2, Color Paramter #1~#6 is Valid; #7~#24 is Ignored

Color Paramter #1~#24 for HSI Mode (Light Engine Ultimate)

Color Paramter	8b	16b	Parameter	Fuction	Value
#01	01	01/02	Engine 1th Dimmer	close -> open	0 ~ 100%
#02	02	03/04	Engine 1th Hue	0 ~ 360°	0 ~ 100%
#03	03	05/06	Engine 1th Saturation	0 ~ 100%	0 ~ 100%
#04	04	07/08	Engine 2th Dimmer	close -> open	0 ~ 100%
#05	05	09/10	Engine 2th Hue	0 ~ 360°	0 ~ 100%
#06	06	11/12	Engine 2th Saturation	0 ~ 100%	0 ~ 100%

Color Paramter	8b	16b	Parameter	Fuction	Value
#07	07	13/14	Engine 3th Dimmer	close -> open	0 ~ 100%
#08	08	15/16	Engine 3th Hue	0 ~ 360°	0 ~ 100%
#09	09	17/18	Engine 3th Saturation	0 ~ 100%	0 ~ 100%
#10	10	19/20	Engine 4th Dimmer	close -> open	0 ~ 100%
#11	11	21/22	Engine 4th Hue	0 ~ 360°	0 ~ 100%
#12	12	23/24	Engine 4th Saturation	0 ~ 100%	0 ~ 100%
#13	13	25/26	Engine 5th Dimmer	close -> open	0 ~ 100%
#14	14	27/28	Engine 5th Hue	0 ~ 360°	0 ~ 100%
#15	15	29/30	Engine 5th Saturation	0 ~ 100%	0 ~ 100%
#16	16	31/32	Engine 6th Dimmer	close -> open	0 ~ 100%
#17	17	33/34	Engine 6th Hue	0 ~ 360°	0 ~ 100%
#18	18	35/36	Engine 6th Saturation	0 ~ 100%	0 ~ 100%
#19	19	37/38	Engine 7th Dimmer	close -> open	0 ~ 100%
#20	20	39/40	Engine 7th Hue	0 ~ 360°	0 ~ 100%
#21	21	41/42	Engine 7th Saturation	0 ~ 100%	0 ~ 100%
#22	22	43/44	Engine 8th Dimmer	close -> open	0 ~ 100%
#23	23	45/46	Engine 8th Hue	0 ~ 360°	0 ~ 100%
#24	24	47/48	Engine 8th Saturation	0 ~ 100%	0 ~ 100%

When Light Engine Num == 2, Color Paramter #1~#6 is Valid; #7~#24 is Ignored

Color Paramter #1~#24 for xyY Mode (Light Engine Ultimate)

Color Paramter	8b	16b	Parameter	Fuction	Value
#01	01	01/02	Engine 1th Dimmer	close -> open	0 ~ 100%
#02	02	03/04	Engine 1th x coordinate	0 ~ 0.8	0 ~ 100%
#03	03	05/06	Engine 1th y coordinate	0 ~ 0.8	0 ~ 100%
#04	04	07/08	Engine 2th Dimmer	close -> open	0 ~ 100%
#05	05	09/10	Engine 2th x coordinate	0 ~ 0.8	0 ~ 100%
#06	06	11/12	Engine 2th y coordinate	0 ~ 0.8	0 ~ 100%
#07	07	13/14	Engine 3th Dimmer	close -> open	0 ~ 100%

Color Paramter	8b	16b	Parameter	Fuction	Value
#08	08	15/16	Engine 3th x coordinate	0 ~ 0.8	0 ~ 100%
#09	09	17/18	Engine 3th y coordinate	0 ~ 0.8	0 ~ 100%
#10	10	19/20	Engine 4th Dimmer	close -> open	0 ~ 100%
#11	11	21/22	Engine 4th x coordinate	0 ~ 0.8	0 ~ 100%
#12	12	23/24	Engine 4th y coordinate	0 ~ 0.8	0 ~ 100%
#13	13	25/26	Engine 5th Dimmer	close -> open	0 ~ 100%
#14	14	27/28	Engine 5th x coordinate	0 ~ 0.8	0 ~ 100%
#15	15	29/30	Engine 5th y coordinate	0 ~ 0.8	0 ~ 100%
#16	16	31/32	Engine 6th Dimmer	close -> open	0 ~ 100%
#17	17	33/34	Engine 6th x coordinate	0 ~ 0.8	0 ~ 100%
#18	18	35/36	Engine 6th y coordinate	0 ~ 0.8	0 ~ 100%
#19	19	37/38	Engine 7th Dimmer	close -> open	0 ~ 100%
#20	20	39/40	Engine 7th x coordinate	0 ~ 0.8	0 ~ 100%
#21	21	41/42	Engine 7th y coordinate	0 ~ 0.8	0 ~ 100%
#22	22	43/44	Engine 8th Dimmer	close -> open	0 ~ 100%
#23	23	45/46	Engine 8th x coordinate	0 ~ 0.8	0 ~ 100%
#24	24	47/48	Engine 8th y coordinate	0 ~ 0.8	0 ~ 100%

When Light Engine Num == 2, Color Paramter #1~#6 is Valid; #7~#24 is Ignored

Color Paramter #1~#24 for Source Matching Mode (Light Engine Ultimate)

Color Paramter	8b	16b	Parameter	Fuction	Value
#01	01	01/02	Engine 1th Dimmer	close -> open	0 ~ 100%
#02	02	03/04	Engine 1th Category	Number	0 ~ 255, step:51
#03	03	05/06	Engine 1th Source Num	Number	0 ~ 255, step:3
#04	04	07/08	Engine 2th Dimmer	close -> open	0 ~ 100%
#05	05	09/10	Engine 2th Category	Number	0 ~ 255, step:51
#06	06	11/12	Engine 2th Source Num	Number	0 ~ 255, step:3
#07	07	13/14	Engine 3th Dimmer	close -> open	0 ~ 100%
#08	08	15/16	Engine 3th Category	Number	0 ~ 255, step:51

Color Paramter	8b	16b	Parameter	Fuction	Value
#09	09	17/18	Engine 3th Source Num	Number	0 ~ 255, step:3
#10	10	19/20	Engine 4th Dimmer	close -> open	0 ~ 100%
#11	11	21/22	Engine 4th Category	Number	0 ~ 255, step:51
#12	12	23/24	Engine 4th Source Num	Number	0 ~ 255, step:3
#13	13	25/26	Engine 5th Dimmer	close -> open	0 ~ 100%
#14	14	27/28	Engine 5th Category	Number	0 ~ 255, step:51
#15	15	29/30	Engine 5th Source Num	Number	0 ~ 255, step:3
#16	16	31/32	Engine 6th Dimmer	close -> open	0 ~ 100%
#17	17	33/34	Engine 6th Category	Number	0 ~ 255, step:51
#18	18	35/36	Engine 6th Source Num	Number	0 ~ 255, step:3
#19	19	37/38	Engine 7th Dimmer	close -> open	0 ~ 100%
#20	20	39/40	Engine 7th Category	Number	0 ~ 255, step:51
#21	21	41/42	Engine 7th Source Num	Number	0 ~ 255, step:3
#22	22	43/44	Engine 8th Dimmer	close -> open	0 ~ 100%
#23	23	45/46	Engine 8th Category	Number	0 ~ 255, step:51
#24	24	47/48	Engine 8th Source Num	Number	0 ~ 255, step:3

When Light Engine Num == 2, Color Paramter #1~#6 is Valid; #7~#24 is Ignored

RDM支持的命令

Command	Hex	Description
DEVICE_INFO	0x0060	Device information
SOFTWARE_VERSION_LABEL	0x00c0	Software Label
IDENTIFY_DEVICE	0x1000	
COMM_STATUS	0x0015	
QUEUED_MESSAGE	0x0020	
STATUS_MESSAGES	0x0030	
SUPPORTED_PARAMETERS	0x0050	
PRODUCT_DETAIL_ID_LIST	0x0070	
DEVICE_MODEL_DESCRIPTION	0x0080	
MANUFACTURER_LABEL	0x0081	

Command	Hex	Description
DEVICE_LABEL	0x0082	
FACTORY_DEFAULTS	0x0090	
DMX_PERSONALITY	0x00e0	
DMX_PERSONALITY_DESC	0x00e1	
DMX_START_ADDRESS	0x00f0	
DMX_SLOT_INFO	0x0120	
DMX_SLOT_DESC	0x0121	
DMX_SLOT_DEFAULT_VALUE	0x0122	
SESNOR_DEFINITION	0x0200	
SENSOR_VALUE	0x0201	
DEVICE_HOURS	0x0400	
LAMP_HOURS	0x0401	
LAMP_STRIKES	0x0402	
LAMP_STATE	0x0403	
LAMP_ON_MODE	0x0404	
DEVICE_POWER_CYCLES	0x0405	
DIMMER_CURVE	0x0343	
DIMMER_CURVE_DESC	0x344	
DISPLAY_INVERT	0x0500	
DISPLAY_LEVEL	0x0501	