



MT PRO

DMX Profile Specification

Controller Firmware V1.2

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Mode 1: CCT & RGB

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
245 - 255	97 - 100	Full Plus Green		
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8	0 - 19	0 - 7	Strobe	No Effect
	20 - 255	8 - 100		1 Hz - 25 Hz

Mode 2: CCT

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
245 - 255	97 - 100	Full Plus Green		
4	0 - 19	0 - 7	Strobe	No Effect
	20 - 255	8 - 100		1 Hz - 25 Hz

Mode 3: CCT & HSI

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect Full Minus Green - 99% - - 1% Neutral / No Effect 1% - 99% Full Plus Green
	11 - 20	5 - 8		
	21 - 119	9 - 47		
	120 - 145	48 - 57		
	146 - 244	58 - 96		
245 - 255	97 - 100			
4	0 - 255	0 - 100	CCT ↔ HSI	Crossfade to Color
5	0 - 255	0 - 100	Hue	1° - 360°
6	0 - 255	0 - 100	Saturation	0 - 100%
7	0 - 19	0 - 7	Strobe	No Effect 1 Hz - 25 Hz
	20 - 255	80 - 100		

Mode 4: RGB

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5	0 - 19	0 - 7	Strobe	No Effect 1 Hz - 25 Hz
	20 - 255	80 - 100		

Mode 5: HSI

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5	0 - 19 20 - 255	0 - 7 8 - 100	Strobe	No Effect 1 Hz - 25 Hz

Mode 6: XY

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	X Coordinate	0 - 0.8
3	0 - 255	0 - 100	Y Coordinate	0 - 0.8
4	0 - 19 20 - 255	0 - 7 8 - 100	Strobe	No Effect 1 Hz - 25 Hz

Mode 7: System FX - List of Effects

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 9 10 - 19 20 - 29 30 - 39 40 - 49 50 - 59 60 - 69 70 - 79 80 - 89 90 - 255	0 - 4 5 - 8 9 - 12 13 - 16 17 - 20 21 - 24 25 - 28 29 - 32 33 - 36 37 - 100	FX Selection	Paparazzi II Lightning III TV III Fire III Faulty Bulb III Pulsing III Cop Car III Party Lights II Fireworks II Reserved
3 - 10	See FX Parameter Tables in Following Pages			

FX Parameter: Paparazzi II

Channel	Value	Percent	Function	
3	0 - 255	0 - 100	CCT	2000 K - 10000 K
4	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
5	0 - 255	0 - 100	Intervals time Lower limit	0.2s - 2s
6	0 - 255	0 - 100	Intervals time Upper limit	1s - 18s
7	0 - 10	0 - 5	Stop / Loop	Stop
	11 - 127	6 - 50		Loop
	128 - 255	51 - 100		Reserved

FX Parameter: Lightning III

Channel	Value	Percent	Function	
3	0 - 9	0 - 4	Mode Select	CCT
	10 - 19	5 - 8		HSI
	20 - 255	9 - 100		Reserved
CCT				
4	0 - 255	0 - 100	CCT	2000 K - 10000 K
5	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
6	0 - 255	0 - 100	Intervals time Lower limit	1.5s - 26s
7	0 - 255	0 - 100	Intervals time Upper limit	3s - 30s

FX Parameter: Lightning III, continued

HSI				
4	0 - 255	0 - 100	Hue	1° - 360°
5	0 - 255	0 - 100	Saturation	0 - 100%
6	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
7	0 - 255	0 - 100	Intervals time Lower limit	1.5s - 26s
8	0 - 255	0 - 100	Intervals time Upper limit	3s - 30s
9	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Trigger / Loop	Stop Trigger Loop

FX Parameter: TV III

Channel	Value	Percent	Function	
3	0 - 9 10 - 19 20 - 255	0 - 4 5 - 8 9 - 100	Mode Select	CCT HSI Reserved
CCT				
4	0 - 255	0 - 100	CCT Lower limit	2000 K - 10000 K
5	0 - 255	0 - 100	CCT Upper limit	2000 K - 10000 K
6	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	G / M	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
7	0 - 255	0 - 100	Intervals time Lower limit	0.5s - 5s
8	0 - 255	0 - 100	Intervals time Upper limit	2.5s - 15s

FX Parameter: TV III, continued

HSI				
4	0 - 255	0 - 100	HUE Lower limit	1° - 360°
5	0 - 255	0 - 100	HUE Upper limit	1° - 360°
6	0 - 255	0 - 100	Saturation	0 - 100%
7	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
8	0 - 255	0 - 100	Intervals time Lower limit	0.5s - 5s
9	0 - 255	0 - 100	Intervals time Upper limit	2.5s - 15s
10	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

FX Parameter: Fire III

Channel	Value	Percent	Function	
3	0 - 9 10 - 19 20 - 255	0 - 4 5 - 8 9 - 100	Mode Select	CCT HSI Reserved
CCT				
4	0 - 255	0 - 100	CCT Lower limit	1800 K - 10000 K
5	0 - 255	0 - 100	CCT Upper limit	1800 K - 10000 K
6	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	G / M	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green

FX Parameter: Fire III, continued

HSI				
4	0 - 255	0 - 100	HUE Lower limit	1° - 360°
5	0 - 255	0 - 100	HUE Lower limit	1° - 360°
6	0 - 255	0 - 100	Saturation	0 - 100%
7	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
8	0 - 255	0 - 100	Frequency	18 - 180 /mins
9	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

FX Parameter: Faulty Bulb III

Channel	Value	Percent	Function	
3	0 - 9 10 - 19 20 - 255	0 - 4 5 - 8 9 - 100	Mode Select	CCT HSI Reserved
CCT				
4	0 - 255	0 - 100	CCT	2000 K - 10000 K
5	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	G / M	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
6	0 - 255	0 - 100	Intervals time Lower limit	0.3s - 1.8s
7	0 - 255	0 - 100	Intervals time Upper limit	1.8s - 7.5s

FX Parameter: Faulty Bulb III, continued

HSI				
4	0 - 255	0 - 100	Hue	1° - 360°
5	0 - 255	0 - 100	Saturation	0 - 100%
6	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
7	0 - 255	0 - 100	Intervals time Lower limit	0.3s - 1.8s
8	0 - 255	0 - 100	Intervals time Upper limit	1.8s - 7.5s
9	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

FX Parameter: Pulsing III

Channel	Value	Percent	Function	
3	0 - 9 10 - 19 20 - 255	0 - 4 5 - 8 9 - 100	Mode Select	CCT HSI Reserved
CCT				
4	0 - 255	0 - 100	CCT	2000 K - 10000 K
5	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	G / M	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green

FX Parameter: Pulsing III, continued

HSI				
4	0 - 255	0 - 100	Hue	1° - 360°
5	0 - 255	0 - 100	Saturation	0 - 100%
6	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
7	0 - 255	0 - 100	Pluses	10 - 200 /mins
8	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

FX Parameter: Cop Car III

Channel	Value	Percent	Function	
3	0 - 9	0 - 4	Colors Combinations	Red
	10 - 19	5 - 8		Blue
	20 - 29	9 - 12		Red + Blue
	30 - 39	13 - 16		Blue + White
	40 - 49	17 - 20		Red + Blue + White
	50 - 255	21 - 100		Reserved
4	0 - 9	0 - 4	Frequency	Single
	10 - 19	5 - 8		Double
	20 - 29	9 - 12		Quad
	30 - 39	13 - 16		Quint
	40 - 49	17 - 20		Quint all
	50 - 59	21 - 24		Cycle
	60 - 255	25 - 100		Reserved
5	0 - 10	0 - 5	Stop / Loop	Stop
	11 - 127	6 - 50		Loop
	128 - 255	51 - 100		Reserved

FX Parameter: Party Lights II

Channel	Value	Percent	Function	
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 255	0 - 100	Speed	1s - 60s
5	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

FX Parameter: Fireworks II

Channel	Value	Percent	Function	
3	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Color Combinations	CCT HUE CCT+HUE Reserved
4	0 - 255	0 - 100	Intervals time Lower limit	0.5s - 9s
5	0 - 255	0 - 100	Intervals time Upper limit	2s - 11s
6	0 - 10 11 - 127 128 - 255	0 - 5 6 - 50 51 - 100	Stop / Loop	Stop Loop Reserved

Mode 8: Pixel FX - List of Effects

Channel	Value	Percent	Function	
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 9 10 - 60 61 - 255	0 - 4 5 - 24 25 - 100	Play/Pause/Stop	Play Pause Stop
3	0 - 9 10 - 19 20 - 29 30 - 39 40 - 49 50 - 59 60 - 69 70 - 255	0 - 4 5 - 8 9 - 12 13 - 16 17 - 20 21 - 24 25 - 28 29 - 100	Effect Selection	Color Fade Color Cycle One Pixel Chase Two Pixel Chase Three Pixel Chase Rainbow Pixel Fire Reserved
4 - 36	See FX Parameter Tables in Following Pages			

FX Parameter: Color Fade

Channel	Value	Percent	Function	
4	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	No. of Colors	2 3 4 Reserved
5	0 - 127 128 - 255	0 - 50 51 - 100	Move	Left Right
6	0 - 255	0 - 100	Speed	1cm/s - 640cm/s
7	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Color 1 Mode	CCT HSI Black Reserved

FX Parameter: Color Fade, continued

CCT				
8	0 - 255	0 - 100	CCT	2000K - 10000K
9	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
8	0 - 255	0 - 100	HUE	1° - 360°
9	0 - 255	0 - 100	Saturation	0 - 100%
10	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
11	0 - 9	0 - 4	Color 2 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
12	0 - 255	0 - 100	CCT	2000K - 10000K
13	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
12	0 - 255	0 - 100	HUE	1° - 360°
13	0 - 255	0 - 100	Saturation	0 - 100%
14	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
15	0 - 9	0 - 4	Color 3 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Color Fade, continued

CCT				
16	0 - 255	0 - 100	CCT	2000K - 10000K
17	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
16	0 - 255	0 - 100	HUE	1° - 360°
17	0 - 255	0 - 100	Saturation	0 - 100%
18	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
19	0 - 9	0 - 4	Color 4 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
20	0 - 255	0 - 100	CCT	2000K - 10000K
21	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
20	0 - 255	0 - 100	HUE	1° - 360°
21	0 - 255	0 - 100	Saturation	0 - 100%
22	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K

FX Parameter: Color Cycle

Channel	Value	Percent	Function	
4	0 - 9	0 - 4	No. of Colors	2
	10 - 19	5 - 8		3
	20 - 29	9 - 12		4
	30 - 255	13 - 100		Reserved
5	0 - 255	0 - 100	Speed	0.1s - 10s
6	0 - 127	0 - 50	Transition	Step
	128 - 255	51 - 100		Smooth
7	0 - 127	0 - 50	Move	Left
	128 - 255	51 - 100		Right
8	0 - 9	0 - 4	Color 1 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
245 - 255	97 - 100	Full Plus Green		
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
12	0 - 9	0 - 4	Color 2 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Color Cycle, continued

CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
16	0 - 9	0 - 4	Color 3 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
17	0 - 255	0 - 100	CCT	2000K - 10000K
18	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
17	0 - 255	0 - 100	HUE	1° - 360°
18	0 - 255	0 - 100	Saturation	0 - 100%
19	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
20	0 - 9	0 - 4	Color 4 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Color Cycle, continued

CCT				
21	0 - 255	0 - 100	CCT	2000K - 10000K
22	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
21	0 - 255	0 - 100	HUE	1° - 360°
22	0 - 255	0 - 100	Saturation	0 - 100%
23	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K

FX Parameter: One Pixel Chase

Channel	Value	Percent	Function	
4	0 - 9	0 - 4	Pixel Size	2
	10 - 19	5 - 8		3
	20 - 29	9 - 12		4
	30 - 39	13 - 16		6
	40 - 49	17 - 20		9
	50 - 255	21 - 100		Reserved
5	0 - 255	0 - 100	Speed	1cm/s - 640cm/s
6	0 - 127	0 - 50	Departure	1 Way
	128 - 255	51 - 100		2 Way
7	0 - 60	0 - 24	Move (1 Way)	Left
	61 - 120	25 - 48		Right
	121 - 255	49 - 100		Loop
	0 - 127	0 - 50	Move (2 Way)	Rebound
	128 - 255	51 - 100		Crossover

FX Parameter: One Pixel Chase, continued

1 Way				
8	0 - 9	0 - 4	Pixel 1 Mode	CCT HSI Black Reserved
	10 - 19	5 - 8		
	20 - 29	9 - 12		
	30 - 255	13 - 100		
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
	11 - 20	5 - 8		
	21 - 119	9 - 47		
	120 - 145	48 - 57		
	146 - 244	58 - 96		
	245 - 255	97 - 100		
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10	0 - 4	HSI Base CCT	6500 K 2000K - 10000K
	11 - 255	5 - 100		
12	0 - 255	0 - 100	Background Intensity	0 - 100%
13	0 - 9	0 - 4	Background Color Mode	CCT HSI Black Reserved
	10 - 19	5 - 8		
	20 - 29	9 - 12		
	30 - 255	13 - 100		
CCT				
14	0 - 255	0 - 100	CCT	2000K - 10000K
15	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
	11 - 20	5 - 8		
	21 - 119	9 - 47		
	120 - 145	48 - 57		
	146 - 244	58 - 96		
	245 - 255	97 - 100		

FX Parameter: One Pixel Chase, continued

HSI				
14	0 - 255	0 - 100	HUE	1° - 360°
15	0 - 255	0 - 100	Saturation	0 - 100%
16	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
2 Way				
8	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 1 Mode	CCT HSI Black Reserved
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
12	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 2 Mode	CCT HSI Black Reserved
CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green

FX Parameter: One Pixel Chase, continued

HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
16	0 - 255	0 - 100	Background Intensity	0 - 100%
17	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Background Color Mode	CCT HSI Black Reserved
CCT				
18	0 - 255	0 - 100	CCT	2000K - 10000K
19	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
18	0 - 255	0 - 100	HUE	1° - 360°
19	0 - 255	0 - 100	Saturation	0 - 100%
20	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K

FX Parameter: Two Pixel Chase

Channel	Value	Percent	Function	
4	0 - 9	0 - 4	Pixel Size	2
	10 - 19	5 - 8		3
	20 - 29	9 - 12		6
	30 - 255	13 - 100		Reserved
5	0 - 255	0 - 100	Speed	1cm/s - 640cm/s
6	0 - 127	0 - 50	Departure	1 Way
	128 - 255	51 - 100		2 Way
7	0 - 60	0 - 24	Move (1 Way)	Left
	61 - 120	25 - 48		Right
	121 - 255	49 - 100		Loop
	0 - 127	0 - 50	Move (2 Way)	Rebound
	128 - 255	51 - 100		Crossover
1 Way				
8	0 - 9	0 - 4	Pixel 1 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
245 - 255	97 - 100	Full Plus Green		
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
12	0 - 9	0 - 4	Pixel 2 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Two Pixel Chase, continued

CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
16	0 - 255	0 - 100	Background Intensity	0 - 100%
17	0 - 9	0 - 4	Background Color Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
18	0 - 255	0 - 100	CCT	2000K - 10000K
19	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
18	0 - 255	0 - 100	HUE	1° - 360°
19	0 - 255	0 - 100	Saturation	0 - 100%
20	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K

FX Parameter: Two Pixel Chase, continued

2 Way				
8	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 1 Mode	CCT HSI Black Reserved
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
12	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 2 Mode	CCT HSI Black Reserved
CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green

FX Parameter: Two Pixel Chase, continued

HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
16	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 3 Mode	CCT HSI Black Reserved
CCT				
17	0 - 255	0 - 100	CCT	2000K - 10000K
18	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
17	0 - 255	0 - 100	HUE	1° - 360°
18	0 - 255	0 - 100	Saturation	0 - 100%
19	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
20	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 4 Mode	CCT HSI Black Reserved
CCT				
21	0 - 255	0 - 100	CCT	2000K - 10000K
22	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green

FX Parameter: Two Pixel Chase, continued

HSI				
21	0 - 255	0 - 100	HUE	1° - 360°
22	0 - 255	0 - 100	Saturation	0 - 100%
23	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
24	0 - 255	0 - 100	Background Intensity	0 - 100%
25	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Background Color Mode	CCT HSI Black Reserved
CCT				
26	0 - 255	0 - 100	CCT	2000K - 10000K
27	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
26	0 - 255	0 - 100	HUE	1° - 360°
27	0 - 255	0 - 100	Saturation	0 - 100%
28	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K

FX Parameter: Three Pixel Chase

Channel	Value	Percent	Function	
4	0 - 9	0 - 4	Pixel Size	2
	10 - 19	5 - 8		3
	20 - 29	9 - 12		4
	30 - 255	13 - 100		Reserved
5	0 - 255	0 - 100	Speed	1cm/s - 640cm/s
6	0 - 127	0 - 50	Departure	1 Way
	128 - 255	51 - 100		2 Way
7	0 - 60	0 - 24	Move (1 Way)	Left
	61 - 120	25 - 48		Right
	121 - 255	49 - 100		Loop
	0 - 127	0 - 50	Move (2 Way)	Rebound
	128 - 255	51 - 100		Crossover
1 Way				
8	0 - 9	0 - 4	Pixel 1 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
12	0 - 9	0 - 4	Pixel 2 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Three Pixel Chase, continued

CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
16	0 - 9	0 - 4	Pixel 3 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
17	0 - 255	0 - 100	CCT	2000K - 10000K
18	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green

FX Parameter: Three Pixel Chase, continued

HSI				
17	0 - 255	0 - 100	HUE	1° - 360°
18	0 - 255	0 - 100	Saturation	0 - 100%
19	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
20	0 - 255	0 - 100	Background Intensity	0 - 100%
21	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Background Color Mode	CCT HSI Black Reserved
CCT				
22	0 - 255	0 - 100	CCT	2000K - 10000K
23	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
22	0 - 255	0 - 100	HUE	1° - 360°
23	0 - 255	0 - 100	Saturation	0 - 100%
24	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
2 Way				
8	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Pixel 1 Mode	CCT HSI Black Reserved

FX Parameter: Three Pixel Chase, continued

CCT				
9	0 - 255	0 - 100	CCT	2000K - 10000K
10	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
9	0 - 255	0 - 100	HUE	1° - 360°
10	0 - 255	0 - 100	Saturation	0 - 100%
11	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
12	0 - 9	0 - 4	Pixel 2 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
16	0 - 9	0 - 4	Pixel 3 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Three Pixel Chase, continued

CCT				
17	0 - 255	0 - 100	CCT	2000K - 10000K
18	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
17	0 - 255	0 - 100	HUE	1° - 360°
18	0 - 255	0 - 100	Saturation	0 - 100%
19	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
20	0 - 9	0 - 4	Pixel 4 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
21	0 - 255	0 - 100	CCT	2000K - 10000K
22	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
21	0 - 255	0 - 100	HUE	1° - 360°
22	0 - 255	0 - 100	Saturation	0 - 100%
23	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
24	0 - 9	0 - 4	Pixel 5 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved

FX Parameter: Three Pixel Chase, continued

CCT				
25	0 - 255	0 - 100	CCT	2000K - 10000K
26	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
25	0 - 255	0 - 100	HUE	1° - 360°
26	0 - 255	0 - 100	Saturation	0 - 100%
27	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K
28	0 - 9	0 - 4	Pixel 6 Mode	CCT
	10 - 19	5 - 8		HSI
	20 - 29	9 - 12		Black
	30 - 255	13 - 100		Reserved
CCT				
29	0 - 255	0 - 100	CCT	2000K - 10000K
30	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green

FX Parameter: Three Pixel Chase, continued

HSI				
29	0 - 255	0 - 100	HUE	1° - 360°
30	0 - 255	0 - 100	Saturation	0 - 100%
31	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
32	0 - 255	0 - 100	Background Intensity	0 - 100%
33	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Background Color Mode	CCT HSI Black Reserved
CCT				
34	0 - 255	0 - 100	CCT	2000K - 10000K
35	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
34	0 - 255	0 - 100	HUE	1° - 360°
35	0 - 255	0 - 100	Saturation	0 - 100%
36	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K

FX Parameter: Rainbow

Channel	Value	Percent	Function	
4	0 - 127 128 - 255	0 - 50 51 - 100	Move	Left Right
5	0 - 255	0 - 100	Speed	1cm/s - 640cm/s

FX Parameter: Pixel Fire

Channel	Value	Percent	Function	
4	0 - 255	0 - 100	Fire Upper Intensity	0 - 100%
5	0 - 255	0 - 100	Frequency	1 Hz - 10 Hz
6	0 - 127 128 - 255	0 - 50 51 - 100	Move	Horizontal Vertical
7	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Fire Mode	CCT HSI Black Reserved
CCT				
8	0 - 255	0 - 100	CCT	2000K - 10000K
9	0 - 10 11 - 20 21 - 119 120 - 145 146 - 244 245 - 255	0 - 4 5 - 8 9 - 47 48 - 57 58 - 96 97 - 100	Green / Magenta	Neutral / No Effect Full Minus Green -99% - -1% Neutral / No Effect 1% - 99% Full Plus Green
HSI				
8	0 - 255	0 - 100	HUE	1° - 360°
9	0 - 255	0 - 100	Saturation	0 - 100%
10	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000K - 10000K
11	0 - 255	0 - 100	Background Intensity	0 - 100%
12	0 - 9 10 - 19 20 - 29 30 - 255	0 - 4 5 - 8 9 - 12 13 - 100	Background Color Mode	CCT HSI Black Reserved

FX Parameter: Pixel Fire, continued

CCT				
13	0 - 255	0 - 100	CCT	2000K - 10000K
14	0 - 10	0 - 4	Green / Magenta	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		-99% - -1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
HSI				
13	0 - 255	0 - 100	HUE	1° - 360°
14	0 - 255	0 - 100	Saturation	0 - 100%
15	0 - 10	0 - 4	HSI Base CCT	6500 K
	11 - 255	5 - 100		2000K - 10000K

Mode 9: Light Engine CCT & RGB 4 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%

Mode 9: Light Engine CCT & RGB 4 Pixels, continued

Light Engine 2				
8	0 - 255	0 - 100	Intensity	0 - 100%
9	0 - 255	0 - 100	CCT	2000 K - 10000 K
10	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
11	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
12	0 - 255	0 - 100	Red	0 - 100%
13	0 - 255	0 - 100	Green	0 - 100%
14	0 - 255	0 - 100	Blue	0 - 100%
Light Engine 3				
15	0 - 255	0 - 100	Intensity	0 - 100%
16	0 - 255	0 - 100	CCT	2000 K - 10000 K
17	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
18	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
19	0 - 255	0 - 100	Red	0 - 100%
20	0 - 255	0 - 100	Green	0 - 100%
21	0 - 255	0 - 100	Blue	0 - 100%

Mode 9: Light Engine CCT & RGB 4 Pixels, continued

Light Engine 4				
22	0 - 255	0 - 100	Intensity	0 - 100%
23	0 - 255	0 - 100	CCT	2000 K - 10000 K
24	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
25	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
26	0 - 255	0 - 100	Red	0 - 100%
27	0 - 255	0 - 100	Green	0 - 100%
28	0 - 255	0 - 100	Blue	0 - 100%

Mode 10: Light Engine CCT & RGB 6 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8 - 35	Light Engine 2 - 5			

Mode 10: Light Engine CCT & RGB 6 Pixels, continued

Light Engine 6				
36	0 - 255	0 - 100	Intensity	0 - 100%
37	0 - 255	0 - 100	CCT	2000 K - 10000 K
38	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
39	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
40	0 - 255	0 - 100	Red	0 - 100%
41	0 - 255	0 - 100	Green	0 - 100%
42	0 - 255	0 - 100	Blue	0 - 100%

Mode 11: Light Engine CCT & RGB 9 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8 - 56	Light Engine 2 - 8			

Mode 11: Light Engine CCT & RGB 9 Pixels, continued

Light Engine 9				
57	0 - 255	0 - 100	Intensity	0 - 100%
58	0 - 255	0 - 100	CCT	2000 K - 10000 K
59	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
60	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
61	0 - 255	0 - 100	Red	0 - 100%
62	0 - 255	0 - 100	Green	0 - 100%
63	0 - 255	0 - 100	Blue	0 - 100%

Mode 12: Light Engine CCT & RGB 12 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8 - 77	Light Engine 2 - 11			

Mode 12: Light Engine CCT & RGB 12 Pixels, continued

Light Engine 12				
78	0 - 255	0 - 100	Intensity	0 - 100%
79	0 - 255	0 - 100	CCT	2000 K - 10000 K
80	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
81	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
82	0 - 255	0 - 100	Red	0 - 100%
83	0 - 255	0 - 100	Green	0 - 100%
84	0 - 255	0 - 100	Blue	0 - 100%

Mode 13: Light Engine CCT & RGB 18 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8 - 119	Light Engine 2 - 17			

Mode 13: Light Engine CCT & RGB 18 Pixels, continued

Light Engine 18				
120	0 - 255	0 - 100	Intensity	0 - 100%
121	0 - 255	0 - 100	CCT	2000 K - 10000 K
122	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
123	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
124	0 - 255	0 - 100	Red	0 - 100%
125	0 - 255	0 - 100	Green	0 - 100%
126	0 - 255	0 - 100	Blue	0 - 100%

Mode 14: Light Engine CCT & RGB 36 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	CCT	2000 K - 10000 K
3	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
4	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
5	0 - 255	0 - 100	Red	0 - 100%
6	0 - 255	0 - 100	Green	0 - 100%
7	0 - 255	0 - 100	Blue	0 - 100%
8 - 245	Light Engine 2 - 35			

Mode 14: Light Engine CCT & RGB 36 Pixels, continued

Light Engine 36				
246	0 - 255	0 - 100	Intensity	0 - 100%
247	0 - 255	0 - 100	CCT	2000 K - 10000 K
248	0 - 10	0 - 4	G / M	Neutral / No Effect
	11 - 20	5 - 8		Full Minus Green
	21 - 119	9 - 47		- 99% - - 1%
	120 - 145	48 - 57		Neutral / No Effect
	146 - 244	58 - 96		1% - 99%
	245 - 255	97 - 100		Full Plus Green
249	0 - 255	0 - 100	CCT ↔ RGB	Crossfade to Color
250	0 - 255	0 - 100	Red	0 - 100%
251	0 - 255	0 - 100	Green	0 - 100%
252	0 - 255	0 - 100	Blue	0 - 100%

Mode 15: Light Engine RGB 4 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
Light Engine 2				
5	0 - 255	0 - 100	Intensity	0 - 100%
6	0 - 255	0 - 100	Red	0 - 100%
7	0 - 255	0 - 100	Green	0 - 100%
8	0 - 255	0 - 100	Blue	0 - 100%

Mode 15: Light Engine RGB 4 Pixels, continued

Light Engine 3				
9	0 - 255	0 - 100	Intensity	0 - 100%
10	0 - 255	0 - 100	Red	0 - 100%
11	0 - 255	0 - 100	Green	0 - 100%
12	0 - 255	0 - 100	Blue	0 - 100%
Light Engine 4				
13	0 - 255	0 - 100	Intensity	0 - 100%
14	0 - 255	0 - 100	Red	0 - 100%
15	0 - 255	0 - 100	Green	0 - 100%
16	0 - 255	0 - 100	Blue	0 - 100%

Mode 16: Light Engine RGB 6 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5 - 20	Light Engine 2 - 5			
Light Engine 6				
21	0 - 255	0 - 100	Intensity	0 - 100%
22	0 - 255	0 - 100	Red	0 - 100%
23	0 - 255	0 - 100	Green	0 - 100%
24	0 - 255	0 - 100	Blue	0 - 100%

Mode 17: Light Engine RGB 9 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5 - 32	Light Engine 2 - 8			
Light Engine 9				
33	0 - 255	0 - 100	Intensity	0 - 100%
34	0 - 255	0 - 100	Red	0 - 100%
35	0 - 255	0 - 100	Green	0 - 100%
36	0 - 255	0 - 100	Blue	0 - 100%

Mode 18: Light Engine RGB 12 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5 - 44	Light Engine 2 - 11			
Light Engine 12				
45	0 - 255	0 - 100	Intensity	0 - 100%
46	0 - 255	0 - 100	Red	0 - 100%
47	0 - 255	0 - 100	Green	0 - 100%
48	0 - 255	0 - 100	Blue	0 - 100%

Mode 19: Light Engine RGB 18 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5 - 68	Light Engine 2 - 17			
Light Engine 18				
69	0 - 255	0 - 100	Intensity	0 - 100%
70	0 - 255	0 - 100	Red	0 - 100%
71	0 - 255	0 - 100	Green	0 - 100%
72	0 - 255	0 - 100	Blue	0 - 100%

Mode 20: Light Engine RGB 36 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Red	0 - 100%
3	0 - 255	0 - 100	Green	0 - 100%
4	0 - 255	0 - 100	Blue	0 - 100%
5 - 140	Light Engine 2 - 35			
Light Engine 36				
141	0 - 255	0 - 100	Intensity	0 - 100%
142	0 - 255	0 - 100	Red	0 - 100%
143	0 - 255	0 - 100	Green	0 - 100%
144	0 - 255	0 - 100	Blue	0 - 100%

Mode 21: Light Engine HSI 4 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
Light Engine 2				
5	0 - 255	0 - 100	Intensity	0 - 100%
6	0 - 255	0 - 100	Hue	1° - 360°
7	0 - 255	0 - 100	Saturation	0 - 100%
8	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
Light Engine 3				
9	0 - 255	0 - 100	Intensity	0 - 100%
10	0 - 255	0 - 100	Hue	1° - 360°
11	0 - 255	0 - 100	Saturation	0 - 100%
12	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
Light Engine 4				
13	0 - 255	0 - 100	Intensity	0 - 100%
14	0 - 255	0 - 100	Hue	1° - 360°
15	0 - 255	0 - 100	Saturation	0 - 100%
16	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Mode 22: Light Engine HSI 6 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5 - 20	Light Engine 2 - 5			
Light Engine 6				
21	0 - 255	0 - 100	Intensity	0 - 100%
22	0 - 255	0 - 100	Hue	1° - 360°
23	0 - 255	0 - 100	Saturation	0 - 100%
24	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Mode 23: Light Engine HSI 9 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5 - 32	Light Engine 2 - 8			
Light Engine 9				
33	0 - 255	0 - 100	Intensity	0 - 100%
34	0 - 255	0 - 100	Hue	1° - 360°
35	0 - 255	0 - 100	Saturation	0 - 100%
36	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Mode 24: Light Engine HSI 12 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5 - 44	Light Engine 2 - 11			
Light Engine 12				
45	0 - 255	0 - 100	Intensity	0 - 100%
46	0 - 255	0 - 100	Hue	1° - 360°
47	0 - 255	0 - 100	Saturation	0 - 100%
48	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Mode 25: Light Engine HSI 18 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5 - 68	Light Engine 2 - 17			
Light Engine 18				
69	0 - 255	0 - 100	Intensity	0 - 100%
70	0 - 255	0 - 100	Hue	1° - 360°
71	0 - 255	0 - 100	Saturation	0 - 100%
72	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Mode 26: Light Engine HSI 36 Pixels

Channel	Value	Percent	Function	
Light Engine 1				
1	0 - 255	0 - 100	Intensity	0 - 100%
2	0 - 255	0 - 100	Hue	1° - 360°
3	0 - 255	0 - 100	Saturation	0 - 100%
4	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K
5 - 140	Light Engine 2 - 35			
Light Engine 36				
141	0 - 255	0 - 100	Intensity	0 - 100%
142	0 - 255	0 - 100	Hue	1° - 360°
143	0 - 255	0 - 100	Saturation	0 - 100%
144	0 - 10 11 - 255	0 - 4 5 - 100	HSI Base CCT	6500 K 2000 K - 10000 K

Equations for Conversion

CCT Conversion

8-bit

CCT	DMX Value
2700 K	22
3200 K	38
3800 K	57
4300 K	73
4800 K	89
5600 K	115
6500 K	143
7500 K	175

$$\text{DMX Value} = \frac{\text{Desired CCT} - 2000}{31.373}$$

$$\text{CCT} = (\text{DMX Value} * 31.373) + 2000$$

x, y Coordinate to DMX Value Conversion

8-bit

$$\text{DMX}_x = \frac{\text{xValue} * 255}{0.8}$$

$$\text{DMX}_y = \frac{\text{yValue} * 255}{0.8}$$

