

impression<sup>®</sup>  
FRIO BAR

# DMX Channel Index



Software version v.46

Rev. 20220727-1



## Document revisions

<b>Revision number</b>	<b>Notes</b>	<b>Released</b>
Rev. 20220727-1	Added Subfixture Mode selection option. <i>Firmware v.46</i>	07/2022

GLP® impression FR10 Bar DMX Channel Index – Revision 20220727-1

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## 1. DMX control modes overview

The following DMX control modes are available in the impression FR10 Bar.

**DMX Mode 1: Normal** is the default control mode. It provides 16-bit control of tilt and dimming, shutter effects, a Control/Settings channel that lets you configure the fixture remotely via DMX, color temperature control, a virtual color wheel (color presets) and RGBW color mixing.

It also features a powerful effects engine with static and dynamic pixel and zoom effect patterns. The variable effect parameters include *Crossfading* (adjusts fading from one step to the next in an effect) and *Transition* (adjusts fading from one effect to the next).

The *Pattern select* channels let you select from 50 x pixel and 50 x zoom patterns. At the end of each Pattern select channel there is a *Random Pattern* function and a *Random Pixel* function:

- *Random Pattern* auto-selects patterns at random. After 10 cycles through all the steps in one pattern, the fixture changes to the next pattern.
- *Random Pixel* selects pixels at random and snaps from one pixel to the next.
  - Selecting a static pattern step (values 0 – 119) on the Pattern position/movement channel gives a move to a new random pixel.
  - Selecting a dynamic movement (values 128 – 255) on the Pattern position/ movement channel give continuous random pixel moves.
  - Selecting a speed on the Pixel Pattern FX Crossfading channel lets you change from snap to smooth crossfading.

Mode 1 Normal (default mode)	
1	Tilt
2	
3	Dimmer global
4	
5	Shutter global
6	Control/Settings
7	CTC
8	Virtual color wheel
9	Red
10	Green
11	Blue
12	White
13	Pixel FX Pattern select
14	Pixel FX Position/Speed
15	Pixel FX Crossfading
16	Pixel FX Transition
17	Pixel FX Length
18	Pixel FX Offset
19	Zoom global
20	Zoom FX Pattern select
21	Zoom FX Position/Speed
22	Zoom FX Crossfading
23	Zoom FX Transition
24	Zoom FX Length
25	Zoom FX Offset

**DMX Mode 2: Multi-Layer** provides 16-bit control of tilt and dimming, shutter effects, a Control/Settings channel that lets you configure the fixture remotely via DMX, color temperature control, a virtual color wheel (color presets) and RGBW color mixing.

It also features a powerful effects engine with static and dynamic pixel and zoom effect patterns. The variable effect parameters include *Crossfading* (adjusts fading from one step in an effect to the next step) and *Transition* (adjusts fading from one effect to the next effect).

Besides the main layer (Layer 1) described above, DMX Mode 2 features two additional layers that can be used in combination with Layer 1.

The fixture decides which of the three layers takes priority based on the Color Mix Priority setting on the Control/Settings DMX channel or in the fixture's control panel. The default setting is HTP (highest DMX value takes priority), but you can set Layer 1 (the main layer) or Layer 3 to take priority.

Each of these two additional layers offers a 16-bit layer master (the visibility of the layer over the lower layers from 0% – 100%), shutter effects, RGBW control and the same range of pixel FX as in DMX Mode 1.

Mode 2 Multi-Layer		
1	Tilt	Layer 1 – Main Layer
2		
3	Intensity global	
4		
5	Shutter global	
6	Control/Settings	
7	CTC	
8	Virtual color wheel	
9	Red	
10	Green	
11	Blue	
12	White	
13	Pixel FX Pattern select	
14	Pixel FX Position/Speed	
15	Pixel FX Crossfading	
16	Pixel FX Transition	
17	Pixel FX Length	
18	Pixel FX Offset	
19	Zoom global	
20	Zoom FX Pattern select	
21	Zoom FX Position/Speed	
22	Zoom FX Crossfading	
23	Zoom FX Transition	
24	Zoom FX Length	
25	Zoom FX Offset	
26	Layer 2 Master	Layer 2
27		
28	Shutter	
29	Red intensity	
30	Green intensity	
31	Blue intensity	
32	White intensity	
33	Pixel FX Pattern select	
34	Pixel FX Position/Speed	
35	Pixel FX Crossfading	
36	Pixel FX Transition	
37	Pixel FX Length	
38	Pixel FX Offset	
39	Layer 3 Master	Layer 3
40		
41	Shutter	
42	Red intensity	
43	Green intensity	
44	Blue intensity	
45	White intensity	
46	Pixel FX Pattern select	
47	Pixel FX Position/Speed	
48	Pixel FX Crossfading	
49	Pixel FX Transition	
50	Pixel FX Length	
51	Pixel FX Offset	

**DMX Mode 3: MultiPix (Multi-pixel)**

provides 16-bit control of tilt and dimming, shutter effects, a Control/Settings channel that lets you configure the fixture remotely via DMX and color temperature control.

This mode also gives individual RGBW color mixing and individual Zoom control of each of the fixture's ten pixels.

**Mode 3  
MultiPix**

1	Tilt
2	
3	Intensity global
4	
5	Shutter global
6	Control/Settings
7	CTC
8	Pixel 01 Red
9	Pixel 01 Green
10	Pixel 01 Blue
11	Pixel 01 White
12	Pixel 01 Zoom
13	Pixel 02 Red
14	Pixel 02 Green
15	Pixel 02 Blue
16	Pixel 02 White
17	Pixel 02 Zoom
18	Pixel 03 Red
19	Pixel 03 Green
20	Pixel 03 Blue
21	Pixel 03 White
22	Pixel 03 Zoom
23	Pixel 04 Red
24	Pixel 04 Green
25	Pixel 04 Blue
26	Pixel 04 White
27	Pixel 04 Zoom
28	Pixel 05 Red
29	Pixel 05 Green
30	Pixel 05 Blue
31	Pixel 05 White
32	Pixel 05 Zoom
33	Pixel 06 Red
34	Pixel 06 Green
35	Pixel 06 Blue
36	Pixel 06 White
37	Pixel 06 Zoom
38	Pixel 07 Red
39	Pixel 07 Green
40	Pixel 07 Blue
41	Pixel 07 White
42	Pixel 07 Zoom
43	Pixel 08 Red
44	Pixel 08 Green
45	Pixel 08 Blue
46	Pixel 08 White
47	Pixel 08 Zoom
48	Pixel 09 Red
49	Pixel 09 Green
50	Pixel 09 Blue
51	Pixel 09 White
52	Pixel 09 Zoom
53	Pixel 10 Red
54	Pixel 10 Green
55	Pixel 10 Blue
56	Pixel 10 White
57	Pixel 10 Zoom

**DMX Mode 4: MultiPix (Multi-pixel)**

**Advanced** provides 16-bit control of tilt and dimming, shutter effects, a Control/Settings channel that lets you configure the fixture remotely via DMX, color temperature control, a virtual color wheel (color presets) and RGBW color mixing.

It also features a powerful effects engine with static and dynamic pixel and zoom effect patterns. The variable effect parameters include *Crossfading* (adjusts fading from one step to the next in an effect) and *Transition* (adjusts fading from one effect to the next).

Besides the main layer (Layer 1) described above, DMX Mode 4 features two additional layers that can be used in combination with Layer 1:

- Layer 2 offers shutter effects and individual pixel RGBW color mixing with 16-bit Master control (visibility of Layer 2 from 0% – 100%).
- Layer 3 offers individual pixel zoom control with Master control (visibility of Layer 3 from 0% – 100%).
- The fixture decides which of the three layers takes priority based on the Color Mix Priority setting on the Control/Settings DMX channel or in the fixture's control panel. The default setting is HTP (highest DMX value takes priority), but you can set Layer 1 (the main layer) or Layer 3 to take priority.

Mode 4 MultiPix Advanced	
1	Tilt
2	
3	Intensity global
4	
5	Shutter global
6	Control/Settings
7	CTC
8	Virtual color wheel
9	Red
10	Green
11	Blue
12	White
13	Pixel FX Pattern select
14	Pixel FX Position/Speed
15	Pixel FX Crossfading
16	Pixel FX Transition
17	Pixel FX Length
18	Pixel FX Offset
19	Zoom global
20	Zoom FX Pattern select
21	Zoom FX Position/Speed
22	Zoom FX Crossfading
23	Zoom FX Transition
24	Zoom FX Length
25	Zoom FX Offset
26	Layer 2 (individual pixel intensity)
27	Master
28	Shutter
29	Pixel 01 Red
30	Pixel 01 Green
31	Pixel 01 Blue
32	Pixel 01 White
33	Pixel 02 Red
34	Pixel 02 Green
35	Pixel 02 Blue
36	Pixel 02 White
37	Pixel 03 Red
38	Pixel 03 Green
39	Pixel 03 Blue
40	Pixel 03 White
41	Pixel 04 Red
42	Pixel 04 Green
43	Pixel 04 Blue
44	Pixel 04 White
45	Pixel 05 Red
46	Pixel 05 Green
47	Pixel 05 Blue
48	Pixel 05 White
49	Pixel 06 Red
50	Pixel 06 Green
51	Pixel 06 Blue
52	Pixel 06 White

Layer 1 – Base layer

Layer 2 – Pixel intensity

53	Pixel 07 Red	Layer 2 – Pixel intensity (continued)
54	Pixel 07 Green	
55	Pixel 07 Blue	
56	Pixel 07 White	
57	Pixel 08 Red	
58	Pixel 08 Green	
59	Pixel 08 Blue	
60	Pixel 08 White	
61	Pixel 09 Red	
62	Pixel 09 Green	
63	Pixel 09 Blue	
64	Pixel 09 White	
65	Pixel 10 Red	
66	Pixel 10 Green	
67	Pixel 10 Blue	
68	Pixel 10 White	
69	Layer 3 (individual pixel zoom) Master	Layer 3 – Pixel zoom
70	Pixel 01 Zoom	
71	Pixel 02 Zoom	
72	Pixel 03 Zoom	
73	Pixel 04 Zoom	
74	Pixel 05 Zoom	
75	Pixel 06 Zoom	
76	Pixel 07 Zoom	
77	Pixel 09 Zoom	
78	Pixel 09 Zoom	
79	Pixel 10 Zoom	



## 2. DMX control channel layout

In the following DMX channel layout tables:

- Default settings are indicated with **bold type**.
- Where commands are marked **(3s hold)** or **(5s hold)**, you must send the DMX value continuously for 3 or 5 seconds to apply the command.
- Percentage equivalents are rounded up or down to the nearest 0.1%

**DMX Mode 1: Normal (default DMX mode)****7 DMX Channels**

Channel		Command	DMX range		Percent		Default DMX	Fade
1	Tilt coarse	Tilt backwards > forwards (16-bit)	0	65535	0	100	32768	Fade
2	Tilt fine							
3	Intensity coarse	Global intensity 0-100% (16-bit)	0	65535	0	100	32768	Fade
4	Intensity fine							
5	Shutter	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
6	Control / Settings	No function	0	38	0	14.9	0	Snap
		<b>Dimmer curve: Soff (square) (3s hold)</b>	39	41	15.3	16.1		
		Dimmer curve: Linear (3s hold)	42	44	16.5	17.3		
		No function	45	53	17.6	20.8		
		Display mode: Off (3s hold)	54	56	21.2	22		
		<b>Display mode: Auto (3s hold)</b>	57	59	22.4	23.1		
		Display mode: On (3s hold)	60	62	23.5	24.3		
		<b>Display orientation: Normal (3s hold)</b>	63	65	24.7	25.5		
		Display orientation: Inverted (3s hold)	66	68	25.9	26.7		
		No function	69	71	27.1	27.8		
		No DMX: Blackout (3s hold)	72	74	28.2	29.0		
		<b>No DMX: Hold (3s hold)</b>	75	77	29.4	30.2		
		No DMX: Captured scene (3s hold)	78	80	30.6	31.4		
		Capture Scene (3s hold)	81	83	31.8	32.5		
		No function	84	86	32.9	33.7		
		<b>Fan mode: Regulated (3s hold)</b>	87	89	34.1	34.9		
		Fan mode: High (3s hold)	90	92	35.3	36.1		
		Fan mode: Medium (3s hold)	93	95	36.5	37.3		
		Fan mode: Low (3s hold)	96	98	37.6	38.4		
		No function	99	104	38.8	40.8		
		Position feedback: Off (3s hold)	105	107	41.2	42.0		
		<b>Position feedback: On (3s hold)</b>	108	110	42.4	43.1		
		<b>Tilt disable: Off (3s hold)</b>	111	113	43.5	44.3		
		Tilt disable: Reset Disabled	114	116	44.7	45.5		
		Tilt disable: Current Disabled	117	119	45.9	46.7		
		<b>Tilt inversion: Off (3s hold)</b>	120	122	47.1	47.8		
		Tilt inversion: On (3s hold)	123	125	48.2	49.0		
		No function	126	128	49.4	50.2		
		<b>Zoom inversion: Off (3s hold)</b>	129	131	50.6	51.4		
		Zoom inversion: On (3s hold)	132	134	51.8	52.5		
No function	135	140	52.9	54.9				
<b>Pixel mirror: Off (3s hold)</b>	141	143	55.3	56.1				

		Pixel mirror: On (3s hold)	144	146	56.5	57.3		
		No function	147	155	57.6	60.8		
		Performance: Fast (3s hold)	156	158	61,2	62,0		
		<b>Performance: Normal (3s hold)</b>	159	161	62,4	63,1		
		Performance: Smooth (3s hold)	162	164	63.5	64.3		
		No function	165	170	64.7	66.7		
		Color mix priority: Mix (HTP)	171	173	67.1	67.8		
		Color mix priority: L3-L2-L1	174	176	68.2	69.0		
		Color mix priority: L1-L2-L3	177	179	69.4	70.2		
		<b>Subfixture mode: Normal</b>	180	182	70.6	71.4		
		Subfixture mode: Independent	183	185	71.8	72.5		
		No function	186	191	72.9	74.9		
		PWM: 2200 Hz (5s hold)	192	194	75.3	76.1		
		<b>PWM: 3000 Hz (5s hold)</b>	195	197	76.5	77.3		
		PWM: 4800 Hz (5s hold)	198	200	77.6	78.4		
		PWM: 9600 Hz (5s hold)	201	203	78.8	79.6		
		No function	204	206	80.0	80.8		
		PWM: 25 kHz (5s hold)	207	209	81.2	82.0		
		No function	210	245	82.4	96.1		
		Reset Tilt (3s hold)	246	248	96.5	97.3		
		Reset Head (3s hold)	249	251	97.6	98.4		
		Reset All (3s hold)	252	255	98.8	100		
		RAW	0	15	0	5.9		
		10000 K	16	18	6.3	7.1		
		9900 K	19	21	7.5	8.2		
		9800 K	22	24	8.6	9.4		
		9700 K	25	27	9.8	10.6		
		9600 K	28	30	11.0	11.8		
		9500 K	31	33	12.2	12.9		
		9400 K	34	36	13.3	14.1		
		9300 K	37	39	14.5	15.3		
		9200 K	40	42	15.7	16.5		
		9100 K	43	45	16.9	17.6		
		9000 K	46	48	18.0	18.8		
		8900 K	49	51	19.2	20.0		
		8800 K	52	54	20.4	21.2		
		8700 K	55	57	21.6	22.4		
		8600 K	58	60	22.7	23.5		
		8500 K	61	63	23.9	24.7		
		8400 K	64	66	25.1	25.9		
		8300 K	67	69	26.3	27.1		
		8200 K	70	72	27.5	28.2		
		8100 K	73	75	28.6	29.4		
		8000 K	76	78	29.8	30.6		
		7900 K	79	81	31.0	31.8		
		7800 K	82	84	32.2	32.9		
		7700 K	85	87	33.3	34.1		
		7600 K	88	90	34.5	35.3		
		7500 K	91	93	35.7	36.5		
		7400 K	94	96	36.9	37.6		
		7300 K	97	99	38.0	38.8		
		7200 K	100	102	39.2	40.0		
		7100 K	103	105	40.4	41.2		
		7000 K	106	108	41.6	42.4		
		6900 K	109	111	42.7	43.5		
		6800 K	112	114	43.9	44.7		
		6700 K	115	117	45.1	45.9		
7	<b>Color Temperature Control</b>							Snap

		6600 K	118	120	46.3	47.1		
		6500 K	121	123	47.5	48.2		
		6400 K	124	126	48.6	49.4		
		6300 K	127	129	49.8	50.6		
		6200 K	130	132	51.0	51.8		
		6100 K	133	135	52.2	52.9		
		6000 K	136	138	53.3	54.1		
		5900 K	139	141	54.5	55.3		
		5800 K	142	144	55.7	56.5		
		5700 K	145	147	56.9	57.6		
		5600 K	148	150	58.0	58.8		
		5500 K	151	153	59.2	60.0		
		5400 K	154	156	60.4	61.2		
		5300 K	157	159	61.6	62.4		
		5200 K	160	162	62.7	63.5		
		5100 K	163	165	63.9	64.7		
		5000 K	166	168	65.1	65.9		
		4900 K	169	171	66.3	67.1		
		4800 K	172	174	67.5	68.2		
		4700 K	175	177	68.6	69.4		
		4600 K	178	180	69.8	70.6		
		4500 K	181	183	71.0	71.8		
		4400 K	184	186	72.2	72.9		
		4300 K	187	189	73.3	74.1		
		4200 K	190	192	74.5	75.3		
		4100 K	193	195	75.7	76.5		
		4000 K	196	198	76.9	77.6		
		3900 K	199	201	78.0	78.8		
		3800 K	202	204	79.2	80.0		
		3700 K	205	207	80.4	81.2		
		3600 K	208	210	81.6	82.4		
		3500 K	211	213	82.7	83.5		
		3400 K	214	216	83.9	84.7		
		3300 K	217	219	85.1	85.9		
		3200 K	220	222	86.3	87.1		
		3100 K	223	225	87.5	88.2		
		3000 K	226	228	88.6	89.4		
		2900 K	229	231	89.8	90.6		
		2800 K	232	234	91.0	91.8		
		2700 K	235	237	92.2	92.9		
		2600 K	238	240	93.3	94.1		
		2500 K	241	255	94.5	100		
8	Virtual color wheel	Off (RGBW)	0	7	0	2.7		Snap
		Color 01 - Red	8	15	3.1	5.9		Snap
		Color 02 - Amber	16	23	6.3	9.0		Snap
		Color 03 - Warm Yellow	24	31	9.4	12.2		Snap
		Color 04 - Yellow	32	39	12.5	15.3		Snap
		Color 05 - Green	40	47	15.7	18.4		Snap
		Color 06 - Turquoise	48	55	18.8	21.6		Snap
		Color 07 - Cyan	56	63	22.0	24.7		Snap
		Color 08 - Blue	64	71	25.1	27.8		Snap
		Color 09 - Lavender	72	79	28.2	31.0		Snap
		Color 10 - Male	80	87	31.4	34.1		Snap
		Color 11 - Magenta	88	95	34.5	37.3		Snap
		Color 12 - Pink	96	103	37.6	40.4		Snap
		Color 13 - White 3200K	104	111	40.8	43.5		Snap
		Color 14 - White 5600K	112	119	43.9	46.7		Snap
		Color 15 - White 7200K	120	127	47.1	49.8		Snap
				Stop	128	128	50.2	50.2

		Rainbow colors crossfade slow > fast	129	223	50.6	87.5		Fade
		Random colors crossfade slow > fast	224	255	87.8	100		Fade
<b>9</b>	<b>Red</b>	Red intensity 0-100%	0	255	0	100	255	Fade
<b>10</b>	<b>Green</b>	Green intensity 0-100%	0	255	0	100	255	Fade
<b>11</b>	<b>Blue</b>	Blue intensity 0-100%	0	255	0	100	255	Fade
<b>12</b>	<b>White</b>	White intensity 0-100%	0	255	0	100	0	Fade
<b>13</b>	<b>Pixel FX pattern select</b>	No effect	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
Pattern 33	139	142	54.5	55.7				
Pattern 34	143	146	56.1	57.3				
Pattern 35	147	150	57.6	58.8				
Pattern 36	151	154	59.2	60.4				
Pattern 37	155	158	60.8	62.0				
Pattern 38	159	162	62.4	63.5				
Pattern 39	163	166	63.9	65.1				
Pattern 40	167	170	65.5	66.7				
Pattern 41	171	174	67.1	68.2				
Pattern 42	175	178	68.6	69.8				
Pattern 43	179	182	70.2	71.4				
Pattern 44	183	186	71.8	72.9				
Pattern 45	187	190	73.3	74.5				
Pattern 46	191	194	74.9	76.1				
Pattern 47	195	198	76.5	77.6				
Pattern 48	199	202	78.0	79.2				
Pattern 49	203	206	79.6	80.8				
Pattern 50	207	210	81.2	82.4				
		No pattern – no function	211	246	82.7	96.5		
		Random pixel FX pattern	246	250	96.5	98.0		
		Random pixel FX	251	255	98.4	100		

14	Pixel FX pattern static position / dynamic movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		Snap
		Pattern static Step 03	12	17	4.7	6.7		Snap
		Pattern static Step 04	18	23	7.1	9.0		Snap
		Pattern static Step 05	24	29	9.4	11.4		Snap
		Pattern static Step 06	30	35	11.8	13.7		Snap
		Pattern static Step 07	36	41	14.1	16.1		Snap
		Pattern static Step 08	42	47	16.5	18.4		Snap
		Pattern static Step 09	48	53	18.8	20.8		Snap
		Pattern static Step 10	54	59	21.2	23.1		Snap
		Pattern static Step 11	60	65	23.5	25.5		Snap
		Pattern static Step 12	66	71	25.9	27.8		Snap
		Pattern static Step 13	72	77	28.2	30.2		Snap
		Pattern static Step 14	78	83	30.6	32.5		Snap
		Pattern static Step 15	84	89	32.9	34.9		Snap
		Pattern static Step 16	90	95	35.3	37.3		Snap
		Pattern static Step 17	96	101	37.6	39.6		Snap
		Pattern static Step 18	102	107	40.0	42.0		Snap
		Pattern static Step 19	108	113	42.4	44.3		Snap
		Pattern static Step 20	114	119	44.7	46.7		Snap
		Stop / no function	120	127	47.1	49.8		Snap
		Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5		Fade
		Stop	191	192	74.9	75.3		Snap
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0	Fade			
15	Pixel pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
16	Pixel FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FOB (fade over blackout) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOF (fade over full intensity) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
17	Pixel FX pattern length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
18	Pixel FX pattern offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade
19	Zoom	Narrow > wide	0	255	0	100	0	Snap

20	Zoom FX pattern select	No effect, all lenses have normal zoom functionality	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
		No pattern – no function	211	246	82.7	96.5		
Random zoom FX pattern	246	250	96.5	98.0				
Random pixel zoom	251	255	98.4	100				

21	<b>Zoom FX static pattern position / dynamic pattern movement</b>	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		
		Pattern static Step 03	12	17	4.7	6.7		
		Pattern static Step 04	18	23	7.1	9.0		
		Pattern static Step 05	24	29	9.4	11.4		
		Pattern static Step 06	30	35	11.8	13.7		
		Pattern static Step 07	36	41	14.1	16.1		
		Pattern static Step 08	42	47	16.5	18.4		
		Pattern static Step 09	48	53	18.8	20.8		
		Pattern static Step 10	54	59	21.2	23.1		
		Pattern static Step 11	60	65	23.5	25.5		
		Pattern static Step 12	66	71	25.9	27.8		
		Pattern static Step 13	72	77	28.2	30.2		
		Pattern static Step 14	78	83	30.6	32.5		
		Pattern static Step 15	84	89	32.9	34.9		
		Pattern static Step 16	90	95	35.3	37.3		
		Pattern static Step 17	96	101	37.6	39.6		
		Pattern static Step 18	102	107	40.0	42.0		
		Pattern static Step 19	108	113	42.4	44.3		
		Pattern static Step 20	114	119	44.7	46.7		
Stop / no function	120	127	47.1	49.8				
Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5				
Stop	191	192	74.9	75.3				
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0				
22	<b>Zoom pattern FX crossfade (Xfade between steps)</b>	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
23	<b>Zoom pattern FX transition (Xfade between patterns)</b>	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FON (fade over narrow) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOW (fade over wide) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
24	<b>Zoom pattern FX length</b>	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
25	<b>Zoom pattern FX offset</b>	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade



## DMX Mode 2: Multi-Layer

### 51 DMX Channels

Channel	Command	DMX range	Percent	Default DMX	Fade			
<b>Layer 1 (Base layer, low priority)</b>								
1	<b>Tilt coarse</b>	Tilt backwards > forwards (16-bit)	0	65535	0	100	32768	Fade
2	<b>Tilt fine</b>							
3	<b>Intensity coarse</b>	Global intensity 0-100% (16-bit)	0	65535	0	100	32768	Fade
4	<b>Intensity fine</b>							
5	<b>Shutter</b>	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
6	<b>Control / Settings</b>	No function	0	38	0	14.9	0	Snap
		<b>Dimmer curve: Soft (square) (3s hold)</b>	39	41	15.3	16.1		
		Dimmer curve: Linear (3s hold)	42	44	16.5	17.3		
		No function	45	53	17.6	20.8		
		Display mode: Off (3s hold)	54	56	21.2	22		
		<b>Display mode: Auto (3s hold)</b>	57	59	22.4	23.1		
		Display mode: On (3s hold)	60	62	23.5	24.3		
		<b>Display orientation: Normal (3s hold)</b>	63	65	24.7	25.5		
		Display orientation: Inverted (3s hold)	66	68	25.9	26.7		
		No function	69	71	27.1	27.8		
		No DMX: Blackout (3s hold)	72	74	28.2	29.0		
		<b>No DMX: Hold (3s hold)</b>	75	77	29.4	30.2		
		No DMX: Captured scene (3s hold)	78	80	30.6	31.4		
		Capture Scene (3s hold)	81	83	31.8	32.5		
		No function	84	86	32.9	33.7		
		<b>Fan mode: Regulated (3s hold)</b>	87	89	34.1	34.9		
		Fan mode: High (3s hold)	90	92	35.3	36.1		
		Fan mode: Medium (3s hold)	93	95	36.5	37.3		
		Fan mode: Low (3s hold)	96	98	37.6	38.4		
		No function	99	104	38.8	40.8		
		Position feedback: Off (3s hold)	105	107	41.2	42.0		
		<b>Position feedback: On (3s hold)</b>	108	110	42.4	43.1		
		<b>Tilt disable: Off (3s hold)</b>	111	113	43.5	44.3		
		Tilt disable: Reset Disabled	114	116	44.7	45.5		
		Tilt disable: Current Disabled	117	119	45.9	46.7		
		<b>Tilt inversion: Off (3s hold)</b>	120	122	47.1	47.8		
		Tilt inversion: On (3s hold)	123	125	48.2	49.0		
		No function	126	128	49.4	50.2		
		<b>Zoom inversion: Off (3s hold)</b>	129	131	50.6	51.4		
		Zoom inversion: On (3s hold)	132	134	51.8	52.5		
No function	135	140	52.9	54.9				

		<b>Pixel mirror: Off (3s hold)</b>	141	143	55.3	56.1		
		Pixel mirror: On (3s hold)	144	146	56.5	57.3		
		No function	147	155	57.6	60.8		
		Performance: Fast (3s hold)	156	158	61.2	62.0		
		<b>Performance: Normal (3s hold)</b>	159	161	62.4	63.1		
		Performance: Smooth (3s hold)	162	164	63.5	64.3		
		No function	165	170	64.7	66.7		
		Color mix priority: Mix (HTP)	171	173	67.1	67.8		
		Color mix priority: L3-L2-L1	174	176	68.2	69.0		
		Color mix priority: L1-L2-L3	177	179	69.4	70.2		
		<b>Subfixture mode: Normal</b>	180	182	70.6	71.4		
		Subfixture mode: Independent	183	185	71.8	72.5		
		No function	186	191	72.9	74.9		
		PWM: 2200 Hz (5s hold)	192	194	75.3	76.1		
		<b>PWM: 3000 Hz (5s hold)</b>	195	197	76.5	77.3		
		PWM: 4800 Hz (5s hold)	198	200	77.6	78.4		
		PWM: 9600 Hz (5s hold)	201	203	78.8	79.6		
		No function	204	206	80.0	80.8		
		PWM: 25 kHz (5s hold)	207	209	81.2	82.0		
		No function	210	245	82.4	96.1		
		Reset Tilt (3s hold)	246	248	96.5	97.3		
		Reset Head (3s hold)	249	251	97.6	98.4		
		Reset All (3s hold)	252	255	98.8	100		
		RAW	0	15	0	5.9		
		10000 K	16	18	6.3	7.1		
		9900 K	19	21	7.5	8.2		
		9800 K	22	24	8.6	9.4		
		9700 K	25	27	9.8	10.6		
		9600 K	28	30	11.0	11.8		
		9500 K	31	33	12.2	12.9		
		9400 K	34	36	13.3	14.1		
		9300 K	37	39	14.5	15.3		
		9200 K	40	42	15.7	16.5		
		9100 K	43	45	16.9	17.6		
		9000 K	46	48	18.0	18.8		
		8900 K	49	51	19.2	20.0		
		8800 K	52	54	20.4	21.2		
		8700 K	55	57	21.6	22.4		
		8600 K	58	60	22.7	23.5		
		8500 K	61	63	23.9	24.7		
		8400 K	64	66	25.1	25.9		
		8300 K	67	69	26.3	27.1		
		8200 K	70	72	27.5	28.2		
		8100 K	73	75	28.6	29.4		
		8000 K	76	78	29.8	30.6		
		7900 K	79	81	31.0	31.8		
		7800 K	82	84	32.2	32.9		
		7700 K	85	87	33.3	34.1		
		7600 K	88	90	34.5	35.3		
		7500 K	91	93	35.7	36.5		
		7400 K	94	96	36.9	37.6		
		7300 K	97	99	38.0	38.8		
		7200 K	100	102	39.2	40.0		
		7100 K	103	105	40.4	41.2		
		7000 K	106	108	41.6	42.4		
		6900 K	109	111	42.7	43.5		
		6800 K	112	114	43.9	44.7		
7	<b>Color Temperature Control</b>							Snap

		6700 K	115	117	45.1	45.9		
		6600 K	118	120	46.3	47.1		
		6500 K	121	123	47.5	48.2		
		6400 K	124	126	48.6	49.4		
		6300 K	127	129	49.8	50.6		
		6200 K	130	132	51.0	51.8		
		6100 K	133	135	52.2	52.9		
		6000 K	136	138	53.3	54.1		
		5900 K	139	141	54.5	55.3		
		5800 K	142	144	55.7	56.5		
		5700 K	145	147	56.9	57.6		
		5600 K	148	150	58.0	58.8		
		5500 K	151	153	59.2	60.0		
		5400 K	154	156	60.4	61.2		
		5300 K	157	159	61.6	62.4		
		5200 K	160	162	62.7	63.5		
		5100 K	163	165	63.9	64.7		
		5000 K	166	168	65.1	65.9		
		4900 K	169	171	66.3	67.1		
		4800 K	172	174	67.5	68.2		
		4700 K	175	177	68.6	69.4		
		4600 K	178	180	69.8	70.6		
		4500 K	181	183	71.0	71.8		
		4400 K	184	186	72.2	72.9		
		4300 K	187	189	73.3	74.1		
		4200 K	190	192	74.5	75.3		
		4100 K	193	195	75.7	76.5		
		4000 K	196	198	76.9	77.6		
		3900 K	199	201	78.0	78.8		
		3800 K	202	204	79.2	80.0		
		3700 K	205	207	80.4	81.2		
		3600 K	208	210	81.6	82.4		
		3500 K	211	213	82.7	83.5		
		3400 K	214	216	83.9	84.7		
		3300 K	217	219	85.1	85.9		
		3200 K	220	222	86.3	87.1		
		3100 K	223	225	87.5	88.2		
		3000 K	226	228	88.6	89.4		
		2900 K	229	231	89.8	90.6		
		2800 K	232	234	91.0	91.8		
		2700 K	235	237	92.2	92.9		
		2600 K	238	240	93.3	94.1		
		2500 K	241	255	94.5	100		
<b>8</b>	<b>Virtual color wheel</b>	Off (RGBW)	0	7	0	2.7	0	Snap
		Color 01 - Red	8	15	3.1	5.9		Snap
		Color 02 - Amber	16	23	6.3	9.0		Snap
		Color 03 - Warm Yellow	24	31	9.4	12.2		Snap
		Color 04 - Yellow	32	39	12.5	15.3		Snap
		Color 05 - Green	40	47	15.7	18.4		Snap
		Color 06 - Turquoise	48	55	18.8	21.6		Snap
		Color 07 - Cyan	56	63	22.0	24.7		Snap
		Color 08 - Blue	64	71	25.1	27.8		Snap
		Color 09 - Lavender	72	79	28.2	31.0		Snap
		Color 10 - Male	80	87	31.4	34.1		Snap
		Color 11 - Magenta	88	95	34.5	37.3		Snap
		Color 12 - Pink	96	103	37.6	40.4		Snap
		Color 13 - White 3200K	104	111	40.8	43.5		Snap
		Color 14 - White 5600K	112	119	43.9	46.7		Snap
		Color 15 - White 7200K	120	127	47.1	49.8		Snap

		Stop	128	128	50.2	50.2		Snap
		Rainbow colors crossfade slow > fast	129	223	50.6	87.5		Fade
		Random colors crossfade slow > fast	224	255	87.8	100		Fade
9	Red	Red intensity 0-100%	0	255	0	100	255	Fade
10	Green	Green intensity 0-100%	0	255	0	100	255	Fade
11	Blue	Blue intensity 0-100%	0	255	0	100	255	Fade
12	White	White intensity 0-100%	0	255	0	100	0	Fade
13	Pixel FX pattern select	No effect	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
		No pattern – no function	211	246	82.7	96.5		
Random pixel FX pattern	246	250	96.5	98.0				
Random pixel FX	251	255	98.4	100				

14	Pixel FX pattern static position / dynamic movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		Snap
		Pattern static Step 03	12	17	4.7	6.7		Snap
		Pattern static Step 04	18	23	7.1	9.0		Snap
		Pattern static Step 05	24	29	9.4	11.4		Snap
		Pattern static Step 06	30	35	11.8	13.7		Snap
		Pattern static Step 07	36	41	14.1	16.1		Snap
		Pattern static Step 08	42	47	16.5	18.4		Snap
		Pattern static Step 09	48	53	18.8	20.8		Snap
		Pattern static Step 10	54	59	21.2	23.1		Snap
		Pattern static Step 11	60	65	23.5	25.5		Snap
		Pattern static Step 12	66	71	25.9	27.8		Snap
		Pattern static Step 13	72	77	28.2	30.2		Snap
		Pattern static Step 14	78	83	30.6	32.5		Snap
		Pattern static Step 15	84	89	32.9	34.9		Snap
		Pattern static Step 16	90	95	35.3	37.3		Snap
		Pattern static Step 17	96	101	37.6	39.6		Snap
		Pattern static Step 18	102	107	40.0	42.0		Snap
		Pattern static Step 19	108	113	42.4	44.3		Snap
		Pattern static Step 20	114	119	44.7	46.7		Snap
		Stop / no function	120	127	47.1	49.8		Snap
		Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5		Fade
		Stop	191	192	74.9	75.3		Snap
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0	Fade			
15	Pixel pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
16	Pixel FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FOB (fade over blackout) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOF (fade over full intensity) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
17	Pixel FX pattern length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
18	Pixel FX pattern offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade
19	Zoom	Narrow > wide	0	255	0	100	0	Snap

20	Zoom FX pattern select	No effect, all lenses have normal zoom functionality	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
No pattern – no function	211	246	82.7	96.5				
Random zoom FX pattern	246	250	96.5	98.0				
Random pixel zoom	251	255	98.4	100				

21	Zoom FX static pattern position / dynamic pattern movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		
		Pattern static Step 03	12	17	4.7	6.7		
		Pattern static Step 04	18	23	7.1	9.0		
		Pattern static Step 05	24	29	9.4	11.4		
		Pattern static Step 06	30	35	11.8	13.7		
		Pattern static Step 07	36	41	14.1	16.1		
		Pattern static Step 08	42	47	16.5	18.4		
		Pattern static Step 09	48	53	18.8	20.8		
		Pattern static Step 10	54	59	21.2	23.1		
		Pattern static Step 11	60	65	23.5	25.5		
		Pattern static Step 12	66	71	25.9	27.8		
		Pattern static Step 13	72	77	28.2	30.2		
		Pattern static Step 14	78	83	30.6	32.5		
		Pattern static Step 15	84	89	32.9	34.9		
		Pattern static Step 16	90	95	35.3	37.3		
		Pattern static Step 17	96	101	37.6	39.6		
		Pattern static Step 18	102	107	40.0	42.0		
		Pattern static Step 19	108	113	42.4	44.3		
		Pattern static Step 20	114	119	44.7	46.7		
		Stop / no function	120	127	47.1	49.8		
Pattern dynamic, forwards fast > slow (run from Step 1 to end in loop)	128	190	50.2	74.5				
Stop	191	192	74.9	75.3				
Pattern dynamic, backwards slow > fast (run from end to Step 1 in loop)	193	255	75.7	100.0				
22	Zoom pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
23	Zoom pattern FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FON (fade over narrow) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOW (fade over wide) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
24	Zoom pattern FX length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
25	Zoom pattern FX offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade
<b>Layer 2</b>								
26	Layer 2 master coarse	Layer 2 master 0-100% (16-bit)	0	65535	0	100	32768	Fade
27	Layer 2 master fine							
28	Layer 2 shutter	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
Open	251	255	98.4	100	Snap			

<b>29</b>	<b>Layer 2 Red</b>	Red intensity 0-100%	0	255	0	100	255	Fade
<b>30</b>	<b>Layer 2 Green</b>	Green intensity 0-100%	0	255	0	100	255	Fade
<b>31</b>	<b>Layer 2 Blue</b>	Blue intensity 0-100%	0	255	0	100	255	Fade
<b>32</b>	<b>Layer 2 White</b>	White intensity 0-100%	0	255	0	100	0	Fade
<b>33</b>	<b>Layer 2 pixel FX pattern select</b>	No effect	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
No pattern – no function	211	246	82.7	96.5				
Random pixel FX pattern	246	250	96.5	98.0				
Random pixel FX	251	255	98.4	100				



34	Layer 2 pixel FX pattern static position / dynamic movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		Snap
		Pattern static Step 03	12	17	4.7	6.7		Snap
		Pattern static Step 04	18	23	7.1	9.0		Snap
		Pattern static Step 05	24	29	9.4	11.4		Snap
		Pattern static Step 06	30	35	11.8	13.7		Snap
		Pattern static Step 07	36	41	14.1	16.1		Snap
		Pattern static Step 08	42	47	16.5	18.4		Snap
		Pattern static Step 09	48	53	18.8	20.8		Snap
		Pattern static Step 10	54	59	21.2	23.1		Snap
		Pattern static Step 11	60	65	23.5	25.5		Snap
		Pattern static Step 12	66	71	25.9	27.8		Snap
		Pattern static Step 13	72	77	28.2	30.2		Snap
		Pattern static Step 14	78	83	30.6	32.5		Snap
		Pattern static Step 15	84	89	32.9	34.9		Snap
		Pattern static Step 16	90	95	35.3	37.3		Snap
		Pattern static Step 17	96	101	37.6	39.6		Snap
		Pattern static Step 18	102	107	40.0	42.0		Snap
		Pattern static Step 19	108	113	42.4	44.3		Snap
		Pattern static Step 20	114	119	44.7	46.7		Snap
		Stop / no function	120	127	47.1	49.8		Snap
		35	Layer 2 pixel pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10		0.0
1 – 3 sec. crossfade	11			125	4.3	49.0	Fade	
Stop	126			130	49.4	51.0	Snap	
1 – 3 sec. crossfade with tail	131			255	51.4	100.0	Fade	
36	Layer 2 pixel FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FOB (fade over blackout) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOF (fade over full intensity) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
37	Layer 2 pixel FX pattern length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
38	Layer 2 pixel FX pattern offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade

Layer 3								
39	Layer 3 master coarse	Layer 3 master 0-100% (16-bit)	0	65535	0	100	32768	Fade
40	Layer 3 master fine							
41	Layer 3 shutter	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
42	Layer 3 Red	Red intensity 0-100%	0	255	0	100	255	Fade
43	Layer 3 Green	Green intensity 0-100%	0	255	0	100	255	Fade
44	Layer 3 Blue	Blue intensity 0-100%	0	255	0	100	255	Fade
45	Layer 3 White	White intensity 0-100%	0	255	0	100	0	Fade
46	Layer 3 pixel FX pattern select	No effect	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		

		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
		No pattern – no function	211	246	82.7	96.5		
		Random pixel FX pattern	246	250	96.5	98.0		
Random pixel FX	251	255	98.4	100				
47	Layer 3 pixel FX pattern static position / dynamic movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		Snap
		Pattern static Step 03	12	17	4.7	6.7		Snap
		Pattern static Step 04	18	23	7.1	9.0		Snap
		Pattern static Step 05	24	29	9.4	11.4		Snap
		Pattern static Step 06	30	35	11.8	13.7		Snap
		Pattern static Step 07	36	41	14.1	16.1		Snap
		Pattern static Step 08	42	47	16.5	18.4		Snap
		Pattern static Step 09	48	53	18.8	20.8		Snap
		Pattern static Step 10	54	59	21.2	23.1		Snap
		Pattern static Step 11	60	65	23.5	25.5		Snap
		Pattern static Step 12	66	71	25.9	27.8		Snap
		Pattern static Step 13	72	77	28.2	30.2		Snap
		Pattern static Step 14	78	83	30.6	32.5		Snap
		Pattern static Step 15	84	89	32.9	34.9		Snap
		Pattern static Step 16	90	95	35.3	37.3		Snap
		Pattern static Step 17	96	101	37.6	39.6		Snap
		Pattern static Step 18	102	107	40.0	42.0		Snap
		Pattern static Step 19	108	113	42.4	44.3		Snap
		Pattern static Step 20	114	119	44.7	46.7		Snap
		Stop / no function	120	127	47.1	49.8		Snap
		Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5		Fade
		Stop	191	192	74.9	75.3		Snap
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0	Fade			
48	Layer 3 pixel pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
49	Layer 3 pixel FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FOB (fade over blackout) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOF (fade over full intensity) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		

50	Layer 3 pixel FX pattern length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
51	Layer 3 pixel FX pattern offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade

## DMX Mode 3: MultiPix Normal

### 57 DMX Channels

Channel		Command	DMX range		Percent		Default DMX	Fade
1	Tilt coarse	Tilt backwards > forwards (16-bit)	0	65535	0	100	32768	Fade
2	Tilt fine							
3	Intensity coarse	Global intensity 0-100% (16-bit)	0	65535	0	100	32768	Fade
4	Intensity fine							
5	Shutter	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
6	Control / Settings	No function	0	38	0	14.9	0	Snap
		<b>Dimmer curve: Soft (square) (3s hold)</b>	39	41	15.3	16.1		
		Dimmer curve: Linear (3s hold)	42	44	16.5	17.3		
		No function	45	53	17.6	20.8		
		Display mode: Off (3s hold)	54	56	21.2	22		
		<b>Display mode: Auto (3s hold)</b>	57	59	22.4	23.1		
		Display mode : On (3s hold)	60	62	23.5	24.3		
		<b>Display orientation: Normal (3s hold)</b>	63	65	24.7	25.5		
		Display orientation: Inverted (3s hold)	66	68	25.9	26.7		
		No function	69	71	27.1	27.8		
		No DMX: Blackout (3s hold)	72	74	28.2	29.0		
		<b>No DMX: Hold (3s hold)</b>	75	77	29.4	30.2		
		No DMX: Captured scene (3s hold)	78	80	30.6	31.4		
		Capture Scene (3s hold)	81	83	31.8	32.5		
		No function	84	86	32.9	33.7		
		<b>Fan mode: Regulated (3s hold)</b>	87	89	34.1	34.9		
		Fan mode: High (3s hold)	90	92	35.3	36.1		
		Fan mode: Medium (3s hold)	93	95	36.5	37.3		
		Fan mode: Low (3s hold)	96	98	37.6	38.4		
		No function	99	104	38.8	40.8		
		Position feedback: Off (3s hold)	105	107	41.2	42.0		
		<b>Position feedback: On (3s hold)</b>	108	110	42.4	43.1		
		<b>Tilt disable: Off (3s hold)</b>	111	113	43.5	44.3		
		Tilt disable: Reset Disabled	114	116	44.7	45.5		
		Tilt disable: Current Disabled	117	119	45.9	46.7		
		<b>Tilt inversion: Off (3s hold)</b>	120	122	47.1	47.8		
		Tilt inversion: On (3s hold)	123	125	48.2	49.0		
		No function	126	128	49.4	50.2		
		<b>Zoom inversion: Off (3s hold)</b>	129	131	50.6	51.4		
		Zoom inversion: On (3s hold)	132	134	51.8	52.5		
No function	135	140	52.9	54.9				
<b>Pixel mirror: Off (3s hold)</b>	141	143	55.3	56.1				
Pixel mirror: On (3s hold)	144	146	56.5	57.3				

		No function	147	155	57.6	60.8		
		Performance: Fast (3s hold)	156	158	61.2	62.0		
		<b>Performance: Normal (3s hold)</b>	159	161	62.4	63.1		
		Performance: Smooth (3s hold)	162	164	63.5	64.3		
		No function	165	170	64.7	66.7		
		Color mix priority: Mix (HTP)	171	173	67.1	67.8		
		Color mix priority: L3-L2-L1	174	176	68.2	69.0		
		Color mix priority: L1-L2-L3	177	179	69.4	70.2		
		<b>Subfixture mode: Normal</b>	180	182	70.6	71.4		
		Subfixture mode: Independent	183	185	71.8	72.5		
		No function	186	191	72.9	74.9		
		PWM: 2200 Hz (5s hold)	192	194	75.3	76.1		
		<b>PWM: 3000 Hz (5s hold)</b>	195	197	76.5	77.3		
		PWM: 4800 Hz (5s hold)	198	200	77.6	78.4		
		PWM: 9600 Hz (5s hold)	201	203	78.8	79.6		
		No function	204	206	80.0	80.8		
		PWM: 25 kHz (5s hold)	207	209	81.2	82.0		
		No function	210	245	82.4	96.1		
		Reset Tilt (3s hold)	246	248	96.5	97.3		
		Reset Head (3s hold)	249	251	97.6	98.4		
		Reset All (3s hold)	252	255	98.8	100		
7	<b>Color Temperature Control</b>	RAW	0	15	0	5.9		
		10000 K	16	18	6.3	7.1		
		9900 K	19	21	7.5	8.2		
		9800 K	22	24	8.6	9.4		
		9700 K	25	27	9.8	10.6		
		9600 K	28	30	11.0	11.8		
		9500 K	31	33	12.2	12.9		
		9400 K	34	36	13.3	14.1		
		9300 K	37	39	14.5	15.3		
		9200 K	40	42	15.7	16.5		
		9100 K	43	45	16.9	17.6		
		9000 K	46	48	18.0	18.8		
		8900 K	49	51	19.2	20.0		
		8800 K	52	54	20.4	21.2		
		8700 K	55	57	21.6	22.4		
		8600 K	58	60	22.7	23.5		
		8500 K	61	63	23.9	24.7		
		8400 K	64	66	25.1	25.9		
		8300 K	67	69	26.3	27.1		
		8200 K	70	72	27.5	28.2		
		8100 K	73	75	28.6	29.4		
		8000 K	76	78	29.8	30.6		
		7900 K	79	81	31.0	31.8		
		7800 K	82	84	32.2	32.9		
		7700 K	85	87	33.3	34.1		
		7600 K	88	90	34.5	35.3		
		7500 K	91	93	35.7	36.5		
		7400 K	94	96	36.9	37.6		
		7300 K	97	99	38.0	38.8		
		7200 K	100	102	39.2	40.0		
		7100 K	103	105	40.4	41.2		
		7000 K	106	108	41.6	42.4		
		6900 K	109	111	42.7	43.5		
		6800 K	112	114	43.9	44.7		
		6700 K	115	117	45.1	45.9		
								Snap

		6600 K	118	120	46.3	47.1		
		6500 K	121	123	47.5	48.2		
		6400 K	124	126	48.6	49.4		
		6300 K	127	129	49.8	50.6		
		6200 K	130	132	51.0	51.8		
		6100 K	133	135	52.2	52.9		
		6000 K	136	138	53.3	54.1		
		5900 K	139	141	54.5	55.3		
		5800 K	142	144	55.7	56.5		
		5700 K	145	147	56.9	57.6		
		5600 K	148	150	58.0	58.8		
		5500 K	151	153	59.2	60.0		
		5400 K	154	156	60.4	61.2		
		5300 K	157	159	61.6	62.4		
		5200 K	160	162	62.7	63.5		
		5100 K	163	165	63.9	64.7		
		5000 K	166	168	65.1	65.9		
		4900 K	169	171	66.3	67.1		
		4800 K	172	174	67.5	68.2		
		4700 K	175	177	68.6	69.4		
		4600 K	178	180	69.8	70.6		
		4500 K	181	183	71.0	71.8		
		4400 K	184	186	72.2	72.9		
		4300 K	187	189	73.3	74.1		
		4200 K	190	192	74.5	75.3		
		4100 K	193	195	75.7	76.5		
		4000 K	196	198	76.9	77.6		
		3900 K	199	201	78.0	78.8		
		3800 K	202	204	79.2	80.0		
		3700 K	205	207	80.4	81.2		
		3600 K	208	210	81.6	82.4		
		3500 K	211	213	82.7	83.5		
		3400 K	214	216	83.9	84.7		
		3300 K	217	219	85.1	85.9		
		3200 K	220	222	86.3	87.1		
		3100 K	223	225	87.5	88.2		
		3000 K	226	228	88.6	89.4		
		2900 K	229	231	89.8	90.6		
		2800 K	232	234	91.0	91.8		
		2700 K	235	237	92.2	92.9		
		2600 K	238	240	93.3	94.1		
		2500 K	241	255	94.5	100		
<b>8</b>	<b>Pixel 01 Red</b>	Pixel 01 red intensity 0-100%	0	255	0	100	255	Fade
<b>9</b>	<b>Pixel 01 Green</b>	Pixel 01 green intensity 0-100%	0	255	0	100	255	Fade
<b>10</b>	<b>Pixel 01 Blue</b>	Pixel 01 blue intensity 0-100%	0	255	0	100	255	Fade
<b>11</b>	<b>Pixel 01 White</b>	Pixel 01 white intensity 0-100%	0	255	0	100	0	Fade
<b>12</b>	<b>Pixel 01 Zoom</b>	Pixel 01 zoom wide > narrow	0	255	0	100	128	Fade
<b>13</b>	<b>Pixel 02 Red</b>	Pixel 02 red intensity 0-100%	0	255	0	100	255	Fade
<b>14</b>	<b>Pixel 02 Green</b>	Pixel 02 green intensity 0-100%	0	255	0	100	255	Fade
<b>15</b>	<b>Pixel 02 Blue</b>	Pixel 02 blue intensity 0-100%	0	255	0	100	255	Fade
<b>16</b>	<b>Pixel 02 White</b>	Pixel 02 white intensity 0-100%	0	255	0	100	0	Fade
<b>17</b>	<b>Pixel 02 Zoom</b>	Pixel 02 zoom wide > narrow	0	255	0	100	128	Fade

18	<b>Pixel 03 Red</b>	Pixel 03 red intensity 0-100%	0	255	0	100	255	Fade
19	<b>Pixel 03 Green</b>	Pixel 03 green intensity 0-100%	0	255	0	100	255	Fade
20	<b>Pixel 03 Blue</b>	Pixel 03 blue intensity 0-100%	0	255	0	100	255	Fade
21	<b>Pixel 03 White</b>	Pixel 03 white intensity 0-100%	0	255	0	100	0	Fade
22	<b>Pixel 03 Zoom</b>	Pixel 03 zoom wide > narrow	0	255	0	100	128	Fade
23	<b>Pixel 04 Red</b>	Pixel 04 red intensity 0-100%	0	255	0	100	255	Fade
24	<b>Pixel 04 Green</b>	Pixel 04 green intensity 0-100%	0	255	0	100	255	Fade
25	<b>Pixel 04 Blue</b>	Pixel 04 blue intensity 0-100%	0	255	0	100	255	Fade
26	<b>Pixel 04 White</b>	Pixel 04 white intensity 0-100%	0	255	0	100	0	Fade
27	<b>Pixel 04 Zoom</b>	Pixel 04 zoom wide > narrow	0	255	0	100	128	Fade
28	<b>Pixel 05 Red</b>	Pixel 05 red intensity 0-100%	0	255	0	100	255	Fade
29	<b>Pixel 05 Green</b>	Pixel 05 green intensity 0-100%	0	255	0	100	255	Fade
30	<b>Pixel 05 Blue</b>	Pixel 05 blue intensity 0-100%	0	255	0	100	255	Fade
31	<b>Pixel 05 White</b>	Pixel 05 white intensity 0-100%	0	255	0	100	0	Fade
32	<b>Pixel 05 Zoom</b>	Pixel 05 zoom wide > narrow	0	255	0	100	128	Fade
33	<b>Pixel 06 Red</b>	Pixel 06 red intensity 0-100%	0	255	0	100	255	Fade
34	<b>Pixel 06 Green</b>	Pixel 06 green intensity 0-100%	0	255	0	100	255	Fade
35	<b>Pixel 06 Blue</b>	Pixel 06 blue intensity 0-100%	0	255	0	100	255	Fade
36	<b>Pixel 06 White</b>	Pixel 06 white intensity 0-100%	0	255	0	100	0	Fade
37	<b>Pixel 06 Zoom</b>	Pixel 06 zoom wide > narrow	0	255	0	100	128	Fade
38	<b>Pixel 07 Red</b>	Pixel 07 red intensity 0-100%	0	255	0	100	255	Fade
39	<b>Pixel 07 Green</b>	Pixel 07 green intensity 0-100%	0	255	0	100	255	Fade
40	<b>Pixel 07 Blue</b>	Pixel 07 blue intensity 0-100%	0	255	0	100	255	Fade
41	<b>Pixel 07 White</b>	Pixel 07 white intensity 0-100%	0	255	0	100	0	Fade
42	<b>Pixel 07 Zoom</b>	Pixel 07 zoom wide > narrow	0	255	0	100	128	Fade
43	<b>Pixel 08 Red</b>	Pixel 08 red intensity 0-100%	0	255	0	100	255	Fade
44	<b>Pixel 08 Green</b>	Pixel 08 green intensity 0-100%	0	255	0	100	255	Fade
45	<b>Pixel 08 Blue</b>	Pixel 08 blue intensity 0-100%	0	255	0	100	255	Fade
46	<b>Pixel 08 White</b>	Pixel 08 white intensity 0-100%	0	255	0	100	0	Fade
47	<b>Pixel 08 Zoom</b>	Pixel 08 zoom wide > narrow	0	255	0	100	128	Fade
48	<b>Pixel 09 Red</b>	Pixel 09 red intensity 0-100%	0	255	0	100	255	Fade
49	<b>Pixel 09 Green</b>	Pixel 09 green intensity 0-100%	0	255	0	100	255	Fade
50	<b>Pixel 09 Blue</b>	Pixel 09 blue intensity 0-100%	0	255	0	100	255	Fade
51	<b>Pixel 09 White</b>	Pixel 09 white intensity 0-100%	0	255	0	100	0	Fade
52	<b>Pixel 09 Zoom</b>	Pixel 09 zoom wide > narrow	0	255	0	100	128	Fade
53	<b>Pixel 10 Red</b>	Pixel 10 red intensity 0-100%	0	255	0	100	255	Fade
54	<b>Pixel 10 Green</b>	Pixel 10 green intensity 0-100%	0	255	0	100	255	Fade
55	<b>Pixel 10 Blue</b>	Pixel 10 blue intensity 0-100%	0	255	0	100	255	Fade
56	<b>Pixel 10 White</b>	Pixel 10 white intensity 0-100%	0	255	0	100	0	Fade
57	<b>Pixel 10 Zoom</b>	Pixel 10 zoom wide > narrow	0	255	0	100	128	Fade



**DMX Mode 4: MultiPix Advanced**

**79 DMX Channels**

Channel	Command	DMX range	Percent	Default DMX	Fade			
<b>Layer 1 (Base layer, low priority)</b>								
1	<b>Tilt coarse</b>	Tilt backwards > forwards (16-bit)	0	65535	0	100	32768	Fade
2	<b>Tilt fine</b>							
3	<b>Intensity coarse</b>	Global intensity 0-100% (16-bit)	0	65535	0	100	32768	Fade
4	<b>Intensity fine</b>							
5	<b>Shutter</b>	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
6	<b>Control / Settings</b>	No function	0	38	0	14.9	0	Snap
		<b>Dimmer curve: Soft (square) (3s hold)</b>	39	41	15.3	16.1		
		Dimmer curve: Linear (3s hold)	42	44	16.5	17.3		
		No function	45	53	17.6	20.8		
		Display mode: Off (3s hold)	54	56	21.2	22		
		<b>Display mode: Auto (3s hold)</b>	57	59	22.4	23.1		
		Display mode : On (3s hold)	60	62	23.5	24.3		
		<b>Display orientation: Normal (3s hold)</b>	63	65	24.7	25.5		
		Display orientation: Inverted (3s hold)	66	68	25.9	26.7		
		No function	69	71	27.1	27.8		
		No DMX: Blackout (3s hold)	72	74	28.2	29.0		
		<b>No DMX: Hold (3s hold)</b>	75	77	29.4	30.2		
		No DMX: Captured scene (3s hold)	78	80	30.6	31.4		
		Capture Scene (3s hold)	81	83	31.8	32.5		
		No function	84	86	32.9	33.7		
		<b>Fan mode: Regulated (3s hold)</b>	87	89	34.1	34.9		
		Fan mode: High (3s hold)	90	92	35.3	36.1		
		Fan mode: Medium (3s hold)	93	95	36.5	37.3		
		Fan mode: Low (3s hold)	96	98	37.6	38.4		
		No function	99	104	38.8	40.8		
		Position feedback: Off (3s hold)	105	107	41.2	42.0		
		<b>Position feedback: On (3s hold)</b>	108	110	42.4	43.1		
		<b>Tilt disable: Off (3s hold)</b>	111	113	43.5	44.3		
		Tilt disable: Reset Disabled	114	116	44.7	45.5		
		Tilt disable: Current Disabled	117	119	45.9	46.7		
		<b>Tilt inversion: Off (3s hold)</b>	120	122	47.1	47.8		
		Tilt inversion: On (3s hold)	123	125	48.2	49.0		
		No function	126	128	49.4	50.2		
		<b>Zoom inversion: Off (3s hold)</b>	129	131	50.6	51.4		
		Zoom inversion: On (3s hold)	132	134	51.8	52.5		
No function	135	140	52.9	54.9				
<b>Pixel mirror: Off (3s hold)</b>	141	143	55.3	56.1				

		Pixel mirror: On (3s hold)	144	146	56.5	57.3		
		No function	147	155	57.6	60.8		
		Performance: Fast (3s hold)	156	158	61,2	62,0		
		<b>Performance: Normal (3s hold)</b>	159	161	62,4	63,1		
		Performance: Smooth (3s hold)	162	164	63.5	64.3		
		No function	165	170	64.7	66.7		
		Color mix priority: Mix (HTP)	171	173	67.1	67.8		
		Color mix priority: L3-L2-L1	174	176	68.2	69.0		
		Color mix priority: L1-L2-L3	177	179	69.4	70.2		
		<b>Subfixture mode: Normal</b>	180	182	70.6	71.4		
		Subfixture mode: Independent	183	185	71.8	72.5		
		No function	186	191	72.9	74.9		
		PWM: 2200 Hz (5s hold)	192	194	75.3	76.1		
		<b>PWM: 3000 Hz (5s hold)</b>	195	197	76.5	77.3		
		PWM: 4800 Hz (5s hold)	198	200	77.6	78.4		
		PWM: 9600 Hz (5s hold)	201	203	78.8	79.6		
		No function	204	206	80.0	80.8		
		PWM: 25 kHz (5s hold)	207	209	81.2	82.0		
		No function	210	245	82.4	96.1		
		Reset Tilt (3s hold)	246	248	96.5	97.3		
		Reset Head (3s hold)	249	251	97.6	98.4		
		Reset All (3s hold)	252	255	98.8	100		
		RAW	0	15	0	5.9		
		10000 K	16	18	6.3	7.1		
		9900 K	19	21	7.5	8.2		
		9800 K	22	24	8.6	9.4		
		9700 K	25	27	9.8	10.6		
		9600 K	28	30	11.0	11.8		
		9500 K	31	33	12.2	12.9		
		9400 K	34	36	13.3	14.1		
		9300 K	37	39	14.5	15.3		
		9200 K	40	42	15.7	16.5		
		9100 K	43	45	16.9	17.6		
		9000 K	46	48	18.0	18.8		
		8900 K	49	51	19.2	20.0		
		8800 K	52	54	20.4	21.2		
		8700 K	55	57	21.6	22.4		
		8600 K	58	60	22.7	23.5		
		8500 K	61	63	23.9	24.7		
		8400 K	64	66	25.1	25.9		
		8300 K	67	69	26.3	27.1		
		8200 K	70	72	27.5	28.2		
		8100 K	73	75	28.6	29.4		
		8000 K	76	78	29.8	30.6		
		7900 K	79	81	31.0	31.8		
		7800 K	82	84	32.2	32.9		
		7700 K	85	87	33.3	34.1		
		7600 K	88	90	34.5	35.3		
		7500 K	91	93	35.7	36.5		
		7400 K	94	96	36.9	37.6		
		7300 K	97	99	38.0	38.8		
		7200 K	100	102	39.2	40.0		
		7100 K	103	105	40.4	41.2		
		7000 K	106	108	41.6	42.4		
		6900 K	109	111	42.7	43.5		
		6800 K	112	114	43.9	44.7		
		6700 K	115	117	45.1	45.9		
		6600 K	118	120	46.3	47.1		
7	Color Temperature Control							Snap

		6500 K	121	123	47.5	48.2		
		6400 K	124	126	48.6	49.4		
		6300 K	127	129	49.8	50.6		
		6200 K	130	132	51.0	51.8		
		6100 K	133	135	52.2	52.9		
		6000 K	136	138	53.3	54.1		
		5900 K	139	141	54.5	55.3		
		5800 K	142	144	55.7	56.5		
		5700 K	145	147	56.9	57.6		
		5600 K	148	150	58.0	58.8		
		5500 K	151	153	59.2	60.0		
		5400 K	154	156	60.4	61.2		
		5300 K	157	159	61.6	62.4		
		5200 K	160	162	62.7	63.5		
		5100 K	163	165	63.9	64.7		
		5000 K	166	168	65.1	65.9		
		4900 K	169	171	66.3	67.1		
		4800 K	172	174	67.5	68.2		
		4700 K	175	177	68.6	69.4		
		4600 K	178	180	69.8	70.6		
		4500 K	181	183	71.0	71.8		
		4400 K	184	186	72.2	72.9		
		4300 K	187	189	73.3	74.1		
		4200 K	190	192	74.5	75.3		
		4100 K	193	195	75.7	76.5		
		4000 K	196	198	76.9	77.6		
		3900 K	199	201	78.0	78.8		
		3800 K	202	204	79.2	80.0		
		3700 K	205	207	80.4	81.2		
		3600 K	208	210	81.6	82.4		
		3500 K	211	213	82.7	83.5		
		3400 K	214	216	83.9	84.7		
		3300 K	217	219	85.1	85.9		
		3200 K	220	222	86.3	87.1		
		3100 K	223	225	87.5	88.2		
		3000 K	226	228	88.6	89.4		
		2900 K	229	231	89.8	90.6		
		2800 K	232	234	91.0	91.8		
		2700 K	235	237	92.2	92.9		
		2600 K	238	240	93.3	94.1		
		2500 K	241	255	94.5	100		
<b>8</b>	<b>Virtual color wheel</b>	Off (RGBW)	0	7	0	2.7		Snap
		Color 01 - Red	8	15	3.1	5.9		Snap
		Color 02 - Amber	16	23	6.3	9.0		Snap
		Color 03 - Warm Yellow	24	31	9.4	12.2		Snap
		Color 04 - Yellow	32	39	12.5	15.3		Snap
		Color 05 - Green	40	47	15.7	18.4		Snap
		Color 06 - Turquoise	48	55	18.8	21.6		Snap
		Color 07 - Cyan	56	63	22.0	24.7		Snap
		Color 08 - Blue	64	71	25.1	27.8		Snap
		Color 09 - Lavender	72	79	28.2	31.0		Snap
		Color 10 - Male	80	87	31.4	34.1		Snap
		Color 11 - Magenta	88	95	34.5	37.3		Snap
		Color 12 - Pink	96	103	37.6	40.4		Snap
		Color 13 - White 3200K	104	111	40.8	43.5		Snap
		Color 14 - White 5600K	112	119	43.9	46.7		Snap
		Color 15 - White 7200K	120	127	47.1	49.8		Snap
		Stop	128	128	50.2	50.2		Snap
		Rainbow colors crossfade slow > fast	129	223	50.6	87.5		Fade
		Random colors crossfade slow > fast	224	255	87.8	100		Fade

<b>9</b>	<b>Red</b>	Red intensity 0-100%	0	255	0	100	255	Fade
<b>10</b>	<b>Green</b>	Green intensity 0-100%	0	255	0	100	255	Fade
<b>11</b>	<b>Blue</b>	Blue intensity 0-100%	0	255	0	100	255	Fade
<b>12</b>	<b>White</b>	White intensity 0-100%	0	255	0	100	0	Fade
<b>13</b>	<b>Pixel FX pattern select</b>	No effect	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
Pattern 50	207	210	81.2	82.4				
No pattern – no function	211	246	82.7	96.5				
Random pixel FX pattern	246	250	96.5	98.0				
Random pixel FX	251	255	98.4	100				

14	Pixel FX pattern static position / dynamic movement	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		Snap
		Pattern static Step 03	12	17	4.7	6.7		Snap
		Pattern static Step 04	18	23	7.1	9.0		Snap
		Pattern static Step 05	24	29	9.4	11.4		Snap
		Pattern static Step 06	30	35	11.8	13.7		Snap
		Pattern static Step 07	36	41	14.1	16.1		Snap
		Pattern static Step 08	42	47	16.5	18.4		Snap
		Pattern static Step 09	48	53	18.8	20.8		Snap
		Pattern static Step 10	54	59	21.2	23.1		Snap
		Pattern static Step 11	60	65	23.5	25.5		Snap
		Pattern static Step 12	66	71	25.9	27.8		Snap
		Pattern static Step 13	72	77	28.2	30.2		Snap
		Pattern static Step 14	78	83	30.6	32.5		Snap
		Pattern static Step 15	84	89	32.9	34.9		Snap
		Pattern static Step 16	90	95	35.3	37.3		Snap
		Pattern static Step 17	96	101	37.6	39.6		Snap
		Pattern static Step 18	102	107	40.0	42.0		Snap
		Pattern static Step 19	108	113	42.4	44.3		Snap
		Pattern static Step 20	114	119	44.7	46.7		Snap
		Stop / no function	120	127	47.1	49.8		Snap
		Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5		Fade
		Stop	191	192	74.9	75.3		Snap
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0	Fade			
15	Pixel pattern FX crossfade (Xfade between steps)	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
16	Pixel FX transition (Xfade between patterns)	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FOB (fade over blackout) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOF (fade over full intensity) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
17	Pixel FX pattern length	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
18	Pixel FX pattern offset	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade
19	Zoom	Narrow > wide	0	255	0	100	0	Snap

20	Zoom FX pattern select	No effect, all lenses have normal zoom functionality	0	10	0	3.9	0	Snap
		Pattern 01	11	14	4.3	5.5		
		Pattern 02	15	18	5.9	7.1		
		Pattern 03	19	22	7.5	8.6		
		Pattern 04	23	26	9.0	10.2		
		Pattern 05	27	30	10.6	11.8		
		Pattern 06	31	34	12.2	13.3		
		Pattern 07	35	38	13.7	14.9		
		Pattern 08	39	42	15.3	16.5		
		Pattern 09	43	46	16.9	18.0		
		Pattern 10	47	50	18.4	19.6		
		Pattern 11	51	54	20.0	21.2		
		Pattern 12	55	58	21.6	22.7		
		Pattern 13	59	62	23.1	24.3		
		Pattern 14	63	66	24.7	25.9		
		Pattern 15	67	70	26.3	27.5		
		Pattern 16	71	74	27.8	29.0		
		Pattern 17	75	78	29.4	30.6		
		Pattern 18	79	82	31.0	32.2		
		Pattern 19	83	86	32.5	33.7		
		Pattern 20	87	90	34.1	35.3		
		Pattern 21	91	94	35.7	36.9		
		Pattern 22	95	98	37.3	38.4		
		Pattern 23	99	102	38.8	40.0		
		Pattern 24	103	106	40.4	41.6		
		Pattern 25	107	110	42.0	43.1		
		Pattern 26	111	114	43.5	44.7		
		Pattern 27	115	118	45.1	46.3		
		Pattern 28	119	122	46.7	47.8		
		Pattern 29	123	126	48.2	49.4		
		Pattern 30	127	130	49.8	51.0		
		Pattern 31	131	134	51.4	52.5		
		Pattern 32	135	138	52.9	54.1		
		Pattern 33	139	142	54.5	55.7		
		Pattern 34	143	146	56.1	57.3		
		Pattern 35	147	150	57.6	58.8		
		Pattern 36	151	154	59.2	60.4		
		Pattern 37	155	158	60.8	62.0		
		Pattern 38	159	162	62.4	63.5		
		Pattern 39	163	166	63.9	65.1		
		Pattern 40	167	170	65.5	66.7		
		Pattern 41	171	174	67.1	68.2		
		Pattern 42	175	178	68.6	69.8		
		Pattern 43	179	182	70.2	71.4		
		Pattern 44	183	186	71.8	72.9		
		Pattern 45	187	190	73.3	74.5		
		Pattern 46	191	194	74.9	76.1		
		Pattern 47	195	198	76.5	77.6		
		Pattern 48	199	202	78.0	79.2		
		Pattern 49	203	206	79.6	80.8		
		Pattern 50	207	210	81.2	82.4		
		No pattern – no function	211	246	82.7	96.5		
Random zoom FX pattern	246	250	96.5	98.0				
Random pixel zoom	251	255	98.4	100				

21	<b>Zoom FX static pattern position / dynamic pattern movement</b>	Pattern static Step 01	0	5	0.0	2.0	0	Snap
		Pattern static Step 02	6	11	2.4	4.3		
		Pattern static Step 03	12	17	4.7	6.7		
		Pattern static Step 04	18	23	7.1	9.0		
		Pattern static Step 05	24	29	9.4	11.4		
		Pattern static Step 06	30	35	11.8	13.7		
		Pattern static Step 07	36	41	14.1	16.1		
		Pattern static Step 08	42	47	16.5	18.4		
		Pattern static Step 09	48	53	18.8	20.8		
		Pattern static Step 10	54	59	21.2	23.1		
		Pattern static Step 11	60	65	23.5	25.5		
		Pattern static Step 12	66	71	25.9	27.8		
		Pattern static Step 13	72	77	28.2	30.2		
		Pattern static Step 14	78	83	30.6	32.5		
		Pattern static Step 15	84	89	32.9	34.9		
		Pattern static Step 16	90	95	35.3	37.3		
		Pattern static Step 17	96	101	37.6	39.6		
		Pattern static Step 18	102	107	40.0	42.0		
		Pattern static Step 19	108	113	42.4	44.3		
		Pattern static Step 20	114	119	44.7	46.7		
Stop / no function	120	127	47.1	49.8				
Pattern dynamic, forwards fast > slow (run pattern from Step 1 to end in loop)	128	190	50.2	74.5				
Stop	191	192	74.9	75.3				
Pattern dynamic, backwards slow > fast (run pattern from end to Step 1 in loop)	193	255	75.7	100.0				
22	<b>Zoom pattern FX crossfade (Xfade between steps)</b>	Off (no crossfade between steps in pattern)	0	10	0.0	3.9	0	Snap
		1 – 3 sec. crossfade	11	125	4.3	49.0		Fade
		Stop	126	130	49.4	51.0		Snap
		1 – 3 sec. crossfade with tail	131	255	51.4	100.0		Fade
23	<b>Zoom pattern FX transition (Xfade between patterns)</b>	No transition time, snap	0	10	0.0	3.9	0	Snap
		Normal transition, 0s to 5s crossfade	11	68	4.3	26.7		Fade
		No transition time, snap	69	73	27.1	28.6		Snap
		FON (fade over narrow) transition, 0s to 5s crossfade	74	130	29.0	51.0		Fade
		No transition time, snap	131	135	51.4	52.9		Snap
		FOW (fade over wide) 0s to 5s crossfade	136	193	53.3	75.7		Fade
		No function	194	255	76.1	100.0		
24	<b>Zoom pattern FX length</b>	Off (pattern length normal)	0	0	0	0	0	Snap
		Pattern length 1 > 255 steps	1	255	0.4	100		Fade
25	<b>Zoom pattern FX offset</b>	Off (pattern starts at first pixel)	0	0	0	0	0	Snap
		Pattern start offset 1 > 255 pixels	1	255	0.4	100		Fade

Layer 2 (individual pixel intensity layer)								
26	Layer 2 master coarse	Layer 2 (pixel intensity) master 0-100% (16-bit)	0	65535	0	100	32768	Fade
27	Layer 2 master fine							
28	Layer 2 shutter	Shutter closed	0	4	0	1.6	255	Snap
		Dimmer flash (at intensity change)	5	9	2.0	3.5		Snap
		Pulse slow > fast	10	39	3.9	15.3		Fade
		Opening pulse slow > fast	40	69	15.7	27.1		Fade
		Closing pulse slow > fast	70	99	27.5	38.8		Fade
		Double flash slow > fast	100	129	39.2	50.6		Fade
		Random pixel strobe slow > fast	130	159	51.0	62.4		Fade
		Random all strobe slow > fast	160	199	62.7	78.0		Fade
		Strobe sync all pixels 1Hz > 10Hz	200	250	78.4	98.0		Fade
		Open	251	255	98.4	100		Snap
29	Pixel 01 Red	Pixel 01 red intensity 0-100%	0	255	0	100	255	Fade
30	Pixel 01 Green	Pixel 01 green intensity 0-100%	0	255	0	100	255	Fade
31	Pixel 01 Blue	Pixel 01 blue intensity 0-100%	0	255	0	100	255	Fade
32	Pixel 01 White	Pixel 01 white intensity 0-100%	0	255	0	100	0	Fade
33	Pixel 02 Red	Pixel 02 red intensity 0-100%	0	255	0	100	255	Fade
34	Pixel 02 Green	Pixel 02 green intensity 0-100%	0	255	0	100	255	Fade
35	Pixel 02 Blue	Pixel 02 blue intensity 0-100%	0	255	0	100	255	Fade
36	Pixel 02 White	Pixel 02 white intensity 0-100%	0	255	0	100	0	Fade
37	Pixel 03 Red	Pixel 03 red intensity 0-100%	0	255	0	100	255	Fade
38	Pixel 03 Green	Pixel 03 green intensity 0-100%	0	255	0	100	255	Fade
39	Pixel 03 Blue	Pixel 03 blue intensity 0-100%	0	255	0	100	255	Fade
40	Pixel 03 White	Pixel 03 white intensity 0-100%	0	255	0	100	0	Fade
41	Pixel 04 Red	Pixel 04 red intensity 0-100%	0	255	0	100	255	Fade
42	Pixel 04 Green	Pixel 04 green intensity 0-100%	0	255	0	100	255	Fade
43	Pixel 04 Blue	Pixel 04 blue intensity 0-100%	0	255	0	100	255	Fade
44	Pixel 04 White	Pixel 04 white intensity 0-100%	0	255	0	100	0	Fade
45	Pixel 05 Red	Pixel 05 red intensity 0-100%	0	255	0	100	255	Fade
46	Pixel 05 Green	Pixel 05 green intensity 0-100%	0	255	0	100	255	Fade
47	Pixel 05 Blue	Pixel 05 blue intensity 0-100%	0	255	0	100	255	Fade
48	Pixel 05 White	Pixel 05 white intensity 0-100%	0	255	0	100	0	Fade
49	Pixel 06 Red	Pixel 06 red intensity 0-100%	0	255	0	100	255	Fade
50	Pixel 06 Green	Pixel 06 green intensity 0-100%	0	255	0	100	255	Fade
51	Pixel 06 Blue	Pixel 06 blue intensity 0-100%	0	255	0	100	255	Fade
52	Pixel 06 White	Pixel 06 white intensity 0-100%	0	255	0	100	0	Fade
53	Pixel 07 Red	Pixel 07 red intensity 0-100%	0	255	0	100	255	Fade
54	Pixel 07 Green	Pixel 07 green intensity 0-100%	0	255	0	100	255	Fade
55	Pixel 07 Blue	Pixel 07 blue intensity 0-100%	0	255	0	100	255	Fade
56	Pixel 07 White	Pixel 07 white intensity 0-100%	0	255	0	100	0	Fade
57	Pixel 08 Red	Pixel 08 red intensity 0-100%	0	255	0	100	255	Fade
58	Pixel 08 Green	Pixel 08 green intensity 0-100%	0	255	0	100	255	Fade
59	Pixel 08 Blue	Pixel 08 blue intensity 0-100%	0	255	0	100	255	Fade
60	Pixel 08 White	Pixel 08 white intensity 0-100%	0	255	0	100	0	Fade
61	Pixel 09 Red	Pixel 09 red intensity 0-100%	0	255	0	100	255	Fade
62	Pixel 09 Green	Pixel 09 green intensity 0-100%	0	255	0	100	255	Fade
63	Pixel 09 Blue	Pixel 09 blue intensity 0-100%	0	255	0	100	255	Fade
64	Pixel 09 White	Pixel 09 white intensity 0-100%	0	255	0	100	0	Fade
65	Pixel 10 Red	Pixel 10 red intensity 0-100%	0	255	0	100	255	Fade
66	Pixel 10 Green	Pixel 10 green intensity 0-100%	0	255	0	100	255	Fade
67	Pixel 10 Blue	Pixel 10 blue intensity 0-100%	0	255	0	100	255	Fade
68	Pixel 10 White	Pixel 10 white intensity 0-100%	0	255	0	100	0	Fade



Layer 3 (individual pixel zoom layer)								
<b>69</b>	<b>Pixel zoom master</b>	Layer 3 (pixel zoom) master 0-100%	0	255	0	100	128	Fade
<b>70</b>	<b>Pixel 01 Zoom</b>	Pixel 01 zoom wide > narrow	0	255	0	100	128	Fade
<b>71</b>	<b>Pixel 02 Zoom</b>	Pixel 02 zoom wide > narrow	0	255	0	100	128	Fade
<b>72</b>	<b>Pixel 03 Zoom</b>	Pixel 03 zoom wide > narrow	0	255	0	100	128	Fade
<b>73</b>	<b>Pixel 04 Zoom</b>	Pixel 04 zoom wide > narrow	0	255	0	100	128	Fade
<b>74</b>	<b>Pixel 05 Zoom</b>	Pixel 05 zoom wide > narrow	0	255	0	100	128	Fade
<b>75</b>	<b>Pixel 06 Zoom</b>	Pixel 06 zoom wide > narrow	0	255	0	100	128	Fade
<b>76</b>	<b>Pixel 07 Zoom</b>	Pixel 07 zoom wide > narrow	0	255	0	100	128	Fade
<b>77</b>	<b>Pixel 08 Zoom</b>	Pixel 08 zoom wide > narrow	0	255	0	100	128	Fade
<b>78</b>	<b>Pixel 09 Zoom</b>	Pixel 09 zoom wide > narrow	0	255	0	100	128	Fade
<b>79</b>	<b>Pixel 10 Zoom</b>	Pixel 10 zoom wide > narrow	0	255	0	100	128	Fade

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