

The projector has 3 operating modes: Basic, Standard & Advanced.

OPERATING MODE

<i>DMX Mode</i>	<i>Number of parameters</i>	<i>Color Control Mode</i>	<i>Notes</i>
Basic	15	RGBW 8bit	Colour control as single layer
Standard	37	RGBW 16bit	Colour control in 2 layers with background effect.
Advanced	31	RGBW16bit	Colour control, in 3 layers with background effect.

PIXELS ENGINE MODES

<i>Mode</i>	<i>Number of Parameter</i>	<i>Colour Control</i>	<i>Notes</i>
Disable	-	-	Disable the colour control for each led.
RGB	21	RGB 8bit	Colour control for each led.
RGBW	28	RGBW 8bit	Colour control for each led.

Basic Engine DMX list

DMX Parameter number	Basic	Standard	Advanced
1	Red	Red	Layer 1 Red
2	Green	Red fine	Layer 1 Green
3	Blue	Green	Layer 1 Blue
4	White	Green fine	Layer 1 White
5	CTO	Blue	Layer 1 CTO
6	Strobe	Blue fine	Layer 1 Strobe
7	Dimmer	White	Layer 1 Dimmer
8	Dimmer fine	White fine	Strobe
9	Pan	CTO	Dimmer
10	Pan fine	Strobe	Dimmer Fine
11	Tilt	Dimmer	Pan
12	Tilt fine	Dimmer fine	Pan fine
13	Zoom	Pan	Tilt
14	Color crossfade	Pan fine	Tilt fine
15	Function	Tilt	Zoom
16	-	Tilt fine	Function
17	-	Zoom	Reset
18	-	Function	Layer 2 Selection
19	-	Reset	Layer 2 Effect
20	-	Shape Selection	Indexing/Speed
21	-	Shape Effect	Layer 2 Fade
22	-	Indexing Speed	Layer 2 Strobe
23	-	Shape Fade	Layer 2 Dimmer
24	-	Shape Strobe	Layer 2 Transition
25	-	Shape Dimmer	Layer 2 Red
26	-	Shape Transition	Layer 2 Green
27	-	Background Red	Layer 2 Blue
28	-	Background Red Fine	Layer 2 White
29	-	Background Green	Layer 2 CTO
30	-	Background Green Fine	Layer 3 Strobe
31	-	Background Blue	Layer 3 Dimmer
32	-	Background Blue Fine	-
33	-	Background White	-
34	-	Background White Fine	-
35	-	Background CTO	-
36	-	Background Strobe	-
37	-	Background Dimmer	-

Basic Engine DMX list

DMX Parameter number	Old Basic RGBW	Old Ext. RGBW 16bit
1	Red	Red Circle
2	Green	Red Circle fine
3	Blue	Green Circle
4	White	Green Circle fine
5	CTO	Blue Circle
6	Macro color	Blue Circle fine
7	Strobe	White Circle
8	Dimmer	White Circle fine
9	Dimmer fine	Red Centre
10	Pan	Red Centre fine
11	Pan fine	Green Centre
12	Tilt	Green Centre fine
13	Tilt fine	Blue Centre
14	Zoom	Blue Centre fine
15	Color crossfade	White Centre
16	Function	White Centre fine
17	Reset	CTO
18	-	Macro color
19	-	Strobe
20	-	Dimmer
21	-	Dimmer fine
22	-	Pan
23	-	Pan fine
24	-	Tilt
25	-	Tilt fine
26	-	Zoom
27	-	Color crossfade
28	-	Function
29	-	Reset

Basic	Standard	DMX value	Function
1	1	000 - 255	RED linear 0 - 100%
-	2	000 - 255	RED FINE (16 Bit)
2	3	000 - 255	GREEN linear 0 - 100%
-	4	000 - 255	GREEN FINE (16 Bit)
3	5	000 - 255	BLUE linear 0 - 100%
-	6	000 - 255	BLUE FINE (16 bit)
4	7	000 - 255	WHITE linear 0 - 100%
-	8	000 - 255	WHITE FINE (16 bit)
5	9	000 - 009 010 - 255	CTO Colour Temperature control 8000K to 2500K Important: The CTO parameter has priority on the colour functions. Unused range 8000 K – 2500K
6	10		STROBE
		000 - 003	Light OFF
		004 - 103	Strobe linear from low (1Hz) to fast (25Hz)
		104 - 107	Light ON
		108 - 207	Pulsation linear from slow (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
252 - 255	Light ON		
7	11	000 - 255	DIMMER
8	12	000 - 255	DIMMER FINE (16 bit)
9	13	000 - 255	PAN Pan movement/positioning <<< CCW from 0° to 540° (invert Pan=Off; Invert Tilt=Off)
10	14	000 - 255	PAN FINE
11	15	000 - 255	TILT Tilt movement/positioning >>> CW from 0° to 270° (invert Pan=Off; Invert Tilt=Off)
12	16	000 - 255	TILT FINE
13	17	000 - 255	ZOOM Zoom linearly moves from narrow to wide beam

Basic	Standard	DMX value	Function	
14	18		FUNCTION Important: The setting are activated and saved holding the DMX level for 3 seconds.	
		000 - 001	Unused range	
		002 - 003	Auto (Default)	
		004 - 005	SLN	
		006 - 007	Theatre	
		008 - 009	Constant	
		010 - 011	Not used	
		012 - 024	Pan/Tilt speed → Fast (Default)	
		025 - 037	Pan/Tilt speed → Normal	
		038 - 042	Dimmer curve Linear (Default)	Details at page 15
		043 - 047	Dimmer curve Quadratic	
		048 - 052	Dimmer curve Square	
		053 - 055	Dimmer curve Sine Wave	
		056 - 057	Dimmer curve Sync Linear	
		058 - 062	Raw color channels gamma 1	Details at page 15
		063 - 067	Raw color channels gamma 1.5	
		068 - 072	Raw color channels gamma 2.2 (Default)	
		073 - 074	Colour calibration Off (Default)	
		075 - 076	Colour calibration Factory	
		077 - 078	Colour calibration Customized	
		079 - 080	Set customized calibration at Full White	
		081 - 082	Set customized calibration at 3200K	
		083 - 084	Set customized calibration at 5600K	
		085 - 086	Record customized calibration	
		087 - 088	Not used	
		089 - 090	Reverse Mapping OFF (Default)	
		091 - 092	Reverse Mapping ON	
		093 - 097	Pixel Mapping Disable (Default)	
		098 - 102	Pixel Mapping on RGB Mode	
		103 - 107	Pixel Mapping on RGBW Mode	
108 - 112	Zoom repositioning ON (Default)			
113 - 117	Zoom repositioning OFF			
118 - 167	Not used			
168 - 188	PWM frequency=600Hz			
189 - 199	PWM frequency=1200Hz			
200 - 210	PWM frequency=2000Hz (Default)			
211 - 221	PWM frequency=4000Hz			
222 - 232	PWM frequency=6000Hz			
233 - 243	PWM frequency=25000Hz			
244 - 248	Display OFF (Default)			
249 - 253	Display ON			
254 - 255	Default function recall			
15	19		RESET Important: The reset sequence is activated staying in the selected reset range for 5 seconds	
		000 - 025	Unused range	
		026 - 076	Zoom Reset	
		077 - 127	Pan and Tilt Reset	
		128 - 255	Complete Reset	

Basic	Standard	DMX value	Function	
-	20		SHAPE SELECTION	
		000 - 005	Normal	
		006 - 130	Static	
		131 - 255	Dynamic	
-	21		SHAPE EFFECT	
		000 - 015	Effect 1	
		016 - 031	Effect 2	
		032 - 047	Effect 3	
		048 - 239	
		240 - 255	Effect 16	
-	22		INDEXING SPEED	
		000 - 255	Indexing	→ Static mode
		000 - 124	Speed from fast to slow, forward	→ Dynamic mode
		125 - 130	STOP	
		131 - 255	Speed from slow to fast,	
-	23		SHAPE FADE	
		000 - 005	OFF	
		006 - 130	Fade change from fast to slow	
		131 - 255	Wake change from fast to slow	
-	24		SHAPE STROBE	
		000 - 003	Light OFF	
		004 - 103	Strobe effect linearly variable from slow to fast	
		104 - 107	Light ON	
		108 - 207	Pulsation linearly variable speed from slow to fast	
		208 - 212	Light ON (Shape Slave)	
		213 - 225	Random Slow Strobe effect	
		226 - 238	Random Medium Strobe effect	
		239 - 251	Random Fast Strobe effect	
252 - 255	Light ON (Shape Master)			
-	25	0 - 255	SHAPE DIMMER	
-	26	0 - 255	SHAPE TRANSITION Crossfade between macro shape	
-	27	000 - 255	BACKGROUND RED Linear 0 – 100%	
-	28	000 - 255	BACKGROUND RED FINE	
-	29	000 - 255	BACKGROUND GREEN Linear 0 – 100%	
-	30	000 - 255	BACKGROUND GREEN FINE	
-	31	000 - 255	BACKGROUND BLUE Linear 0 – 100%	
-	32	000 - 255	BACKGROUND BLUE FINE	
-	33	000 - 255	BACKGROUND WHITE Linear 0 – 100%	
-	34	000 - 255	BACKGROUND WHITE FINE	

<i>Basic</i>	<i>Standard</i>	<i>DMX value</i>	<i>Function</i>
-	35		BACKGROUND CTO from 8000K to 2700K
		000 - 009	OFF
		010 - 255	8000K – 2700K
-	36		BACKGROUND STROBE
		000 - 003	Light OFF
		004 - 103	Strobe effect linearly variable from slow to fast.
		104 - 107	Light ON
		108 - 207	Pulsation linearly variable speed from slow to fast.
		208 - 212	Light ON
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
		252 - 255	Light ON
-	37	000 - 255	BACKGROUND DIMMER

ADVANCED MODE

Advanced	DMX Value	Function
1	000 - 255	LAYER 1 RED Linear 0 – 100%
2	000 - 255	LAYER 1 GREEN Linear 0 – 100%
3	000 - 255	LAYER 1 BLUE Linear 0 – 100%
4	000 - 255	LAYER 1 WHITE Linear 0 – 100%
5		LAYER 1 CTO
	000 - 009	OFF
	010 - 255	from 8000K to 2700K
6		LAYER 1 STROBE
	000 - 003	Light OFF
	004 - 103	Layer 1 Strobe effect linearly variable from slow to fast.
	104 - 107	Light ON
	108 - 207	Layer 1 pulsation linearly variable speed from slow to fast.
	208 - 212	Light ON
	213 - 225	Random Slow Strobe effect
	226 - 238	Random Medium Strobe effect
	239 - 251	Random Fast Strobe effect
	252 - 255	Light On
7	000 - 255	LAYER 1 DIMMER Linear 0 – 100%
8		STROBE
	000 - 003	Light OFF
	004 - 103	Strobe effect linearly variable frequency from slow (1Hz) to fast (25Hz)
	104 - 107	Light ON
	108 - 207	Pulsation at linearly variable speed from slow (0.5 Hz) to fast (25 Hz)
	208 - 212	Light ON
	213 - 225	Random Slow Strobe effect
	226 - 238	Random Medium Strobe effect
	239 - 251	Random Fast Strobe effect
252 - 255	Light On	
9	000 - 255	DIMMER. Linear 0 – 100%
10	000 - 255	DIMMER FINE (16 bit)
11	000 - 255	PAN
		Pan movement/positioning <<< CCW from 0° to 540° (invert Pan=Off; Invert Tilt=Off)
12	000 - 255	PAN FINE
13	000 - 255	TILT
		Tilt movement/positioning >>> CW from 0° to 270° (invert Pan=Off; Invert Tilt=Off)
14	000 - 255	TILT FINE
15	000 - 255	ZOOM
		Zoom linearly moves from narrow to wide beam
16	000 - 255	Same as the FUNCTION parameter of the other DMX modes.
17	000 - 255	Same as the RESET parameter of the other DMX modes.
18		LAYER 2 SELECTION
	000 - 005	Normal
	006 - 130	Static
	131 - 255	Dynamic

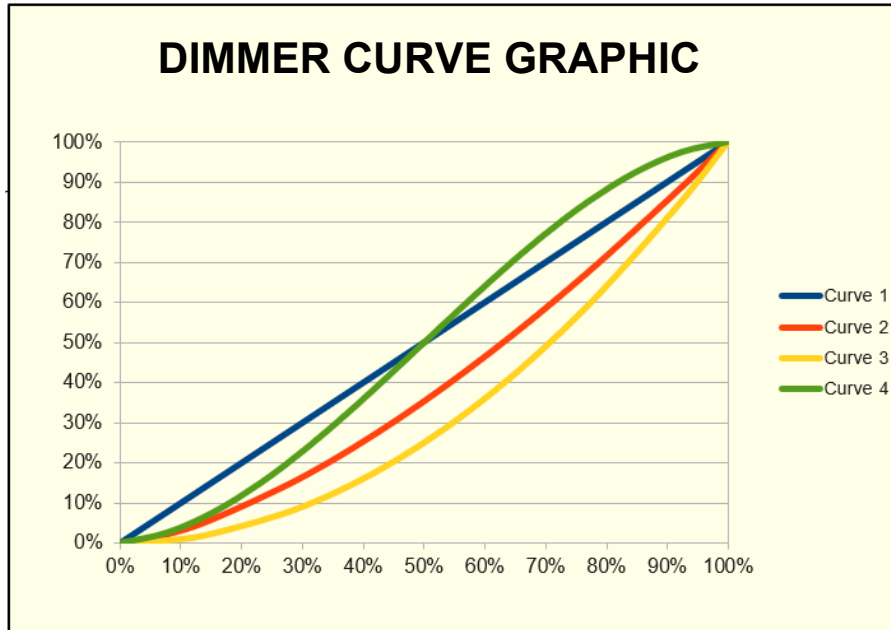
Advanced	DMX Value	Function
19		LAYER 2 EFFECT
	000 - 015	Effect 1
	016 - 031	Effect 2
	032 - 047	Effect 3
	048 - 239
	240 - 255	Effect 16
20		INDEXING/SPEED
	000 - 255	Indexing → Static mode
	000 - 124	Speed from fast to slow, forward
	125 - 130	Stop → Dynamic mode
	131 - 255	Speed from slow to fast, backward
21		LAYER 2 FADE
	000 - 005	OFF
	006 - 130	Fade control on shape from fast to slow.
	131 - 255	Wake linearly increase of pixel back and front on the selected shape.
22		LAYER 2 STROBE
	000 - 003	Light OFF
	004 - 103	Layer 2 Strobe effect linearly variable from slow to fast.
	104 - 107	Light ON
	108 - 207	Layer 2 pulsation linearly variable speed from slow to fast.
	208 - 212	Light ON (Layer 2 Slave)
	213 - 225	Random Slow Strobe effect
	226 - 238	Random Medium Strobe effect
	239 - 251	Random Fast Strobe effect
252 - 255	Light ON (Layer 2 Master)	
23	000 - 255	LAYER 2 DIMMER Linear 0 – 100%
24	000 - 255	LAYER 2 TRANSITION Crossfade between shape.
25	000 - 255	LAYER 2 RED Linear 0 – 100%
26	000 - 255	LAYER 2 GREEN Linear 0 – 100%
27	000 - 255	LAYER 2 BLUE Linear 0 – 100%
28	000 - 255	LAYER 2 WHITE Linear 0 – 100%
29		LAYER 2 CTO
	000 - 009	CTO Off
	010 - 255	Layer 2 from 8000K to 2700K
30		LAYER 3 STROBE
	000 - 003	Light OFF
	004 - 103	Layer 3 Strobe effect from slow to fast.
	104 - 107	Light ON
	108 - 207	Layer 3 pulsation from slow to fast.
	208 - 212	Light ON (Layer 3 Slave)
	213 - 225	Random Slow Strobe effect
	226 - 238	Random Medium Strobe effect
	239 - 251	Random Fast Strobe effect
252 - 255	Light ON (Layer 3 Master)	
31	000 - 255	LAYER 3 DIMMER Linear 0 – 100%.

RGB	RGBW	Bit Value	Function
1	1	000 - 255	RED LED 1 Linear 0 – 100%.
2	2	000 - 255	GREEN LED 1 Linear 0 – 100%.
3	3	000 - 255	BLUE LED 1 Linear 0 – 100%.
-	4	000 - 255	WHITE LED 1 Linear 0 – 100%.
4	5	000 - 255	RED LED 2 Linear 0 – 100%.
5	6	000 - 255	GREEN LED 2 Linear 0 – 100%.
6	7	000 - 255	BLUE LED 2 Linear 0 – 100%.
-	8	000 - 255	WHITE LED 2 Linear 0 – 100%.
⋮	⋮	⋮	Functionalities are the same for all the Led's
19	25	000 - 255	RED LED 7 Linear 0 – 100%.
20	26	000 - 255	GREEN LED 7 Linear 0 – 100%.
21	27	000 - 255	BLUE LED 7 Linear 0 – 100%.
-	28	000 - 255	WHITE LED 7 Linear 0 – 100%.

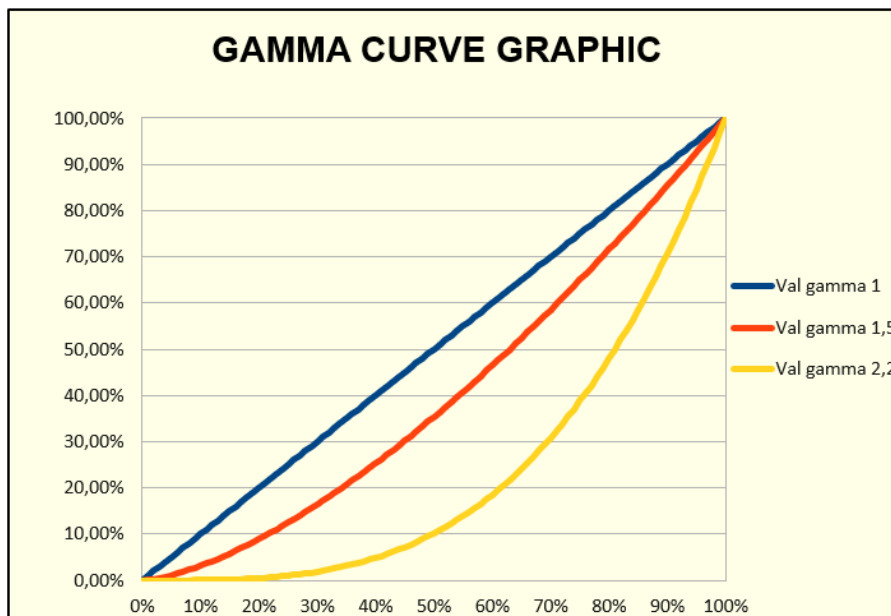
Function details – Pixels Engine

PIXEL MAPPING





Note: The Dimmer Curve 5 has all the Leds synchronized, for balanced behavior in white.



MACRO COLOR

DMX Value	LEE Filter	Description
0-9	--	Macro Color OFF
10	--	Red
11	--	Green
12	--	Blue
13	--	Cyan
14	--	Yellow
15	--	Magenta
16	--	White 7000K
17	--	White 3700K
18	--	White 5000K
19	--	Black
20-22	10	Medium Yellow
23-26	13	Straw Tint
27-28	17	Surprise Peach
29	19	Fire
30	20	Medium Amber
31	21	Gold Amber
32-34	22	Dark Amber
35-44	25	Sunrise Red
45	35	Light Pink
46-48	36	Medium Pink
49-61	39	Pink Carnation
62-67	52	Light Lavender
68-77	58	Lavender
78-88	68	Sky Blue
89-99	79	Just Blue
100-109	90	Dark Yellow Green
110-111	100	Spring Yellow
112	102	Light Amber
113	103	Straw
114	104	Deep amber
115-116	105	Orange
117	107	Light Rose
118	108	English Rose
119	109	Light Salmon
120	110	Middle Rose
121-122	111	Dark Pink
123-124	113	Magenta
125	115	Peacock Blue

DMX Value	LEE Filter	Description
126	116	Med Blu Green
127	117	Steel Blue
128	118	Light Blue
129-130	119	Dark Blue
131-133	121	Leaf Green
134-135	124	Dark Green
136-137	126	Mauve
138-141	128	Bright Pink
142-144	132	Medium Blue
145	135	Deep Golden Amber
146	136	Pale Lavender
147-148	137	Special Lavender
149-150	139	Primary Green
151-156	141	Bright Blue
157-161	147	Apricot
162-167	152	Pale Gold
168-171	158	Deep Orange
172-173	162	Bastard Amber
174	164	Flame Red
175-178	165	Daylight Blue
179	169	Lilac Tint
180-183	170	Deep Lavender
184-190	174	Dark Steel Blue
191-206	181	Congo Blue
207	197	Alice Blue
208	--	Dirty White
209-255	--	White