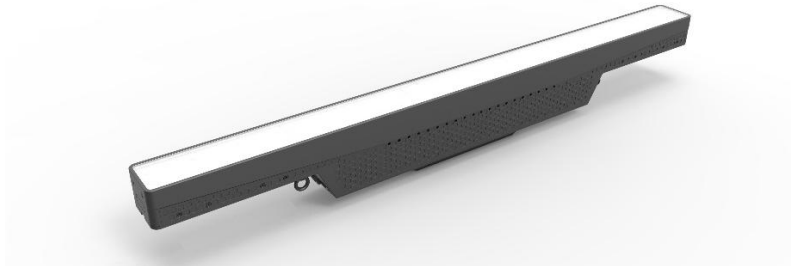


This document is valid for Tambora Linear 100 models.



LAYER CONCEPT

Tambora has five different operating modes:

- Standard RGBW 8bit
- Standard RGBW 16bit
- Shape RGBW
- Shape RGBW 16bit
- Advanced

The Standard modes allow to control the fixtures with a single colour layer.

The Shape mode allows user to select and manage countless type of graphic effects, by enable Pixels/Strobe Engine (active in 0 seconds) the users can control RGB or Strobe of any single Led. Advanced mode allows easy control with independent overlapping layers that can operate simultaneously

LAYER CONCEPT

Layer 1 control general fixture parameters.

Layer 2 control Shape Engine, fade colour speed transition in Dynamic or Static mode.

Layer 3 control dimmer and strobe of pixel mapping engine.

Layer 4 Strobe engine allows controls Strobe Shape Engine speed, fade, rate, duration, in Dynamic or Static mode,

Layer 2 and 3 can be set in master/slave mode

When a layer is set in master mode, it wins on the below layer even if the intensity is set at 0%

If a layer is set in master mode, the pixel become black with involved layer dimmer set at 0%

If a layer is set in slave mode, the layer become visible with involved dimmer set over 0%

Pixel/Strobe Mapping function ON (RGB) enable Pixel/Strobe Mapping engine. Function is activated in zero seconds.

DMX MODES

Mode	Number of Parameter	Colour Control	Notes
Standard RGBW	9	RGBW 8bit	Colour control as single layer.
Standard RGBW 16bit	13	RGBW 16bit	Colour control as single layer.
Shape RGBW	31	RGBW 8bit	Colour control in 2 layers and strobe engine
Shape RGBW 16bit	39	RGBW 16bit	Colour control in 2 layers and strobe engine
Advanced	33	RGBW	Colour control, in 3 layers and strobe engine

IMPORTANT: The Shape RGBW is the default operating mode.

PIXELS ENGINE MODE

Mode	Number of Parameter	Colour Control	Notes
Disable	-	-	Disable the colour control for each led.
RGB	75	RGB 8bit	Colour control for each led.

STROBE ENGINE MODE

Mode	Number of Parameter	Colour Control	Notes
Disable	-	-	Disable the colour control for strobe led.
Enable	25	W 8bit	White strobe control for each led.

DMX CHART

<i>DMX Parameter</i>	<i>Standard RGBW</i>	<i>Standard RGBW 16bit</i>
1	Layer 1 Red	Layer 1 Red
2	Layer 1 Green	Layer 1 Red fine
3	Layer 1 Blue	Layer 1 Green
4	Layer 1 White	Layer 1 Green fine
5	Layer 1 CTO	Layer 1 Blue
6	Layer 1 Strobe	Layer 1 Blue fine
7	Layer 1 Dimmer	Layer 1 White
8	Layer 1 Dimmer fine	Layer 1 White fine
9	Layer 1 Function	Layer 1 CTO
10	-	Layer 1 Strobe
11	-	Layer 1 Dimmer
12	-	Layer 1 Dimmer Fine
13	-	Function

DMX Parameter	Shape RGBW	Shape RGBW 16bit
1	Layer 1 Red	Layer 1 Red
2	Layer 1 Green	Layer 1 Red fine
3	Layer 1 Blue	Layer 1 Green
4	Layer 1 White	Layer 1 Green fine
5	Layer 1 CTO	Layer 1 Blue
6	Master Strobe	Layer 1 Blue fine
7	Master Dimmer	Layer 1 White
8	Master Dimmer Fine	Layer 1 White fine
9	Function	Layer 1 CTO
10	Layer 2 Shape Selection	Master Strobe
11	Layer 2 Shape Effect	Master Dimmer
12	Layer 2 Indexing Speed	Master Dimmer Fine
13	Layer 2 Shape Fade	Function
14	Layer 2 Shape Strobe	Layer 2 Shape Selection
15	Layer 2 Shape Dimmer	Layer 2 Shape Effect
16	Layer 2 Shape Transition	Layer 2 Indexing Speed
17	Layer 2 Background Red	Layer 2 Shape Fade
18	Layer 2 Background Green	Layer 2 Shape Strobe
19	Layer 2 Background Blue	Layer 2 Shape Dimmer
20	Layer 2 Background White	Layer 2 Shape Transition
21	Layer 2 Background CTO	Layer 2 Background Red
22	Layer 2 Background Strobe	Layer 2 Background Red Fine
23	Layer 2 Background Dimmer	Layer 2 Background Green
24	Layer 4 Strobe Engine Strobe	Layer 2 Background Green Fine
25	Layer 4 Strobe Engine Dimmer	Layer 2 Background Blue
26	Layer 4 Strobe Engine Duration	Layer 2 Background Blue Fine
27	Layer 4 Strobe Engine Rate	Layer 2 Background White
28	Layer 4 Strobe Effect Selection	Layer 2 Background White Fine
29	Layer 4 Strobe Effect	Layer 2 Background CTO
30	Layer 4 Strobe Indexing/speed	Layer 2 Background Strobe
31	Layer 4 Strobe Fade	Layer 2 Background Dimmer
32		Layer 4 Strobe Engine Strobe
33		Layer 4 Strobe Engine Dimmer
34		Layer 4 Strobe Engine Duration
35		Layer 4 Strobe Engine Rate
36		Layer 4 Strobe Effect Selection
37		Layer 4 Strobe Effect
38		Layer 4 Strobe Indexing/speed
39		Layer 4 Strobe Fade

DMX Parameter	Advanced
1	Layer 1 Red
2	Layer 1 Green
3	Layer 1 Blue
4	Layer 1 White
5	Layer 1 CTO
6	Layer 1 Strobe
7	Layer 1 Dimmer
8	Master Strobe
9	Master Dimmer
10	Master Dimmer Fine
11	Function
12	Layer 2 Selection
13	Layer 2 Effect
14	Indexing/Speed
15	Layer 2 Fade
16	Layer 2 Strobe
17	Layer 2 Dimmer
18	Layer 2 Transition
19	Layer 2 Red
20	Layer 2 Green
21	Layer 2 Blue
22	Layer 2 White
23	Layer2 CTO
24	Layer 3 Strobe
25	Layer 3 Dimmer
26	Layer 4 Strobe Engine Strobe
27	Layer 4 Strobe Engine Dimmer
28	Layer 4 Strobe Engine Duration
29	Layer 4 Strobe Engine Rate
30	Layer 4 Strobe Effect Selection
31	Layer 4 Strobe Effect
32	Layer 4 Strobe Indexing/speed
33	Layer 4 Strobe Fade

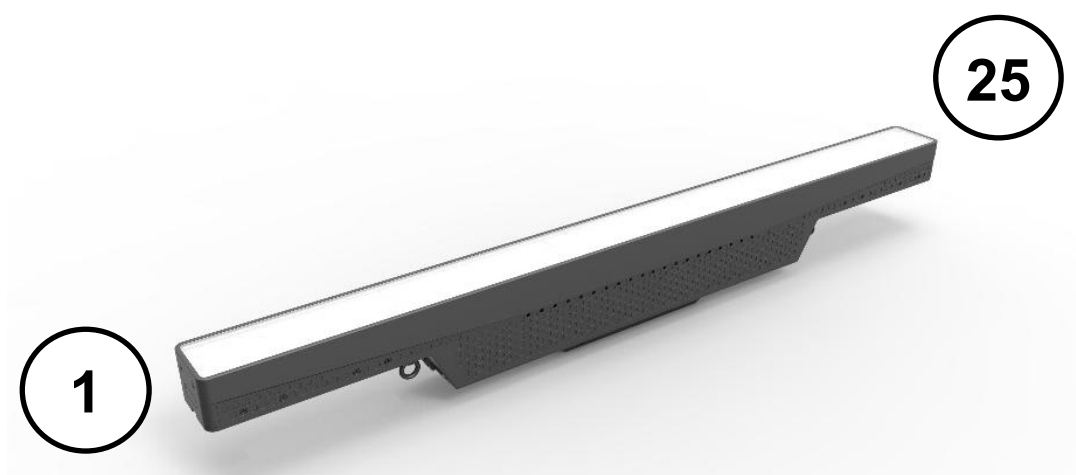
Pixels Engine DMX list

DMX Parameter	Pixels RGB Mode
1	Red Led 1
2	Green Led 1
3	Blue Led 1
4	Red Led 2
5	Green Led 2
6	Blue Led 2
7	Red Led 3
8	Green Led 3
9	Blue Led 3
⋮	⋮
73	Red Led 25
74	Green Led 25
75	Blue Led 25

DMX Parameter	Pixels STROBE Mode
1	White Led 1
2	White Led 2
3	White Led 3
4	White Led 4
⋮	⋮
23	White Led 23
24	White Led 24
25	White Led 25

Led reference number

IMPORTANT: The image refer to the fixture with the option Reverse Mapping OFF



Function details

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	Bit Value	Function
1	1	1	1	000	000 - 255	LAYER 1 RED Linear 0 – 100%
-	2	-	2	000	000 - 255	LAYER 1 RED FINE (16 Bit)
2	3	2	3	000	000 - 255	LAYER 1 GREEN Linear 0 – 100%
-	4	-	4	000	000 - 255	LAYER 1 GREEN FINE (16 Bit)
3	5	3	5	000	000 - 255	LAYER 1 BLUE Linear 0 – 100%
-	6	-	6	000	000 - 255	LAYER 1 BLUE FINE (16 bit)
4	7	4	7	000	000 - 255	LAYER 1 WHITE Linear 0 – 100%
-	8	-	8	000	000 - 255	LAYER 1 WHITE FINE (16 bit)
5	9	5	9	000		LAYER 1 CTO
					000 - 009	Unused range
					010 - 255	Col. temperature correction from 8000K to 2700K
6	10	6	10	000		MASTER STROBE
					000 - 003	Light OFF
					004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)
					104 - 107	Light ON
					108 - 207	Pulse 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	7	11	000	000 - 255	MASTER DIMMER
8	12	8	12	000	000 - 255	MASTER DIMMER FINE (16 bit)

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Function
9	13	9	13	000		FUNCTION
						IMPORTANT: Setting are activated and saved holding the DMX level for three seconds.
					000 - 001	Unused range
					002 - 003	Auto (Default): Speed Fans increase/decrease according to the LEDs temperature.
					004 - 005	SLN: Speed Fans always at minimum range, light output change accordingly with ambient temperature.
					006 - 007	Theatre: Speed Fans always at a constant range, light output constantly reduced.
					008 - 009	Constant: Speed Fans at maximum range.
					010 - 037	Unused range
					038 - 042	Dimmer curve 1 (Default) →Details at page 15
					043 - 047	
					048 - 052	
					053 - 055	
					056 - 057	
					058 - 062	Raw colour gamma 1 Raw colour gamma 1.5 Raw colour gamma 2.2 (Default) →Details at page 15
					063 - 067	
					068 - 072	
					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	Unused range
					089 - 090	Reverse mapping OFF (Default)
					091 - 092	Reverse mapping ON
					093 - 097	Pixel mapping Disabled (Default)
					098 - 102	Pixel mapping ON RGB Mode (active in 0 seconds)
					103 - 107	Strobe Engine Disable (Default)
					108 - 112	Strobe Engine Enable
					113 - 117	Dimmer Fade Off (Default)
					118 - 122	Dimmer Fade On
					123 - 167	Unused range
					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 – To activate it pass through the unused range (0-001) and stay into the necessary range for 5 seconds.

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Function
-	-	10	14	000		LAYER 2 SHAPE SELECTION
					000 - 005	Normal
					006 - 130	Static
					131 - 255	Dynamic
-	-	11	15	000		LAYER 2 SHAPE EFFECT
					000 - 007	Effect 1
					008 - 015	Effect 2
					016 - 023	Effect 3
					024 - 248	
					249 - 255	Effect 33
-	-	12	16	255		LAYER 2 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
-	-	13	17	000		LAYER 2 SHAPE FADE
					000 - 005	OFF
					006 - 130	Fade change from fast to slow
					131 - 255	Wake change from fast to slow
-	-	14	18	255		LAYER 2 SHAPE STROBE
					000 - 003	Light OFF
					004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)
					104 - 107	Light ON
					108 - 207	Pulse linear from slow (0.5 Hz) to fast (25 Hz)
					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)
-	-	15	19		000 - 255	LAYER 2 SHAPE DIMMER
-	-	16	20	255	000 - 255	LAYER 2 SHAPE TRANSITION Crossfade between macro shape
-	-	17	21	255	000 - 255	LAYER 2 BACKGROUND RED Linear 0 – 100%
-	-	-	22	255	000 - 255	LAYER 2 BACKGROUND RED FINE
-	-	18	23	255	000 - 255	LAYER 2 BACKGROUND GREEN Linear 0 – 100%
-	-	-	24	255	000 - 255	LAYER 2 BACKGROUND GREEN FINE
-	-	19	25	255	000 - 255	LAYER 2 BACKGROUND BLUE Linear 0 – 100%
-	-	-	26	255	000 - 255	LAYER 2 BACKGROUND BLUE FINE
-	-	20	27	255	000 - 255	LAYER 2 BACKGROUND WHITE Linear 0 – 100%
-	-	-	28	255	000 - 255	LAYER 2 BACKGROUND WHITE FINE

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Function
-	-	21	29	000		LAYER 2 BACKGROUND CTO
					000 - 009	OFF
					010 - 255	Col. temperature correction from 8000K to 2700K
-	-	22	30	255		LAYER 2 BACKGROUND STROBE
					000 - 003	Light OFF
					004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)
					104 - 107	Light ON
					108 - 207	Pulse 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
-	-	23	31	255	000 - 255	LAYER 2 BACKGROUND DIMMER
-	-	24	32	000		LAYER 4 STROBE ENGINE STROBE
					000 - 005	Light OFF
					006 - 042	Ramp UP
					043 - 085	Ramp Down
					086 - 128	Ramp Up – Ramp Down
					129 - 171	Random.
					172 - 214	Lightning
					215 - 225	Spikes (Flash over low light)
-	-	25	33	000	000 - 255	LAYER 4 STROBE ENGINE DIMMER

Function details

Advanced	DMX Default Value	Bit Value	Function
1	000	000 - 255	LAYER 1 RED Linear 0 – 100%
2	000	000 - 255	LAYER 1 GREEN Linear 0 – 100%
3	000	000 - 255	LAYER 1 BLUE Linear 0 – 100%
4	000	000 - 255	LAYER 1 WHITE Linear 0 – 100%
5	000		LAYER 1 CTO
		000 - 009	OFF
		010 - 255	Col. temperature correction from 8000K to 2700K
6	255		LAYER 1 STROBE
		000 - 003	Light OFF
		004 - 103	Layer 1 Strobe linear from slow (1Hz) to fast (25Hz)
		104 - 107	Light ON
		108 - 207	Layer 1 Strobe Pulse 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		000 - 255	LAYER 1 DIMMER Linear 0 – 100%
8	255		MASTER STROBE
		000 - 003	Light OFF
		004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)
		104 - 107	Light ON
		108 - 207	Strobe Pulse 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
9	000	000 - 255	MASTER DIMMER. Linear 0 – 100%
10	000	000 - 255	MASTER DIMMER FINE (16 bit)
11	000		Same as the FUNCTION parameter of the other DMX modes.
12	000		LAYER 2 SELECTION
		000 - 005	Normal
		006 - 130	Static
		131 - 255	Dynamic
13	000		LAYER 2 EFFECT
		000 - 007	Effect 1
		008 - 015	Effect 2
		...	...
		241 - 248	Effect 32
		249 - 255	Effect 33

Advanced	DMX Default Value	Bit Value	Function	
14			INDEXING/SPEED	
	000	000 - 255	Indexing	→ Static mode
	128	000 - 124	Speed from fast to slow, forward	→ Dynamic mode
		125 - 130	Stop	
		131 - 255	Speed from slow to fast, backward	
15	000		LAYER 2 FADE	
		000 - 005	OFF	
		006 - 130	Fade speed shape from fast to slow.	
		131 - 255	Wake increase pixel back and front on the selected shape from fast to slow	
16	255		LAYER 2 STROBE	
		000 - 003	Light OFF	
		004 - 103	Layer 2 Strobe linear from slow (1Hz) to fast (25Hz)	
		104 - 107	Light ON	
		108 - 207	Layer 2 Strobe Pulse linear from slow (0.5 Hz) to fast (25 Hz)	
		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)	
17	255	000 - 255	LAYER 2 DIMMER Linear 0 – 100%	
18	000	000 - 255	LAYER 2 TRANSITION Crossfade between shape.	
19	255	000 - 255	LAYER 2 RED Linear 0 – 100%	
20	255	000 - 255	LAYER 2 GREEN Linear 0 – 100%	
21	255	000 - 255	LAYER 2 BLUE Linear 0 – 100%	
22	255	000 - 255	LAYER 2 WHITE Linear 0 – 100%	
23	000		LAYER 2 CTO	
		000 - 009	CTO OFF	
		010 - 255	Col. temperature correction from 8000K to 2700K	
24	255		LAYER 3 STROBE	
		000 - 003	Light OFF	
		004 - 103	Layer 3 Strobe linear from slow (1Hz) to fast (25Hz)	
		104 - 107	Light ON	
		108 - 207	Layer 2 Strobe Pulse linear from slow (0.5 Hz) to fast (25 Hz)	
		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)	
25	000		LAYER 3 DIMMER	
		000 - 255	Linear 0 – 100%.	

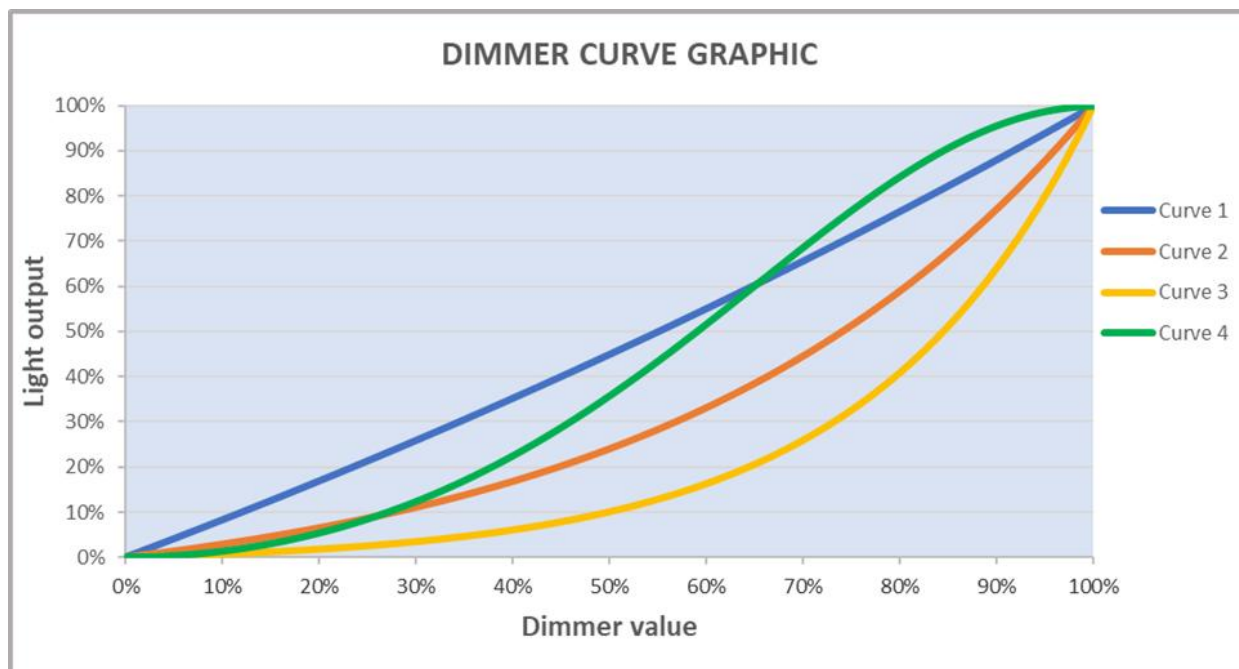
Advanced	DMX Default Value	Bit Value	Function
26	000		LAYER 4 STROBE ENGINE STROBE
		000 - 005	Unused Range
		006 - 042	Ramp UP
		043 - 085	Ramp DOWN
		086 - 128	Ramp UP, DOWN
		129 - 171	Random
		172 - 214	Lightning
		215 - 255	Spike flash over low light
27	000	000 - 255	LAYER 4 STROBE ENGINE DIMMER Linear 0 – 100%.
28	000	000 - 255	LAYER 4 STROBE ENGINE DURATION
29	000		LAYER 4 STROBE ENGINE RATE
		000 - 005	Light OFF
		006 - 255	Strobe speed from slow (0,3Hz) to fast (25Hz).
30	000		LAYER 4 STROBE EFFECT SELECTION
		000 - 005	Normal
		006 - 130	Static
		131 - 255	Dynamic
31	000		LAYER 4 STROBE ENGINE EFFECT
		000 - 007	Effect 1
		008 - 015	Effect 2
		016 - 023	Effect 3
		024 - 232	
		233 - 240	Effect 31
		241 - 248	Effect 32
		249 - 255	Effect 33
32			LAYER 4 STROBE INDEXING/SPEED
	000	000 - 255	Indexing → Static mode
	128	000 - 124	Speed from fast to slow, forward
		125 - 130	Stop
		131 - 255	Speed from slow to fast, backward
33	000		LAYER 4 STROBE FADE
		000 - 005	Unused range
		006 - 130	Fade speed shape from fast to slow
		131 - 255	Wake increase pixel back and front on the selected shape from fast to slow

Function details – Pixels

RGB	DMX Default Value	Bit Value	Function
1	000	000 - 255	RED LED 1 Linear 0 – 100%.
2	000	000 - 255	GREEN LED 1 Linear 0 – 100%.
3	000	000 - 255	BLUE LED 1 Linear 0 – 100%.
4	000	000 - 255	RED LED 2 Linear 0 – 100%.
5	000	000 - 255	GREEN LED 2 Linear 0 – 100%.
6	000	000 - 255	BLUE LED 2 Linear 0 – 100%.
⋮		⋮	Functionalities are the same for all the Led's
73	000	000 - 255	RED LED 25 Linear 0 – 100%.
74	000	000 - 255	GREEN LED 25 Linear 0 – 100%.
75	000	000 - 255	BLUE LED 25 Linear 0 – 100%.

Function details – Strobe

Advanced	DMX Default Value	Bit Value	Function
1	000	000 - 255	WHITE LED 1 Linear 0 – 100%
2	000	000 - 255	WHITE LED 2 Linear 0 – 100%
3	000	000 - 255	WHITE LED 3 Linear 0 – 100%
⋮		⋮	Same functionality for all the Led's
23	000	000 - 255	WHITE LED 23 Linear 0 – 100%
24	000	000 - 255	WHITE LED 24 Linear 0 – 100%
25	000	000 - 255	WHITE LED 25 Linear 0 – 100%



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

