

This document is valid for Tambora Batten Square and Tambora Batten Round models.



DMX MODE

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 Engine (active in 0 seconds) the users can control RGB or RGBW of any single Led's.
Advanced mode allow easy control with three independent overlapping layers that can operate simultaneously

LAYER CONCEPTS

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 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

If a layer is set in slave mode the layer below win

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

DMX MODE

Mode	Number of Parameter	Colour Control	Notes
Standard RGBW	13	RGBW 8bit	Colour control as single layer.
Standard RGBW 16bit	17	RGBW 16bit	Colour control as single layer.
Shape RGBW	27	RGBW 8bit	Colour control in 2 layers with background effect.
Shape RGBW 16bit	35	RGBW 16bit	Colour control in 2 layers with background effect.
Advanced	29	RGBW	Colour control, in 3 layers with background effect.

IMPORTANT: The Shape RGBW is the default operating mode.

PIXELS ENGINE DMX MODES

Mode	Number of Parameter	Colour Control	Notes
Disable	-	-	Disable the colour control for each led.
RGB	48	RGB 8bit	Colour control for each led.
RGBW	64	RGBW 8bit	Colour control for each led.

DMX MODE

DMX Parameter	Standard RGBW	Standard RGBW 16bit	Shape RGBW
1	Red	Red	Red
2	Green	Red fine	Green
3	Blue	Green	Blue
4	White	Green fine	White
5	CTO	Blue	CTO
6	Strobe	Blue fine	Strobe
7	Dimmer	White	Dimmer
8	Dimmer fine	White fine	Dimmer Fine
9	Tilt	CTO	Tilt
10	Tilt fine	Strobe	Tilt Fine
11	Zoom	Dimmer	Zoom
12	Function	Dimmer Fine	Function
13	Reset	Tilt	Reset
14	-	Tilt Fine	Shape Selection
15	-	Zoom	Shape Effect
16	-	Function	Indexing Speed
17	-	Reset	Shape Fade
18	-	-	Shape Strobe
19	-	-	Shape Dimmer
20	-	-	Shape Transition
21	-	-	Background Red
22	-	-	Background Green
23	-	-	Background Blue
24	-	-	Background White
25	-	-	Background CTO
26	-	-	Background Strobe
27	-	-	Background Dimmer

DMX Parameter	Shape RGBW 16bit	Advanced
1	Red	Layer 1 Red
2	Red fine	Layer 1 Green
3	Green	Layer 1 Blue
4	Green fine	Layer 1 White
5	Blue	Layer 1 CTO
6	Blue fine	Layer 1 Strobe
7	White	Layer 1 Dimmer
8	White fine	Strobe
9	CTO	Master Dimmer
10	Strobe	Master Dimmer Fine
11	Dimmer	Tilt
12	Dimmer Fine	Tilt Fine
13	Tilt	Zoom
14	Tilt Fine	Function
15	Zoom	Reset
16	Function	Layer 2 Selection
17	Reset	Layer 2 Effect
18	Shape Selection	Indexing/Speed
19	Shape Effect	Layer 2 Fade
20	Indexing Speed	Layer 2 Strobe
21	Shape Fade	Layer 2 Dimmer
22	Shape Strobe	Layer 2 Transition
23	Shape Dimmer	Layer 2 Red
24	Shape Transition	Layer 2 Green
25	Background Red	Layer 2 Blue
26	Background Red Fine	Layer 2 White
27	Background Green	Layer2 CTO
28	Background Green Fine	Layer 3 Strobe
29	Background Blue	Layer 3 Dimmer
30	Background Blue Fine	-
31	Background White	-
32	Background White Fine	-
33	Background CTO	-
34	Background Strobe	-
35	Background Dimmer	-

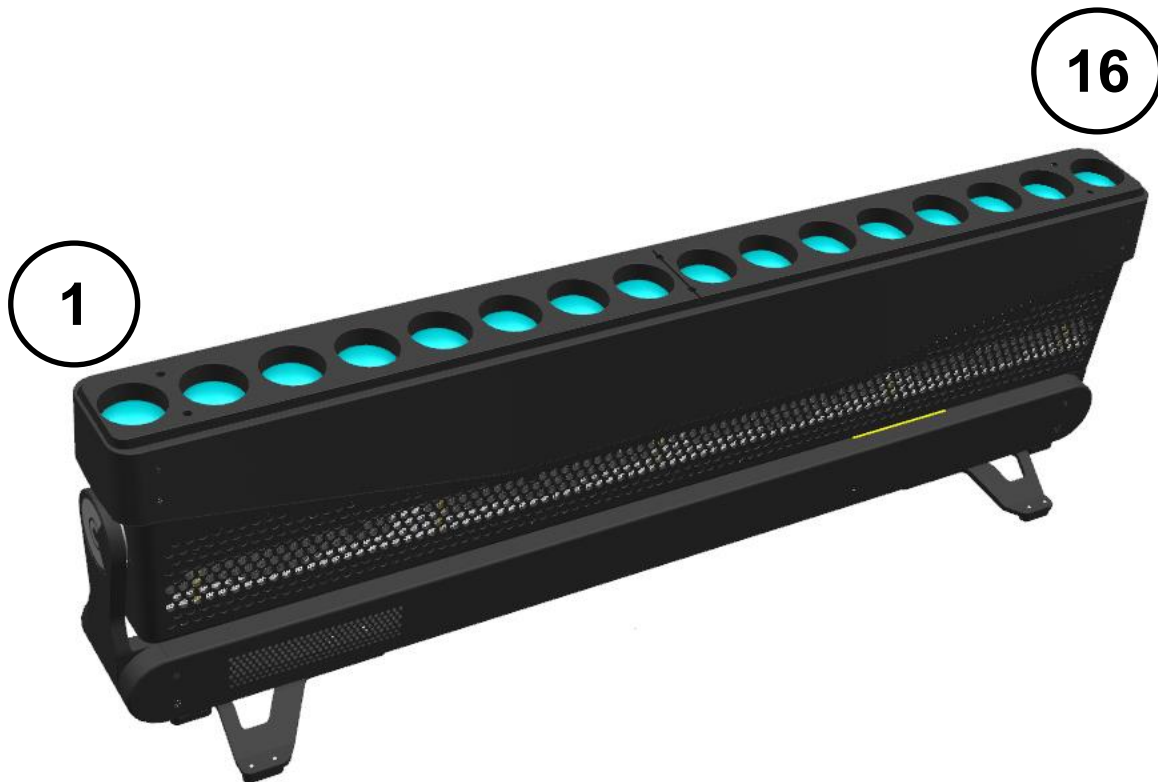
PIXEL ENGINE MODE

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
⋮	⋮
46	Red Led 16
47	Green Led 16
48	Blue Led 16
-	-
-	-
-	-
-	-

DMX Parameter	Pixels RGBW Mode
1	Red Led 1
2	Green Led 1
3	Blue Led 1
4	White Led 1
5	Red Led 2
6	Green Led 2
7	Blue Led 2
8	White Led 2
⋮	⋮
57	Red Led 15
58	Green Led 15
59	Blue Led 15
60	White Led 15
61	Red Led 16
62	Green Led 16
63	Blue Led 16
64	White Led 16

Led reference number

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



Functions details

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	Bit Value	Functions
1	1	1	1	000		RED
					000 - 255	Linear 0 – 100%
-	2	-	2	000		RED FINE
					000 - 255	Fine Red Intensity (16 Bit)
2	3	2	3	000		GREEN
					000 - 255	Linear 0 – 100%
-	4	-	4	000		GREEN FINE
					000 - 255	Fine Green Intensity (16Bit)
3	5	3	5	000		BLUE
					000 - 255	Linear 0 – 100%
-	6	-	6	000		BLUE FINE
					000 - 255	Fine Blue Intensity (16Bit)
4	7	4	7	000		WHITE
					000 - 255	Linear 0 – 100%
-	8	-	8	000		WHITE FINE
					000 - 255	Fine White Intensity (16Bit)
5	9	5	9	000		CTO
					000 - 009	Unused range/CTO OFF
					010 - 255	8000 K - 2500 K
6	10	6	10	255		STROBE
					000 - 003	Light OFF
					004 - 103	Strobe frequency from slow (1Hz) to fast (25Hz)
					104 - 107	Light ON
					108 - 207	Pulsation 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		DIMMER
					000 - 255	Dimmer from 0 to100%
8	12	8	12	000		DIMMER FINE
					000 - 255	Fine Dimmer Intensity
9	13	9	13	128		TILT
					000 - 255	Tilt positioning by 220°
10	14	10	14	128		TILT FINE
					000 - 255	Fine Tilt Positioning
11	15	11	15	000		ZOOM
					000 - 255	Zoom narrow to wide

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Functions	
12	16	12	16	000		IMPORTANT: Setting are activated and saved holding the DMX level for three seconds.	
					000 - 001	Unused range	
					002 - 003	Auto (Default): Fans increase/decrease accordingly with LEDs temperature.	
					004 - 005	SLN: Fans spin always at minimum range, light output change accordingly with ambient temperature.	
					006 - 007	Theatre: Fans always at a constant range, light output constantly reduced.	
					008 - 009	Constant: Fans power at maximum range.	
					010 - 011	Unused range	
					012 - 024	Tilt speed: Fast (Default).	
					025 - 037	Tilt speed: Standard.	
					038 - 042	Dimmer curve 1 (Default)	→Details at page 16
					043 - 047	Dimmer curve 2	
					048 - 052	Dimmer curve 3	
					053 - 055	Dimmer curve 4	
					056 - 057	Dimmer curve 5	
					058 - 062	Raw colour gamma 1	→Details at page 16
					063 - 067	Raw colour gamma 1.5	
					068 - 072	Raw colour 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	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	Pixel mapping ON RGBW Mode (active in 0 seconds)	
					108 - 112	Zoom reposition ON (Default)	
					113 - 117	Zoom reposition OFF	
					118 - 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						

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Functions
13	17	13	17	000		RESET
						IMPORTANT: Reset sequences are activated and saved holding the DMX level for 5 seconds.
					000 - 025	Unused range
					026 - 076	Zoom Reset
					077 - 127	Tilt Reset
					128 - 255	Complete Reset
-	-	14	18	000		SHAPE SELECTION
					000 - 005	Normal
					006 - 130	Static
					131 - 255	Dynamic

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Functions	
-	-	15	19	000	SHAPE EFFECT		
					000 - 007	1 Pix →	
					008 - 015	1 Pix Bounce	
					016 - 023	1 Pix Mirror Bouce	
					024 - 031	1 Pix Mirror Implode ><	
					032 - 038	1 Pix Mirror Explode <>	
					039 - 046	o→o→	
					047 - 054	o→o→Bounce	
					055 - 062	Double Fill + ←o←o	
					063 - 069	Double Fill + 2x 1 Pix Bounce	
					070 - 077	o→Bounce+o→Bounce	
					078 - 085	Fill Implode	
					086 - 093	Fill Implode 2	
					094 - 100	Fill implode + sing pix explode	
					101 - 108	Double Pix Bouncing	
					109 - 116	2 Pix Block	
					117 - 124	3 Pix Block	
					125 - 131	Fill→Empty→	
					132 - 139	Fill→ + Empty←2	
					140 - 147	Fill→ + o→	
					148 - 155	Fill→ + o→	
					156 - 162	Fill→ + 1 Pix Bounce	
					163 - 170	Fill/Empty→ + Fill Empty←	
					171 - 178	2 Blocks L/R	
					179 - 186	Odd/Even	
					187 - 193	2 Pix Block Expolde	
194 - 201	2 Pix Block expl/impl						
202 - 209	2 Pix Block expl/impl 2						
210 - 217	2 Pixblock →						
218 - 224	5 Pix Block						
225 - 232	Fill Explode						
233 - 240	Fill Explode/Implode						
241 - 248	Fill Explode/implode 2						
249 - 255	Fill Explode + Empty Explode						
-	-	16	20	000	INDEXING SPEED		
					000 - 255	Indexing	Available only if shape selection is static is set
					000 - 124	Speed from fast to slow, forward	Available only if shape selection Dynamic is set
					125 - 130	STOP	
131 - 255	Speed from slow to fast, backward						

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Functions
-	-	17	21	000		SHAPE FADE
					000 - 005	OFF
					006 - 130	Fade change from fast to slow
					131 - 255	Wake change from fast to slow
-	-	18	22	105		SHAPE STROBE
					000 - 003	Light OFF
					004 - 103	Strobe from slow to fast
					104 - 107	Light ON
					108 - 207	Pulsation 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)					
-	-	19	23	000		SHAPE DIMMER
					000 - 255	Linear 0 – 100%
-	-	20	24	000		SHAPE TRANSITION
					000 - 255	Crossfade between macro shapes

Standard RGBW	Standard RGBW 16bit	Shape RGBW	Shape RGBW 16bit	DMX Default Value	BIT Value	Functions
-	-	21	25	000		BACKGROUND RED
					000 - 255	Linear 0 – 100%
-	-	-	26	000		BACKGROUND RED FINE
					000 - 255	Fine Red intensity
-	-	22	27	000		BACKGROUND GREEN
					000 - 255	Linear 0 – 100%
-	-	-	28	000		BACKGROUND GREEN FINE
					000 - 255	Fine Green Intensity
-	-	23	29	000		BACKGROUND BLUE
					000 - 255	Linear 0 – 100%
-	-	-	30	000		BACKGROUND BLUE FINE
					000 - 255	Fine Blue Intensity
-	-	24	31	000		BACKGROUND WHITE
					000 - 255	Linear 0 – 100%
-	-	-	32	000		BACKGROUND WHITE FINE
					000 - 255	Fine White Intensity
-	-	25	33	000		BACKGROUND CTO
					000 - 009	OFF
					010 - 255	8000K – 2500K
-	-	26	34	105		BACKGROUND STROBE
					000 - 003	Light OFF
					004 - 103	Strobe frequency from slow to fast (1Hz) to fast (25Hz)
					104 - 107	Light ON
					108 - 207	Pulsation frequency from slow to fast (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
-	-	27	35	000		BACKGROUND DIMMER
					000 - 255	Linear 0 – 100%

Function details ADVANCED MODE

Advanced	DMX Default Value	Bit Value	Functions
1	000		LAYER 1 RED
		000 - 255	Linear 0 – 100%
2	000		LAYER 1 GREEN
		000 - 255	Linear 0 – 100%
3	000		LAYER 1 BLUE
		000 - 255	Linear 0 – 100%
4	000		LAYER 1 WHITE
		000 - 255	Linear 0 – 100%
5	000		LAYER 1 CTO
		000 - 009	OFF
		010 - 255	8000K to 2500K
6	105		LAYER 1 STROBE
		000 - 003	Light OFF
		004 - 103	Layer 1 Strobe from slow to fast (1Hz) to fast (25Hz)
		104 - 107	Light ON
		108 - 207	Layer 1 Pulsation from slow to fast (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON
		213 - 225	Random Slow Strobe effect
226 - 238	Random Medium Strobe effect		
7	000		LAYER 1 DIMMER
		000 - 255	Linear 0 – 100%
8	105		STROBE
		000 - 003	Light OFF
		004 - 103	Strobe frequency from slow (1Hz) to fast (25Hz)
		104 - 107	Light ON
		108 - 207	Pulsation frequency 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		MASTER DIMMER.
		000 - 255	Linear 0 – 100%
10	000		MASTER DIMMER FINE (16 bit)
		000 - 255	Fine Dimmer intensity (16bit)
11	128		TILT
		000 - 255	Tilt positioning by 220°
12	128		TILT FINE
		000 - 255	Fine Tilt Positioning

<i>Advanced</i>	<i>DMX Default Value</i>	<i>Bit Value</i>	<i>Functions</i>
13	000		ZOOM
		000 - 255	narrow to wide
14			Same as the FUNCTION parameter of the other DMX modes.
15	000		RESET
		000 - 025	Unused range
		026 - 076	Zoom reset
		077 - 127	Tilt reset
		128 - 255	Complete reset
16	000		LAYER 2 SELECTION
		000 - 005	Normal
		006 - 130	Static
		131 - 255	Dynamic

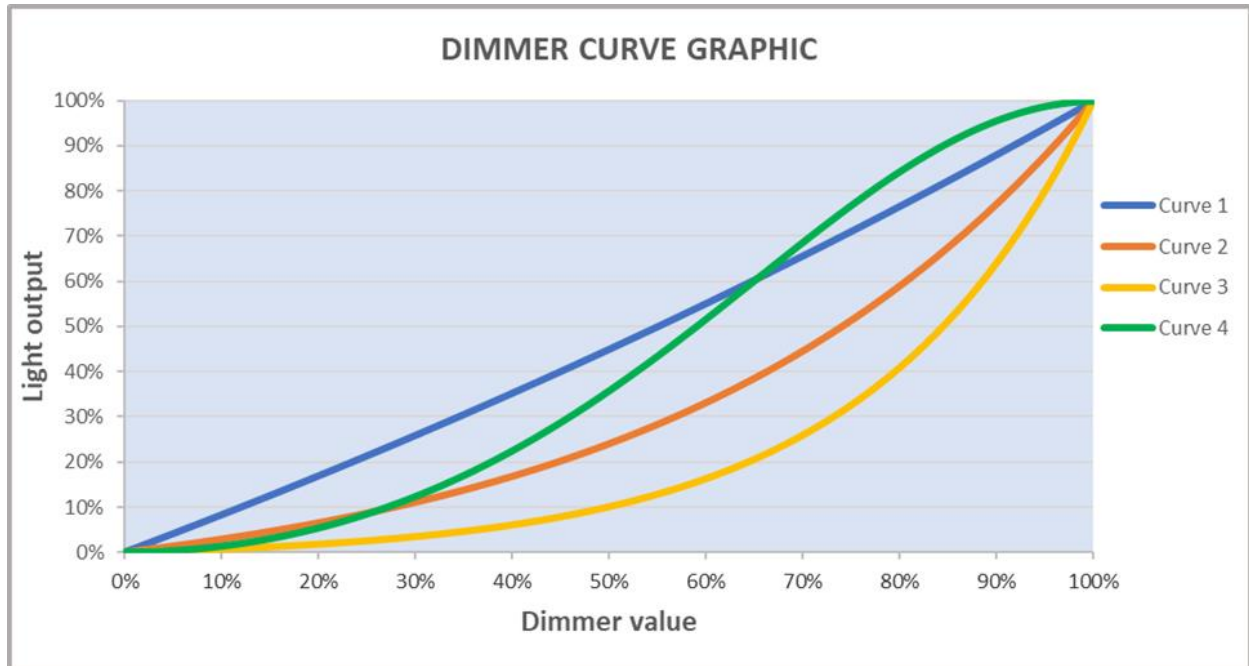
Advanced	DMX Default Value	Bit Value	Functions	
17	000		LAYER 2 EFFECT	
		000 - 007	1 Pix →	
		008 - 015	1 Pix Bounce	
		016 - 023	1 Pix Mirror Bouce	
		024 - 031	1 Pix Mirror Implode ><	
		032 - 038	1 Pix Mirror Explode <>	
		039 - 046	o→o→	
		047 - 054	o→o→Bounce	
		055 - 062	Double Fill + ←o←o	
		063 - 069	Double Fill + 2x 1 Pix Bounce	
		070 - 077	o→Bounce+o→Bounce	
		078 - 085	Fill Implode	
		086 - 093	Fill Implode 2	
		094 - 100	Fill implode + sing pix explode	
		101 - 108	Double Pix Bouncing	
		109 - 116	2 Pix Block	
		117 - 124	3 Pix Block	
		125 - 131	Fill→Empty→	
		132 - 139	Fill→ + Empty←-2	
		140 - 147	Fill→ + o→	
		148 - 155	Fill→ + o→	
		156 - 162	Fill→ + 1 Pix Bounce	
		163 - 170	Fill/Empty→ + Fill Empty←-	
		171 - 178	2 Blocks L/R	
		179 - 186	Odd/Even	
		187 - 193	2 Pix Block Expolde	
		194 - 201	2 Pix Block expl/impl	
		202 - 209	2 Pix Block expl/impl 2	
		210 - 217	2 Pixblock →	
		218 - 224	5 Pix Block	
225 - 232	Fill Explode			
233 - 240	Fill Explode/Implode			
241 - 248	Fill Explode/implode 2			
249 - 255	Fill Explode + Empty Explode			
18	000		INDEXING/SPEED	
		000 - 255	Indexing	Available only If shape selection is static is set
		000 - 124	Speed from fast to slow, forward	Available only if shape selection Dynamic is set
		125 - 130	Stop	
131 - 255	Speed from slow to fast, backward			

Advanced	DMX Default Value	Bit Value	Functions
19	000		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 forth on the selected shape
20	000		LAYER 2 STROBE
		000 - 003	Light OFF
		004 - 103	Layer 2 Strobe from slow to fast.
		104 - 107	Light ON
		108 - 207	Layer 2 pulsation 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)		

<i>Advanced</i>	<i>DMX Default Value</i>	<i>Bit Value</i>	<i>Functions</i>
21	000		LAYER 2 DIMMER
		000 - 255	Linear 0 – 100%
22	000		LAYER 2 TRANSITION
		000 - 255	Crossfade between shape.
23	000		LAYER 2 RED
		000 - 255	Linear 0 – 100%
24	000		LAYER 2 GREEN
		000 - 255	Linear 0 – 100%
25	000		LAYER 2 BLUE
		000 - 255	Linear 0 – 100%
26	000		LAYER 2 WHITE
		000 - 255	Linear 0 – 100%
27	000		LAYER 2 CTO
		000 - 009	CTO OFF
		010 - 255	Layer 2 8000K to 2500K
28	105		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)		
29	000		LAYER 3 DIMMER
		000 - 255	Linear 0 – 100%.

Functions details – Pixels Engine

RGB	RGBW	DMX Default Value	Bit Value	Functions
1	1	000		RED LED 1
			000 - 255	Linear 0 – 100%.
2	2	000		GREEN LED 1
			000 - 255	Linear 0 – 100%.
3	3	000		BLUE LED 1
			000 - 255	Linear 0 – 100%.
-	4	000		WHITE LED 1
			000 - 255	Linear 0 – 100%.
4	5	000		RED LED 2
			000 - 255	Linear 0 – 100%.
5	6	000		GREEN LED 2
			000 - 255	Linear 0 – 100%.
6	7	000		BLUE LED 2 Linear
			000 - 255	Linear 0 – 100%.
-	8	000		WHITE LED 2
			000 - 255	Linear 0 – 100%.
⋮	⋮		⋮	Functionality are the same for all the Led's
46	61	000		RED LED 16
			000 - 255	Linear 0 – 100%.
47	62	000		GREEN LED 16
			000 - 255	Linear 0 – 100%.
48	63	000		BLUE LED 16
			000 - 255	Linear 0 – 100%.
-	64	000		WHITE LED 16
			000 - 255	Linear 0 – 100%.



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

