



## OPERATING MODES

The projector has four different operating modes: Basic RGBW, Basic RGBW 16bit, Extended RGBW and Extended RGBW 16bit.

while the Extended mode has the possibility to control different section of the Leds so is possible to manage independently the colours of the external ring and the central led.

The Basic mode enable the colour control for all the Leds of fixture, while the Extended mode has the possibility to control different section of the Leds so is possible to manage independently the colours of two leds rings plus the central led.

## DMX MODES

<b>DMX Mode</b>	<b>Number of Parameter</b>	<b>Colour Control</b>	<b>Notes</b>
Basic RGBW	17	RGBW 8bit	Colour control as single layer.
Basic RGBW 16bit	21	RGBW 16bit	Colour control in as single layer.
Extended RGBW (Default setting)	25	RGBW 8bit	Colour control for the central led and the two rings.
Extended RGBW 16bit	37	RGBW 16bit	Colour control for the central led and the two rings.

**IMPORTANT:** The Extended RGBW is the operating mode as default setting.

### Basic modes DMX list

<i>DMX Parameter number</i>	<i>RGBW</i>
<b>1</b>	Red
<b>2</b>	Green
<b>3</b>	Blue
<b>4</b>	White
<b>5</b>	CTO
<b>6</b>	Macro color
<b>7</b>	Strobe effect
<b>8</b>	Dimmer
<b>9</b>	Dimmer fine
<b>10</b>	Pan
<b>11</b>	Pan fine
<b>12</b>	Tilt
<b>13</b>	Tilt fine
<b>14</b>	Zoom
<b>15</b>	Color Crossfade
<b>16</b>	Function
<b>17</b>	Reset

<i>DMX Parameter number</i>	<i>RGBW 16bit</i>
<b>1</b>	Red
<b>2</b>	Red fine
<b>3</b>	Green
<b>4</b>	Green fine
<b>5</b>	Blue
<b>6</b>	Blue fine
<b>7</b>	White
<b>8</b>	White fine
<b>9</b>	CTO
<b>10</b>	Macro color
<b>11</b>	Strobe effect
<b>12</b>	Dimmer
<b>13</b>	Dimmer fine
<b>14</b>	Pan
<b>15</b>	Pan fine
<b>16</b>	Tilt
<b>17</b>	Tilt fine
<b>18</b>	Zoom
<b>19</b>	Color Crossfade
<b>20</b>	Function
<b>21</b>	Reset

### Extended Modes DMX list

<i>DMX Parameter number</i>	<i>Extended RGBW</i>
<b>1</b>	Red ring 1
<b>2</b>	Green ring 1
<b>3</b>	Blue ring 1
<b>4</b>	White ring 1
<b>5</b>	Red ring 2
<b>6</b>	Green ring 2
<b>7</b>	Blue ring 2
<b>8</b>	White ring 2
<b>9</b>	Red central led
<b>10</b>	Green central led
<b>11</b>	Blue central led
<b>12</b>	White central led
<b>13</b>	CTO
<b>14</b>	Macro color
<b>15</b>	Strobe effect
<b>16</b>	Dimmer
<b>17</b>	Dimmer fine
<b>18</b>	Pan
<b>19</b>	Pan fine
<b>20</b>	Tilt
<b>21</b>	Tilt fine
<b>22</b>	Zoom
<b>23</b>	Color Crossfade
<b>24</b>	Function
<b>25</b>	Reset

<i>DMX Parameter number</i>	<i>Extended RGBW 16 bit</i>
<b>1</b>	Red ring 1
<b>2</b>	Red fine ring 1
<b>3</b>	Green ring 1
<b>4</b>	Green fine ring 1
<b>5</b>	Blue ring 1
<b>6</b>	Blue fine ring 1
<b>7</b>	White ring 1
<b>8</b>	White fine ring 1
<b>9</b>	Red ring 2
<b>10 to 16</b>	Colour control sequence for ring 2
<b>17</b>	Red central led
<b>18 to 24</b>	Colour control sequence for central Led
<b>25</b>	CTO
<b>26</b>	Macro color
<b>27</b>	Strobe effect
<b>28</b>	Dimmer
<b>29</b>	Dimmer fine
<b>30</b>	Pan
<b>31</b>	Pan fine
<b>32</b>	Tilt
<b>33</b>	Tilt fine
<b>34</b>	Zoom
<b>35</b>	Color Crossfade
<b>36</b>	Function
<b>37</b>	Reset

### Function details

RGBW	RGBW 16bit	Extended RGBW	Extended RGBW 16bit	Bit Value	Function
1	1	-	-	000 - 255	<b>RED</b> Red colour linearly increases from no-light to maximum intensity
-	2	-	-	000 - 255	<b>RED FINE (16 Bit)</b> Red colour fine control
2	3	-	-	000 - 255	<b>GREEN</b> Green colour linearly increases from no-light to maximum intensity
-	4	-	-	000 - 255	<b>GREEN FINE (16 Bit)</b> Green colour fine control
3	5	-	-	000 - 255	<b>BLUE</b> Blue colour linearly increases from no-light to maximum intensity
-	6	-	-	000 - 255	<b>BLUE FINE (16 bit)</b> Blue colour fine control
4	7	-	-	000 - 255	<b>WHITE</b> White colour linearly increases from no-light to maximum intensity
-	8	-	-	000 - 255	<b>WHITE FINE (16 bit)</b> White colour fine control
-	-	1	1	000 - 255	<b>RED Ring 1</b> Red colour ring 1 linearly increases from no-light to maximum intensity
-	-	-	2	000 - 255	<b>RED FINE Ring 1</b> Red colour ring 1 fine control
-	-	2	3	000 - 255	<b>GREEN Ring 1</b> Green colour ring 1 linearly increases from no-light to maximum intensity
-	-	-	4	000 - 255	<b>GREEN FINE Ring 1</b> Green colour ring 1 fine control
-	-	3	5	000 - 255	<b>BLUE Ring 1</b> Blue colour ring 1 linearly increases from no-light to maximum intensity
-	-	-	6	000 - 255	<b>BLUE FINE Ring 1</b> Blue colour ring 1 fine control

# Midi B

## DMX chart




RGBW	RGBW 16bit	Extended RGBW	Extended RGBW 16bit	Bit Value	Function
-	-	4	7	000 - 255	<b>WHITE Ring 1</b> White colour ring 1 linearly increases from no-light to maximum intensity
-	-	-	8	000 - 255	<b>WHITE FINE Ring 1</b> White colour ring 1 fine control
-	-	5 to 8	9 to 15	000 - 255	<b>RGBW Ring 2</b> Red (5 – 9) – Green (6 – 11) – Blue (7- 13) – White (8 - 15) colours ring 2 linearly increases from no-light to maximum intensity
-	-	-	10 to 16	000 - 255	<b>RGBW Ring 2</b> Red (10) – Green (12) – Blue (14) – White (16) colour ring 2 fine control.
-	-	9 to 12	17 to 23	000 - 255	<b>RGBW Central led</b> Red (9 – 17) – Green (10 – 19) – Blue (11- 21) – White (12 - 23) colours central led linearly increases from no-light to maximum intensity
-	-	-	18 to 24	000 - 255	<b>RGBW Central led</b> Red (18) – Green (20) – Blue (22) – White (24) colour central led fine control.
5	9	13	25	000-009 010 ... 054 ... 099 ... 117 ... 144 ... 188 ... 224 ... 255	<b>CTO</b> Colour Temperature linear correction from 8000K to 2700K <b>Important:</b> The CTO parameter has priority on the colour functions. Unused range 8000 K 7000 K 6000 K 5600 K 5000 K 4000 K 3200 K 2700 K
6	10	14	26	000 - 255	<b>MACRO COLOR</b> See chart page 10 for colours details. <b>Important:</b> The Macro Color parameter has priority on the colour functions.

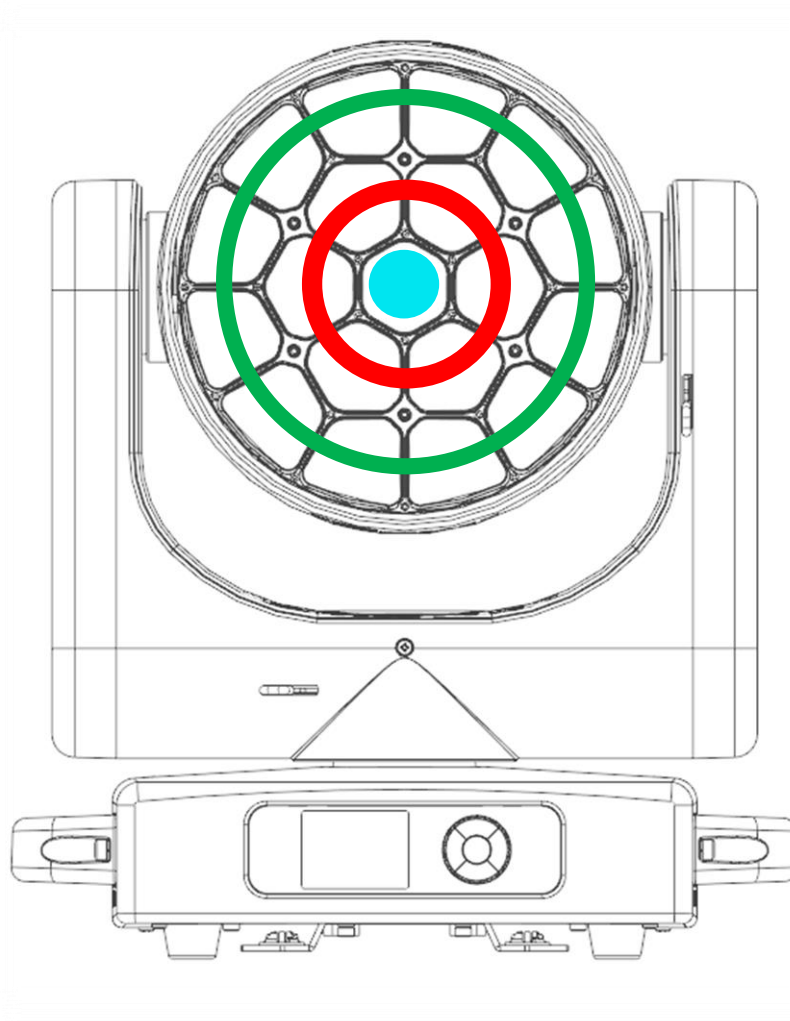
# Midi B DMX chart

<i>RGBW</i>	<i>RGBW 16bit</i>	<i>Extended RGBW</i>	<i>Extended RGBW 16bit</i>	<i>BIT Value</i>	<i>Function</i>
<b>7</b>	<b>11</b>	<b>15</b>	<b>27</b>	<b>000 - 003</b>	<b>STROBE EFFECT</b> Light OFF
				<b>004 - 103</b>	Strobe effect linearly variable frequency from low (1Hz) to fast (25Hz)
				<b>104 - 107</b>	Light ON
				<b>108 - 207</b>	Pulsation at linearly variable speed from slow (0.5 Hz) to fast (25 Hz)
				<b>208 - 212</b>	Light ON
				<b>213 - 225</b>	Random Slow Strobe effect
				<b>226 - 238</b>	Random Medium Strobe effect
				<b>239 - 251</b>	Random Fast Strobe effect
				<b>252 - 255</b>	Light ON
<b>8</b>	<b>12</b>	<b>16</b>	<b>28</b>	<b>000 - 255</b>	<b>DIMMER</b> Light output linearly increases from off to maximum light intensity.
<b>9</b>	<b>13</b>	<b>17</b>	<b>29</b>	<b>000 - 255</b>	<b>DIMMER FINE (16 bit)</b> Fine dimmer control
<b>10</b>	<b>14</b>	<b>18</b>	<b>30</b>	<b>000 - 255</b>	<b>PAN</b> Pan movement/positioning <<< counter-clockwise from 0° to 540° (invert Pan=Off; Invert Tilt=Off)
<b>11</b>	<b>15</b>	<b>19</b>	<b>31</b>	<b>000 - 255</b>	<b>PAN FINE</b> Pan fine positioning
<b>12</b>	<b>16</b>	<b>20</b>	<b>32</b>	<b>000 - 255</b>	<b>TILT</b> Tilt movement/positioning >>>>> clockwise from 0° to 270° (invert Pan=Off; Invert Tilt=Off)
<b>13</b>	<b>17</b>	<b>21</b>	<b>33</b>	<b>000 - 255</b>	<b>TILT FINE</b> Tilt fine positioning

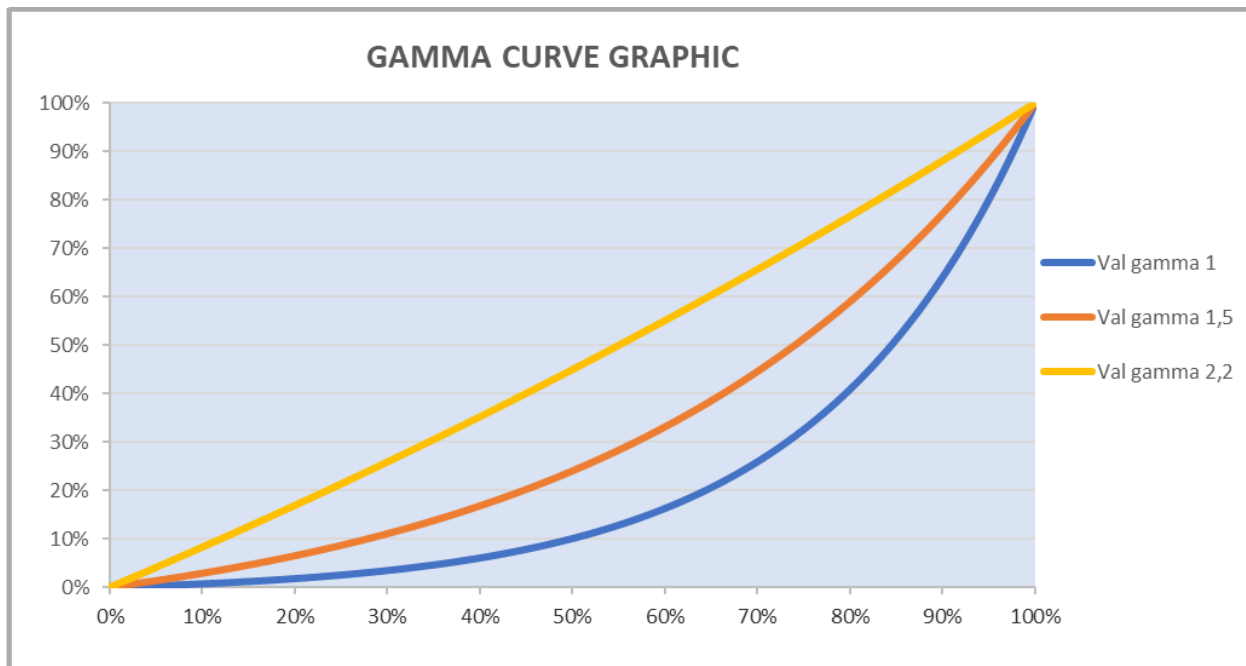
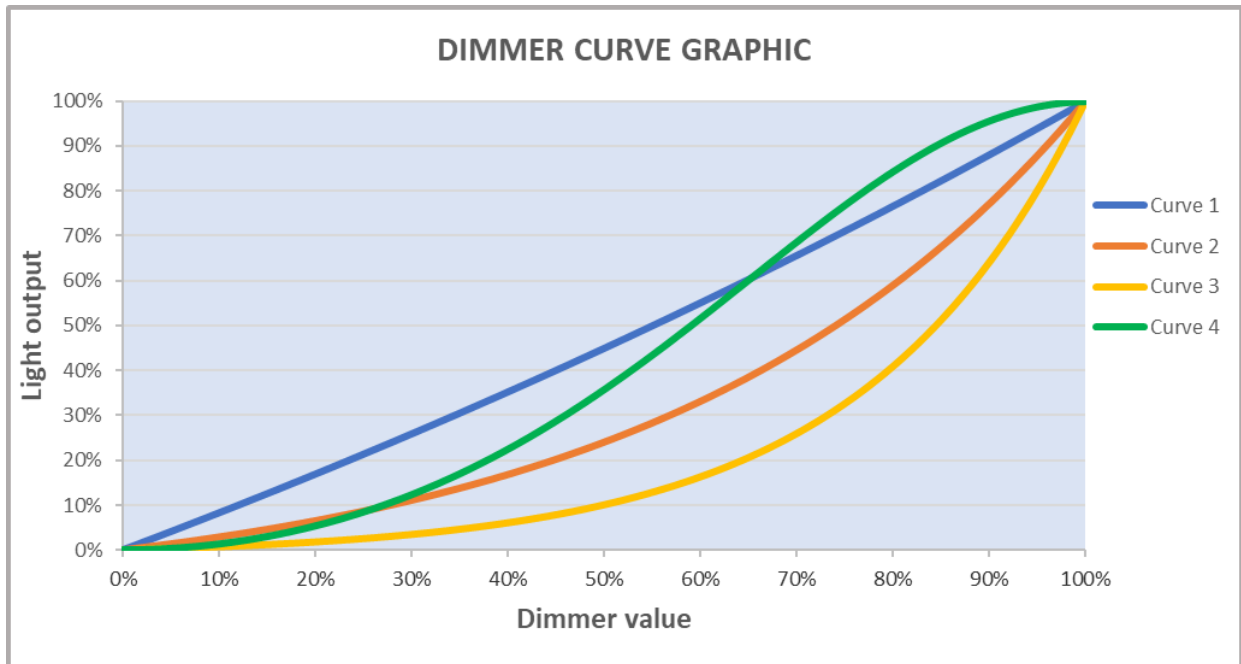
RGBW	RGBW 16bit	Extended RGBW	Extended RGBW 16bit	BIT Value	Function
14	18	22	34	000 - 255	<b>ZOOM</b> Zoom linearly moves from narrow to wide beam
15	19	23	35	000 - 255	<b>COLOR CROSSFADE</b> Color cross fade speed control from Fast to Slow.
16	20	24	36		<b>FUNCTION</b> <b>Important:</b> The setting are activated and saved holding the DMX level for three seconds.
				000 - 011	Unused range
				012 - 024	Fast Pan/Tilt speed (Default)
				025 - 037	Standard Pan/Tilt speed
				038 - 042	Dimmer curve 1 (Default)
				043 - 047	Dimmer curve 2
				048 - 052	Dimmer curve 3
				053 - 057	Dimmer curve 4
				058 - 062	Raw color channels gamma 1
				063 - 067	Raw color channels gamma 1.5
				068 - 072	Raw color channels gamma 2.2 (Default)
				073 - 077	Colour calibration Off (Default)
				078 - 082	Colour calibration adjustment
083 - 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				
17	21	25	37		<b>RESET</b> <b>Important:</b> The reset sequence is activated passing through the unused levels range and 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 Rest

## Leds reference

-  = Ring leds 1
-  = Ring leds 2
-  = Central led







## MACRO COLOR reference

Bit value	LEE Filter reference	Function
000-009	--	Macro Color OFF
010	--	Red
011	--	Green
012	--	Blue
013	--	Cyan
014	--	Yellow
015	--	Magenta
016	--	White 7000K
017	--	White 3700K
018	--	White 5000K
019	--	Black
020-022	10	Medium Yellow
023-026	13	Straw Tint
027-028	17	Surprise Peach
029	19	Fire
030	20	Medium Amber
031	21	Gold Amber
032-034	22	Dark Amber
035-044	25	Sunrise Red
045	35	Light Pink
046-048	36	Medium Pink
049-061	39	Pink Carnation
062-067	52	Light Lavender
068-077	58	Lavender
078-088	68	Sky Blue
089-099	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

Bit value	LEE Filter reference	Function
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