Pixel Patt - DMX protocol

Version: 1.0 **Mode 1**-Wash, **Mode 2**-Pattern, **Mode 3**-Pixel RGB, **Mode 4**-Pixel RGBW, **Mode 5**-Pattern full RGB, **Mode 6**-Pattern full RGBW, Mode 7-Pixel RGBW only

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
1	**1**	**1**	**1**	**1**	**1**	*		**Power/Special functions**	
							0 -9	Reserved (0=default)	
								To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Master Shutter/Strobe" channel 12/30/17/17/30/30 must be at range: 0-31 DMX). Corresponding menu items are temporarily overriden).	
							10-14	DMX input: Wired DMX	step
							15-19	DMX input: Wireless DMX *	step
								* function is active only10 seconds after switching the fixture on	
							20-24	Display ON	step
							25-29	Display OFF	step
							30-34	RGBW colour mixing mode	step
							35-39	CMY colour mixing mode	step
							40-44	Dimmer curve-square law	step
							45-49	Dimmer curve-linear	step
							50-54	White point 8000K ON	step
							55-59	White point 8000K OFF	step
							60-169	Reserved	
								To activate following functions, stop in DMX value.	
							170-171	Tungsten effect simulation (750W) On **	step
							172-173	Tungsten effect simulation (1000W) On **	step
							174-175	Tungsten effect simulation (1200W) On **	step
							176-177	Tungsten effect simulation (2000W) On **	step
							178-179	Tungsten effect simulation (2500W) On **	step
							180-181	Tungsten effect simulation Off	step
							182 - 255	Reserved	
2	**2**	**2**	**2**	**2**	**2**	*		**Background - Virtual colour wheel**	
							0	No function (0=default)	step
							1-2	LEE 4 (Medium Bastard Amber)	step
							3-4	LEE 25 (Sunset Red)	step
							5-6	LEE 19 (Fire)	step
							7-8	LEE 26 (Bright Red)	step
							9-10	LEE 58 (Lavender)	step
							11-12	LEE 68 (Sky Blue)	step
							13-14	LEE 36 (Medium Pink)	step
							15-16	LEE 89 (Moss Green)	step
							17-18	LEE 88 (Lime Green)	step
							19-20	LEE 90 (Dark Yellow Green)	step
							21-22	LEE 49 (Medium Purple)	step
							23-24	LEE 52 (Light Lavender)	step
							25-26	LEE 102 (Light Amber)	step
							27-28	LEE 103 (Straw)	step
							29-30	LEE 140 (Summer Blue)	step
							31-32	LEE 124 (Dark Green)	step
							33-34	LEE 106 (Primary Red)	step

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							35-36	LEE 111 (Dark Pink)	step
							37-38	LEE 115 (Peacock Blue)	step
							39-40	LEE 126 (Mauve)	step
							41-42	LEE 117 (Steel Blue)	step
							43-44	LEE 118 (Light Blue)	step
							45-46	LEE 122 (Fern Green)	step
							47-48	LEE 182 (Light Red)	step
							49-50	LEE 121 (LEE Green)	step
							51-52	LEE 128 (Bright Pink)	step
							53-54	LEE 131 (Marine Blue)	step
							55-56	LEE 132 (Medium Blue)	step
							57-58	LEE 134 (Golden Amber)	step
							59-60	LEE 135 (Deep Golden Amber)	step
							61-62	LEE 136 (Pale Lavender)	step
							63-64	LEE 137 (Special Lavender)	step
							65-66	LEE 138 (Pale Green)	step
							67-68	LEE 798 (Chrysalis Pink)	step
							69-70	LEE 141 (Bright Blue)	step
							71-72	LEE 147 (Apricot)	step
							73-74	LEE 148 (Bright Rose)	step
							75-76	LEE 152 (Pale Gold)	step
							77-78	LEE 154 (Pale Rose)	step
							79-80	LEE 157 (Pink)	step
							81-82	LEE 143 (Pale Navy Blue)	step
							83-84	LEE 162 (Bastard Amber)	step
							85-86	LEE 164 (Flame Red)	step
							87-88	LEE 165 (Daylight Blue)	step
							89-90	LEE 169 (Lilac Tint)	step
							91-92	LEE 170 (Deep Lavender)	step
							93-94	LEE 172 (Lagoon Blue)	step
							95-96	LEE 194 (Surprise Pink)	step
							97-98	LEE 180 (Dark Lavender)	step
							99-100	LEE 181 (Congo Blue)	step
							101-102	LEE 197 (Alice Blue)	step
							103-104	LEE 201 (Full C.T. Blue)	step
							105-106	LEE 202 (Half C.T. Blue)	step
							107-108	LEE 203 (Quarter C.T. Blue)	step
							109-110	LEE 204 (Full C.T. Orange)	step
							111-112	LEE 219 (Fluorescent Green)	step
							113-114	LEE 206 (Quarter C.T. Orange)	step
							115-116	LEE 247 (LEE Minus Green)	step
							117-118	LEE 248 (Half Minus Green)	step
							119-120	LEE 281 (Three Quarter C.T. Blue)	step
							121-122	LEE 285 (Three Quarter C.T. Orange)	step
							123-124	LEE 352 (Glacier Blue)	step
							125-126	LEE 353 (Lighter Blue)	step
							127-128	LEE 507 (Madge)	step
							129-130	LEE 778 (Millennium Gold)	step

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							131-132	LEE 793 (Vanity Fair)	step
							133-235	Raw DMX	proportional
							236-245	Rainbow effect (with fade time) from slow-> fast	proportional
							246-255	Rainbow effect (without fade time) from slow-> fast	proportional
3	**3**	**3**	**3**	**3**	**3**	*		**Background - Red/Cyan (8 bit)*** **	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**4**	**4**	**4**	**4**	**4**	*		**Background - Red/Cyan (16bit)*** **	
							0 - 255	Colour saturation control - fine (255=default)	proportional
4	**5**	**5**	**5**	**5**	**5**	*		**Background - Green/Magenta (8 bit)*** **	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**6**	**6**	**6**	**6**	**6**	*		**Background - Green/Magenta (16bit) *** **	
							0 - 255	Colour saturation control - fine (255=default)	proportional
5	**7**	**7**	**7**	**7**	**7**	*		**Background - Blue/Yellow (8 bit)*** **	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**8**	**8**	**8**	**8**	**8**	*		**Background - Blue/ Yellow (16bit)*** **	
							0 - 255	Colour saturation control - fine (255=default)	proportional
6	**9**	**9**	**9**	**9**	**9**	*		**Background - White (8 bit) - all pixels**	
								If RGBW mode is selected:	
							0-255	Colour saturation control - coarse 0-100% (255=default)	proportional
								If CMY mode is selected:	
							0 - 255	No function	
*	**10**	**10**	**10**	**10**	**10**	*		**Background - White (16 bit) - all pixels**	
							0 - 255	Colour saturation control - fine (255=default)	proportional
7	**11**	**11**	**11**	**11**	**11**	*		**Background - CTC**	
								If function "White Point 8000K" is ON	
							0-255	Col. temperature correction from 8000K to 2700K -for whites only	proportional
								(0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K)	
								To get colour temperatures stated above, RGBW channels have to be set at the same value (e.g. 255DMX) or RGB=0 and White channel > 0 DMX (0=default)	
								(To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel)	
								If function "White Point 8000K" is OFF	
							0-255	*Colour temperature correction from cool col. to warm colour*	proportional
8	**12**	**12**	**12**	**12**	**12**	*		**Background - Shutter/ strobe**	
							0 - 31	Shutter closed	step
							32 - 63	Shutter open (32=default)	step
							64 - 95	Strobe effect from slow to fast	proportional
							96 - 127	Shutter open	step
							128 - 143	Opening pulse in sequences from slow to fast	proportional
							144 - 159	Closing pulse in sequences from fast to slow	proportional
							160 - 191	Shutter open	step
							192 - 223	Random strobe effect from slow to fast	proportional
							224 - 255	Shutter open	step
9	**13**	**13**	**13**	**13**	**13**	*		**Background - Dimmer intensity (8 bit)**	
							0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
*	**14**	**14**	**14**	**14**	**14**	*		**Background Dimmer intensity - fine (16 bit)**	
							0 - 255	Fine dimming (255=default)	proportional
10	**15**	**15**	**15**	**15**	**15**	*		**Background - Active zone**	

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							0-2	All pixels (0=default)	
							3-4	Ring	step
							5-6	Halves	step
							7-8	Quarters	step
							9-255	Raw DMX	proportional
11	**16**	**16**	**16**	**16**	**16**	*		**Colour Mix control**	
								The channel defines relation between color channels	
								Global = Global Colours (Background RGBW, Background Virtual Colour Wheel, Background CTC)	
								Pixel = Pixel Colours (RGB individual pixels)	
							0-9	Global colours (Global has priority)	
							10-19	Maximum mode (highest values have priority)	step
							20-29	Minimum mode (lowest values have priority)	step
							30-39	Multiply mode (multiply Global and Pixel)	step
							40-49	Addition mode (Global + Pixel) /45=default/	step
							50-59	Subtraction mode (Global – Pixel)	step
							60-69	Inverted Subtraction mode (Pixel – Global)	step
							70-79	Coloured background	step
							80-127	Raw DMX	proportional
							128	Global colours only (Global has priority)	step
							129-254	Crossfade (crossfade between Global and Pixel)	proportional
							255	Pixel colours (Pixel has priority)	step
*	**17**	*	*	**17**	**17**	*		**Pattern selection**	
							0-2	No pattern (0=default)	
							3-4	Pattern 1	step
							5-6	Pattern 2	step
							7-8	Pattern 3	step
							9-10	Pattern 4	step
							11-12	Pattern 5	step
							13-14	Pattern 6	step
							15-16	Pattern 7	step
							17-18	Pattern 8	step
							19-20	Pattern 9	step
							21-22	Pattern 10	step
							23-24	Pattern 11	step
							25-255	RAW DMX	proportional
*	**18**	*	*	**18**	**18**	*		**Pattern - Repeat (Size)**	
							0-2	Variant 1 (0=default)	step
							3-4	Variant 2	step
							5-6	Variant 3	step
							7-8	Variant 4	step
							9-10	Variant 5	step
							11-12	Variant 6	step
							13-14	Variant 7	step
							15-16	Variant 8	step
							17-18	Variant 9	step
							19-20	Variant 10	step
							21-22	Variant 11	step

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							23-255	Raw DMX	proportional
*	19	*	*	19	19	*		**Pattern - Rotation**	
							0	No rotation (0=default)	step
							1-127	Pattern indexing	proportional
							128-190	Forwards rotation from fast to slow	proportional
							191-192	Pause - without rotation	step
							193-255	Backwards rotation from slow to fast	proportional
*	20	*	*	20	20	*		**Pattern - Fade**	
							0	Snap (0=default)	step
							1-255	Fade from min. to max.	proportional
*	21	*	*	21	21	*		**Pattern -Transition**	
							0	No fade (0=default)	step
							1	100ms	step
								:	
							255	4 sec	step
*	22	*	*	22	22	*		**Pattern - Crossfade**	
							0	Background	step
							1-255	Crossfade between Background and Pattern 0-100% (255=default)	proportional
*	23	*	*	23	23	*		**Pattern - Red (8-bit)**	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	24	*	*	24	24	*		**Pattern - Green (8-bit)**	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	25	*	*	25	25	*		**Pattern - Blue (8-bit)**	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	26	*	*	26	26	*		**Pattern - White (8-bit)**	
							0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	27	*	*	27	27	*		**Pattern - Colour macro**	
							0-2	No macro (0=default)	step
								Macros 1-5 allow control of colour change speed from min. to max.	
							3-8	Macro 1	proportional
							9-14	Macro 2	proportional
							15-20	Macro 3	proportional
							21-26	Macro 4	proportional
							27-32	Macro 5	proportional
							33-255	Raw DMX	proportional
*	28	*	*	28	28	*		**Pattern - Shutter/ strobe**	
							0 - 31	Shutter closed	step
							32 - 63	Shutter open (32=default)	step
							64 - 95	Strobe effect from slow to fast	proportional
							96 - 127	Shutter open	step
							128 - 143	Opening pulse in sequences from slow to fast	proportional
							144 - 159	Closing pulse in sequences from fast to slow	proportional
							160 - 191	Shutter open	step
							192 - 223	Random strobe effect from slow to fast	proportional
							224 - 255	Shutter open	step
*	29	*	*	29	29	*		**Pattern - Dimmer intensity (8 bit)**	
							0 - 255	Dimmer intensity from 0% to 100% (255=default)	proportional
12	30	17	17	30	30	*		**Master Shutter/ strobe**	

Mode/channel							DMX Value	Function	Type of control
1	2	3	4	5	6	7			
							0 - 31	Shutter closed	step
							32 - 63	Shutter open (32=default)	step
							64 - 95	Strobe effect from slow to fast	proportional
							96 - 127	Shutter open	step
							128 - 143	Opening pulse in sequences from slow to fast	proportional
							144 - 159	Closing pulse in sequences from fast to slow	proportional
							160 - 191	Shutter open	step
							192 - 223	Random strobe effect from slow to fast	proportional
							224 - 255	Shutter open	step
13	**31**	**18**	**18**	**31**	**31**	*		**Master Dimmer intensity (8 bit)**	
							0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
*	**32**	**19**	**19**	**32**	**32**	*		**Master Dimmer intensity - fine (16 bit)**	
							0 - 255	Fine dimming (0=default)	proportional
*	*	**20**	**20**	**33**	**33**	**1**		**Red pixel 1**	
							0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	**21**	**21**	**34**	**34**	**2**		**Green pixel 1**	
							0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	**22**	**22**	**35**	**35**	**3**		**Blue pixel 1**	
							0-255	Blue LED saturation control 0-100% (0=default)	proportional
*	*	*	**23**	*	**36**	**4**		**White pixel 1**	
							0-255	White LED saturation control 0-100% (0=default)	proportional
								:	
*	*	**38**	**44**	**51**	**57**	**25**		**Red pixel 7**	
							0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	**39**	**45**	**52**	**58**	**26**		**Green pixel 7**	
							0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	**40**	**46**	**53**	**59**	**27**		**Blue pixel 7**	
							0-255	Blue LED saturation control 0-100% (0=default)	proportional
*	*	*	**47**	*	**60**	**28**		**White pixel 7**	
							0-255	White LED saturation control 0-100% (0=default)	proportional

* function is active only 10 seconds after switching the fixture on

** In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming

*** Select RGB or CMY mixing mode on channel "Power/Special functions"