

# DMX protocol

## Basic mode

MAC Quantum Wash firmware version 2.0.0.

Channel	DMX Value	Percent	Function	Fade type	Default value
<b>1</b>	0 - 19	0 - 7	<b>Strobe/shutter effect</b> Shutter closed	Snap	30
	20 - 49	8 - 19	Shutter open		
	50 - 200	20 - 78	Strobe, slow → fast		
	201 - 210	79 - 82	Shutter open		
	211 - 255	82 - 100	Random strobe, slow → fast		
<b>2</b>	0 - 65535	0 - 100	<b>Dimmer fade (MSB)</b> Closed → open	Fade	0
<b>3</b>			<b>Dimmer fade, fine (LSB)</b>	Fade	0
<b>4</b>	0 - 65535	0 - 100	<b>Red (MSB)</b> 0 → 100%	Fade	0
<b>5</b>			<b>Red, fine (LSB)</b>	Fade	0
<b>6</b>	0 - 65535	0 - 100	<b>Green (MSB)</b> 0 → 100%	Fade	0
<b>7</b>			<b>Green, fine (LSB)</b>	Fade	0
<b>8</b>	0 - 65535	0 - 100	<b>Blue (MSB)</b> 0 → 100%	Fade	0
<b>9</b>			<b>Blue, fine (LSB)</b>	Fade	0
<b>10</b>	0 - 10	0 - 4	<b>CTC</b> Disabled	Fade	101
	11 - 171	4 - 67	Color temp. from 2000 K to 10 000 K in 50 K steps (see Table 4 on page 29)		
	171 - 255	67 - 100	10 000 K		

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Channel	DMX Value	Percent	Function	Fade type	Default value
11	0 - 10	0 - 4	<b>'Color wheel' color selection effect</b>	Snap	0
	11 - 12	4 - 5	Open. RGB color mixing enabled		
	13 - 14	5	Color 1 - LEE 790 - Moroccan pink		
	15 - 16	6	Color 2- LEE 157 - Pink		
	17 - 18	7	Color 3 - LEE 332 - Special rose pink		
	19 - 20	7 - 8	Color 4 - LEE 328 - Follies pink		
	21 - 22	8 - 9	Color 5 - LEE 345 - Fuchsia pink		
	23 - 24	9	Color 6 - LEE 194 - Surprise pink		
	25 - 26	10	Color 7 - LEE 181 - Congo Blue		
	27 - 28	11	Color 8 - LEE 071 - Tokyo Blue		
	29 - 30	11 - 12	Color 9 - LEE 120 - Deep Blue		
	31 - 32	12 - 13	Color 10 - LEE 079 - Just Blue		
	33 - 34	13	Color 11 - LEE 132 - Medium Blue		
	35 - 36	14	Color 12 - LEE 200 - Double CT Blue		
	37 - 38	14 - 15	Color 13 - LEE 161 - Slate Blue		
	39 - 40	15 - 16	Color 14 - LEE 201 - Full CT Blue		
	41 - 42	16	Color 15 - LEE 202 - Half CT Blue		
	43 - 44	17	Color 16 - LEE 117 - Steel Blue		
	45 - 46	18	Color 17 - LEE 353 - Lighter Blue		
	47 - 48	18 - 19	Color 18 - LEE 118 - Light Blue		
	49 - 50	19 - 20	Color 19 - LEE 116 - Medium Blue Green		
	51 - 52	20	Color 20 - LEE 124 - Dark Green		
	53 - 54	21	Color 21 - LEE 139 - Primary Green		
	55 - 56	21 - 22	Color 22 - LEE 089 - Moss Green		
	57 - 58	22 - 23	Color 23 - LEE 122 - Fern Green		
	59 - 60	23	Color 24 - LEE 738 - JAS Green		
	61 - 62	24	Color 25 - LEE 088 - Lime Green		
	63 - 64	25	Color 26 - LEE 100 - Spring Yellow		
	65 - 66	25 - 26	Color 27 - LEE 104 - Deep Amber		
	67 - 68	26 - 27	Color 28 - LEE 179 - Chrome Orange		
	69 - 70	27	Color 29 - LEE 105 - Orange		
	71 - 72	28	Color 30 - LEE 021 - Gold Amber		
	73 - 74	29	Color 31 - LEE 778 - Millennium Gold		
	75 - 76	29 - 30	Color 32 - LEE 135 - Deep Golden Amber		
	77 - 78	30	Color 33 - LEE 164 - Flame Red		
	79 - 80	31	Color 34 - Magenta		
81 - 82	32	Color 35 - Medium Lavender			
			Color 36 - White		

Table 1: DMX Protocol - Basic mode

Channel	DMX Value	Percent	Function	Fade type	Default value
<b>11</b> (cont.)	83 - 103	32 - 40	<b>'Color wheel rotation' effect</b> Clockwise, fast → slow Stop (this will stop wherever the color is at the time) Counter-clockwise, slow → fast	Snap	0
	104 - 106	41			
	107 - 127	42 - 50			
	128 - 129	50	<b>Split color</b> Color preset 1 Color preset 2 Color preset 3 Color preset 4 Color preset 5 Color preset 6 Color preset 7 Color preset 8 Color preset 9 Color preset 10 Color preset 11 Color preset 12 Color preset 13 Color preset 14 Color preset 15 Color preset 16 Color preset 17 Color preset 18 Color preset 19 Color preset 20 Color preset 21 Color preset 22 Color preset 23 Color preset 24 Color preset 25 Color preset 26 Color preset 27 Color preset 28 Color preset 29 Color preset 30 Color preset 31 Color preset 32 Color preset 33 Color preset 34 Color preset 35 Color preset 36		
	130 - 131	51			
	132 - 133	52			
	134 - 135	52 - 53			
	136 - 137	53 - 54			
	138 - 139	54			
	140 - 141	55			
	142 - 143	55 - 56			
	144 - 145	56 - 57			
	146 - 147	57			
	148 - 149	58			
	150 - 151	59			
	152 - 153	59 - 60			
	154 - 155	60 - 61			
	156 - 157	61			
	158 - 159	62			
	160 - 161	63			
	162 - 163	63 - 64			
	164 - 165	64			
	166 - 167	65			
	168 - 169	66			
	170 - 171	66 - 67			
	172 - 173	67 - 68			
	174 - 175	68			
	176 - 177	69			
	178 - 179	70			
	180 - 181	70 - 71			
	182 - 183	71			
	184 - 185	72			
	186 - 187	73			
	188 - 189	73 - 74			
	190 - 191	74 - 75			
	192 - 193	75			
194 - 195	76				
196 - 197	77				
198 - 199	77 - 78				
200 - 220	78 - 86	<b>'Color wheel rotation' effect</b> Clockwise, fast → slow Stop (this will stop wherever the color is at the time) Counter-clockwise, slow → fast Open			
221 - 224	86 - 88				
225 - 245	88 - 96				
246 - 255	96 - 100				
<b>12</b>	0 - 200 201 - 255	0 - 78 79 - 100	<b>Zoom</b> Flood → spot Overdrive min. → max.	Fade	200
<b>13</b>	0 - 65535	0 - 100	<b>Pan, 16-bit (MSB and LSB)</b> Left → right (32768 = neutral)	Fade	32768
<b>14</b>					
<b>15</b>	0 - 65535	0 - 100	<b>Tilt, 16-bit (MSB and LSB)</b> Up → down (32768 = neutral)	Fade	32768
<b>16</b>					

Table 1: DMX Protocol - Basic mode

Channel	DMX Value	Percent	Function	Fade type	Default value
17			<b>Fixture control/settings</b> <i>(hold for number of seconds indicated to activate)</i>		
	0 - 9	0 - 4	<i>No function (disables calibration) – 5 sec.</i>		
	10 - 14	4 - 5	Reset entire fixture – 5 sec.		
	15	6	Reset shutter/dimmer only – 5 sec.		
	16	6	Reset color only – 5 sec.		
	17	7	Reset beam only – 5 sec.		
	18	7	Reset pan and tilt only – 5 sec.		
	19 - 22	7 - 9	<i>No function</i>		
	23	9	Linear dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	24	9	Square law dimming curve – 1 sec. <i>(menu override, factory default setting, setting unaffected by power off/on)</i>		
	25	10	Inverse square law dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	26	10	S-curve dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	27	11	<i>No function</i>		
	28	11	Fast pan and tilt speed – 1 sec. <i>(default setting, menu override - setting returns to MENU setting after power on/off)</i>		
	29	11	Smooth pan and tilt speed – 1 sec. <i>(menu override - setting returns to MENU setting after power on/off)</i>		
	30	12	Parameter shortcuts = ON (default)		
	31	12	Parameter shortcuts = OFF	Snap	0
	32 - 35	13 - 14	<i>No function</i>		
	36	14	Enable video tracking		
	37	14	Disable video tracking		
	38	15	Extended color (default)		
	39	15	Calibrated color		
	40 - 49	16 - 19	<i>No function</i>		
	50	20	Regulated fan speed, fixed intensity (default)		
	51	20	Fixed fan speed, regulated intensity		
	52	20	Turn on control panel display – 1 sec.		
	53	21	Turn off control panel display – 1 sec.		
	54 - 99	21 - 39	<i>No function</i>		
	100	39	Enable calibration – 5 sec.		
	101	39	Store pan and tilt calibration – 5 sec.		
	102	40	Store dimmer calibration – 5 sec.		
	103 - 110	40 - 43	<i>No function</i>		
	111	43	Store Beam Twister calibration – 5 sec.		
	112 - 113	44	<i>No function</i>		
	114	45	Store zoom calibration – 5 sec.		
	115	45	Store pan calibration – 5 sec.		
	116	45	Store tilt calibration – 5 sec.		
	117 - 198	46 - 77	<i>No function</i>		
	199	78	Reset all calibration values to defaults – 5 sec.		
	200 - 255	78 - 100	<i>No function</i>		

**Table 1: DMX Protocol - Basic mode**

MSB = Most significant byte

LSB = Least significant byte

# Extended mode

MAC Quantum Wash firmware version 2.0.0.

Channel	DMX Value	Percent	Function	Fade type	Default value
1	0 - 19	0 - 7	<b>Strobe/shutter effect</b> Shutter closed	Snap	30
	20 - 49	8 - 19	Shutter open		
	50 - 200	20 - 78	Strobe, slow → fast		
	201 - 210	79 - 82	Shutter open		
	211 - 255	82 - 100	Random strobe, slow → fast		
2	0 - 65535	0 - 100	<b>Dimmer fade (MSB)</b> Closed → open	Fade	0
3			<b>Dimmer fade, fine (LSB)</b>	Fade	0
4	0 - 10	0 - 4	<b>CTC</b> Disabled	Fade	101
	11 - 171	4 - 67	Color temp. from 2000 K to 10 000 K in 50 K steps (see Table 4 on page 29)		
	171 - 255	67 - 100	10 000 K		
5	0 - 10	0 - 4	<b>'Color wheel' color selection effect</b> Open. RGB color mixing enabled	Snap	0
	11 - 12	4 - 5	Color 1 - LEE 790 - Moroccan pink		
	13 - 14	5	Color 2 - LEE 157 - Pink		
	15 - 16	6	Color 3 - LEE 332 - Special rose pink		
	17 - 18	7	Color 4 - LEE 328 - Follies pink		
	19 - 20	7 - 8	Color 5 - LEE 345 - Fuchsia pink		
	21 - 22	8 - 9	Color 6 - LEE 194 - Surprise pink		
	23 - 24	9	Color 7 - LEE 181 - Congo Blue		
	25 - 26	10	Color 8 - LEE 071 - Tokyo Blue		
	27 - 28	11	Color 9 - LEE 120 - Deep Blue		
	29 - 30	11 - 12	Color 10 - LEE 079 - Just Blue		
	31 - 32	12 - 13	Color 11 - LEE 132 - Medium Blue		
	33 - 34	13	Color 12 - LEE 200 - Double CT Blue		
	35 - 36	14	Color 13 - LEE 161 - Slate Blue		
	37 - 38	14 - 15	Color 14 - LEE 201 - Full CT Blue		
	39 - 40	15 - 16	Color 15 - LEE 202 - Half CT Blue		
	41 - 42	16	Color 16 - LEE 117 - Steel Blue		
	43 - 44	17	Color 17 - LEE 353 - Lighter Blue		
	45 - 46	18	Color 18 - LEE 118 - Light Blue		
	47 - 48	18 - 19	Color 19 - LEE 116 - Medium Blue Green		
	49 - 50	19 - 20	Color 20 - LEE 124 - Dark Green		
	51 - 52	20	Color 21 - LEE 139 - Primary Green		
	53 - 54	21	Color 22 - LEE 089 - Moss Green		
	55 - 56	21 - 22	Color 23 - LEE 122 - Fern Green		
	57 - 58	22 - 23	Color 24 - LEE 738 - JAS Green		
	59 - 60	23	Color 25 - LEE 088 - Lime Green		
	61 - 62	24	Color 26 - LEE 100 - Spring Yellow		
	63 - 64	25	Color 27 - LEE 104 - Deep Amber		
	65 - 66	25 - 26	Color 28 - LEE 179 - Chrome Orange		
	67 - 68	26 - 27	Color 29 - LEE 105 - Orange		
	69 - 70	27	Color 30 - LEE 021 - Gold Amber		
	71 - 72	28	Color 31 - LEE 778 - Millennium Gold		
	73 - 74	29	Color 32 - LEE 135 - Deep Golden Amber		
	75 - 76	29 - 30	Color 33 - LEE 164 - Flame Red		
	77 - 78	30	Color 34 - Magenta		
	79 - 80	31	Color 35 - Medium Lavender		
81 - 82	32	Color 36 - White			

Table 2: DMX Protocol - Extended mode

Channel	DMX Value	Percent	Function	Fade type	Default value
<b>5</b> (cont.)	83 - 103	32 - 40	<b>'Color wheel rotation' effect</b> Clockwise, fast → slow	Snap	0
	104 - 106	41	Stop (this will stop wherever the color is at the time)		
	107 - 127	42 - 50	Counter-clockwise, slow → fast		
	128 - 129	50	<b>Split color</b> Color preset 1		
	130 - 131	51	Color preset 2		
	132 - 133	52	Color preset 3		
	134 - 135	52 - 53	Color preset 4		
	136 - 137	53 - 54	Color preset 5		
	138 - 139	54	Color preset 6		
	140 - 141	55	Color preset 7		
	142 - 143	55 - 56	Color preset 8		
	144 - 145	56 - 57	Color preset 9		
	146 - 147	57	Color preset 10		
	148 - 149	58	Color preset 11		
	150 - 151	59	Color preset 12		
	152 - 153	59 - 60	Color preset 13		
	154 - 155	60 - 61	Color preset 14		
	156 - 157	61	Color preset 15		
	158 - 159	62	Color preset 16		
	160 - 161	63	Color preset 17		
	162 - 163	63 - 64	Color preset 18		
	164 - 165	64	Color preset 19		
	166 - 167	65	Color preset 20		
	168 - 169	66	Color preset 21		
	170 - 171	66 - 67	Color preset 22		
	172 - 173	67 - 68	Color preset 23		
	174 - 175	68	Color preset 24		
	176 - 177	69	Color preset 25		
	178 - 179	70	Color preset 26		
	180 - 181	70 - 71	Color preset 27		
	182 - 183	71	Color preset 28		
	184 - 185	72	Color preset 29		
	186 - 187	73	Color preset 30		
	188 - 189	73 - 74	Color preset 31		
	190 - 191	74 - 75	Color preset 32		
	192 - 193	75	Color preset 33		
194 - 195	76	Color preset 34			
196 - 197	77	Color preset 35			
198 - 199	77 - 78	Color preset 36			
200 - 220	78 - 86	<b>'Color wheel rotation' effect</b> Clockwise, fast → slow			
221 - 224	86 - 88	Stop (this will stop wherever the color is at the time)			
225 - 245	88 - 96	Counter-clockwise, slow → fast			
246 - 255	96 - 100	Open			
<b>6</b>	0 - 200	0 - 78	<b>Zoom</b> Flood → spot	Fade	200
	201 - 255	79 - 100	Overdrive min. → max.		

Table 2: DMX Protocol - Extended mode

Channel	DMX Value	Percent	Function	Fade type	Default value
<b>7 and 8</b>	0 - 32768	0 - 50	<b>Beam twister, 16-bit (MSB and LSB)</b> Index 0 → 360	Snap	0
	32769 - 40000	50 - 61	Disable		
	40001 - 49990	61 - 77	Rotation CW Fast → CW Slow		
	49991 - 50000	77	No rotation (lens stops at its current position)		
	50001 - 59990	77 - 92	Rotation CCW Slow → CCW Fast		
	59991 - 59999	92	Disable		
	60000 - 60099	92	Position 1: Wide		
	60100 - 60199	92	Position 2: Smooth		
	60200 - 60299	92	Position 3: Texture		
	60300 - 60399	92	Position 4: Dots		
	60400 - 60499	93	Position 5: Eye		
	60500 - 60599	93	Position 6: Donut		
	60600 - 60699	93	Position 7: Beam		
	60700 - 60799	93	Position 8: Beam 2		
	60800 - 60899	93	Position 9: Beam 3		
	60900 - 60999	93	Position 10: Beam 4		
	61000 - 61099	94	Position 11: Mixed		
	61100 - 61199	94	Position 12: Separation		
	61200 - 61299	94	Position 13: Separation 2		
	61300 - 61399	94	Position 14: Rays		
	61400 - 61499	94	Position 15: Halo		
61500 - 61599	94	Position 16: Two Areas			
61600 - 61699	94	Position 17: Clean Colors			
61700 - 61799	95	Position 18: Crossover			
61800 - 61999	95	<i>No function</i>			
62000 - 65355	95 - 100	Disable			
<b>9</b>	0 - 65535	0 - 100	<b>Pan, 16-bit (MSB and LSB)</b>	Fade	32768
<b>10</b>			Left → right (32768 = neutral)		
<b>11</b>	0 - 65535	0 - 100	<b>Tilt, 16-bit (MSB and LSB)</b>	Fade	32768
<b>12</b>			Up → down (32768 = neutral)		

Table 2: DMX Protocol - Extended mode

Channel	DMX Value	Percent	Function	Fade type	Default value
<b>13</b>			<b>Fixture control/settings</b> <i>(hold for number of seconds indicated to activate)</i>	Snap	0
	0 - 9	0 - 4	<i>No function (disables calibration) – 5 sec.</i>		
	10 - 14	4 - 5	Reset entire fixture – 5 sec.		
	15	6	Reset shutter/dimmer only – 5 sec.		
	16	6	Reset color only – 5 sec.		
	17	7	Reset beam only – 5 sec.		
	18	7	Reset pan and tilt only – 5 sec.		
	19 - 22	7 - 9	<i>No function</i>		
	23	9	Linear dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	24	9	Square law dimming curve – 1 sec. <i>(menu override, factory default setting, setting unaffected by power off/on)</i>		
	25	10	Inverse square law dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	26	10	S-curve dimming curve – 1 sec. <i>(menu override, setting unaffected by power off/on)</i>		
	27	11	<i>No function</i>		
	28	11	Fast pan and tilt speed – 1 sec. <i>(default setting, menu override - setting returns to MENU setting after power on/off)</i>		
	29	11	Smooth pan and tilt speed – 1 sec. <i>(menu override - setting returns to MENU setting after power on/off)</i>		
	30	12	Parameter shortcuts = ON (default)		
	31	12	Parameter shortcuts = OFF		
	32 - 35	13 - 14	<i>No function</i>		
	36	14	Enable video tracking		
	37	14	Disable video tracking		
	38	15	Extended color (default)		
	39	15	Calibrated color		
	40 - 49	16 - 19	<i>No function</i>		
	50	20	Regulated fan speed, fixed intensity (default)		
	51	20	Fixed fan speed, regulated intensity		
	52	20	Turn on control panel display – 1 sec.		
	53	21	Turn off control panel display – 1 sec.		
	54 - 99	21 - 39	<i>No function</i>		
	100	39	Enable calibration – 5 sec.		
	101	39	Store pan and tilt calibration – 5 sec.		
	102	40	Store dimmer calibration – 5 sec.		
	103 - 110	40 - 43	<i>No function</i>		
	111	43	Store Beam Twister calibration – 5 sec.		
112 - 113	44	<i>No function</i>			
114	45	Store zoom calibration – 5 sec.			
115	45	Store pan calibration – 5 sec.			
116	45	Store tilt calibration – 5 sec.			
117 - 198	46 - 77	<i>No function</i>			
199	78	Reset all calibration values to defaults – 5 sec.			
200 - 255	78 - 100	<i>No function</i>			
<b>14</b>	0 - 255	0 - 100	<b>FX1 selection (see Table 3 on page 28)</b> Effect selection (adjust on DMX channel 15)	Snap	0
<b>15</b>	0 - 126	0 - 49	Effect reversed fast → slow	Fade	128
	127 - 128	50	Effect stops		
	129-255	51-100	Effect slow → fast		
<b>16</b>	0 - 255	0 - 100	<b>FX2 selection (see Table 3 on page 28)</b> Effect selection (adjust on DMX channel 17)	Snap	0
<b>17</b>	0 - 126	0 - 49	Effect reversed fast → slow	Fade	128
	127 - 128	50	Effect stops		
	129-255	51-100	Effect slow → fast		

Table 2: DMX Protocol - Extended mode



Channel	DMX Value	Percent	Function	Fade type	Default value
<b>18</b>	0	0	<b>FX synchronization</b>	Snap	0
	1	0	No sync		
	2	1	Offset shift 10°		
	3	1	Offset shift 20°		
	4	2	Offset shift 30°		
	5	2	Offset shift 40°		
	6	2	Offset shift 50°		
	7	3	Offset shift 60°		
	8	3	Offset shift 70°		
	9	4	Offset shift 80°		
	10	4	Offset shift 90°		
	11	4	Offset shift 100°		
	12	5	Offset shift 110°		
	13	5	Offset shift 120°		
	14	5	Offset shift 130°		
	15	6	Offset shift 140°		
	16	6	Offset shift 150°		
	17	7	Offset shift 160°		
	18	7	Offset shift 170°		
	19	7	Offset shift 180°		
	20	8	Offset shift 190°		
	21	8	Offset shift 200°		
	22	9	Offset shift 210°		
	23	9	Offset shift 220°		
	24	9	Offset shift 230°		
	25	10	Offset shift 240°		
	26	10	Offset shift 250°		
27	11	Offset shift 260°			
28	11	Offset shift 270°			
29	11	Offset shift 280°			
30	12	Offset shift 290°			
31	12	Offset shift 300°			
32	13	Offset shift 310°			
33	13	Offset shift 320°			
34	13	Offset shift 330°			
35	14	Offset shift 340°			
36	14	Offset shift 350°			
37 - 100	14-39	Synchronized: all fixtures start FX cycles at same time <i>Reserved</i>			
101 - 120	39-47	Random start (FX 1 adjust controls overall speed)			
121 - 140	47-55	Random duration			
141 - 255	55-100	<i>Reserved</i>			

### Color - Center

<b>19</b>	0 - 255	0 - 100	<b>Red</b> 0 → 100%	Fade	255
<b>20</b>	0 - 255	0 - 100	<b>Green</b> 0 → 100%	Fade	255
<b>21</b>	0 - 255	0 - 100	<b>Blue</b> 0 → 100%	Fade	255

### Color - Middle

<b>22</b>	0 - 255	0 - 100	<b>Red</b> 0 → 100%	Fade	255
<b>23</b>	0 - 255	0 - 100	<b>Green</b> 0 → 100%	Fade	255
<b>24</b>	0 - 255	0 - 100	<b>Blue</b> 0 → 100%	Fade	255

### Color - Outer

<b>25</b>	0 - 255	0 - 100	<b>Red</b> 0 → 100%	Fade	255
<b>26</b>	0 - 255	0 - 100	<b>Green</b> 0 → 100%	Fade	255

Table 2: DMX Protocol - Extended mode

Channel	DMX Value	Percent	Function	Fade type	Default value
27	0 - 255	0 - 100	<b>Blue</b> 0 → 100%	Fade	255

### Aura

28	0 - 19	0 - 7	<b>Strobe/shutter effect</b> Shutter closed Shutter open Strobe, slow → fast Shutter open Random strobe, slow → fast	Snap	30
	20 - 49	8 - 19			
	50 - 200	20 - 78			
	201 - 210	79 - 82			
	211 - 255	82 - 100			
29	0 - 255	0 - 100	<b>Dimmer (MSB)</b> Closed → open	Fade	0
30	0 - 255	0 - 100	<b>Red</b> 0 → 100%	Fade	255
31	0 - 255	0 - 100	<b>Green</b> 0 → 100%	Fade	255
32	0 - 255	0 - 100	<b>Blue</b> 0 → 100%	Fade	255
33	0 - 10	0 - 4	<b>'Color wheel' color selection effect</b> Open. RGB color mixing enabled Color 1 - LEE 790 - Moroccan pink Color 2- LEE 157 - Pink Color 3 - LEE 332 - Special rose pink Color 4 - LEE 328 - Follies pink Color 5 - LEE 345 - Fuchsia pink Color 6 - LEE 194 - Surprise pink Color 7 - LEE 181 - Congo Blue Color 8 - LEE 071 - Tokyo Blue Color 9 - LEE 120 - Deep Blue Color 10 - LEE 079 - Just Blue Color 11 - LEE 132 - Medium Blue Color 12 - LEE 200 - Double CT Blue Color 13 - LEE 161 - Slate Blue Color 14 - LEE 201 - Full CT Blue Color 15 - LEE 202 - Half CT Blue Color 16 - LEE 117 - Steel Blue Color 17 - LEE 353 - Lighter Blue Color 18 - LEE 118 - Light Blue Color 19 - LEE 116 - Medium Blue Green Color 20 - LEE 124 - Dark Green Color 21 - LEE 139 - Primary Green Color 22 - LEE 089 - Moss Green Color 23 - LEE 122 - Fern Green Color 24 - LEE 738 - JAS Green Color 25 - LEE 088 - Lime Green Color 26 - LEE 100 - Spring Yellow Color 27 - LEE 104 - Deep Amber Color 28 - LEE 179 - Chrome Orange Color 29 - LEE 105 - Orange Color 30 - LEE 021 - Gold Amber Color 31 - LEE 778 - Millennium Gold Color 32 - LEE 135 - Deep Golden Amber Color 33 - LEE 164 - Flame Red Color 34 - Magenta Color 35 - Medium Lavender Color 36 - White  <b>'Color wheel rotation' effect</b> Clockwise, fast → slow Stop (this will stop wherever the color is at the time) Counter-clockwise, slow → fast  <b>Random colors</b> Fast Medium Slow	Snap	0
	11 - 15	4 - 6			
	16 - 20	6 - 8			
	21 - 25	8 - 10			
	26 - 30	10 - 12			
	31 - 35	12 - 14			
	36 - 40	14 - 16			
	41 - 45	16 - 18			
	46 - 50	18 - 20			
	51 - 55	20 - 21			
	56 - 60	22 - 23			
	61 - 65	24 - 25			
	66 - 70	26 - 27			
	71 - 75	28 - 29			
	76 - 80	30 - 31			
	81 - 85	32 - 33			
	86 - 90	34 - 35			
	91 - 95	36 - 37			
	96 - 100	38 - 39			
	101 - 105	39 - 41			
	106 - 110	41 - 43			
	111 - 115	43 - 45			
	116 - 120	45 - 47			
	121 - 125	47 - 49			
	126 - 130	49 - 51			
	131 - 135	51 - 53			
	136 - 140	53 - 55			
	141 - 145	55 - 57			
	146 - 150	57 - 59			
	151 - 155	59 - 61			
	156 - 160	61 - 63			
	161 - 165	63 - 64			
	166 - 170	65 - 66			
171 - 175	67 - 68				
176 - 180	69 - 70				
181 - 185	71 - 72				
186 - 190	73 - 74				
191 - 214	75 - 84				
215 - 219	84 - 86				
220 - 243	86 - 95				
244 - 247	95 - 96				
248 - 251	97 - 98				
252 - 255	98 - 100				

Table 2: DMX Protocol - Extended mode

MSB = Most significant byte

LSB = Least significant byte