

DMX protocol

ColorStrobe IP - DMX protocol									
Version: 1.1									
Mode 1 –RGBW mode , Mode 2 –full RGBW , Mode 3 –Zone effect mode , Mode 4 – 3-zone mode, Mode 5 – 6-zone mode									
Mode/channel					DMX value	Function	Type of control		
1	2	3	4	5					
1	1	1	*	*	0 - 255	Red/Cyan foreground (8 bit)- all zones Red orCyan colour saturation control - coarse (0-100%)	proportional		
*	2	*	*	*	0 - 255	Red/Cyan foreground (16bit)- all zones Red or Cyan colour saturation control - fine	proportional		
2	3	2	*	*	0 - 255	Green/Magenta foreground (8-bit) - all zones Green or Magenta colour saturation control - coarse (0-100%)	proportional		
*	4	*	*	*	0 - 255	Green/Magenta foreground (16bit) - all zones Green or Magenta colour saturation control - fine	proportional		
3	5	3	*	*	0 - 255	Blue/Yellow foreground (8 bit) - all zones Blue or Yellow colour saturation control - coarse (0-100%)	proportional		
*	6	*	*	*	0 - 255	Blue/Yellow foreground (16bit) -all zones Blue or Yellow colour saturation control - fine	proportional		
4	7	4	*	*	0-255	White foreground (8 bit) - all zones White colour saturation control - coarse (0-100%) -RGBW mode only	proportional		
*	8	*	*	*	0 - 255	White foreground (16 bit) - all zones White colour saturation control - fine (RGBW mode only)	proportional		
5	9	5	*	*	0	CTC No function	step		
					1-255	Col. temperature correction	proportional		
6	10	6	*	*	0	Virtual colour wheel No function	step		
					1-2	White 2700 K	step		
					3	White 2700 K (Halogen lamp mode)*	step		
					4-5	White 3200 K	step		
					6	White 3200 K (Halogen lamp mode)*	step		
					7-9	White 4200 K	step		
					10-12	White 5600 K	step		
					13-15	White 8000 K	step		
					16	Blue (Blue=full, Red+Green+White=0)	step		
					17-55	Red=0, Green->up,Blue =full, White=0	proportional		
					56	Light Blue (Red=0, Green=full, Blue =full, White=0)	step		
					57 - 95	Red=0, Green=full, Blue->down, White=0	proportional		
					96	Green (Red=0, Green=full, Blue =0, White=0)	step		
					97 – 134	Red->up, Green=full, Blue=0, White=0	proportional		
					135	Yellow (Red=full, Green=full, Blue=0, White=0)	step		
					136 - 174	Red=full, Green->down, Blue=0, White=0	proportional		
					175	Red(Red=full, Green=0, Blue=0, White=0)	step		
					176 -214	Red=full, Green=0, Blue->up, White=0	proportional		
					215	Magenta (Red=full, Green=0, Blue=full, White=0)	step		
					216 - 246	Red -> down, Green=0, Blue=full, White=0	proportional		
					247	Blue (Red=0, Green=0, Blue=full, White=0)	step		
					248-251	Rainbow effect (with fade time)from slow-> fast	proportional		
					252-255	Rainbow effect(without fade time) from slow-> fast	proportional		
7	11	7	*	*		Intensity foreground (8bit)-all zones			

DMX protocol

Mode/channel					DMX value	Function	Type of control
1	2	3	4	5			
					0-255	Coarse intensity from min. to max.	proportional
*	12	*	*	*		Intensity foreground (16bit)-all zones	
					0-255	Fine intensity from min. to max.	proportional
8	13	8	*	*		Duration	
					0-255	Light time duration from min. —>max.	step
9	14	9	*	*		Rate	
					0-5	No flash	step
					6-255	Flash frequency from min. —>max	step
						<i>Note: Duration time < Rate: flashing</i>	
						<i>Duration time >= Rate: Light continuously On</i>	
*	*	10	*	*		Special effects	
					0-1	No function	step
					2-5	Permanent lightening	step
					6-42	Ramp up (use channels Duration and Rate for control)	step
					43-85	Ramp down (use channels Duration and Rate for control)	step
					86-128	Ramp up/down (use channels Duration and Rate for control)	step
					129-171	Random strobe (use channel Rate for control)	step
					172-214	Lightning (use channel Rate for control)	step
					215-255	Spikes (use channels Duration and Rate for control)	step
*	*	11	*	*		Special Functions	
					0 -19	Reserved	
						<i>To activate following functions , stop in DMX value for at least 3 sec. Corresponding menu items are temporarily overridden.</i>	
					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	Colour calibration On	step
					45-49	Colour calibration Off	step
					50-54	Foreground overwrites Background	step
					55-59	Foreground + Background	step
					60-64	Foreground and Background - standard (default) behaviour	step
					65-74	Reserved	
					75-79	White counting On	step
					80-84	White counting Off	step
					85-89	Dimmer curve: linear	step
					90-94	Dimmer curve: square law	step
					95-255	Reserved	
*	*	12	*	*		Red/Cyan Background (8 bit)- all zones	
					0 - 255	Red or Cyan colour saturation control - coarse (0-100%)	proportional
*	*	13	*	*		Green/Magenta Background (8 bit) - all zones	
					0 - 255	Green or Magenta colour saturation control - coarse (0-100%)	proportional
*	*	14	*	*		Blue/Yellow Background (8 bit) - all zones	
					0 - 255	Blue or Yellow colour saturation control - coarse (0-100%)	proportional
*	*	15	*	*		White Background (8 bit) - all zones	
					0-255	White colour saturation control - coarse (0-100%)-only RGBW mode	proportional
*	*	16	*	*		Intensity Background (8bit)-all zones	

DMX protocol

Mode/channel					DMX value	Function	Type of control
1	2	3	4	5			
					0-255	Coarse intensity from min. to max.	proportional
*	*	17	*	*		Zone Effects	
					0-2	No function	step
					3-4	Effect 1	step
					5-6	Effect 2	step
					7-8	Effect 3	step
					9-10	Effect 4	step
					11-12	Effect 5	step
					13-14	Effect 6	step
					15-16	Effect 7	step
					17-18	Effect 8	step
					19-20	Effect 9	step
					21-22	Effect 10	step
					23-24	Effect 11	step
					25-26	Effect 12	step
					27-28	Effect 13	step
					29-30	Effect 14	step
					31-32	Effect 15	step
					33-34	Effect 16	step
					35-36	Effect 17	step
					37-38	Effect 18	step
					39-40	Effect 19	step
					41-42	Effect 20	step
					43-44	Effect 21	step
					45-46	Effect 22	step
					47-48	Effect 23	step
					49-50	Effect 24	step
					51-52	Effect 25	step
					53-255	Raw DMX	step
*	*	18	*	*		Zone Effects Speed	
					0-63	Speed from min. —>max. without fade time	proportional
					64-127	Speed from max. —>min. without fade time (op. direction)	proportional
					128-191	Speed from min. —>max. with fade time	proportional
					192-255	Speed from max. —>min. with fade time (op. direction)	proportional
*	*	*	1	1		Red intensity (8bit)-zone 1	
					0-255	Coarse red intensity from 0% to 100%	proportional
*	*	*	2	2		Green intensity (8bit)-zone 1	
					0-255	Coarse green intensity from 0% to 100%	proportional
*	*	*	3	3		Blue intensity (8bit)-zone 1	
					0-255	Coarse blue intensity from 0% to 100%	proportional
*	*	*	4	4		White intensity (8bit)-zone 1	
					0-255	Coarse white intensity from 0% to 100%	proportional
*	*	*	5	5		Intensity (8bit)-zone 1	
					0-255	Coarse intensity from 0% to 100%	proportional
*	*	*	6	6		Duration - zone 1	
					0-255	Light time duration from min. —>max.	step
*	*	*	7	7		Rate - zone 1	
					0-5	No flash	step

DMX protocol

Mode/channel					DMX value	Function	Type of control
1	2	3	4	5			
					6-255	Flash frequency from min. —>max	step
*	*	*	8	8		Red intensity (8bit)-zone 2	
					0-255	Coarse red intensity from 0% to 100%	proportional
*	*	*	9	9		Green intensity (8bit)-zone 2	
					0-255	Coarse green intensity from 0% to 100%	proportional
*	*	*	10	10		Blue intensity (8bit)-zone 2	
					0-255	Coarse blue intensity from 0% to 100%	proportional
*	*	*	11	11		White intensity (8bit)-zone 2	
					0-255	Coarse white intensity from 0% to 100%	proportional
*	*	*	12	12		Intensity (8bit)-zone 2	
					0-255	Coarse intensity from 0% to 100%	proportional
*	*	*	13	13		Duration - zone 2	
					0-255	Light time duration from min. —>max.	step
*	*	*	14	14		Rate - zone 2	
					0-5	No flash	step
					6-255	Flash frequency from min. —>max	step
*	*	*	15	15		Red intensity (8bit)-zone 3	
					0-255	Coarse red intensity from 0% to 100%	proportional
*	*	*	16	16		Green intensity (8bit)-zone 3	
					0-255	Coarse green intensity from 0% to 100%	proportional
*	*	*	17	17		Blue intensity (8bit)-zone 3	
					0-255	Coarse blue intensity from 0% to 100%	proportional
*	*	*	18	18		White intensity (8bit)-zone 3	
					0-255	Coarse white intensity from 0% to 100%	proportional
*	*	*	19	19		Intensity (8bit)-zone 3	
					0-255	Coarse intensity from 0% to 100%	proportional
*	*	*	20	20		Duration - zone 3	
					0-255	Light time duration from min. —>max.	step
*	*	*	21	21		Rate - zone 3	
					0-5	No flash	step
					6-255	Flash frequency from min. —>max	step
*	*	*	*	22		Red intensity (8bit)-zone 4	
					0-255	Coarse red intensity from 0% to 100%	proportional
*	*	*	*	23		Green intensity (8bit)-zone 4	
					0-255	Coarse green intensity from 0% to 100%	proportional
*	*	*	*	24		Blue intensity (8bit)-zone 4	
					0-255	Coarse blue intensity from 0% to 100%	proportional
*	*	*	*	25		White intensity (8bit)-zone 4	
					0-255	Coarse white intensity from 0% to 100%	proportional
*	*	*	*	26		Intensity (8bit)-zone 4	
					0-255	Coarse intensity from 0% to 100%	proportional
*	*	*	*	27		Duration - zone 4	
					0-255	Light time duration from min. —>max.	step
*	*	*	*	28		Rate - zone 4	
					0-5	No flash	step
					6-255	Flash frequency from min. —>max	step
*	*	*	*	29		Red intensity (8bit)-zone 5	
					0-255	Coarse red intensity from 0% to 100%	proportional

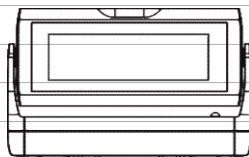
DMX protocol

Mode/channel					DMX value	Function	Type of control
1	2	3	4	5			
*	*	*	*	30	0-255	Green intensity (8bit)-zone 5 Coarse green intensity from 0% to 100%	proportional
*	*	*	*	31	0-255	Blue intensity (8bit)-zone 5 Coarse blue intensity from 0% to 100%	proportional
*	*	*	*	32	0-255	White intensity (8bit)-zone 5 Coarse white intensity from 0% to 100%	proportional
*	*	*	*	33	0-255	Intensity (8bit)-zone 5 Coarse intensity from 0% to 100%	proportional
*	*	*	*	34	0-255	Duration - zone 5 Light time duration from min. —>max.	step
*	*	*	*	35	0-5 6-255	Rate - zone 5 No flash Flash frequency from min. —>max	step step
*	*	*	*	36	0-255	Red intensity (8bit)-zone 6 Coarse red intensity from 0% to 100%	proportional
*	*	*	*	37	0-255	Green intensity (8bit)-zone 6 Coarse green intensity from 0% to 100%	proportional
*	*	*	*	38	0-255	Blue intensity (8bit)-zone 6 Coarse blue intensity from 0% to 100%	proportional
*	*	*	*	39	0-255	White intensity (8bit)-zone 6 Coarse white intensity from 0% to 100%	proportional
*	*	*	*	40	0-255	Intensity (8bit)-zone 6 Coarse intensity from 0% to 100%	proportional
*	*	*	*	41	0-255	Duration - zone 6 Light time duration from min. —>max.	step
*	*	*	*	42	0-5 6-255	Rate - zone 6 No flash Flash frequency from min. —>max	step step

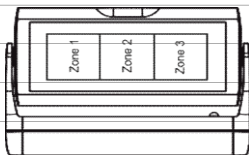
* In the Halogen lamp mode the Dimmer channel imitates behaviour of the halogen lamp during dimming

Order of zones (front view) :

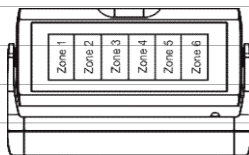
Mode 1,2,3



Mode 4



Mode 5



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All Specifications subject to change without notice

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
0	13,31	x	x	x	x	2600,00	2166,67
1	16,64	x	x	x	x	2600,00	2166,67
2	19,97	x	x	x	x	2580,00	2150,00
3	23,30	x	x	x	x	2580,00	2150,00
4	26,62	x	x	x	x	2560,00	2133,34
5	29,95	x	x	x	x	2560,00	2133,34
6	33,28	3460,00	2883,34	0,289	0,347	2540,00	2116,67
7	36,61	2880,00	2400,00	0,347	0,417	2540,00	2116,67
8	39,94	2320,00	1933,34	0,431	0,517	2520,00	2100,00
9	43,26	2020,00	1683,34	0,495	0,594	2520,00	2100,00
10	46,59	1740,00	1450,00	0,575	0,690	2500,00	2083,34
11	49,92	1560,00	1300,00	0,641	0,769	2500,00	2083,34
12	53,25	1400,00	1166,67	0,714	0,857	2480,00	2066,67
13	56,58	1280,00	1066,67	0,781	0,937	2480,00	2066,67
14	59,90	1160,00	966,67	0,862	1,034	2460,00	2050,00
15	63,23	1080,00	900,00	0,926	1,111	2460,00	2050,00
16	66,56	1000,00	833,34	1,000	1,200	2440,00	2033,34
17	69,89	940,00	783,33	1,064	1,277	2440,00	2033,34
18	73,22	880,00	733,33	1,136	1,364	2420,00	2016,67
19	76,54	820,00	683,33	1,220	1,463	2420,00	2016,67
20	79,87	780,00	650,00	1,282	1,538	2400,00	2000,00
21	83,20	740,00	616,67	1,351	1,622	2400,00	2000,00
22	86,53	700,00	583,33	1,429	1,714	2380,00	1983,34
23	89,86	660,00	550,00	1,515	1,818	2380,00	1983,34
24	93,18	640,00	533,33	1,563	1,875	2360,00	1966,67
25	96,51	600,00	500,00	1,667	2,000	2360,00	1966,67
26	99,84	580,00	483,33	1,724	2,069	2340,00	1950,00
27	103,17	560,00	466,67	1,786	2,143	2340,00	1950,00
28	106,50	540,00	450,00	1,852	2,222	2320,00	1933,34
29	109,82	520,00	433,33	1,923	2,308	2320,00	1933,34
30	113,15	500,00	416,67	2,000	2,400	2300,00	1916,67
31	116,48	480,00	400,00	2,083	2,500	2300,00	1916,67
32	119,81	480,00	400,00	2,083	2,500	2280,00	1900,00
33	123,14	460,00	383,33	2,174	2,609	2280,00	1900,00
34	126,46	440,00	366,67	2,273	2,727	2260,00	1883,34
35	129,79	420,00	350,00	2,381	2,857	2260,00	1883,34
36	133,12	420,00	350,00	2,381	2,857	2240,00	1866,67
37	136,45	400,00	333,33	2,500	3,000	2240,00	1866,67
38	139,78	400,00	333,33	2,500	3,000	2220,00	1850,00
39	143,10	380,00	316,67	2,632	3,158	2220,00	1850,00
40	146,43	380,00	316,67	2,632	3,158	2200,00	1833,34
41	149,76	360,00	300,00	2,778	3,333	2200,00	1833,34
42	153,09	360,00	300,00	2,778	3,333	2180,00	1816,67
43	156,42	340,00	283,33	2,941	3,529	2180,00	1816,67
44	159,74	340,00	283,33	2,941	3,529	2160,00	1800,00
45	163,07	320,00	266,67	3,125	3,750	2160,00	1800,00

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
46	166,40	320,00	266,67	3,125	3,750	2140,00	1783,34
47	169,73	320,00	266,67	3,125	3,750	2140,00	1783,34
48	173,06	320,00	266,67	3,125	3,750	2120,00	1766,67
49	176,38	300,00	250,00	3,333	4,000	2120,00	1766,67
50	179,71	300,00	250,00	3,333	4,000	2100,00	1750,00
51	183,04	280,00	233,33	3,571	4,286	2100,00	1750,00
52	186,37	280,00	233,33	3,571	4,286	2080,00	1733,34
53	189,70	260,00	216,67	3,846	4,615	2080,00	1733,34
54	193,02	260,00	216,67	3,846	4,615	2060,00	1716,67
55	196,35	260,00	216,67	3,846	4,615	2060,00	1716,67
56	199,68	260,00	216,67	3,846	4,615	2040,00	1700,00
57	203,01	240,00	200,00	4,167	5,000	2040,00	1700,00
58	206,34	240,00	200,00	4,167	5,000	2020,00	1683,34
59	209,66	240,00	200,00	4,167	5,000	2020,00	1683,34
60	212,99	240,00	200,00	4,167	5,000	2000,00	1666,67
61	216,32	220,00	183,33	4,545	5,455	2000,00	1666,67
62	219,65	220,00	183,33	4,545	5,455	1980,00	1650,00
63	222,98	220,00	183,33	4,545	5,455	1980,00	1650,00
64	226,30	220,00	183,33	4,545	5,455	1960,00	1633,34
65	229,63	220,00	183,33	4,545	5,455	1960,00	1633,34
66	232,96	220,00	183,33	4,545	5,455	1940,00	1616,67
67	236,29	200,00	166,67	5,000	6,000	1940,00	1616,67
68	239,62	200,00	166,67	5,000	6,000	1920,00	1600,00
69	242,94	200,00	166,67	5,000	6,000	1920,00	1600,00
70	246,27	200,00	166,67	5,000	6,000	1900,00	1583,34
71	249,60	200,00	166,67	5,000	6,000	1900,00	1583,34
72	252,93	200,00	166,67	5,000	6,000	1880,00	1566,67
73	256,26	200,00	166,67	5,000	6,000	1880,00	1566,67
74	259,58	200,00	166,67	5,000	6,000	1860,00	1550,00
75	262,91	180,00	150,00	5,556	6,667	1860,00	1550,00
76	266,24	180,00	150,00	5,556	6,667	1840,00	1533,34
77	269,57	180,00	150,00	5,556	6,667	1840,00	1533,34
78	272,90	180,00	150,00	5,556	6,667	1820,00	1516,67
79	276,22	180,00	150,00	5,556	6,667	1820,00	1516,67
80	279,55	180,00	150,00	5,556	6,667	1800,00	1500,00
81	282,88	180,00	150,00	5,556	6,667	1800,00	1500,00
82	286,21	180,00	150,00	5,556	6,667	1780,00	1483,34
83	289,54	160,00	133,33	6,250	7,500	1780,00	1483,34
84	292,86	160,00	133,33	6,250	7,500	1760,00	1466,67
85	296,19	160,00	133,33	6,250	7,500	1760,00	1466,67
86	299,52	160,00	133,33	6,250	7,500	1740,00	1450,00
87	302,85	160,00	133,33	6,250	7,500	1740,00	1450,00
88	306,18	160,00	133,33	6,250	7,500	1720,00	1433,34
89	309,50	160,00	133,33	6,250	7,500	1720,00	1433,34
90	312,83	160,00	133,33	6,250	7,500	1700,00	1416,67
91	316,16	140,00	116,67	7,143	8,571	1700,00	1416,67
92	319,49	140,00	116,67	7,143	8,571	1680,00	1400,00

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
93	322,82	140,00	116,67	7,143	8,571	1680,00	1400,00
94	326,14	140,00	116,67	7,143	8,571	1660,00	1383,34
95	329,47	140,00	116,67	7,143	8,571	1660,00	1383,34
96	332,80	140,00	116,67	7,143	8,571	1640,00	1366,67
97	336,13	140,00	116,67	7,143	8,571	1640,00	1366,67
98	339,46	140,00	116,67	7,143	8,571	1620,00	1350,00
99	342,78	140,00	116,67	7,143	8,571	1620,00	1350,00
100	346,11	140,00	116,67	7,143	8,571	1600,00	1333,34
101	349,44	140,00	116,67	7,143	8,571	1600,00	1333,34
102	352,77	140,00	116,67	7,143	8,571	1580,00	1316,67
103	356,10	120,00	100,00	8,333	10,000	1580,00	1316,67
104	359,42	120,00	100,00	8,333	10,000	1560,00	1300,00
105	362,75	120,00	100,00	8,333	10,000	1560,00	1300,00
106	366,08	120,00	100,00	8,333	10,000	1540,00	1283,34
107	369,41	120,00	100,00	8,333	10,000	1540,00	1283,34
108	372,74	120,00	100,00	8,333	10,000	1520,00	1266,67
109	376,06	120,00	100,00	8,333	10,000	1520,00	1266,67
110	379,39	120,00	100,00	8,333	10,000	1500,00	1250,00
111	382,72	120,00	100,00	8,333	10,000	1500,00	1250,00
112	386,05	120,00	100,00	8,333	10,000	1480,00	1233,34
113	389,38	120,00	100,00	8,333	10,000	1480,00	1233,34
114	392,70	120,00	100,00	8,333	10,000	1460,00	1216,67
115	396,03	120,00	100,00	8,333	10,000	1460,00	1216,67
116	399,36	120,00	100,00	8,333	10,000	1440,00	1200,00
117	402,69	120,00	100,00	8,333	10,000	1440,00	1200,00
118	406,02	120,00	100,00	8,333	10,000	1420,00	1183,34
119	409,34	100,00	83,33	10,000	12,000	1420,00	1183,34
120	412,67	100,00	83,33	10,000	12,000	1400,00	1166,67
121	416,00	100,00	83,33	10,000	12,000	1400,00	1166,67
122	419,33	100,00	83,33	10,000	12,000	1380,00	1150,00
123	422,66	100,00	83,33	10,000	12,000	1380,00	1150,00
124	425,98	100,00	83,33	10,000	12,000	1360,00	1133,34
125	429,31	100,00	83,33	10,000	12,000	1360,00	1133,34
126	432,64	100,00	83,33	10,000	12,000	1340,00	1116,67
127	435,97	100,00	83,33	10,000	12,000	1340,00	1116,67
128	439,30	100,00	83,33	10,000	12,000	1320,00	1100,00
129	442,62	100,00	83,33	10,000	12,000	1320,00	1100,00
130	445,95	100,00	83,33	10,000	12,000	1300,00	1083,34
131	449,28	100,00	83,33	10,000	12,000	1300,00	1083,34
132	452,61	100,00	83,33	10,000	12,000	1280,00	1066,67
133	455,94	100,00	83,33	10,000	12,000	1280,00	1066,67
134	459,26	100,00	83,33	10,000	12,000	1260,00	1050,00
135	462,59	100,00	83,33	10,000	12,000	1260,00	1050,00
136	465,92	100,00	83,33	10,000	12,000	1240,00	1033,34
137	469,25	100,00	83,33	10,000	12,000	1240,00	1033,34
138	472,58	100,00	83,33	10,000	12,000	1220,00	1016,67
139	475,90	100,00	83,33	10,000	12,000	1220,00	1016,67

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
140	479,23	100,00	83,33	10,000	12,000	1200,00	1000,00
141	482,56	100,00	83,33	10,000	12,000	1200,00	1000,00
142	485,89	100,00	83,33	10,000	12,000	1180,00	983,34
143	489,22	80,00	66,67	12,500	15,000	1180,00	983,34
144	492,54	80,00	66,67	12,500	15,000	1160,00	966,67
145	495,87	80,00	66,67	12,500	15,000	1160,00	966,67
146	499,20	80,00	66,67	12,500	15,000	1140,00	950,00
147	502,53	80,00	66,67	12,500	15,000	1140,00	950,00
148	505,86	80,00	66,67	12,500	15,000	1120,00	933,34
149	509,18	80,00	66,67	12,500	15,000	1120,00	933,34
150	512,51	80,00	66,67	12,500	15,000	1100,00	916,67
151	515,84	80,00	66,67	12,500	15,000	1100,00	916,67
152	519,17	80,00	66,67	12,500	15,000	1080,00	900,00
153	522,50	80,00	66,67	12,500	15,000	1080,00	900,00
154	525,82	80,00	66,67	12,500	15,000	1060,00	883,34
155	529,15	80,00	66,67	12,500	15,000	1060,00	883,34
156	532,48	80,00	66,67	12,500	15,000	1040,00	866,67
157	535,81	80,00	66,67	12,500	15,000	1040,00	866,67
158	539,14	80,00	66,67	12,500	15,000	1020,00	850,00
159	542,46	80,00	66,67	12,500	15,000	1020,00	850,00
160	545,79	80,00	66,67	12,500	15,000	1000,00	833,34
161	549,12	80,00	66,67	12,500	15,000	1000,00	833,34
162	552,45	80,00	66,67	12,500	15,000	980,00	816,67
163	555,78	80,00	66,67	12,500	15,000	980,00	816,67
164	559,10	80,00	66,67	12,500	15,000	960,00	800,00
165	562,43	80,00	66,67	12,500	15,000	960,00	800,00
166	565,76	80,00	66,67	12,500	15,000	940,00	783,33
167	569,09	80,00	66,67	12,500	15,000	940,00	783,33
168	572,42	80,00	66,67	12,500	15,000	920,00	766,67
169	575,74	80,00	66,67	12,500	15,000	920,00	766,67
170	579,07	80,00	66,67	12,500	15,000	900,00	750,00
171	582,40	80,00	66,67	12,500	15,000	900,00	750,00
172	585,73	80,00	66,67	12,500	15,000	880,00	733,33
173	589,06	80,00	66,67	12,500	15,000	880,00	733,33
174	592,38	80,00	66,67	12,500	15,000	860,00	716,67
175	595,71	80,00	66,67	12,500	15,000	860,00	716,67
176	599,04	80,00	66,67	12,500	15,000	840,00	700,00
177	602,37	60,00	50,00	16,667	20,000	840,00	700,00
178	605,70	60,00	50,00	16,667	20,000	820,00	683,33
179	609,02	60,00	50,00	16,667	20,000	820,00	683,33
180	612,35	60,00	50,00	16,667	20,000	800,00	666,67
181	615,68	60,00	50,00	16,667	20,000	800,00	666,67
182	619,01	60,00	50,00	16,667	20,000	780,00	650,00
183	622,34	60,00	50,00	16,667	20,000	780,00	650,00
184	625,66	60,00	50,00	16,667	20,000	760,00	633,33
185	628,99	60,00	50,00	16,667	20,000	760,00	633,33
186	632,32	60,00	50,00	16,667	20,000	740,00	616,67

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
187	635,65	60,00	50,00	16,667	20,000	740,00	616,67
188	638,98	60,00	50,00	16,667	20,000	720,00	600,00
189	642,30	60,00	50,00	16,667	20,000	720,00	600,00
190	645,63	60,00	50,00	16,667	20,000	700,00	583,33
191	648,96	60,00	50,00	16,667	20,000	700,00	583,33
192	652,29	60,00	50,00	16,667	20,000	680,00	566,67
193	655,62	60,00	50,00	16,667	20,000	680,00	566,67
194	658,94	60,00	50,00	16,667	20,000	660,00	550,00
195	662,27	60,00	50,00	16,667	20,000	660,00	550,00
196	665,60	60,00	50,00	16,667	20,000	640,00	533,33
197	668,93	60,00	50,00	16,667	20,000	640,00	533,33
198	672,26	60,00	50,00	16,667	20,000	620,00	516,67
199	675,58	60,00	50,00	16,667	20,000	620,00	516,67
200	678,91	60,00	50,00	16,667	20,000	600,00	500,00
201	682,24	60,00	50,00	16,667	20,000	600,00	500,00
202	685,57	60,00	50,00	16,667	20,000	580,00	483,33
203	688,90	60,00	50,00	16,667	20,000	580,00	483,33
204	692,22	60,00	50,00	16,667	20,000	560,00	466,67
205	695,55	60,00	50,00	16,667	20,000	560,00	466,67
206	698,88	60,00	50,00	16,667	20,000	540,00	450,00
207	702,21	60,00	50,00	16,667	20,000	540,00	450,00
208	705,54	60,00	50,00	16,667	20,000	520,00	433,33
209	708,86	60,00	50,00	16,667	20,000	520,00	433,33
210	712,19	60,00	50,00	16,667	20,000	500,00	416,67
211	715,52	60,00	50,00	16,667	20,000	500,00	416,67
212	718,85	60,00	50,00	16,667	20,000	480,00	400,00
213	722,18	60,00	50,00	16,667	20,000	480,00	400,00
214	725,50	60,00	50,00	16,667	20,000	460,00	383,33
215	728,83	60,00	50,00	16,667	20,000	460,00	383,33
216	732,16	60,00	50,00	16,667	20,000	440,00	366,67
217	735,49	60,00	50,00	16,667	20,000	440,00	366,67
218	738,82	60,00	50,00	16,667	20,000	420,00	350,00
219	742,14	60,00	50,00	16,667	20,000	420,00	350,00
220	745,47	60,00	50,00	16,667	20,000	400,00	333,33
221	748,80	60,00	50,00	16,667	20,000	400,00	333,33
222	752,13	60,00	50,00	16,667	20,000	380,00	316,67
223	755,46	60,00	50,00	16,667	20,000	380,00	316,67
224	758,78	60,00	50,00	16,667	20,000	360,00	300,00
225	762,11	60,00	50,00	16,667	20,000	360,00	300,00
226	765,44	60,00	50,00	16,667	20,000	340,00	283,33
227	768,77	60,00	50,00	16,667	20,000	340,00	283,33
228	772,10	60,00	50,00	16,667	20,000	320,00	266,67
229	775,42	60,00	50,00	16,667	20,000	320,00	266,67
230	778,75	60,00	50,00	16,667	20,000	300,00	250,00
231	782,08	60,00	50,00	16,667	20,000	300,00	250,00
232	785,41	60,00	50,00	16,667	20,000	280,00	233,33
233	788,74	60,00	50,00	16,667	20,000	280,00	233,33

DMX	Strobe Duration	Strobe Rate		Strobe Rate		Lightning Rate	
	50 and 60 Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[ms]	[Hz]	[Hz]	[ms]	[ms]
234	792,06	60,00	50,00	16,667	20,000	260,00	216,67
235	795,39	40,00	33,33	25,000	30,000	260,00	216,67
236	798,72	40,00	33,33	25,000	30,000	240,00	200,00
237	802,05	40,00	33,33	25,000	30,000	240,00	200,00
238	805,38	40,00	33,33	25,000	30,000	220,00	183,33
239	808,70	40,00	33,33	25,000	30,000	220,00	183,33
240	812,03	40,00	33,33	25,000	30,000	200,00	166,67
241	815,36	40,00	33,33	25,000	30,000	200,00	166,67
242	818,69	40,00	33,33	25,000	30,000	180,00	150,00
243	822,02	40,00	33,33	25,000	30,000	180,00	150,00
244	825,34	40,00	33,33	25,000	30,000	160,00	133,33
245	828,67	40,00	33,33	25,000	30,000	160,00	133,33
246	832,00	40,00	33,33	25,000	30,000	140,00	116,67
247	835,33	40,00	33,33	25,000	30,000	140,00	116,67
248	838,66	40,00	33,33	25,000	30,000	120,00	100,00
249	841,98	40,00	33,33	25,000	30,000	120,00	100,00
250	845,31	40,00	33,33	25,000	30,000	100,00	83,33
251	848,64	40,00	33,33	25,000	30,000	100,00	83,33
252	851,97	40,00	33,33	25,000	30,000	80,00	66,67
253	855,30	40,00	33,33	25,000	30,000	80,00	66,67
254	858,62	40,00	33,33	25,000	30,000	60,00	50,00
255	861,95	40,00	33,33	25,000	30,000	60,00	50,00

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
0	2480,00	2066,67	2600,00	2166,67
1	2380,00	1983,34	2600,00	2166,67
2	2280,00	1900,00	2580,00	2150,00
3	2180,00	1816,67	2580,00	2150,00
4	2080,00	1733,34	2560,00	2133,34
5	1980,00	1650,00	2560,00	2133,34
6	1880,00	1566,67	2540,00	2116,67
7	1780,00	1483,34	2540,00	2116,67
8	1680,00	1400,00	2520,00	2100,00
9	1620,00	1350,00	2520,00	2100,00
10	1560,00	1300,00	2500,00	2083,34
11	1500,00	1250,00	2500,00	2083,34
12	1440,00	1200,00	2480,00	2066,67
13	1380,00	1150,00	2480,00	2066,67
14	1320,00	1100,00	2460,00	2050,00
15	1260,00	1050,00	2460,00	2050,00
16	1220,00	1016,67	2440,00	2033,34
17	1180,00	983,34	2440,00	2033,34
18	1160,00	966,67	2420,00	2016,67
19	1120,00	933,34	2420,00	2016,67
20	1100,00	916,67	2400,00	2000,00
21	1080,00	900,00	2400,00	2000,00
22	1040,00	866,67	2380,00	1983,34
23	1020,00	850,00	2380,00	1983,34
24	1000,00	833,34	2360,00	1966,67
25	960,00	800,00	2360,00	1966,67
26	940,00	783,33	2340,00	1950,00
27	920,00	766,67	2340,00	1950,00
28	900,00	750,00	2320,00	1933,34
29	880,00	733,33	2320,00	1933,34
30	860,00	716,67	2300,00	1916,67
31	840,00	700,00	2300,00	1916,67
32	820,00	683,33	2280,00	1900,00
33	800,00	666,67	2280,00	1900,00
34	780,00	650,00	2260,00	1883,34
35	760,00	633,33	2260,00	1883,34
36	760,00	633,33	2240,00	1866,67
37	740,00	616,67	2240,00	1866,67
38	720,00	600,00	2220,00	1850,00
39	700,00	583,33	2220,00	1850,00
40	700,00	583,33	2200,00	1833,34
41	680,00	566,67	2200,00	1833,34
42	660,00	550,00	2180,00	1816,67
43	660,00	550,00	2180,00	1816,67
44	640,00	533,33	2160,00	1800,00
45	620,00	516,67	2160,00	1800,00

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
46	620,00	516,67	2140,00	1783,34
47	600,00	500,00	2140,00	1783,34
48	600,00	500,00	2120,00	1766,67
49	580,00	483,33	2120,00	1766,67
50	580,00	483,33	2100,00	1750,00
51	580,00	483,33	2100,00	1750,00
52	560,00	466,67	2080,00	1733,34
53	560,00	466,67	2080,00	1733,34
54	560,00	466,67	2060,00	1716,67
55	540,00	450,00	2060,00	1716,67
56	540,00	450,00	2040,00	1700,00
57	540,00	450,00	2040,00	1700,00
58	520,00	433,33	2020,00	1683,34
59	520,00	433,33	2020,00	1683,34
60	500,00	416,67	2000,00	1666,67
61	500,00	416,67	2000,00	1666,67
62	480,00	400,00	1980,00	1650,00
63	480,00	400,00	1980,00	1650,00
64	480,00	400,00	1960,00	1633,34
65	460,00	383,33	1960,00	1633,34
66	460,00	383,33	1940,00	1616,67
67	460,00	383,33	1940,00	1616,67
68	460,00	383,33	1920,00	1600,00
69	440,00	366,67	1920,00	1600,00
70	440,00	366,67	1900,00	1583,34
71	440,00	366,67	1900,00	1583,34
72	440,00	366,67	1880,00	1566,67
73	420,00	350,00	1880,00	1566,67
74	420,00	350,00	1860,00	1550,00
75	420,00	350,00	1860,00	1550,00
76	420,00	350,00	1840,00	1533,34
77	400,00	333,33	1840,00	1533,34
78	400,00	333,33	1820,00	1516,67
79	400,00	333,33	1820,00	1516,67
80	400,00	333,33	1800,00	1500,00
81	380,00	316,67	1800,00	1500,00
82	380,00	316,67	1780,00	1483,34
83	380,00	316,67	1780,00	1483,34
84	380,00	316,67	1760,00	1466,67
85	360,00	300,00	1760,00	1466,67
86	360,00	300,00	1740,00	1450,00
87	360,00	300,00	1740,00	1450,00
88	360,00	300,00	1720,00	1433,34
89	340,00	283,33	1720,00	1433,34
90	340,00	283,33	1700,00	1416,67
91	340,00	283,33	1700,00	1416,67
92	340,00	283,33	1680,00	1400,00

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
93	340,00	283,33	1680,00	1400,00
94	340,00	283,33	1660,00	1383,34
95	340,00	283,33	1660,00	1383,34
96	340,00	283,33	1640,00	1366,67
97	320,00	266,67	1640,00	1366,67
98	320,00	266,67	1620,00	1350,00
99	320,00	266,67	1620,00	1350,00
100	320,00	266,67	1600,00	1333,34
101	320,00	266,67	1600,00	1333,34
102	320,00	266,67	1580,00	1316,67
103	320,00	266,67	1580,00	1316,67
104	320,00	266,67	1560,00	1300,00
105	300,00	250,00	1560,00	1300,00
106	300,00	250,00	1540,00	1283,34
107	300,00	250,00	1540,00	1283,34
108	300,00	250,00	1520,00	1266,67
109	280,00	233,33	1520,00	1266,67
110	280,00	233,33	1500,00	1250,00
111	280,00	233,33	1500,00	1250,00
112	280,00	233,33	1480,00	1233,34
113	260,00	216,67	1480,00	1233,34
114	260,00	216,67	1460,00	1216,67
115	260,00	216,67	1460,00	1216,67
116	260,00	216,67	1440,00	1200,00
117	260,00	216,67	1440,00	1200,00
118	260,00	216,67	1420,00	1183,34
119	260,00	216,67	1420,00	1183,34
120	260,00	216,67	1400,00	1166,67
121	260,00	216,67	1400,00	1166,67
122	260,00	216,67	1380,00	1150,00
123	260,00	216,67	1380,00	1150,00
124	260,00	216,67	1360,00	1133,34
125	260,00	216,67	1360,00	1133,34
126	260,00	216,67	1340,00	1116,67
127	260,00	216,67	1340,00	1116,67
128	260,00	216,67	1320,00	1100,00
129	240,00	200,00	1320,00	1100,00
130	240,00	200,00	1300,00	1083,34
131	240,00	200,00	1300,00	1083,34
132	240,00	200,00	1280,00	1066,67
133	240,00	200,00	1280,00	1066,67
134	240,00	200,00	1260,00	1050,00
135	240,00	200,00	1260,00	1050,00
136	240,00	200,00	1240,00	1033,34
137	220,00	183,33	1240,00	1033,34
138	220,00	183,33	1220,00	1016,67
139	220,00	183,33	1220,00	1016,67

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
140	220,00	183,33	1200,00	1000,00
141	220,00	183,33	1200,00	1000,00
142	220,00	183,33	1180,00	983,34
143	220,00	183,33	1180,00	983,34
144	220,00	183,33	1160,00	966,67
145	200,00	166,67	1160,00	966,67
146	200,00	166,67	1140,00	950,00
147	200,00	166,67	1140,00	950,00
148	200,00	166,67	1120,00	933,34
149	200,00	166,67	1120,00	933,34
150	200,00	166,67	1100,00	916,67
151	200,00	166,67	1100,00	916,67
152	200,00	166,67	1080,00	900,00
153	200,00	166,67	1080,00	900,00
154	200,00	166,67	1060,00	883,34
155	200,00	166,67	1060,00	883,34
156	200,00	166,67	1040,00	866,67
157	200,00	166,67	1040,00	866,67
158	200,00	166,67	1020,00	850,00
159	200,00	166,67	1020,00	850,00
160	200,00	166,67	1000,00	833,34
161	180,00	150,00	1000,00	833,34
162	180,00	150,00	980,00	816,67
163	180,00	150,00	980,00	816,67
164	180,00	150,00	960,00	800,00
165	180,00	150,00	960,00	800,00
166	180,00	150,00	940,00	783,33
167	180,00	150,00	940,00	783,33
168	180,00	150,00	920,00	766,67
169	180,00	150,00	920,00	766,67
170	180,00	150,00	900,00	750,00
171	180,00	150,00	900,00	750,00
172	180,00	150,00	880,00	733,33
173	180,00	150,00	880,00	733,33
174	180,00	150,00	860,00	716,67
175	180,00	150,00	860,00	716,67
176	180,00	150,00	840,00	700,00
177	160,00	133,33	840,00	700,00
178	160,00	133,33	820,00	683,33
179	160,00	133,33	820,00	683,33
180	160,00	133,33	800,00	666,67
181	160,00	133,33	800,00	666,67
182	160,00	133,33	780,00	650,00
183	160,00	133,33	780,00	650,00
184	160,00	133,33	760,00	633,33
185	160,00	133,33	760,00	633,33
186	160,00	133,33	740,00	616,67

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
187	160,00	133,33	740,00	616,67
188	160,00	133,33	720,00	600,00
189	160,00	133,33	720,00	600,00
190	160,00	133,33	700,00	583,33
191	160,00	133,33	700,00	583,33
192	160,00	133,33	680,00	566,67
193	140,00	116,67	680,00	566,67
194	140,00	116,67	660,00	550,00
195	140,00	116,67	660,00	550,00
196	140,00	116,67	640,00	533,33
197	140,00	116,67	640,00	533,33
198	140,00	116,67	620,00	516,67
199	140,00	116,67	620,00	516,67
200	140,00	116,67	600,00	500,00
201	140,00	116,67	600,00	500,00
202	140,00	116,67	580,00	483,33
203	140,00	116,67	580,00	483,33
204	140,00	116,67	560,00	466,67
205	140,00	116,67	560,00	466,67
206	140,00	116,67	540,00	450,00
207	140,00	116,67	540,00	450,00
208	140,00	116,67	520,00	433,33
209	140,00	116,67	520,00	433,33
210	140,00	116,67	500,00	416,67
211	140,00	116,67	500,00	416,67
212	140,00	116,67	480,00	400,00
213	140,00	116,67	480,00	400,00
214	140,00	116,67	460,00	383,33
215	140,00	116,67	460,00	383,33
216	140,00	116,67	440,00	366,67
217	140,00	116,67	440,00	366,67
218	140,00	116,67	420,00	350,00
219	140,00	116,67	420,00	350,00
220	140,00	116,67	400,00	333,33
221	140,00	116,67	400,00	333,33
222	140,00	116,67	380,00	316,67
223	140,00	116,67	380,00	316,67
224	140,00	116,67	360,00	300,00
225	120,00	100,00	360,00	300,00
226	120,00	100,00	340,00	283,33
227	120,00	100,00	340,00	283,33
228	120,00	100,00	320,00	266,67
229	120,00	100,00	320,00	266,67
230	120,00	100,00	300,00	250,00
231	120,00	100,00	300,00	250,00
232	120,00	100,00	280,00	233,33
233	120,00	100,00	280,00	233,33

DMX	Ramping Duration		Ramping Rate	
	50Hz	60Hz	50Hz	60Hz
	[ms]	[ms]	[Hz]	[Hz]
234	120,00	100,00	260,00	216,67
235	120,00	100,00	260,00	216,67
236	120,00	100,00	240,00	200,00
237	120,00	100,00	240,00	200,00
238	120,00	100,00	220,00	183,33
239	120,00	100,00	220,00	183,33
240	120,00	100,00	200,00	166,67
241	120,00	100,00	200,00	166,67
242	120,00	100,00	180,00	150,00
243	120,00	100,00	180,00	150,00
244	120,00	100,00	160,00	133,33
245	120,00	100,00	160,00	133,33
246	120,00	100,00	140,00	116,67
247	120,00	100,00	140,00	116,67
248	120,00	100,00	120,00	100,00
249	120,00	100,00	120,00	100,00
250	120,00	100,00	100,00	83,33
251	120,00	100,00	100,00	83,33
252	120,00	100,00	80,00	66,67
253	120,00	100,00	80,00	66,67
254	120,00	100,00	60,00	50,00
255	120,00	100,00	60,00	50,00