

DMX protocols

Standard MAC 101 RGB DMX protocol

Raw, RGB	Basic	DMX Value	Percent	Function
1	1	0 - 19	0 - 7	Electronic shutter effect
		20 - 49	8 - 19	Shutter closed
		50 - 64	20 - 25	Shutter open
		65 - 69	26 - 27	Strobe 1 (fast → slow)
		70 - 84	28 - 33	Shutter open
		85 - 89	34 - 35	Strobe 2: opening pulse (fast → slow)
		90 - 104	36 - 41	Shutter open
		105 - 109	42 - 43	Strobe 3: closing pulse (fast → slow)
		110 - 124	44 - 49	Shutter open
		125 - 129	50 - 51	Strobe 4: random strobe (fast → slow)
		130 - 144	52 - 57	Shutter open
		145 - 149	58 - 59	Strobe 5: random opening pulse (fast → slow)
		150 - 164	60 - 65	Shutter open
		165 - 169	66 - 67	Strobe 6: random closing pulse (fast → slow)
		170 - 184	68 - 73	Shutter open
		185 - 189	74 - 75	Strobe 7: burst pulse (fast → slow)
		190 - 204	76 - 81	Shutter open
		205 - 209	82 - 83	Strobe 8: random burst pulse (fast → slow)
		210 - 224	84 - 89	Shutter open
		225 - 229	90 - 91	Strobe 9: sine wave (fast → slow)
230 - 244	92 - 97	Shutter open		
245 - 255	98 - 100	Strobe 10: burst (fast → slow)		
				Shutter open
2	2	0 - 255	0 - 100	Dimmer 0 → 100% intensity
3	3	0 - 255	0 - 100	Pan Pan 0 - 430°
4	4	0 - 255	0 - 100	Pan fine Pan fine (Least Significant Byte)
5	5	0 - 255	0 - 100	Tilt Tilt 0 - 300°
6	6	0 - 255	0 - 100	Tilt fine Tilt fine (Least Significant Byte)
7	7	0 - 9	0 - 1	Fixture control settings
		10 - 14	2 - 3	<i>No function</i>
		15 - 39	4 - 13	Reset entire fixture ¹
		40 - 44	14 - 15	<i>No function</i>
		45 - 49	16 - 17	PTSP = NORM ²
		50 - 54	18 - 19	PTSP = FAST ²
		55 - 59	20 - 21	PTSP = SLOW ²
		60 - 64	22 - 23	<i>No function</i>
		65 - 69	24 - 25	Fan mode FULL ²
		70 - 74	26 - 27	<i>No function</i>
		75 - 89	28 - 33	Fan mode REGULATED ²
		90 - 94	34 - 35	<i>No function</i>
		95 - 99	36 - 37	RGB control mode (calibrated RGB) ³
		100 - 104	38 - 40	<i>No function</i>
		105 - 109	41 - 42	RAW control mode (uncalibrated RGB) ³
		110 - 114	43 - 44	<i>No function</i>
		115 - 119	45 - 46	Fast dimming, speed of changes unrestricted ²
		120 - 124	47 - 48	<i>No function</i>
		125 - 249	49 - 97	Smooth dimming, speed of changes restricted slightly ²
		250 - 255	98 - 100	<i>No function</i>
				Illuminate display
				¹ If DMX Reset is disabled in the menu, a reset command can only be executed if channel 2 is set to 232 and channel 1 is set to zero. These values need to be held for 5 seconds before feature is activated. Values must be "snapped to" to function.
				² Menu override: setting unaffected by power off/on.
				³ Value must be held for 3 seconds to activate. Setting unaffected by power off/on.

Table 2: MAC 101 DMX Protocol

Raw, RGB	Basic	DMX Value	Percent	Function
8	8	0 - 9	0 - 1	Color wheel effect Open. RGB color mixing enabled if the fixture is set to RAW or RGB modes
		10 - 14	2 - 3	LEE 790 - Moroccan pink
		15 - 19	4 - 5	LEE 157 - Pink
		20 - 24	6 - 7	LEE 332 - Special rose pink
		25 - 29	8 - 9	LEE 328 - Follies pink
		30 - 34	10 - 11	LEE 345 - Fuchsia pink
		35 - 39	12 - 13	LEE 194 - Surprise pink
		40 - 44	14 - 15	LEE 181 - Congo Blue
		45 - 49	16 - 17	LEE 071 - Tokyo Blue
		50 - 54	18 - 19	LEE 120 - Deep Blue
		55 - 59	20 - 21	LEE 079 - Just Blue
		60 - 64	22 - 23	LEE 132 - Medium Blue
		65 - 69	24 - 25	LEE 200 - Double CT Blue
		70 - 74	26 - 27	LEE 161 - Slate Blue
		75 - 79	28 - 29	LEE 201 - Full CT Blue
		80 - 84	30 - 31	LEE 202 - Half CT Blue
		85 - 89	32 - 33	LEE 117 - Steel Blue
		90 - 94	34 - 35	LEE 353 - Lighter Blue
		95 - 99	36 - 37	LEE 118 - Light Blue
		100 - 104	38 - 39	LEE 116 - Medium Blue Green
		105 - 109	40 - 41	LEE 124 - Dark Green
		110 - 114	42 - 43	LEE 139 - Primary Green
		115 - 119	44 - 45	LEE 089 - Moss Green
		120 - 124	46 - 47	LEE 122 - Fern Green
		125 - 129	48 - 49	LEE 738 - JAS Green
		130 - 134	50 - 51	LEE 088 - Lime Green
		135 - 139	52 - 53	LEE 100 - Spring Yellow
		140 - 144	54 - 55	LEE 104 - Deep Amber
		145 - 149	56 - 57	LEE 179 - Chrome Orange
		150 - 154	58 - 59	LEE 105 - Orange
155 - 159	60 - 61	LEE 021 - Gold Amber		
160 - 164	62 - 63	LEE 778 - Millennium Gold		
165 - 169	64 - 65	LEE 135 - Deep Golden Amber		
170 - 174	66 - 67	LEE 164 - Flame Red		
175 - 179	68 - 69	Open		
		180 - 201	70 - 78	Color wheel rotation effect Clockwise, fast → slow
		202 - 207	79 - 80	Stop (this will stop wherever the color is at the time)
		208 - 229	81 - 89	Counter-clockwise, slow → fast
		230 - 234	90 - 91	Open
		235 - 239	92 - 93	Random color Fast
		240 - 244	94 - 95	Medium
		245 - 249	96 - 97	Slow
		250 - 255	98 - 100	Open
9		0 - 255	0 - 100	Red Red 0 → 100%
10		0 - 255	0 - 100	Green Green 0 → 100%
11		0 - 255	0 - 100	Blue Blue 0 → 100%
12		0 - 19	0 - 7	Color Temperature Control No Function
		20 - 255	8 - 100	CTC 10 000K → 2 500K

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Note: DMX values labeled "No function" will have no effect - the last functional value will be used.

In **RAW** mode, RGB output is uncalibrated. In **RGB** mode, output is calibrated