

DMX protocol

Channel		DMX	Percent	Function	Fade	Default
Std.	Ext.	value			status	value
1		0 - 19	0 - 7	Beam electronic shutter effect Shutter closed	Snap	22
		20 - 24	8 - 9	Shutter open		
		25 - 64	10 - 25	Strobe 1 (fast → slow)		
		65 - 69	26 - 27	Shutter open		
		70 - 84	28 - 33	Strobe 2: opening pulse (fast → slow)		
		85 - 89	34 - 35	Shutter open		
		90 - 104	36 - 41	Strobe 3: closing pulse (fast → slow)		
		105 - 109	42 - 43	Shutter open		
		110 - 124	44 - 49	Strobe 4: random strobe (fast → slow)		
		125 - 129	50 - 51	Shutter open		
		130 - 144	52 - 57	Strobe 5: random opening pulse (fast → slow)		
		145 - 149	58 - 59	Shutter open		
		150 - 164	60 - 65	Strobe 6: random closing pulse (fast → slow)		
		165 - 169	66 - 67	Shutter open		
		170 - 184	68 - 73	Strobe 7: burst pulse (fast → slow)		
		185 - 189	74 - 75	Shutter open		
		190 - 204	76 - 81	Strobe 8: random burst pulse (fast → slow)		
	205 - 209	82 - 83	Shutter open			
	210 - 224	84 - 89	Strobe 9: sine wave (fast → slow)			
	225 - 229	90 - 91	Shutter open			
	230 - 244	92 - 97	Strobe 10: burst (fast → slow)			
	245 - 255	98 - 100	Shutter open			
2		0 - 255	0 - 100	Beam dimmer 0 → 100% intensity	Fade	0
3		0 - 255	0 - 100	Zoom Wide → narrow	Fade	255
4		0 - 255	0 - 100	Pan Pan 0° - 540°	Fade	128
5		0 - 255	0 - 100	Pan fine Pan fine adjustment (Least Significant Byte)	Fade	32768
6		0 - 255	0 - 100	Tilt Tilt 0° - 232°	Fade	128
7		0 - 255	0 - 100	Tilt fine Tilt fine adjustment (Least Significant Byte)	Fade	32768

Table 2: MAC Aura XB DMX Protocol

Channel		DMX	Percent	Function	Fade	Default
Std.	Ext.	value			status	value
8		0 - 9	0 - 3	Fixture control settings	Snap	0
		10 - 14	4 - 5	<i>No function</i>		
		15 - 39	6 - 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 color mode: fully calibrated color output, same gamut for all MAC Aura XBs ³		
		100 - 104	38 - 40	EXTENDED color mode: calibrated white point with extended color saturation, saturated colors may not be exactly identical ³		
		105 - 109	41 - 42	RAW color mode: compatible with standard MAC Aura fixtures, max. output set to standard MAC Aura level ³		
		110 - 114	43 - 44	<i>No function</i>		
		115 - 119	45 - 46	Fast dimming: speed of intensity changes unrestricted ²		
		120 - 124	47 - 48	<i>No function</i>		
		125 - 129	49 - 50	Smooth dimming: speed of intensity changes restricted slightly ²		
		130 - 134	51 - 52	<i>No function</i>		
	135 - 249	53 - 97	Video dimming: instant intensity changes, optimized for video			
	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.			

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Channel		DMX	Percent	Function	Fade	Default
Std.	Ext.	value			status	value
	9	0 - 9 10 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 39 40 - 44 45 - 49 50 - 54 55 - 59 60 - 64 65 - 69 70 - 74 75 - 79 80 - 84 85 - 89 90 - 94 95 - 99 100 - 104 105 - 109 110 - 114 115 - 119 120 - 124 125 - 129 130 - 134 135 - 139 140 - 144 145 - 149 150 - 154 155 - 159 160 - 164 165 - 169 170 - 174 175 - 179 180 - 201 202 - 207 208 - 229 230 - 234 235 - 239 240 - 244 245 - 249 250 - 255	0 - 2 3 - 4 4 - 5 6 - 7 8 - 9 10 - 11 12 - 13 14 - 15 16 - 17 18 - 19 20 - 21 22 - 23 24 - 25 26 - 27 28 - 29 30 - 31 32 - 33 34 - 35 36 - 37 38 - 39 40 - 41 42 - 43 44 - 45 46 - 47 48 - 49 50 - 51 52 - 53 54 - 55 56 - 57 58 - 59 60 - 61 62 - 63 64 - 65 66 - 67 68 - 69 70 - 78 79 - 80 81 - 89 90 - 91 92 - 93 94 - 95 96 - 97 98 - 100	Beam color wheel effect Open. RGBW color mixing enabled LEE 790 - Moroccan pink LEE 157 - Pink LEE 332 - Special rose pink LEE 328 - Follies pink LEE 345 - Fuchsia pink LEE 194 - Surprise pink LEE 181 - Congo Blue LEE 071 - Tokyo Blue LEE 120 - Deep Blue LEE 079 - Just Blue LEE 132 - Medium Blue LEE 200 - Double CT Blue LEE 161 - Slate Blue LEE 201 - Full CT Blue LEE 202 - Half CT Blue LEE 117 - Steel Blue LEE 353 - Lighter Blue LEE 118 - Light Blue LEE 116 - Medium Blue Green LEE 124 - Dark Green LEE 139 - Primary Green LEE 089 - Moss Green LEE 122 - Fern Green LEE 738 - JAS Green LEE 088 - Lime Green LEE 100 - Spring Yellow LEE 104 - Deep Amber LEE 179 - Chrome Orange LEE 105 - Orange LEE 021 - Gold Amber LEE 778 - Millennium Gold LEE 135 - Deep Golden Amber LEE 164 - Flame Red Open Color wheel rotation effect Clockwise, fast → slow Stop (this will stop wherever the color is at the time) Counter-clockwise, slow → fast Open Random color Fast Medium Slow Open	Snap	0
	10	0 - 255	0 - 100	Beam red Red 0 → 100%	Fade	255
	11	0 - 255	0 - 100	Beam green Green 0 → 100%	Fade	255
	12	0 - 255	0 - 100	Beam blue Blue 0 → 100%	Fade	255
	13	0 - 255	0 - 100	Beam white White 0 → 100% <i>Only available when the fixture is set to RAW mode.</i>	Fade	0
	14	0 - 19 20 - 255	0 - 7 8 - 100	Beam CTC (Color Temperature Control) CTC disabled CTC 10 000K → 2 500K	Fade	0
-	15	0 - 255	0 - 100	FX1 select Pre-programmed effect 1 selection (see "FX: pre-programmed effects" on page 28)	Snap	0
-	16	0 - 255	0 - 100	FX1 adjust, sync speed adjust Zero → maximum • If no sync set on channel 19, adjusts FX1 • If sync set on channel 19, adjusts synchronized FX1+FX2 speed	Fade	128
-	17	0 - 255	0 - 100	FX2 select Pre-programmed effect 2 selection (see "FX: pre-programmed effects" on page 28)	Snap	0

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Std.	Ext.					
-	18	0 - 255	0 - 100	FX2 adjust Zero → maximum • If no sync set on channel 19, adjusts FX2 • If sync set on channel 19, has no effect	Fade	128
-	19	0 - 49	0 - 19	Sync (FX synchronization) No sync • FX1 and FX2 run through cycles independently • Cycle duration is regular • Channel 16 and channel 18 adjust FX1 and FX2 independently Sync • FX1 and FX2 run through cycles in sync • Cycle duration is regular • Channel 16 adjusts overall speed, channel 18 has no effect Sync shift • FX1 and FX2 run through cycles in sync • FX2 is offset (delayed) relative to FX1 • Offset is adjustable from zero → maximum • Channel 16 adjusts overall speed, channel 18 has no effect Sync random • FX1 and FX2 run through cycles in sync • Cycle duration for synchronized FX1 and FX2 is made shorter and longer at random. • Channel 16 adjusts overall speed, channel 18 has no effect No sync, random • FX1 and FX2 run through cycles independently • Cycle duration is for FX1 and FX2 is made shorter and longer at random • Channel 16 and channel 18 adjust FX1 and FX2 speed independently	Snap	0
		50	20			
		51 - 169	21 - 66			
		170 - 209	67 - 81			
		210 - 255	82 - 100			

Aura control

-	20	0 - 19 20 - 24 25 - 64 65 - 69 70 - 84 85 - 89 90 - 104 105 - 109 110 - 124 125 - 129 130 - 144 145 - 149 150 - 164 165 - 169 170 - 184 185 - 189 190 - 204 205 - 209 210 - 224 225 - 229 230 - 244 245 - 255	0 - 7 8 - 9 10 - 25 26 - 27 28 - 33 34 - 35 36 - 41 42 - 43 44 - 49 50 - 51 52 - 57 58 - 59 60 - 65 66 - 67 68 - 73 74 - 75 76 - 81 82 - 83 84 - 89 90 - 91 92 - 97 98 - 100	Aura shutter and strobe effect Shutter closed Shutter open Strobe 1 (fast → slow) Shutter open Strobe 2: opening pulse (fast → slow) Shutter open Strobe 3: closing pulse (fast → slow) Shutter open Strobe 4: random strobe (fast → slow) Shutter open Strobe 5: random opening pulse (fast → slow) Shutter open Strobe 6: random closing pulse (fast → slow) Shutter open Strobe 7: burst pulse (fast → slow) Shutter open Strobe 8: random burst pulse (fast → slow) Shutter open Strobe 9: sine wave (fast → slow) Shutter open Strobe 10: burst (fast → slow) Shutter open	Snap	22
-	21	0 - 255	0 - 100	Aura dimmer 0 → 100% intensity	Fade	0

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Std.	Ext.					
-	22	0 - 9 10 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 39 40 - 44 45 - 49 50 - 54 55 - 59 60 - 64 65 - 69 70 - 74 75 - 79 80 - 84 85 - 89 90 - 94 95 - 99 100 - 104 105 - 109 110 - 114 115 - 119 120 - 124 125 - 129 130 - 134 135 - 139 140 - 144 145 - 149 150 - 154 155 - 159 160 - 164 165 - 169 170 - 174 175 - 179 180 - 201 202 - 207 208 - 229 230 - 234 235 - 239 240 - 244 245 - 249 250 - 255	0 - 1 2 - 3 4 - 5 6 - 7 8 - 9 10 - 11 12 - 13 14 - 15 16 - 17 18 - 19 20 - 21 22 - 23 24 - 25 26 - 27 28 - 29 30 - 31 32 - 33 34 - 35 36 - 37 38 - 39 40 - 41 42 - 43 44 - 45 46 - 47 48 - 49 50 - 51 52 - 53 54 - 55 56 - 57 58 - 59 60 - 61 62 - 63 64 - 65 66 - 67 68 - 69 70 - 78 79 - 80 81 - 89 90 - 91 92 - 93 94 - 95 96 - 97 98 - 100	Aura color wheel effect Open. RGB color mixing enabled LEE 790 - Moroccan pink LEE 157 - Pink LEE 332 - Special rose pink LEE 328 - Follies pink LEE 345 - Fuchsia pink LEE 194 - Surprise pink LEE 181 - Congo Blue LEE 071 - Tokyo Blue LEE 120 - Deep Blue LEE 079 - Just Blue LEE 132 - Medium Blue LEE 200 - Double CT Blue LEE 161 - Slate Blue LEE 201 - Full CT Blue LEE 202 - Half CT Blue LEE 117 - Steel Blue LEE 353 - Lighter Blue LEE 118 - Light Blue LEE 116 - Medium Blue Green LEE 124 - Dark Green LEE 139 - Primary Green LEE 089 - Moss Green LEE 122 - Fern Green LEE 738 - JAS Green LEE 088 - Lime Green LEE 100 - Spring Yellow LEE 104 - Deep Amber LEE 179 - Chrome Orange LEE 105 - Orange LEE 021 - Gold Amber LEE 778 - Millennium Gold LEE 135 - Deep Golden Amber LEE 164 - Flame Red Open Color wheel rotation effect Clockwise, fast → slow Stop (this will stop wherever the color is at the time) Counter-clockwise, slow → fast Open Random color Fast Medium Slow Open	Snap	0
-	23	0 - 255	0 - 100	Aura red Red 0 → 100%	Fade	255
-	24	0 - 255	0 - 100	Aura green Green 0 → 100%	Fade	255
-	25	0 - 255	0 - 100	Aura blue Blue 0 → 100%	Fade	255

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

If **COLOR CALIB** is set to **OFF** in the control menus, RGBW, RGB and color wheel effect output is uncalibrated. If **COLOR CALIB** is set to **ON**, output is calibrated.