

# DMX Channel Index and FX Guide



Software version 1.70-68-18



## **GLP® JDC1 DMX Channel Index and FX Guide**

**This document covers fixture software version 1.70-68-18**

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## DMX Modes

The JDC1 can be operated in five different DMX modes that use from 14 to 68 channels. The commands for each mode are listed in the following tables.

The layout of channels 1-14 is identical in each mode.

Where commands are marked with an asterisk \* you must start from DMX value zero and then send the DMX value continuously for 3 seconds (unless a different duration is stated) to apply the command.

For full details of the effects controlled using the commands listed in this document, see the JDC1 User Manual, available for download from [www.glp.de](http://www.glp.de).

## DMX Mode 1 (Compressed Pro), 14 DMX Channels

*Tilt, Beam shutter, special/control, Plates shutter, Plates grouped RGB*

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	0-100%	127	Fade
2	<b>Fine Tilt (LSB)</b>	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	<b>Beam Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
4	<b>Beam Duration</b>	Flash duration 7-650 ms	0-255	0-100%	255	Fade
5	<b>Beam Rate</b>	Flash rate 0.289-16.67 Hz	0-255	0-100%	255	Fade
6	<b>Beam Shutter</b>	No effect	0-36	0-14.0%	0	Snap
		Ramp up (= fade on, snap off)	37-40	14.5-15.5%		
		Ramp up random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down random	49-52	19.0-20.0%		
		Ramp up down	53-56	20.5-21.5%		
		Ramp up down random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		White beam, left to right	77-80	30.0-31.5%		
		White beam, left to right, random	81-84	32.0-33.0%		
		White beam, right to left	85-88	33.5-34.5%		
		White beam, right to left, random	89-92	35.0-36.0%		
		White beam, left to right, bounce	93-96	36.5-37.5%		
		White beam, left to right, bounce, random	97-100	38.0-39.0%		
		White beam, right to left, bounce	101-104	39.5-40.5%		
		White beam, right to left, bounce, random	105-108	41.0-42.5%		
		Zig, 6 steps, outer to center pixels	109-112	43.0-43.5%		
		Zig, 6 steps, outer to center pixels random	113-116	44.0-45.5%		
		Zag, 6 steps, center to outer pixels	117-120	46.0-47.0%		
		Zag, 6 steps, center to outer pixels, random	121-124	47.5-48.5%		
		Zigzag, 10 steps	125-128	49.0-50.0%		
		Zigzag, 10 steps, random	129-132	50.5-52.0%		
		No function	133-179	52.5-70.0%		
		Double flash	180-183	70.6-71.8%		
		Double flash, random	184-187	72.2-73.3%		
		Double flash, b-c (beam-color)	188-191	73.7-74.9%		
		Double flash, b-c, random	192-195	75.3-76.5%		
		Double flash, c-b (color-beam)	196-199	76.9-78.0%		
		Double flash, c-b, random	200-203	78.4-79.6%		
Triple flash	204-207	80.0-81.2%				
Triple flash, random	208-211	81.6-82.7%				
Triple flash, beam-color-beam	212-215	83.1-84.3%				
Triple flash, b-c-b, random	216-219	84.7-85.9%				
Triple flash, c-b-c	220-223	86.3-87.5%				
Triple flash, c-b-c, random	224-227	87.8-89.0%				

6	Beam Shutter (continued)	Quad flash	228-231	89.4-90.6%		
		Quad flash, random	232-235	91.0-92.2%		
		Quad flash, b-c-b-c	236-239	92.5-93.7%		
		Quad flash, b-c-b-c, random	240-243	94.1-95.3%		
		Quad flash, c-b-c-b	244-247	95.7-96.9%		
		Quad flash, c-b-c-b, random	248-251	97.3-98.4%		
		No function	252-255	98.5-100%		
7	Special / Control	No function	0	0%	0	Snap
		Beam Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
		220°	22	8.6%		
		230°	23	9.0%		
		240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
360°	36	14.1%				
No function	37-39	14.5-15.3%				

7	Special / Control (continued)	Position feedback on*	40-44	15.7-17.3%		
		Position feedback off*	45-49	17.7-19.2%		
		Barndoor on*	50-54	19.6-21.2%		
		Barndoor off*	55-59	21.6-23.1%		
		No function	60-61	23.5-23.9%		
		Tilt power on*	62-63	24.3-24.7%		
		Tilt power off*	64-65	25.1-25.5%		
		Tilt reset on*	66-67	25.9-26.3%		
		Tilt reset off*	68-69	26.7-27.1%		
		Normal tilt control*	70-74	27.5-29.0%		
		Inverse tilt control*	75-79	29.4-31.0%		
		Normal pixel numbering, plates 1+2	80-84	31.4-32.9%		
		Inverse pixel numbering, plates 1+2	85-89	33.3-34.9%		
		Normal pixel numbering, 2nd plate	90-94	35.3-36.9%		
		Inverse pixel numbering, 2nd plate	95-99	37.3-38.8%		
		Linear dimming curve	100-101	39.2-39.6%		
		Soft dimming curve	102-103	40.0-40.4%		
		Extra-soft dimming curve	104-105	40.8-41.2%		
		No function	106-120	41.6-47.1%		
		PWM frequency (hold value for >3 seconds):				
		582 Hz	121-122	47.5-47.8%		
		583 Hz	123-124	48.2-48.6%		
		584 Hz	125-126	49.0-49.4%		
		585 Hz	127-128	49.8-50.2%		
		586 Hz	129-130	50.6-51.0%		
		587 Hz	131-132	51.4-51.8%		
		588 Hz	133-134	52.2-52.5%		
		589 Hz	135-136	52.9-53.3%		
		590 Hz	137-138	53.7-54.1%		
		591 Hz	139-140	54.5-54.9%		
		592 Hz	141-142	55.3-55.7%		
		593 Hz	143-144	56.1-56.5%		
		594 Hz	145-146	56.9-57.3%		
		595 Hz	147-148	57.6-58.0%		
		596 Hz	149-150	58.4-58.8%		
		597 Hz	151-152	59.2-59.6%		
		598 Hz	153-154	60.0-60.4%		
		599 Hz	155-156	60.8-61.2%		
		600 Hz	157-158	61.6-62.0%		
		601 Hz	159-160	62.4-62.7%		
		602 Hz	161-162	63.1-63.5%		
		603 Hz	163-164	63.9-64.3%		
		604 Hz	165-166	64.7-65.1%		
		605 Hz	167-168	65.5-65.9%		
		606 Hz	169-170	66.3-66.7%		
		607 Hz	171-172	67.1-67.5%		
		608 Hz	173-174	67.8-68.2%		
609 Hz	175-176	68.6-69.0%				
610 Hz	177-178	69.4-69.8%				
611 Hz	179-180	70.2-70.6%				

7	<b>Special /Control (continued)</b>	612 Hz	181-182	71.0-71.4%		
		613 Hz	183-184	71.8-72.2%		
		614 Hz	185-186	72.5-72.9%		
		615 Hz	187-188	73.3-73.7%		
		616 Hz	189-190	74.1-74.5%		
		617 Hz	191-192	74.9-75.3%		
		618 Hz	193-194	75.6-76.1%		
		1200 Hz	195-197	76.5-77.3%		
		2400 Hz	198-200	77.6-78.4%		
		Fan mode = Auto	201-204	78.8-80.0%		
		Fan mode = High	205-209	80.4-82.0%		
		Percentage flash mode (hold for >0.5 sec.)	210-214	82.5-84.0%		
		Normal flash mode (hold for >0.5 sec.)	215-219	84.5-85.0%		
		Dimmer flash mode on*	220-224	86.0-87.5%		
		Dimmer flash mode off*	225-229	88.0-90.0%		
		FX color priority = Beam*	230-233	90.5-91.4%		
		FX color priority = Mixed*	234-236	91.8-92.5%		
FX color priority = Plate*	237-239	92.9-93.7%				
Aggressive flash mode (hold value for >0.5 sec.)	240-244	94.1-95.7%				
No function	245-247	96.1-96.9%				
Reset (hold value for >5 sec.)	248-255	97.3-100%				
<b>8</b>	<b>Plate Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
<b>9</b>	<b>Plate Flash Duration</b>	7-650 ms	0-255	0-100%	255	Fade
<b>10</b>	<b>Plate Flash Rate</b>	0.289-16.67 Hz	0-255	0-100%	255	Fade
11	<b>Plate Shutter</b>	No function	0	0%	0	Snap
		Plate Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
220°	22	8.6%				

11	Plate Shutter (continued)	240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
		360°	36	14.1%		
		Ramp up (fade on, snap off)	37-40	14.5-15.5%		
		Ramp up, random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down, random	49-52	19.0-20.0%		
		Ramp up / down	53-56	20.5-21.5%		
		Ramp up / down, random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		No function	77-179	29.5-70.0%		
		Double flash	180-191	70.6-74.9%		
		Double flash, random	192-203	75.3-79.6%		
		Triple flash	204-215	80.0-84.3%		
Triple flash, random	216-227	84.7-89.0%				
Quad flash	228-239	89.4-93.7%				
Quad flash, random	240-251	94.1-98.4%				
No effect	252-255	98.5-100%				
12	Plates Red	Plates red intensity 0-100%	0-255	0-100%	255	Fade
13	Plates Green	Plates green intensity 0-100%	0-255	0-100%	255	Fade
14	Plates Blue	Plates blue intensity 0-100%	0-255	0-100%	255	Fade



## DMX Mode 2 (Normal), 23 DMX Channels

**Tilt, Beam shutter, special/control, Plates shutter, Plates grouped RGB, Plate and Beam FX, Plates background grouped RGB**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	0-100%	127	Fade
2	<b>Fine Tilt (LSB)</b>	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	<b>Beam Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
4	<b>Beam Duration</b>	Flash duration 7-650 ms	0-255	0-100%	255	Fade
5	<b>Beam Rate</b>	Flash rate 0.289-16.67 Hz	0-255	0-100%	255	Fade
6	<b>Beam Shutter</b>	No effect	0-36	0-14.0%	0	Snap
		Ramp up (= fade on, snap off)	37-40	14.5-15.5%		
		Ramp up random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down random	49-52	19.0-20.0%		
		Ramp up down	53-56	20.5-21.5%		
		Ramp up down random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		White beam, left to right	77-80	30.0-31.5%		
		White beam, left to right, random	81-84	32.0-33.0%		
		White beam, right to left	85-88	33.5-34.5%		
		White beam, right to left, random	89-92	35.0-36.0%		
		White beam, left to right, bounce	93-96	36.5-37.5%		
		White beam, left to right, bounce, random	97-100	38.0-39.0%		
		White beam, right to left, bounce	101-104	39.5-40.5%		
		White beam, right to left, bounce, random	105-108	41.0-42.5%		
		Zig, 6 steps, outer to center pixels	109-112	43.0-43.5%		
		Zig, 6 steps, outer to center pixels random	113-116	44.0-45.5%		
		Zag, 6 steps, center to outer pixels	117-120	46.0-47.0%		
		Zag, 6 steps, center to outer pixels, random	121-124	47.5-48.5%		
		Zigzag, 10 steps	125-128	49.0-50.0%		
		Zigzag, 10 steps, random	129-132	50.5-52.0%		
		No function	133-179	52.5-70.0%		
		Double flash	180-183	70.6-71.8%		
		Double flash, random	184-187	72.2-73.3%		
		Double flash, b-c (beam-color)	188-191	73.7-74.9%		
		Double flash, b-c, random	192-195	75.3-76.5%		
Double flash, c-b (color-beam)	196-199	76.9-78.0%				
Double flash, c-b, random	200-203	78.4-79.6%				
Triple flash	204-207	80.0-81.2%				
Triple flash, random	208-211	81.6-82.7%				
Triple flash, beam-color-beam	212-215	83.1-84.3%				
Triple flash, b-c-b, random	216-219	84.7-85.9%				
Triple flash, c-b-c	220-223	86.3-87.5%				
Triple flash, c-b-c, random	224-227	87.8-89.0%				

6	Beam Shutter (continued)	Quad flash	228-231	89.4-90.6%		
		Quad flash, random	232-235	91.0-92.2%		
		Quad flash, b-c-b-c	236-239	92.5-93.7%		
		Quad flash, b-c-b-c, random	240-243	94.1-95.3%		
		Quad flash, c-b-c-b	244-247	95.7-96.9%		
		Quad flash, c-b-c-b, random	248-251	97.3-98.4%		
		No function	252-255	98.5-100%		
7	Special / Control	No function	0	0%	0	Snap
		Beam Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
		220°	22	8.6%		
		230°	23	9.0%		
		240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
360°	36	14.1%				
No function	37-39	14.5-15.3%				

7	Special / Control (continued)	Position feedback on*	40-44	15.7-17.3%		
		Position feedback off*	45-49	17.7-19.2%		
		Barndoor on*	50-54	19.6-21.2%		
		Barndoor off*	55-59	21.6-23.1%		
		No function	60-61	23.5-23.9%		
		Tilt power on*	62-63	24.3-24.7%		
		Tilt power off*	64-65	25.1-25.5%		
		Tilt reset on*	66-67	25.9-26.3%		
		Tilt reset off*	68-69	26.7-27.1%		
		Normal tilt control*	70-74	27.5-29.0%		
		Inverse tilt control*	75-79	29.4-31.0%		
		Normal pixel numbering, plates 1+2	80-84	31.4-32.9%		
		Inverse pixel numbering, plates 1+2	85-89	33.3-34.9%		
		Normal pixel numbering, 2nd plate	90-94	35.3-36.9%		
		Inverse pixel numbering, 2nd plate	95-99	37.3-38.8%		
		Linear dimming curve	100-101	39.2-39.6%		
		Soft dimming curve	102-103	40.0-40.4%		
		Extra-soft dimming curve	104-105	40.8-41.2%		
		No function	106-120	41.6-47.1%		
		PWM frequency (hold value for >3 seconds):				
		582 Hz	121-122	47.5-47.8%		
		583 Hz	123-124	48.2-48.6%		
		584 Hz	125-126	49.0-49.4%		
		585 Hz	127-128	49.8-50.2%		
		586 Hz	129-130	50.6-51.0%		
		587 Hz	131-132	51.4-51.8%		
		588 Hz	133-134	52.2-52.5%		
		589 Hz	135-136	52.9-53.3%		
		590 Hz	137-138	53.7-54.1%		
		591 Hz	139-140	54.5-54.9%		
		592 Hz	141-142	55.3-55.7%		
		593 Hz	143-144	56.1-56.5%		
		594 Hz	145-146	56.9-57.3%		
		595 Hz	147-148	57.6-58.0%		
		596 Hz	149-150	58.4-58.8%		
		597 Hz	151-152	59.2-59.6%		
		598 Hz	153-154	60.0-60.4%		
		599 Hz	155-156	60.8-61.2%		
		600 Hz	157-158	61.6-62.0%		
		601 Hz	159-160	62.4-62.7%		
		602 Hz	161-162	63.1-63.5%		
		603 Hz	163-164	63.9-64.3%		
		604 Hz	165-166	64.7-65.1%		
		605 Hz	167-168	65.5-65.9%		
		606 Hz	169-170	66.3-66.7%		
		607 Hz	171-172	67.1-67.5%		
		608 Hz	173-174	67.8-68.2%		
609 Hz	175-176	68.6-69.0%				
610 Hz	177-178	69.4-69.8%				
611 Hz	179-180	70.2-70.6%				

7	<b>Special /Control (continued)</b>	612 Hz	181-182	71.0-71.4%		
		613 Hz	183-184	71.8-72.2%		
		614 Hz	185-186	72.5-72.9%		
		615 Hz	187-188	73.3-73.7%		
		616 Hz	189-190	74.1-74.5%		
		617 Hz	191-192	74.9-75.3%		
		618 Hz	193-194	75.6-76.1%		
		1200 Hz	195-197	76.5-77.3%		
		2400 Hz	198-200	77.6-78.4%		
		Fan mode = Auto	201-204	78.8-80.0%		
		Fan mode = High	205-209	80.4-82.0%		
		Percentage flash mode (hold for >0.5 sec.)	210-214	82.5-84.0%		
		Normal flash mode (hold for >0.5 sec.)	215-219	84.5-85.0%		
		Dimmer flash mode on*	220-224	86.0-87.5%		
		Dimmer flash mode off*	225-229	88.0-90.0%		
		FX color priority = Beam*	230-233	90.5-91.4%		
		FX color priority = Mixed*	234-236	91.8-92.5%		
		FX color priority = Plate*	237-239	92.9-93.7%		
Aggressive flash mode (hold value for >0.5 sec.)	240-244	94.1-95.7%				
No function	245-247	96.1-96.9%				
Reset (hold value for >5 sec.)	248-255	97.3-100%				
<b>8</b>	<b>Plate Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
<b>9</b>	<b>Plate Flash Duration</b>	7-650 ms	0-255	0-100%	255	Fade
<b>10</b>	<b>Plate Flash Rate</b>	0.289-16.67 Hz	0-255	0-100%	255	Fade
11	<b>Plate Shutter</b>	No function	0	0%	0	Snap
		Plate Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
210°	21	8.2%				
220°	22	8.6%				

11	Plate Shutter (continued)	240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
		360°	36	14.1%		
		Ramp up (fade on, snap off)	37-40	14.5-15.5%		
		Ramp up, random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down, random	49-52	19.0-20.0%		
		Ramp up / down	53-56	20.5-21.5%		
		Ramp up / down, random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		No function	77-179	29.5-70.0%		
		Double flash	180-191	70.6-74.9%		
		Double flash, random	192-203	75.3-79.6%		
Triple flash	204-215	80.0-84.3%				
Triple flash, random	216-227	84.7-89.0%				
Quad flash	228-239	89.4-93.7%				
Quad flash, random	240-251	94.1-98.4%				
No effect	252-255	98.5-100%				
12	Plates Red	Plates red intensity 0-100%	0-255	0-100%	255	Fade
13	Plates Green	Plates green intensity 0-100%	0-255	0-100%	255	Fade
14	Plates Blue	Plates blue intensity 0-100%	0-255	0-100%	255	Fade
15	FX Crossfade	Crossfade duration snap - slow	0-255	0-100%	0	Fade
16	Plate FX Movement	Plate FX movement speed slow - fast	0-255	0-100%	0	Snap
17	Plate FX Select	Plate FX pattern select	0-255	0-100%	0	Snap
18	Beam FX Movement	Beam FX movement speed slow - fast	0-255	0-100%	0	Snap
19	Beam FX Select	Beam FX pattern select	0-255	0-100%	0	Snap
20	Plates Master	FX background intensity 0-100%	0-255	0-100%	0	Fade
21	Plates Background Red	FX background intensity red 0-100%	0-255	0-100%	255	Fade
22	Plates Background Green	FX background intensity green 0-100%	0-255	0-100%	255	Fade
23	Plates Background Blue	FX background intensity blue 0-100%	0-255	0-100%	255	Fade

## DMX Mode 3 (SPix), 68 DMX Channels

**Tilt, Beam shutter, special/control, Plates shutter, Plates grouped RGB, Plate and Beam FX, Plate background individual pixel RGB, Beam individual pixel intensity**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	0-100%	127	Fade
2	<b>Fine Tilt (LSB)</b>	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	<b>Beam Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
4	<b>Beam Duration</b>	Flash duration 7-650 ms	0-255	0-100%	255	Fade
5	<b>Beam Rate</b>	Flash rate 0.289-16.67 Hz	0-255	0-100%	255	Fade
6	<b>Beam Shutter</b>	No effect	0-36	0-14.0%	0	Snap
		Ramp up (= fade on, snap off)	37-40	14.5-15.5%		
		Ramp up random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down random	49-52	19.0-20.0%		
		Ramp up down	53-56	20.5-21.5%		
		Ramp up down random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		White beam, left to right	77-80	30.0-31.5%		
		White beam, left to right, random	81-84	32.0-33.0%		
		White beam, right to left	85-88	33.5-34.5%		
		White beam, right to left, random	89-92	35.0-36.0%		
		White beam, left to right, bounce	93-96	36.5-37.5%		
		White beam, left to right, bounce, random	97-100	38.0-39.0%		
		White beam, right to left, bounce	101-104	39.5-40.5%		
		White beam, right to left, bounce, random	105-108	41.0-42.5%		
		Zig, 6 steps, outer to center pixels	109-112	43.0-43.5%		
		Zig, 6 steps, outer to center pixels random	113-116	44.0-45.5%		
		Zag, 6 steps, center to outer pixels	117-120	46.0-47.0%		
		Zag, 6 steps, center to outer pixels, random	121-124	47.5-48.5%		
		Zigzag, 10 steps	125-128	49.0-50.0%		
		Zigzag, 10 steps, random	129-132	50.5-52.0%		
		No function	133-179	52.5-70.0%		
		Double flash	180-183	70.6-71.8%		
		Double flash, random	184-187	72.2-73.3%		
		Double flash, b-c (beam-color)	188-191	73.7-74.9%		
		Double flash, b-c, random	192-195	75.3-76.5%		
		Double flash, c-b (color-beam)	196-199	76.9-78.0%		
		Double flash, c-b, random	200-203	78.4-79.6%		
		Triple flash	204-207	80.0-81.2%		
Triple flash, random	208-211	81.6-82.7%				
Triple flash, beam-color-beam	212-215	83.1-84.3%				
Triple flash, b-c-b, random	216-219	84.7-85.9%				
Triple flash, c-b-c	220-223	86.3-87.5%				
Triple flash, c-b-c, random	224-227	87.8-89.0%				

6	<b>Beam Shutter (continued)</b>	Quad flash	228-231	89.4-90.6%		
		Quad flash, random	232-235	91.0-92.2%		
		Quad flash, b-c-b-c	236-239	92.5-93.7%		
		Quad flash, b-c-b-c, random	240-243	94.1-95.3%		
		Quad flash, c-b-c-b	244-247	95.7-96.9%		
		Quad flash, c-b-c-b, random	248-251	97.3-98.4%		
		No function	252-255	98.5-100%		
7	<b>Special / Control</b>	No function	0	0%	0	Snap
		Beam Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
		220°	22	8.6%		
		230°	23	9.0%		
		240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
360°	36	14.1%				
No function	37-39	14.5-15.3%				

7	Special / Control (continued)	Position feedback on*	40-44	15.7-17.3%		
		Position feedback off*	45-49	17.7-19.2%		
		Barndoor on*	50-54	19.6-21.2%		
		Barndoor off*	55-59	21.6-23.1%		
		No function	60-61	23.5-23.9%		
		Tilt power on*	62-63	24.3-24.7%		
		Tilt power off*	64-65	25.1-25.5%		
		Tilt reset on*	66-67	25.9-26.3%		
		Tilt reset off*	68-69	26.7-27.1%		
		Normal tilt control*	70-74	27.5-29.0%		
		Inverse tilt control*	75-79	29.4-31.0%		
		Normal pixel numbering, plates 1+2	80-84	31.4-32.9%		
		Inverse pixel numbering, plates 1+2	85-89	33.3-34.9%		
		Normal pixel numbering, 2nd plate	90-94	35.3-36.9%		
		Inverse pixel numbering, 2nd plate	95-99	37.3-38.8%		
		Linear dimming curve	100-101	39.2-39.6%		
		Soft dimming curve	102-103	40.0-40.4%		
		Extra-soft dimming curve	104-105	40.8-41.2%		
		No function	106-120	41.6-47.1%		
		PWM frequency (hold value for >3 seconds):				
		582 Hz	121-122	47.5-47.8%		
		583 Hz	123-124	48.2-48.6%		
		584 Hz	125-126	49.0-49.4%		
		585 Hz	127-128	49.8-50.2%		
		586 Hz	129-130	50.6-51.0%		
		587 Hz	131-132	51.4-51.8%		
		588 Hz	133-134	52.2-52.5%		
		589 Hz	135-136	52.9-53.3%		
		590 Hz	137-138	53.7-54.1%		
		591 Hz	139-140	54.5-54.9%		
		592 Hz	141-142	55.3-55.7%		
		593 Hz	143-144	56.1-56.5%		
		594 Hz	145-146	56.9-57.3%		
		595 Hz	147-148	57.6-58.0%		
		596 Hz	149-150	58.4-58.8%		
		597 Hz	151-152	59.2-59.6%		
		598 Hz	153-154	60.0-60.4%		
		599 Hz	155-156	60.8-61.2%		
		600 Hz	157-158	61.6-62.0%		
		601 Hz	159-160	62.4-62.7%		
		602 Hz	161-162	63.1-63.5%		
		603 Hz	163-164	63.9-64.3%		
		604 Hz	165-166	64.7-65.1%		
		605 Hz	167-168	65.5-65.9%		
		606 Hz	169-170	66.3-66.7%		
		607 Hz	171-172	67.1-67.5%		
		608 Hz	173-174	67.8-68.2%		
609 Hz	175-176	68.6-69.0%				
610 Hz	177-178	69.4-69.8%				
611 Hz	179-180	70.2-70.6%				



7	<b>Special /Control (continued)</b>	612 Hz	181-182	71.0-71.4%		
		613 Hz	183-184	71.8-72.2%		
		614 Hz	185-186	72.5-72.9%		
		615 Hz	187-188	73.3-73.7%		
		616 Hz	189-190	74.1-74.5%		
		617 Hz	191-192	74.9-75.3%		
		618 Hz	193-194	75.6-76.1%		
		1200 Hz	195-197	76.5-77.3%		
		2400 Hz	198-200	77.6-78.4%		
		Fan mode = Auto	201-204	78.8-80.0%		
		Fan mode = High	205-209	80.4-82.0%		
		Percentage flash mode (hold for >0.5 sec.)	210-214	82.5-84.0%		
		Normal flash mode (hold for >0.5 sec.)	215-219	84.5-85.0%		
		Dimmer flash mode on*	220-224	86.0-87.5%		
		Dimmer flash mode off*	225-229	88.0-90.0%		
		FX color priority = Beam*	230-233	90.5-91.4%		
		FX color priority = Mixed*	234-236	91.8-92.5%		
		FX color priority = Plate*	237-239	92.9-93.7%		
Aggressive flash mode (hold for >0.5 sec.)	240-244	94.1-95.7%				
No function	245-247	96.1-96.9%				
Reset (hold value for >5 sec.)	248-255	97.3-100%				
<b>8</b>	<b>Plate Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
<b>9</b>	<b>Plate Flash Duration</b>	7-650 ms	0-255	0-100%	255	Fade
<b>10</b>	<b>Plate Flash Rate</b>	0.289-16.67 Hz	0-255	0-100%	255	Fade
11	<b>Plate Shutter</b>	No function	0	0%	0	Snap
		Plate Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
210°	21	8.2%				
220°	22	8.6%				

11	Plate Shutter (continued)	240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
		360°	36	14.1%		
		Ramp up (fade on, snap off)	37-40	14.5-15.5%		
		Ramp up, random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down, random	49-52	19.0-20.0%		
		Ramp up / down	53-56	20.5-21.5%		
		Ramp up / down, random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		No function	77-179	29.5-70.0%		
		Double flash	180-191	70.6-74.9%		
		Double flash, random	192-203	75.3-79.6%		
Triple flash	204-215	80.0-84.3%				
Triple flash, random	216-227	84.7-89.0%				
Quad flash	228-239	89.4-93.7%				
Quad flash, random	240-251	94.1-98.4%				
No effect	252-255	98.5-100%				
12	Plates Red	Plates red intensity 0-100%	0-255	0-100%	255	Fade
13	Plates Green	Plates green intensity 0-100%	0-255	0-100%	255	Fade
14	Plates Blue	Plates blue intensity 0-100%	0-255	0-100%	255	Fade
15	FX Crossfade	Crossfade duration snap - slow	0-255	0-100%	???	Fade
16	Plate FX Movement	Plate FX movement speed slow - fast	0-255	0-100%	???	Fade
17	Plate FX Select	Plate FX pattern select	0-255	0-100%	???	Snap
18	Beam FX Movement	Beam FX movement speed slow - fast	0-255	0-100%	???	Fade
19	Beam FX Select	Beam FX pattern select	0-255	0-100%	???	Snap
20	Plate Master	FX background intensity 0-100%	0-255	0-100%	???	Fade
21	Plate Background Pixel 1	Red	0-100%	0-255	255	Fade
22		Green	0-100%	0-255	255	Fade
23		Blue	0-100%	0-255	255	Fade
24	Plate Background Pixel 2	Red	0-100%	0-255	255	Fade
25		Green	0-100%	0-255	255	Fade
26		Blue	0-100%	0-255	255	Fade
27	Plate Background Pixel 3	Red	0-100%	0-255	255	Fade
28		Green	0-100%	0-255	255	Fade
29		Blue	0-100%	0-255	255	Fade

<b>30</b>	<b>Plate Background Pixel 4</b>	Red	0-100%	0-255	255	Fade
<b>31</b>		Green	0-100%	0-255	255	Fade
<b>32</b>		Blue	0-100%	0-255	255	Fade
<b>33</b>	<b>Plate Background Pixel 5</b>	Red	0-100%	0-255	255	Fade
<b>34</b>		Green	0-100%	0-255	255	Fade
<b>35</b>		Blue	0-100%	0-255	255	Fade
<b>36</b>	<b>Plate Background Pixel 6</b>	Red	0-100%	0-255	255	Fade
<b>37</b>		Green	0-100%	0-255	255	Fade
<b>38</b>		Blue	0-100%	0-255	255	Fade
<b>39</b>	<b>Plate Background Pixel 7</b>	Red	0-100%	0-255	255	Fade
<b>40</b>		Green	0-100%	0-255	255	Fade
<b>41</b>		Blue	0-100%	0-255	255	Fade
<b>42</b>	<b>Plate Background Pixel 8</b>	Red	0-100%	0-255	255	Fade
<b>43</b>		Green	0-100%	0-255	255	Fade
<b>44</b>		Blue	0-100%	0-255	255	Fade
<b>45</b>	<b>Plate Background Pixel 9</b>	Red	0-100%	0-255	255	Fade
<b>46</b>		Green	0-100%	0-255	255	Fade
<b>47</b>		Blue	0-100%	0-255	255	Fade
<b>48</b>	<b>Plate Background Pixel 10</b>	Red	0-100%	0-255	255	Fade
<b>49</b>		Green	0-100%	0-255	255	Fade
<b>50</b>		Blue	0-100%	0-255	255	Fade
<b>51</b>	<b>Plate Background Pixel 11</b>	Red	0-100%	0-255	255	Fade
<b>52</b>		Green	0-100%	0-255	255	Fade
<b>53</b>		Blue	0-100%	0-255	255	Fade
<b>54</b>	<b>Plate Background Pixel 12</b>	Red	0-100%	0-255	255	Fade
<b>55</b>		Green	0-100%	0-255	255	Fade
<b>56</b>		Blue	0-100%	0-255	255	Fade
<b>57</b>	<b>Beam Pixels Intensity</b>	Pixel 1	0-100%	0-255	0	Fade
<b>58</b>		Pixel 2	0-100%	0-255	0	Fade
<b>59</b>		Pixel 3	0-100%	0-255	0	Fade
<b>60</b>		Pixel 4	0-100%	0-255	0	Fade
<b>61</b>		Pixel 5	0-100%	0-255	0	Fade
<b>62</b>		Pixel 6	0-100%	0-255	0	Fade
<b>63</b>		Pixel 7	0-100%	0-255	0	Fade
<b>64</b>		Pixel 8	0-100%	0-255	0	Fade
<b>65</b>		Pixel 9	0-100%	0-255	0	Fade
<b>66</b>		Pixel 10	0-100%	0-255	0	Fade
<b>67</b>		Pixel 11	0-100%	0-255	0	Fade
<b>68</b>		Pixel 12	0-100%	0-255	0	Fade

## DMX Mode 4 (SPix Pro), 62 DMX Channels

**Tilt, Beam shutter, special/control, Plates shutter, Plates grouped RGB, Plate individual pixel RGB, Beam individual pixel intensity**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	0-100%	127	Fade
2	<b>Fine Tilt (LSB)</b>	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	<b>Beam Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
4	<b>Beam Duration</b>	Flash duration 7-650 ms	0-255	0-100%	255	Fade
5	<b>Beam Rate</b>	Flash rate 0.289-16.67 Hz	0-255	0-100%	255	Fade
6	<b>Beam Shutter</b>	No effect	0-36	0-14.0%	0	Snap
		Ramp up (= fade on, snap off)	37-40	14.5-15.5%		
		Ramp up random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down random	49-52	19.0-20.0%		
		Ramp up down	53-56	20.5-21.5%		
		Ramp up down random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		White beam, left to right	77-80	30.0-31.5%		
		White beam, left to right, random	81-84	32.0-33.0%		
		White beam, right to left	85-88	33.5-34.5%		
		White beam, right to left, random	89-92	35.0-36.0%		
		White beam, left to right, bounce	93-96	36.5-37.5%		
		White beam, left to right, bounce, random	97-100	38.0-39.0%		
		White beam, right to left, bounce	101-104	39.5-40.5%		
		White beam, right to left, bounce, random	105-108	41.0-42.5%		
		Zig, 6 steps, outer to center pixels	109-112	43.0-43.5%		
		Zig, 6 steps, outer to center pixels random	113-116	44.0-45.5%		
		Zag, 6 steps, center to outer pixels	117-120	46.0-47.0%		
		Zag, 6 steps, center to outer pixels, random	121-124	47.5-48.5%		
		Zigzag, 10 steps	125-128	49.0-50.0%		
		Zigzag, 10 steps, random	129-132	50.5-52.0%		
		No function	133-179	52.5-70.0%		
		Double flash	180-183	70.6-71.8%		
		Double flash, random	184-187	72.2-73.3%		
		Double flash, b-c (beam-color)	188-191	73.7-74.9%		
		Double flash, b-c, random	192-195	75.3-76.5%		
		Double flash, c-b (color-beam)	196-199	76.9-78.0%		
		Double flash, c-b, random	200-203	78.4-79.6%		
Triple flash	204-207	80.0-81.2%				
Triple flash, random	208-211	81.6-82.7%				
Triple flash, beam-color-beam	212-215	83.1-84.3%				
Triple flash, b-c-b, random	216-219	84.7-85.9%				
Triple flash, c-b-c	220-223	86.3-87.5%				
Triple flash, c-b-c, random	224-227	87.8-89.0%				

6	<b>Beam Shutter (continued)</b>	Quad flash	228-231	89.4-90.6%		
		Quad flash, random	232-235	91.0-92.2%		
		Quad flash, b-c-b-c	236-239	92.5-93.7%		
		Quad flash, b-c-b-c, random	240-243	94.1-95.3%		
		Quad flash, c-b-c-b	244-247	95.7-96.9%		
		Quad flash, c-b-c-b, random	248-251	97.3-98.4%		
		No function	252-255	98.5-100%		
7	<b>Special / Control</b>	No function	0	0%	0	Snap
		Beam Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
		220°	22	8.6%		
		230°	23	9.0%		
		240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
360°	36	14.1%				
No function	37-39	14.5-15.3%				

7	Special / Control (continued)	Position feedback on*	40-44	15.7-17.3%		
		Position feedback off*	45-49	17.7-19.2%		
		Barndoor on*	50-54	19.6-21.2%		
		Barndoor off*	55-59	21.6-23.1%		
		No function	60-61	23.5-23.9%		
		Tilt power on*	62-63	24.3-24.7%		
		Tilt power off*	64-65	25.1-25.5%		
		Tilt reset on*	66-67	25.9-26.3%		
		Tilt reset off*	68-69	26.7-27.1%		
		Normal tilt control*	70-74	27.5-29.0%		
		Inverse tilt control*	75-79	29.4-31.0%		
		Normal pixel numbering, plates 1+2	80-84	31.4-32.9%		
		Inverse pixel numbering, plates 1+2	85-89	33.3-34.9%		
		Normal pixel numbering, 2nd plate	90-94	35.3-36.9%		
		Inverse pixel numbering, 2nd plate	95-99	37.3-38.8%		
		Linear dimming curve	100-101	39.2-39.6%		
		Soft dimming curve	102-103	40.0-40.4%		
		Extra-soft dimming curve	104-105	40.8-41.2%		
		No function	106-120	41.6-47.1%		
		PWM frequency (hold value for >3 seconds):				
		582 Hz	121-122	47.5-47.8%		
		583 Hz	123-124	48.2-48.6%		
		584 Hz	125-126	49.0-49.4%		
		585 Hz	127-128	49.8-50.2%		
		586 Hz	129-130	50.6-51.0%		
		587 Hz	131-132	51.4-51.8%		
		588 Hz	133-134	52.2-52.5%		
		589 Hz	135-136	52.9-53.3%		
		590 Hz	137-138	53.7-54.1%		
		591 Hz	139-140	54.5-54.9%		
		592 Hz	141-142	55.3-55.7%		
		593 Hz	143-144	56.1-56.5%		
		594 Hz	145-146	56.9-57.3%		
		595 Hz	147-148	57.6-58.0%		
		596 Hz	149-150	58.4-58.8%		
		597 Hz	151-152	59.2-59.6%		
		598 Hz	153-154	60.0-60.4%		
		599 Hz	155-156	60.8-61.2%		
		600 Hz	157-158	61.6-62.0%		
		601 Hz	159-160	62.4-62.7%		
		602 Hz	161-162	63.1-63.5%		
		603 Hz	163-164	63.9-64.3%		
		604 Hz	165-166	64.7-65.1%		
		605 Hz	167-168	65.5-65.9%		
		606 Hz	169-170	66.3-66.7%		
		607 Hz	171-172	67.1-67.5%		
		608 Hz	173-174	67.8-68.2%		
609 Hz	175-176	68.6-69.0%				
610 Hz	177-178	69.4-69.8%				
611 Hz	179-180	70.2-70.6%				

7	<b>Special /Control (continued)</b>	612 Hz	181-182	71.0-71.4%	0	
		613 Hz	183-184	71.8-72.2%		
		614 Hz	185-186	72.5-72.9%		
		615 Hz	187-188	73.3-73.7%		
		616 Hz	189-190	74.1-74.5%		
		617 Hz	191-192	74.9-75.3%		
		618 Hz	193-194	75.6-76.1%		
		1200 Hz	195-197	76.5-77.3%		
		2400 Hz	198-200	77.6-78.4%		
		Fan mode = Auto	201-204	78.8-80.0%		
		Fan mode = High	205-209	80.4-82.0%		
		Percentage flash mode (hold for >0.5 sec.)	210-214	82.5-84.0%		
		Normal flash mode (hold for >0.5 sec.)	215-219	84.5-85.0%		
		Dimmer flash mode on*	220-224	86.0-87.5%		
		Dimmer flash mode off*	225-229	88.0-90.0%		
		FX color priority = Beam*	230-233	90.5-91.4%		
		FX color priority = Mixed*	234-236	91.8-92.5%		
FX color priority = Plate*	237-239	92.9-93.7%				
Aggressive flash mode (hold value for >0.5 sec.)	240-244	94.1-95.7%				
No function	245-247	96.1-96.9%				
Reset (hold value for >5 sec.)	248-255	97.3-100%				
<b>8</b>	<b>Plate Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
<b>9</b>	<b>Plate Flash Duration</b>	7-650 ms	0-255	0-100%	255	Fade
<b>10</b>	<b>Plate Flash Rate</b>	0.289-16.67 Hz	0-255	0-100%	255	Fade
11	<b>Plate Shutter</b>	No function	0	0%	0	Snap
		Plate Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
210°	21	8.2%				
220°	22	8.6%				

11	Plate Shutter (continued)	240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
		360°	36	14.1%		
		Ramp up (fade on, snap off)	37-40	14.5-15.5%		
		Ramp up, random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down, random	49-52	19.0-20.0%		
		Ramp up / down	53-56	20.5-21.5%		
		Ramp up / down, random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		No function	77-179	29.5-70.0%		
		Double flash	180-191	70.6-74.9%		
		Double flash, random	192-203	75.3-79.6%		
Triple flash	204-215	80.0-84.3%				
Triple flash, random	216-227	84.7-89.0%				
Quad flash	228-239	89.4-93.7%				
Quad flash, random	240-251	94.1-98.4%				
No effect	252-255	98.5-100%				
12	Plates Red	Both plates red intensity 0-100%	0-255	0-100%	255	Fade
13	Plates Green	Both plates green intensity 0-100%	0-255	0-100%	255	Fade
14	Plates Blue	Both plates blue intensity 0-100%	0-255	0-100%	255	Fade
15	Plate Pixel 1	Red intensity 0-100%	0-100%	0-255	0	Fade
16		Green intensity 0-100%	0-100%	0-255	0	Fade
17		Blue intensity 0-100%	0-100%	0-255	0	Fade
18	Plate Pixel 2	Red intensity 0-100%	0-100%	0-255	0	Fade
19		Green intensity 0-100%	0-100%	0-255	0	Fade
20		Blue intensity 0-100%	0-100%	0-255	0	Fade
21	Plate Pixel 3	Red intensity 0-100%	0-100%	0-255	0	Fade
22		Green intensity 0-100%	0-100%	0-255	0	Fade
23		Blue intensity 0-100%	0-100%	0-255	0	Fade
24	Plate Pixel 4	Red intensity 0-100%	0-100%	0-255	0	Fade
25		Green intensity 0-100%	0-100%	0-255	0	Fade
26		Blue intensity 0-100%	0-100%	0-255	0	Fade
27	Plate Pixel 5	Red intensity 0-100%	0-100%	0-255	0	Fade
28		Green intensity 0-100%	0-100%	0-255	0	Fade
29		Blue intensity 0-100%	0-100%	0-255	0	Fade
30	Plate Pixel 6	Red intensity 0-100%	0-100%	0-255	0	Fade
31		Green intensity 0-100%	0-100%	0-255	0	Fade
32		Blue intensity 0-100%	0-100%	0-255	0	Fade



<b>33</b>	<b>Plate Pixel 7</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>34</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>35</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>36</b>	<b>Plate Pixel 8</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>37</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>38</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>39</b>	<b>Plate Pixel 9</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>40</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>41</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>42</b>	<b>Plate Pixel 10</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>43</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>44</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>45</b>	<b>Plate Pixel 11</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>46</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>47</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>48</b>	<b>Plate Pixel 12</b>	Red intensity 0-100%	0-100%	0-255	0	Fade
<b>49</b>		Green intensity 0-100%	0-100%	0-255	0	Fade
<b>50</b>		Blue intensity 0-100%	0-100%	0-255	0	Fade
<b>51</b>	<b>Beam Pixels</b>	Pixel 1 intensity 0-100%	0-100%	0-255	0	Fade
<b>52</b>		Pixel 2 intensity 0-100%	0-100%	0-255	0	Fade
<b>53</b>		Pixel 3 intensity 0-100%	0-100%	0-255	0	Fade
<b>54</b>		Pixel 4 intensity 0-100%	0-100%	0-255	0	Fade
<b>55</b>		Pixel 5 intensity 0-100%	0-100%	0-255	0	Fade
<b>56</b>		Pixel 6 intensity 0-100%	0-100%	0-255	0	Fade
<b>57</b>		Pixel 7 intensity 0-100%	0-100%	0-255	0	Fade
<b>58</b>		Pixel 8 intensity 0-100%	0-100%	0-255	0	Fade
<b>59</b>		Pixel 9 intensity 0-100%	0-100%	0-255	0	Fade
<b>60</b>		Pixel 10 intensity 0-100%	0-100%	0-255	0	Fade
<b>61</b>		Pixel 11 intensity 0-100%	0-100%	0-255	0	Fade
<b>62</b>		Pixel 12 intensity 0-100%	0-100%	0-255	0	Fade

## DMX Mode 5 (1Pix Pro), 17 DMX Channels

**Tilt, Beam shutter, special/control, Plates shutter, Plates grouped RGB, Plates background grouped RGB**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	<b>Coarse Tilt (MSB)</b>	0-185°	0-255	0-100%	127	Fade
2	<b>Fine Tilt (LSB)</b>	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	<b>Beam Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
4	<b>Beam Duration</b>	Flash duration 7-650 ms	0-255	0-100%	255	Fade
5	<b>Beam Rate</b>	Flash rate 0.289-16.67 Hz	0-255	0-100%	255	Fade
6	<b>Beam Shutter</b>	No effect	0-36	0-14.0%	0	Snap
		Ramp up (= fade on, snap off)	37-40	14.5-15.5%		
		Ramp up random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down random	49-52	19.0-20.0%		
		Ramp up down	53-56	20.5-21.5%		
		Ramp up down random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		White beam, left to right	77-80	30.0-31.5%		
		White beam, left to right, random	81-84	32.0-33.0%		
		White beam, right to left	85-88	33.5-34.5%		
		White beam, right to left, random	89-92	35.0-36.0%		
		White beam, left to right, bounce	93-96	36.5-37.5%		
		White beam, left to right, bounce, random	97-100	38.0-39.0%		
		White beam, right to left, bounce	101-104	39.5-40.5%		
		White beam, right to left, bounce, random	105-108	41.0-42.5%		
		Zig, 6 steps, outer to center pixels	109-112	43.0-43.5%		
		Zig, 6 steps, outer to center pixels random	113-116	44.0-45.5%		
		Zag, 6 steps, center to outer pixels	117-120	46.0-47.0%		
		Zag, 6 steps, center to outer pixels, random	121-124	47.5-48.5%		
		Zigzag, 10 steps	125-128	49.0-50.0%		
		Zigzag, 10 steps, random	129-132	50.5-52.0%		
		No function	133-179	52.5-70.0%		
		Double flash	180-183	70.6-71.8%		
		Double flash, random	184-187	72.2-73.3%		
		Double flash, b-c (beam-color)	188-191	73.7-74.9%		
		Double flash, b-c, random	192-195	75.3-76.5%		
		Double flash, c-b (color-beam)	196-199	76.9-78.0%		
		Double flash, c-b, random	200-203	78.4-79.6%		
		Triple flash	204-207	80.0-81.2%		
Triple flash, random	208-211	81.6-82.7%				
Triple flash, beam-color-beam	212-215	83.1-84.3%				
Triple flash, b-c-b, random	216-219	84.7-85.9%				
Triple flash, c-b-c	220-223	86.3-87.5%				
Triple flash, c-b-c, random	224-227	87.8-89.0%				

6	<b>Beam Shutter (continued)</b>	Quad flash	228-231	89.4-90.6%		
		Quad flash, random	232-235	91.0-92.2%		
		Quad flash, b-c-b-c	236-239	92.5-93.7%		
		Quad flash, b-c-b-c, random	240-243	94.1-95.3%		
		Quad flash, c-b-c-b	244-247	95.7-96.9%		
		Quad flash, c-b-c-b, random	248-251	97.3-98.4%		
		No function	252-255	98.5-100%		
7	<b>Special / Control</b>	No function	0	0%	0	Snap
		Beam Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
		210°	21	8.2%		
		220°	22	8.6%		
		230°	23	9.0%		
		240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
360°	36	14.1%				
No function	37-39	14.5-15.3%				

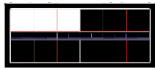
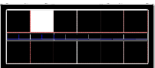
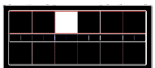
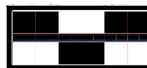

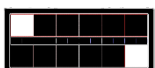




7	Special / Control (continued)	Position feedback on*	40-44	15.7-17.3%		
		Position feedback off*	45-49	17.7-19.2%		
		Barndoor on*	50-54	19.6-21.2%		
		Barndoor off*	55-59	21.6-23.1%		
		No function	60-61	23.5-23.9%		
		Tilt power on*	62-63	24.3-24.7%		
		Tilt power off*	64-65	25.1-25.5%		
		Tilt reset on*	66-67	25.9-26.3%		
		Tilt reset off*	68-69	26.7-27.1%		
		Normal tilt control*	70-74	27.5-29.0%		
		Inverse tilt control*	75-79	29.4-31.0%		
		Normal pixel numbering, plates 1+2	80-84	31.4-32.9%		
		Inverse pixel numbering, plates 1+2	85-89	33.3-34.9%		
		Normal pixel numbering, 2nd plate	90-94	35.3-36.9%		
		Inverse pixel numbering, 2nd plate	95-99	37.3-38.8%		
		Linear dimming curve	100-101	39.2-39.6%		
		Soft dimming curve	102-103	40.0-40.4%		
		Extra-soft dimming curve	104-105	40.8-41.2%		
		No function	106-120	41.6-47.1%		
		PWM frequency (hold value for >3 seconds):				
		582 Hz	121-122	47.5-47.8%		
		583 Hz	123-124	48.2-48.6%		
		584 Hz	125-126	49.0-49.4%		
		585 Hz	127-128	49.8-50.2%		
		586 Hz	129-130	50.6-51.0%		
		587 Hz	131-132	51.4-51.8%		
		588 Hz	133-134	52.2-52.5%		
		589 Hz	135-136	52.9-53.3%		
		590 Hz	137-138	53.7-54.1%		
		591 Hz	139-140	54.5-54.9%		
		592 Hz	141-142	55.3-55.7%		
		593 Hz	143-144	56.1-56.5%		
		594 Hz	145-146	56.9-57.3%		
		595 Hz	147-148	57.6-58.0%		
		596 Hz	149-150	58.4-58.8%		
		597 Hz	151-152	59.2-59.6%		
		598 Hz	153-154	60.0-60.4%		
		599 Hz	155-156	60.8-61.2%		
		600 Hz	157-158	61.6-62.0%		
		601 Hz	159-160	62.4-62.7%		
		602 Hz	161-162	63.1-63.5%		
		603 Hz	163-164	63.9-64.3%		
		604 Hz	165-166	64.7-65.1%		
		605 Hz	167-168	65.5-65.9%		
		606 Hz	169-170	66.3-66.7%		
		607 Hz	171-172	67.1-67.5%		
		608 Hz	173-174	67.8-68.2%		
		609 Hz	175-176	68.6-69.0%		
		610 Hz	177-178	69.4-69.8%		
		611 Hz	179-180	70.2-70.6%		


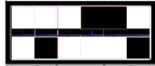
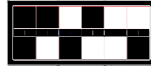
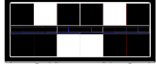
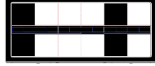
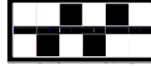
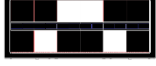

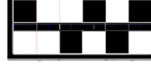




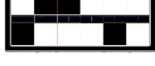







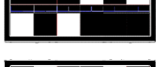

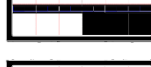





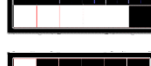

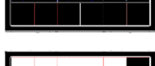


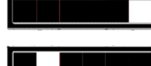








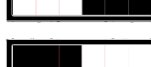





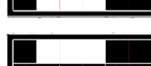


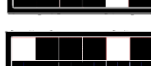



7	<b>Special /Control (continued)</b>	612 Hz	181-182	71.0-71.4%		
		613 Hz	183-184	71.8-72.2%		
		614 Hz	185-186	72.5-72.9%		
		615 Hz	187-188	73.3-73.7%		
		616 Hz	189-190	74.1-74.5%		
		617 Hz	191-192	74.9-75.3%		
		618 Hz	193-194	75.6-76.1%		
		1200 Hz	195-197	76.5-77.3%		
		2400 Hz	198-200	77.6-78.4%		
		Fan mode = Auto	201-204	78.8-80.0%		
		Fan mode = High	205-209	80.4-82.0%		
		Percentage flash mode (hold for >0.5 sec.)	210-214	82.5-84.0%		
		Normal flash mode (hold for >0.5 sec.)	215-219	84.5-85.0%		
		Dimmer flash mode on*	220-224	86.0-87.5%		
		Dimmer flash mode off*	225-229	88.0-90.0%		
		FX color priority = Beam*	230-233	90.5-91.4%		
		FX color priority = Mixed*	234-236	91.8-92.5%		
FX color priority = Plate*	237-239	92.9-93.7%				
Aggressive flash mode (hold for >0.5 sec.)	240-244	94.1-95.7%				
No function	245-247	96.1-96.9%				
Reset (hold value for >5 sec.)	248-255	97.3-100%				
<b>8</b>	<b>Plate Intensity</b>	Intensity 0-100%	0-255	0-100%	0	Fade
<b>9</b>	<b>Plate Flash Duration</b>	7-650 ms	0-255	0-100%	255	Fade
<b>10</b>	<b>Plate Flash Rate</b>	0.289-16.67 Hz	0-255	0-100%	255	Fade
11	<b>Plate Shutter</b>	No function	0	0%	0	Snap
		Plate Shutter effects and FX patterns offset:				
		10°	1	0.4%		
		20°	2	0.8%		
		30°	3	1.2%		
		40°	4	1.6%		
		50°	5	2.0%		
		60°	6	2.4%		
		70°	7	2.8%		
		80°	8	3.1%		
		90°	9	3.5%		
		100°	10	3.9%		
		110°	11	4.3%		
		120°	12	4.7%		
		130°	13	5.1%		
		140°	14	5.5%		
		150°	15	5.9%		
		160°	16	6.3%		
		170°	17	6.7%		
		180°	18	7.1%		
		190°	19	7.5%		
		200°	20	7.8%		
210°	21	8.2%				
220°	22	8.6%				

11	<b>Plate Shutter (continued)</b>	240°	24	9.4%		
		250°	25	9.8%		
		260°	26	10.2%		
		270°	27	10.6%		
		280°	28	11.0%		
		290°	29	11.4%		
		300°	30	11.8%		
		310°	31	12.2%		
		320°	32	12.6%		
		330°	33	12.9%		
		340°	34	13.3%		
		350°	35	13.7%		
		360°	36	14.1%		
		Ramp up (fade on, snap off)	37-40	14.5-15.5%		
		Ramp up, random	41-44	16.0-17.0%		
		Ramp down	45-48	17.5-18.5%		
		Ramp down, random	49-52	19.0-20.0%		
		Ramp up / down	53-56	20.5-21.5%		
		Ramp up / down, random	57-60	22.0-23.0%		
		Random white beam	61-64	23.5-24.5%		
		Random single pixel of white beam	65-68	25.0-26.0%		
		Lightning	69-72	26.5-27.5%		
		Spikes (flash over low light)	73-76	28.0-29.0%		
		No function	77-179	29.5-70.0%		
		Double flash	180-191	70.6-74.9%		
Double flash, random	192-203	75.3-79.6%				
Triple flash	204-215	80.0-84.3%				
Triple flash, random	216-227	84.7-89.0%				
Quad flash	228-239	89.4-93.7%				
Quad flash, random	240-251	94.1-98.4%				
No effect	252-255	98.5-100%				
12	<b>Plates Red</b>	Both plates red intensity 0-100%	0-255	0-100%	255	Fade
13	<b>Plates Green</b>	Both plates green intensity 0-100%	0-255	0-100%	255	Fade
14	<b>Plates Blue</b>	Both plates blue intensity 0-100%	0-255	0-100%	255	Fade
15	<b>Plates Flash Background Red</b>	Intensity 0-100%	0-255	0-100%	0	Fade
16	<b>Plates Flash Background Green</b>	Intensity 0-100%	0-255	0-100%	0	Fade
17	<b>Plates Flash Background Blue</b>	Intensity 0-100%	0-255	0-100%	0	Fade

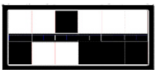
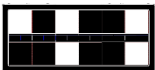
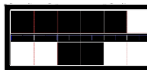
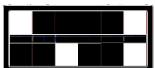
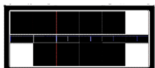
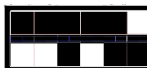
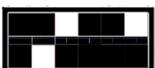

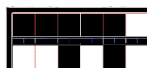



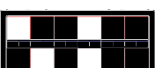



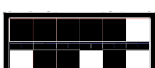

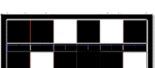
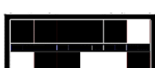


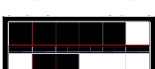
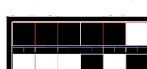
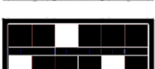
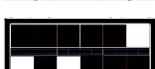







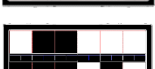






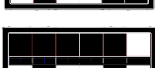









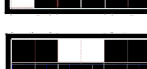


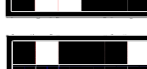
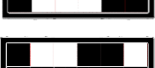
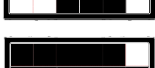

## Plate FX patterns


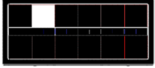


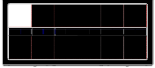
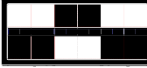



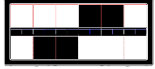

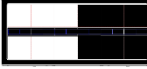
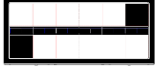




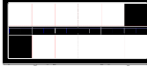

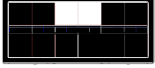

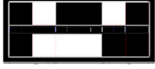
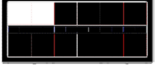
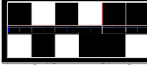



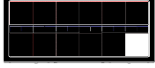

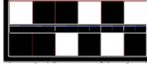
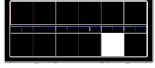
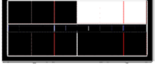
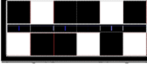
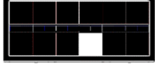
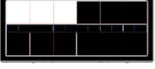
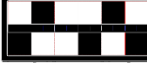

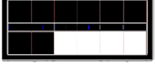





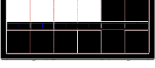





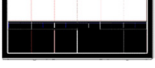



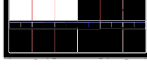



You can display the following dynamic patterns on the Plates in DMX modes 2 and 3 by sending the indicated DMX values on channel 17:

0-2		20		38	
3		21		39	
4		22		40	
5		23		41	
6		24		42	
7		25		43	
8		26		44	
9		27		45	
10		28		46	
11		29		47	
12		30		48	
13		31		49	
14		32		50	
15		33		51	
16		34		52	
17		35		53	
18		36		54	
19		37		55	

56		75		94	
57		76		95	
58		77		96	
59		78		97	
60		79		98	
61		80		99	
62		81		100	
63		82		101	
64		83		102	
65		84		103	
66		85		104	
67		86		105	
68		87		106	
69		88		107	
70		89		108	
71		90		109	
72		91		110	
73		92		111	
74		93		112	



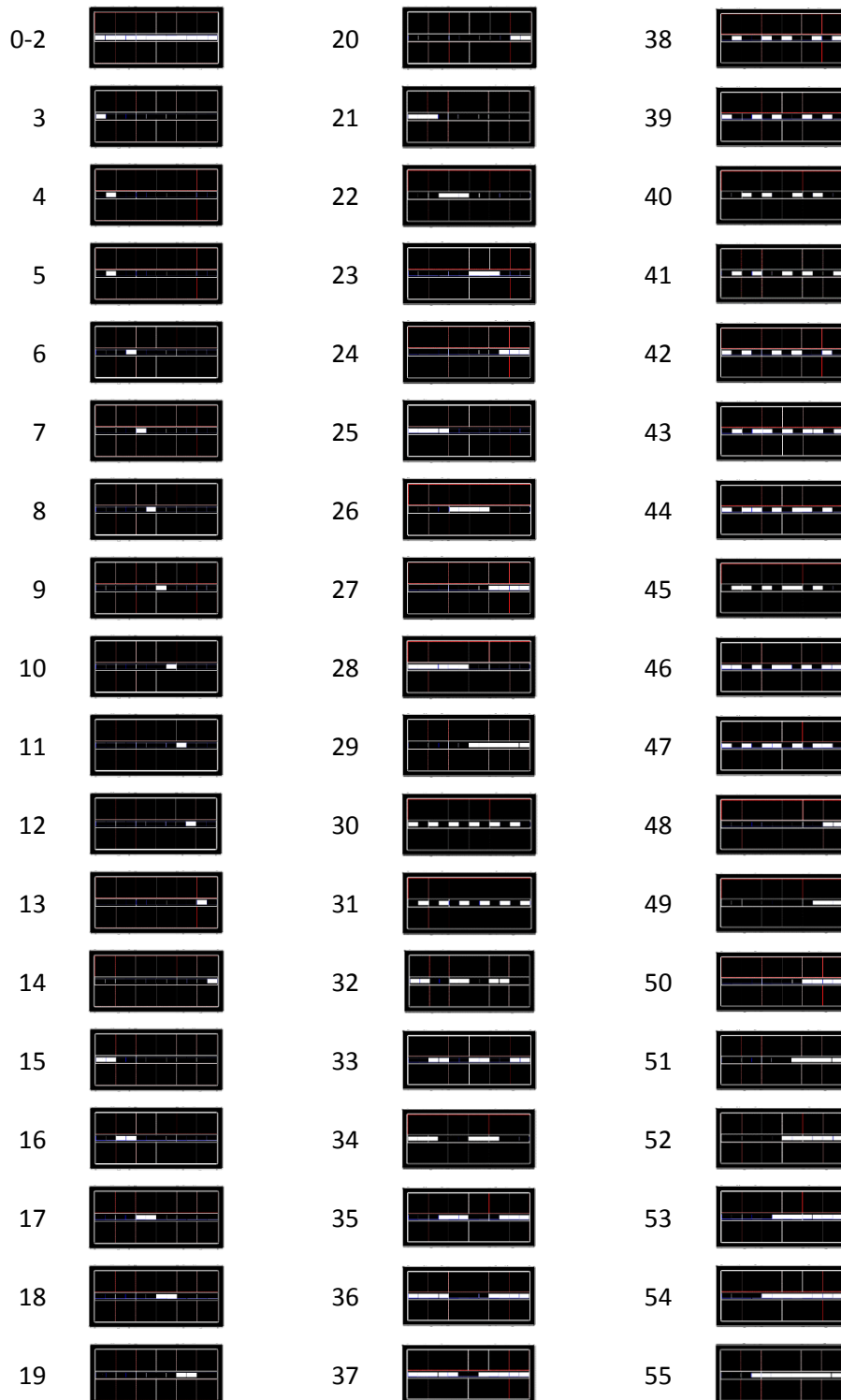
113		132		151	
114		133		152	
115		134		153	
116		135		154	
117		136		155	
118		137		156	
119		138		157	
120		139		158	
121		140		159	
122		141		160	
123		142		161	
124		143		162	
125		144		163	
126		145		164	
127		146		165	
128		147		166	
129		148		167	
130		149		168	
131		150		169	

170		191		210	
171		192		211	
172		193		212	
173		194		213	
174		195		214	
175		196		215	
176		197		216	
177		198		217	
178-180		199		218	
181		200		219	
182		201		220	
183		202		221	
184		203		222	
185		204		223	
186		205		224	
187		206		225	
188		207		226	
189		208		227	
190		209		228	

229		238		247	
230		239		248	
231		240		249	
232		241		250	
233		242		251	
234		243		252	
235		244		253	
236		245		254	
237		246		255	

## Beam FX patterns

You can display the following dynamic patterns on the Beam pixels in DMX modes 2 and 3 by sending the indicated DMX values on channel 19:



56		76		96	
57		77		97	
58		78		98	
59		79		99	
60		80		100	
61		81		101	
62		82		102	
63		83		103	
64		84		104	
65		85		105	
66		86		106	
67		87		107	
68		88		108	
69		89		109	
70		90		110	
71		91		111	
72		92		112	
73		93		113	
74		94		114	
75		95		115	

116		130		157	
117		131		158-160	
118		132		161	
119		133		162-164	
120		134		165	
121		135-145		166-255	
122		146			
123		147-149			
124		150			
125		151			
126		152			
127		153-154			
128		155			
129		156			

