DMX REFERENCE

Proteus Rayzor Blade S

Elation



Manufacturer	Elation
GDTF file	Elation_Proteus_Rayzor_Blade_S_132113.gdtf
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1 About this manual

This document describes the Proteus Rayzor Blade S by Elation. It was compiled from the GDTF file Elation_Proteus_Rayzor_Blade_S_132113.gdtf from the GDTF-Share library.

File revision: “25-05-03 Release”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Elation; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Weight	17.9 kg
Ingress protection	IP65

DMX modes

Mode	Channels	Units in one universe	First start addresses
EXTENDED 106CH	106	4	1, 107, 213, 319
PIXEL PLUS 82CH	82	6	1, 83, 165, 247, ...
STANDARD 28CH	28	18	1, 29, 57, 85, ...
PIXEL 50CH	50	10	1, 51, 101, 151, ...
PIXEL COMP SPARK LED 72CH	72	7	1, 73, 145, 217, ...
PIXEL COMP 66CH	66	7	1, 67, 133, 199, ...

No light? Check these channels

- EXTENDED 106CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Dimmer above 0 (the same in each of the 32 cells); CH 78 Shutter 3 at 32–63 “Open”; CH 79 Dimmer 35 above 0; CH 83 Dimmer above 0 (the same in each of the 24 cells)
- PIXEL PLUS 82CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Dimmer above 0 (the same in each of the 32 cells); CH 78 Shutter 3 at 32–63 “Open”; CH 79 Dimmer 35 above 0
- STANDARD 28CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 18 Shutter 2 at 32–63 “Open”; CH 19 Dimmer 2 above 0; CH 24 Shutter 3 at 32–63 “Open”; CH 25 Dimmer 3 above 0
- PIXEL 50CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Shutter 3 at 32–63 “Open”; CH 47 Dimmer 3 above 0
- PIXEL COMP SPARK LED 72CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 40 Shutter 2 at 32–63 “Open”; CH 62 Shutter 3 at 32–63 “Open”
- PIXEL COMP 66CH: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 40 Shutter 2 at 32–63 “Open”; CH 62 Shutter 3 at 32–63 “Open”



Read the manual before use



Do not stare into the light

3 Safety instructions



Read the manual before use



Do not stare into the light

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ CAUTION

- The device is rated IP65 and may be used outdoors within the limits of this rating.
- This protection is effective only when all connectors are mated or closed with their protective caps and all seals are intact. Use cables and connectors with the same or a higher protection rating.
- Do not open the housing; opening it breaks the seals and the protection rating can no longer be guaranteed.
- Install the device so that water cannot collect around connectors and cable glands, and inspect seals and cables regularly.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

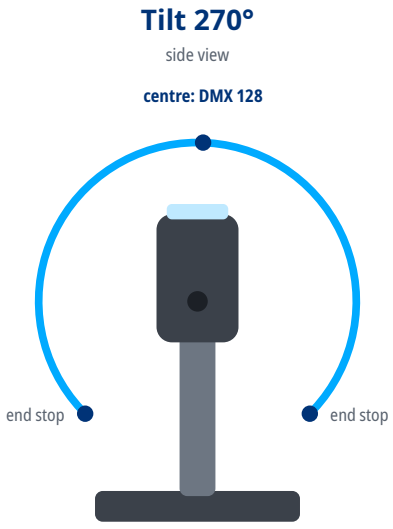
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Description in the GDTF file

“The PROTEUS RAYZOR BLADE S™ is a striking visual combination of Linear Wash, high intensity Strobe Lines and SparkLED FX inside a compact IP65 linear fixture design. Envisioned to provide the designer unlimited creative control of powerful colors and high-powered strobe effects from a single unit it allows unlimited placement in any outdoor and indoor environment. Protected from dust and water ingress the Rayzor Blade S is part of Elation’s industry leading Proteus Range of outdoor luminaires.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

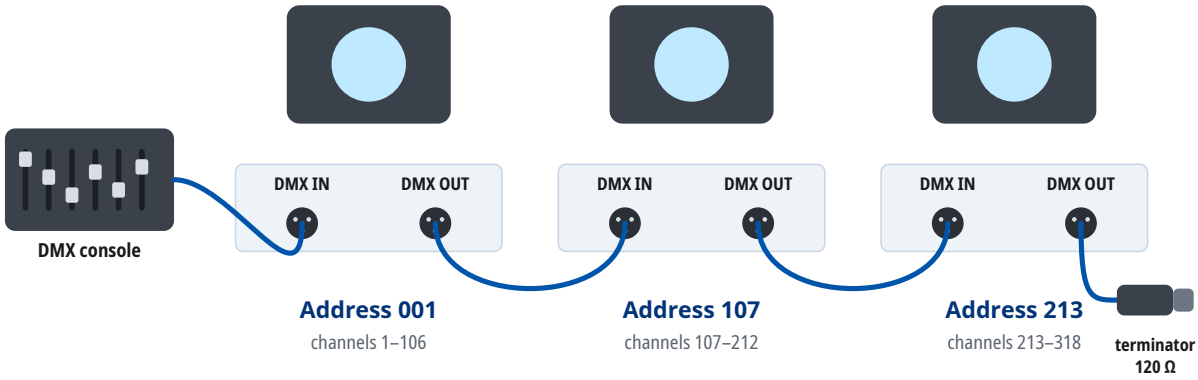
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 17.9 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode EXTENDED 106CH: every unit occupies 106 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

7 Operation

Setting the DMX address

- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “EXTENDED 106CH”: 106.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “EXTENDED 106CH”, you can use, for example, the start addresses 1, 107, 213, 319.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

8 Functions at a glance

Functions in each DMX mode

	EXTENDED 106CH 106 channels	PIXEL PLUS 82CH 82 channels	STANDARD 28CH 28 channels	PIXEL 50CH 50 channels	PIXEL COMP SPARK LED 72CH 72 channels	PIXEL COMP 66CH 66 channels
Pan / Tilt	1, 12	1, 12	1, 10	1, 12	1, 12	1, 12
Dimmer	59 channels (6–106)	36 channels (6–79)	6 channels (6–79)	6 channels (6–79)	25 channels (6–72)	19 channels (6–63)
Shutter / strobe	4 channels (5–78)	6 channels (5–78)	8 channels (5–78)	8 channels (5–78)	4 channels (5–62)	4 channels (5–62)
Color mixing	16–39	16–39	14–17	16–39	16–39	16–39
Color temperature	3	3	3	3	3	3
Color wheel	4	4	4	4	4	4
Zoom	9	9	9	9	9	9
Effects / macros	13–15, 44, 45, 81, 82	11 channels (13–82)	13 channels (11–82)	13 channels (13–82)	13–15, 44, 45, 65, 66	13–15, 44, 45, 65, 66
Pixel control	32 + 24 cells	32 cells	✓	✓	16 cells	16 cells

Color wheel

1. Color Wheel: Open — DMX 0–9
2. Red — DMX 10–14
3. Red Orange — DMX 15–19
4. Light Amber — DMX 20–24
5. Yellow Amber — DMX 25–29
6. Greenish Yellow — DMX 30–34
7. Light Yellow Green — DMX 35–39
8. Dark Yellow Green — DMX 40–44
9. Green — DMX 45–49
10. Teal — DMX 50–54
11. Cyan — DMX 55–59
12. Light Blue — DMX 60–64
13. Aqua — DMX 65–69
14. Dark Aqua — DMX 70–74
15. Green Blue — DMX 75–79
16. Light Lavender — DMX 80–84
17. Dark Purple — DMX 85–89
18. Medium Purple — DMX 90–94
19. Mid Rose — DMX 95–99
20. Muave — DMX 100–104
21. Nice Magenta — DMX 105–109
22. Warm Magenta — DMX 110–114
23. Light Red — DMX 115–119
24. Straw — DMX 120–124

25 Dark CTB
DMX 125–129

26 Light Green
DMX 130–134

27 Purple
DMX 135–139

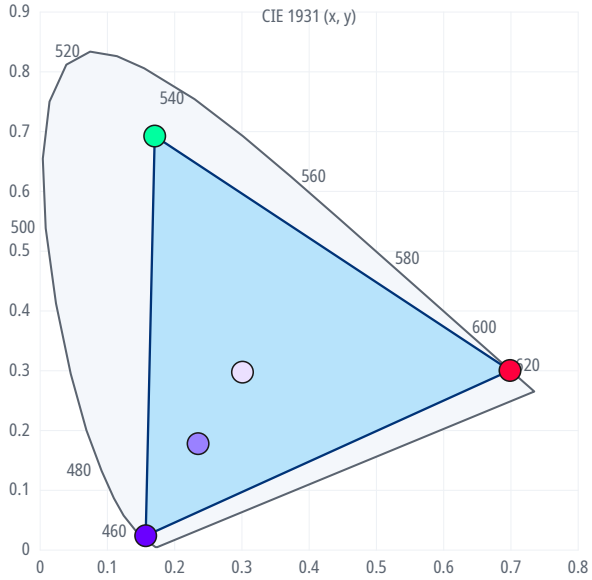
28 Lighter Purple
DMX 140–144

29 Pink
DMX 145–149

30 Rose
DMX 150–154

31 White
DMX 155–159

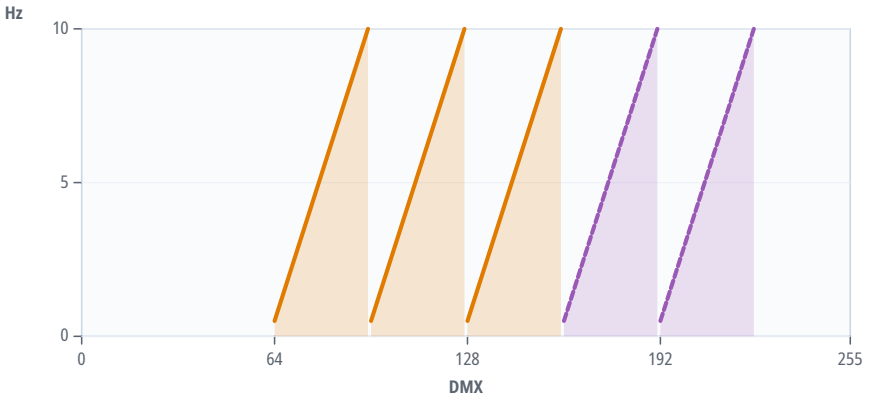
LED colors and the colors they mix



LED	x	y	nm
Red	0.699	0.300	
Green	0.170	0.693	529
Blue	0.157	0.024	451
White	0.301	0.298	
Spark White	0.235	0.178	

The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

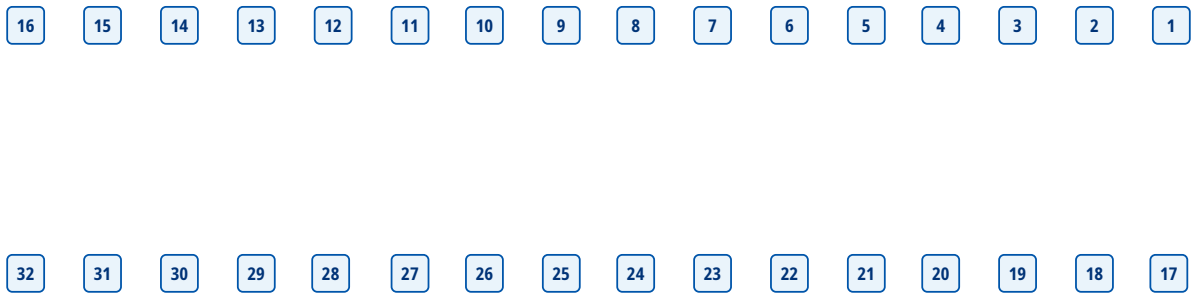
Strobe rate



CH 5 · EXTENDED 106CH

- 64–95: 0.5–10 Hz
  Strobe
- 96–127: 0.5–10 Hz
  Pulse Open
- 128–159: 0.5–10 Hz
  Pulse Close
- 160–191: 0.5–10 Hz
  Pulse Effects
- 192–223: 0.5–10 Hz
  Random Strobe

Cells (pixels)



Cells where the GDTF file places them (seen from above), 32 in all; numbered in the order of their first DMX channel in the mode “EXTENDED 106CH”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “EXTENDED 106CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 107	11	U3 · 213	16	U4 · 319
2	107	7	U2 · 213	12	U3 · 319	17	U5 · 1
3	213	8	U2 · 319	13	U4 · 1	18	U5 · 107
4	319	9	U3 · 1	14	U4 · 107	19	U5 · 213
5	U2 · 1	10	U3 · 107	15	U4 · 213	20	U5 · 319

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode EXTENDED 106CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Dimmer above 0 (the same in each of the 32 cells); CH 78 Shutter 3 at 32–63 “Open”; CH 79 Dimmer 35 above 0; CH 83 Dimmer above 0 (the same in each of the 24 cells). The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Shutter 2 50, CH 41 Dimmer 2 255, CH 46 Dimmer 255 (the same in each of the 32 cells), CH 78 Shutter 3 50, CH 79 Dimmer 35 255, CH 83 Dimmer 255 (the same in each of the 24 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–255	270°
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature	0	Disabled
		1–10	CTC Disabled
		11	2000k
		12	2050k

CH	Function	DMX	Description
3	Color Temperature (continued)	13	2100k
		14	2150k
		15	2200k
		16	2250k
		17	2300k
		18	2350k
		19	2400k
		20	2450k
		21	2500k
		22	2550k
		23	2600k
		24	2650k
		25	2700k
		26	2750k
		27	2800k
		28	2850k
		29	2900k
		30	2950k
		31	3000k
		32	3050k
		33	3100k
		34	3150k
		35	3200k
		36	3250k
		37	3300k
		38	3350k
		39	3400k
		40	3450k
		41	3500k
		42	3550k
		43	3600k
		44	3650k
		45	3700k
		46	3750k
		47	3800k
		48	3850k
		49	3900k
		50	3950k
		51	4000k
		52	4050k
		53	4100k
		54	4150k

CH	Function	DMX	Description
3	Color Temperature (continued)	55	4200k
		56	4250k
		57	4300k
		58	4350k
		59	4400k
		60	4450k
		61	4500k
		62	4550k
		63	4600k
		64	4650k
		65	4700k
		66	4750k
		67	4800k
		68	4850k
		69	4900k
		70	4950k
		71	5000k
		72	5050k
		73	73
		74	5150k
		75	5200k
		76	5250k
		77	5300k
		78	5350k
		79	5400k
		80	5450k
		81	5500k
		82	5550k
		83	5600k
		84	5650k
		85	5700k
		86	5750k
		87	5800k
		88	5850k
		89	5900k
		90	5950k
		91	6000k
		92	6050k
		93	6100k
		94	6150k
		95	6200k
		96	6250k

CH	Function	DMX	Description
3	Color Temperature (continued)	97	6300k
		98	6350k
		99	6400k
		100	6450k
		101	6500k
		102	6550k
		103	6600k
		104	6650k
		105	6700k
		106	6750k
		107	6800k
		108	6850k
		109	6900k
		110	6950k
		111	7000k
		112	7050k
		113	7100k
		114	7150k
		115	7200k
		116	7250k
		117	7300k
		118	7350k
		119	7400k
		120	7450k
		121	7500k
		122	7550k
		123	7600k
		124	7650k
		125	7700k
		126	7750k
		127	7800k
		128	7850k
		129	7900k
		130	7950k
		131	8000k
		132	8050k
		133	8100k
		134	8150k
		135	8200k
		136	8250k
		137	8300k
		138	8350k

CH	Function	DMX	Description
3	Color Temperature (continued)	139	8400k
		140	8450k
		141	8500k
		142	8550k
		143	8600k
		144	8650k
		145	8700k
		146	8750k
		147	8800k
		148	8850k
		149	8900k
		150	8950k
		151	9000k
		152	9050k
		153	9100k
		154	9150k
		155	9200k
		156	9250k
		157	9300k
		158	9350k
		159	9400k
		160	9450k
		161	9500k
		162	9550k
		163	9600k
		164	9650k
		165	9700k
		166	9750k
		167	9800k
		168	9850k
		169	9900k
		170	9950k
		171	10000k
		172–255	9 k Range
4	Colors	0–9	Color Wheel: Open
		10–14	Red
		15–19	Red Orange
		20–24	Light Amber
		25–29	Yellow Amber
		30–34	Greenish Yellow
		35–39	Light Yellow Green
		40–44	Dark Yellow Green

CH	Function	DMX	Description
4	Colors (continued)	45–49	Green
		50–54	Teal
		55–59	Cyan
		60–64	Light Blue
		65–69	Aqua
		70–74	Dark Aqua
		75–79	Green Blue
		80–84	Light Lavender
		85–89	Dark Purple
		90–94	Medium Purple
		95–99	Mid Rose
		100–104	Muave
		105–109	Nice Magenta
		110–114	Warm Magenta
		115–119	Light Red
		120–124	Straw
		125–129	Dark CTB
		130–134	Light Green
		135–139	Purple
		140–144	Lighter Purple
		145–149	Pink
		150–154	Rose
		155–159	White
		160–179	Color Wheel
		180	CW Fast
		181–189	CW Fast ... CW Med
		190	CW Med
		191–200	CW Med ... CW Slow
		201	CW Slow
		202–203	CW Slow ... Rot Stop
		204	Rot Stop
		205–207	Rot Stop ... CCW Slow
		208	CCW Slow
		209–218	CCW Slow ... CCW Med
		219	CCW Med
		220–228	CCW Med ... CCW Fast
		229	CCW Fast
		230	Wheel Open: Open
		231–234	Wheel Open
		235	Random Fast
		236–239	Random Fast ... Random Med
		240	Random Med

CH	Function	DMX	Description
4	Colors (continued)	241–244	Random Med ... Random Slow
		245	Random Slow
		246–249	Random Slots
		250	Wheel Open_: Open
		251–255	Wheel Open_
5	Shutter 1	0–31	Open / Closed: Closed
		32–63	Open / Closed: Open
		64	Strobe: Slow
		65–78	Strobe: Slow ... Med
		79	Strobe: Med
		80–94	Strobe: Med ... Fast
		95	Strobe: Fast
		96	Pulse Open Slow
		97–110	Pulse Open Slow ... Pulse Open Med
		111	Pulse Open Med
		112–126	Pulse Open Med ... Pulse Open Fast
		127	Pulse Open Fast
		128	Pulse Close Slow
		129–142	Pulse Close Slow ... Pulse Close Med
		143	Pulse Close Med
		144–158	Pulse Close Med ... Pulse Close Fast
		159	Pulse Close Fast
		160	Pulse Effects: Slow
		161–174	Pulse Effects: Slow ... Med
		175	Pulse Effects: Med
		176–190	Pulse Effects: Med ... Fast
		191	Pulse Effects: Fast
		192	Random Slow
		193–206	Random Slow ... Random Med
		207	Random Med
		208–222	Random Med ... Random Fast
		223	Random Fast
		224–255	Open
6	Dimmer 1	0–255	
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6
8	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectual
		81–100	Theater
		101–120	Stage 2
		121	0s

CH	Function	DMX	Description
8	Dimmer Mode (continued)	122	0_1s
		123	0_2s
		124	0_3s
		125	0_4s
		126	0_5s
		127	0_6s
		128	0_7s
		129	0_8s
		130	0_9s
		131	1s
		132	1_5s
		133–141	2...10s
		142–254	10s ... Idle
		255	Idle
9	Zoom	0–216	Wide ... Narrow
		216	Narrow
		216–255	Overdrive Min ... Overdrive Max
		255	Overdrive Max
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Speed Pan/Tilt	0	P/T Speed: Max
		1–224	P/T Speed: Max ... Min
		225	P/T Speed: Min
		226	Blackout P/T Move
		227–255	Blackout Mode
12	Control	0–9	Pixel Control
		10–19	Pixel order Normal
		20–39	Pixel Order Inverse
		40–44	Low Noise - Mute
		45–49	Low Noise - Studio
		50–59	Fan Control - Low
		60–69	Fan Control - High
		70–79	Fan Control - Auto
		80–84	Reset All
		85–87	Reset Movement
		88–99	Reset Zoom
		100	900Hz
		101	910Hz
		102	920Hz
		103	930Hz
		104	940Hz
		105	950Hz
		106	960Hz

CH	Function	DMX	Description
12	Control (continued)	107	970Hz
		108	980Hz
		109	990Hz
		110	1000Hz
		111	1010Hz
		112	1020Hz
		113	1030Hz
		114	1040Hz
		115	1050Hz
		116	1060Hz
		117	1070Hz
		118	1080Hz
		119	1090Hz
		120	1100Hz
		121	1110Hz
		122	1120Hz
		123	1130Hz
		124	1140Hz
		125	1150Hz
		126	1160Hz
		127	1170Hz
		128	1180Hz
		129	1190Hz
		130	1200Hz
		131	1210Hz
		132	1220Hz
		133	1230Hz
		134	1240Hz
		135	1250Hz
		136	1260Hz
		137	1270Hz
		138	1280Hz
		139	1290Hz
		140	1300Hz
		141	1310Hz
		142	1320Hz
		143	1330Hz
		144	1340Hz
		145	1350Hz
		146	1360Hz
		147	1370Hz
		148	1380Hz

CH	Function	DMX	Description
12	Control (continued)	149	1390Hz
		150	1400Hz
		151	1410Hz
		152	1420Hz
		153	1430Hz
		154	1440Hz
		155	1450Hz
		156	1460Hz
		157	1470Hz
		158	1480Hz
		159	1490Hz
		160	1500Hz
		161	2500Hz
		162	4000Hz
		163	5000Hz
		164	6000Hz
		165	10000Hz
		166	15000Hz
		167	20000Hz
		168	25000Hz
		169–192	Hibernate
		193–194	Hibernate Off
		195–196	Hibernate
		197–198	Sun Protection On
		199–200	Sun Protection Off
		201–210	Linear
		211–220	Square
		221–230	Inverse Square
		231–240	S Curve
		241–242	Zoom Speed Slow
		243–244	Zoom Speed Fast
		245–249	Zoom Speed
		250–251	Display Off
		252–253	Display On
		254–255	Display Intensity
13	Color Macro	0	RGBW Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down

CH	Function	DMX	Description
13	Color Macro (continued)	7	Steps
		8–10	RGBW Waveforms
		11	Single
		12	Single Bounce
		13	2 Pixels
		14	3 Pixels
		15	1 2 3 pixels
		16–19	1 2 3 pixels ... Alternate Spark LED
		20	Alternate Spark LED
		21	Burst Spark LED
		22	Alternate Spark LED 2
		23	Burst RGBW
		24	Lens/SparkLED Alternate
		25	Alternate Strobe LED
		26	Burst Strobe LED
		27	Alternate Strobe LED 2
		28	Burst RGBW
		29–100	RGBW Intensity FX
		101	RGBW Cells
		102	RGBWCMY Cells
		103	Color Wheel Cells
		104	Red White Cells
		105	Green White Cells
		106	Blue White Cells
		107	Red Green Cells
		108	Red Blue Cells
		109	Blue Green Cells
		110	Random White Cell
		111	White Flash
		112	Red Flash
		113	Green Flash
		114	Blue Flash
		115	Color Wheel Flash
		116	Alternate Color
		117–255	RGBW Color FX
14	Color Macro Speed	0	CW Fast
		1–56	CW Fast ... CW Med
		57	CW Med
		58–125	CW Med ... CW Slow
		126	CW Slow
		127	Stop
		128	Stop ... CCW Slow

CH	Function	DMX	Description
14	Color Macro Speed (continued)	129	CCW Slow
		130–184	CCW Slow ... CCW Med
		185	CCW Med
		186–254	CCW Med ... CCW Fast
		255	CCW Fast
15	Effects		FX Offset
		0	FX Offset
		1	10 Degrees Offset
		2	20 Degrees Offset
		3	30 Degrees Offset
		4	40 Degrees Offset
		5	50 Degrees Offset
		6	60 Degrees Offset
		7	70 Degrees Offset
		8	80 Degrees Offset
		9	90 Degrees Offset
		10	100 Degrees Offset
		11	110 Degrees Offset
		12	120 Degrees Offset
		13	130 Degrees Offset
		14	140 Degrees Offset
		15	150 Degrees Offset
		16	160 Degrees Offset
		17	170 Degrees Offset
		18	180 Degrees Offset
		19	190 Degrees Offset
		20	200 Degrees Offset
		21	210 Degrees Offset
		22	220 Degrees Offset
		23	230 Degrees Offset
		24	240 Degrees Offset
		25	250 Degrees Offset
		26	260 Degrees Offset
		27	270 Degrees Offset
		28	280 Degrees Offset
		29	290 Degrees Offset
		30	300 Degrees Offset
		31	310 Degrees Offset
		32	320 Degrees Offset
		33	330 Degrees Offset
		34	340 Degrees Offset
		35	350 Degrees Offset

CH	Function	DMX	Description
15	Effects (continued)	36	Synchronized
		37–100	Synchronized ... Random Fixture Offset
		101–120	Random Fixture Offset
		121–140	Random Pixel Order
		141–255	Random Steps
16	Red 1	0	Min
		1–254	Min ... Max
		255	Max
17	Green 1	0	Min
		1–254	Min ... Max
		255	Max
18	Blue 1	0	Min
		1–254	Min ... Max
		255	Max
19	White 1	0	Min
		1–254	Min ... Max
		255	Max
20	Red 2	0	Min
		1–254	Min ... Max
		255	Max
21	Green 2	0	Min
		1–254	Min ... Max
		255	Max
22	Blue 2	0	Min
		1–254	Min ... Max
		255	Max
23	White 2	0	Min
		1–254	Min ... Max
		255	Max
24	Red 3	0	Min
		1–254	Min ... Max
		255	Max
25	Green 3	0	Min
		1–254	Min ... Max
		255	Max
26	Blue 3	0	Min
		1–254	Min ... Max
		255	Max
27	White 3	0	Min
		1–254	Min ... Max
		255	Max
28	Red 4	0	Min

CH	Function	DMX	Description
28	Red 4 (continued)	1–254	Min ... Max
		255	Max
29	Green 4	0	Min
		1–254	Min ... Max
		255	Max
30	Blue 4	0	Min
		1–254	Min ... Max
		255	Max
31	White 4	0	Min
		1–254	Min ... Max
		255	Max
32	Red 5	0	Min
		1–254	Min ... Max
		255	Max
33	Green 5	0	Min
		1–254	Min ... Max
		255	Max
34	Blue 5	0	Min
		1–254	Min ... Max
		255	Max
35	White 5	0	Min
		1–254	Min ... Max
		255	Max
36	Red 6	0	Min
		1–254	Min ... Max
		255	Max
37	Green 6	0	Min
		1–254	Min ... Max
		255	Max
38	Blue 6	0	Min
		1–254	Min ... Max
		255	Max
39	White 6	0	Min
		1–254	Min ... Max
		255	Max
40	Shutter 2	0–31	Open / Close: Closed
		32–63	Open / Close: Open
		64	Strobe Slow
		65–77	Strobe Slow ... Strobe Medium
		78	Strobe Medium
		79–94	Strobe Medium ... Strobe Fast
		95	Strobe Fast

CH	Function	DMX	Description
40	Shutter 2 (continued)	96	Pulse Open Slow
		97–110	Pulse Open Slow ... Pulse Open Medium
		111	Pulse Open Medium
		112–126	Pulse Open Medium ... Pulse Open Fast
		127	Pulse Open Fast
		128	Pulse Close Slow
		129–142	Pulse Close Slow ... Pulse Close Medium
		143	Pulse Close Medium
		144–158	Pulse Close Medium ... Pulse Close Fast
		159	Pulse Close Fast
		160	Pulse FX Fast
		161–173	Pulse FX Fast ... Pulse FX Medium
		174	Pulse FX Medium
		175–190	Pulse FX Medium ... Pulse FX Fast
		191	Pulse FX Fast
		192	Random Strobe Slow
		193–206	Random Strobe Slow ... Random Strobe Medium
		207	Random Strobe Medium
		208–222	Random Strobe Medium ... Random Strobe Fast
		223	Random Strobe Fast
		224	Random Pixel Strobe Slow
		225–238	Random Pixel Strobe Slow ... Random Pixel Strobe Medium
		239	Random Pixel Strobe Medium
		240–253	Random Pixel Strobe Medium ... Random Pixel Strobe Fast
		254	Random Pixel Strobe Fast
		255	Strobe Line Strobe Random Individual
41	Dimmer 2	0–255	
42	Dimmer 2 Fine	0–255	Fine adjustment of CH 41
43	Strobe Duration	0–255	0.007–0.65 s
44	Effects 3	0	Strobe Line Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down
		7	Steps
		8–10	Strobe Line Waveforms
		11–190	Strobe Line FX
		191	Row 1
		192	Row 2
		193	Quarter 1

CH	Function	DMX	Description
44	Effects 3 (continued)	194	Quarter 2
		195	Quarter 3
		196	Quarter 4
		197	1/8
		198	2/8
		199	3/8
		200	4/8
		201	5/8
		202	6/8
		203	8/8
		204–239	Column 1...36
		240–251	Lens 1...12
		252–255	Strobe Line Patterns
45	Effects 3 Speed		Strobe FX Rate
		0	CW Fast
		1–56	CW Fast ... CW Med
		57	CW Med
		58–125	CW Med ... CW Slow
		126	CW Slow
		127	Stop
		128	Stop ... CCW Slow
		129	CCW Slow
		130–184	CCW Slow ... CCW Med
		185	CCW Med
		186–254	CCW Med ... CCW Fast
		255	CCW Fast
46	Dimmer 3	0–255	
78	Shutter 3	0–31	Open / Close: Closed
		32–63	Open / Close: Open
		64	Strobe Slow
		65–77	Strobe Slow ... Strobe Medium
		78	Strobe Medium
		79–94	Strobe Medium ... Strobe Fast
		95	Strobe Fast
		96	Pulse Open Slow
		97–110	Pulse Open Slow ... Pulse Open Medium
		111	Pulse Open Medium
		112–126	Pulse Open Medium ... Pulse Open Fast
		127	Pulse Open Fast
		128	Pulse Close Slow
		129–142	Pulse Close Slow ... Pulse Close Medium
		143	Pulse Close Medium

CH	Function	DMX	Description
78	Shutter 3 (continued)	144–158	Pulse Close Medium ... Pulse Close Fast
		159	Pulse Close Fast
		160	Pulse FX Fast
		161–173	Pulse FX Fast ... Pulse FX Medium
		174	Pulse FX Medium
		175–190	Pulse FX Medium ... Pulse FX Fast
		191	Pulse FX Fast
		192	Random Strobe Slow
		193–206	Random Strobe Slow ... Random Strobe Medium
		207	Random Strobe Medium
		208–222	Random Strobe Medium ... Random Strobe Fast
		223	Random Strobe Fast
		224	Random Pixel Strobe Slow
		225–238	Random Pixel Strobe Slow ... Random Pixel Strobe Medium
		239	Random Pixel Strobe Medium
		240–253	Random Pixel Strobe Medium ... Random Pixel Strobe Fast
		254	Random Pixel Strobe Fast
		255	SYNC Dimmer / Strobe To Main Module
79	Dimmer 35	0–255	Closed ... Open
		255	Open
80	Dimmer 35 Fine	0–255	Fine adjustment of CH 79
81	Effects 2	0	Spark LED Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down
		7	Steps
		8–10	Spark LED Waveforms
		11	Starfield
		12	1 Pixel
		13	Spark LED FX: 2 Pixels
		14	Spark LED FX: 3 Pixels
		15	Spark LED FX: 4 Pixels
		16	5 Pixels
		17	7 Pixels
		18	8 Pixels
		19	Single Row
		20	Single Column
		21	Build Cells
		22	Pixel Ring Chase

CH	Function	DMX	Description
81	Effects 2 (continued)	23	Pixel Row Chase
		24	Pixel Row Chase 2
		25	Center Out
		26	Fireworks
		27	Ring
		28	Row
		29	Snake
		30–90	Spark LED FX
		91–100	Spark LED Lens Combos
		101	Single
		102	Single Bounce
		103	Fill Row
		104	Full Lens Patterns: 2 Pixels
		105	Full Lens Patterns: 3 Pixels
		106	Full Lens Patterns: 4 Pixels
		107	1 2 3 pixels
		108–150	1 2 3 pixels ... Out
		151	Out
		152	Mid
		153	Full Lens Patterns: Center
		154	Set 1
		155	Set 2
		156	Set 3
		157–159	Set 3 ... Block 2-1
		160	Block 2-1
		161	Block 2-2
		162	Block 2-3
		163–165	Block 2-3 ... Block 3-1
		166	Block 3-1
		167	Block 3-2
		168–200	Full Lens Patterns
		201	Row 1
		202	Row 2
		203	Row 3
		204–221	Column 1...18
		222–239	Column 18 ... Lens 1
		240–245	Lens 1...6
		246–255	Full Lens Static Patterns
82	Effects 2 Speed		Spark LED FX Rate
		0	CW Fast
		1–56	CW Fast ... CW Med
		57	CW Med

CH	Function	DMX	Description
82	Effects 2 Speed (continued)	58–125	CW Med … CW Slow
		126	CW Slow
		127	Stop
		128	Stop … CCW Slow
		129	CCW Slow
		130–184	CCW Slow … CCW Med
		185	CCW Med
		186–254	CCW Med … CCW Fast
		255	CCW Fast
83	Dimmer 36	0	Closed
		1–254	Closed … Open
		255	Open

CH 46–77: 32 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 46); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	46	2	47	3	48	4	49	5	50	6	51
7	52	8	53	9	54	10	55	11	56	12	57
13	58	14	59	15	60	16	61	17	62	18	63
19	64	20	65	21	66	22	67	23	68	24	69
25	70	26	71	27	72	28	73	29	74	30	75
31	76	32	77								

CH 83–106: 24 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 83); the table below gives each cell's channel numbers.

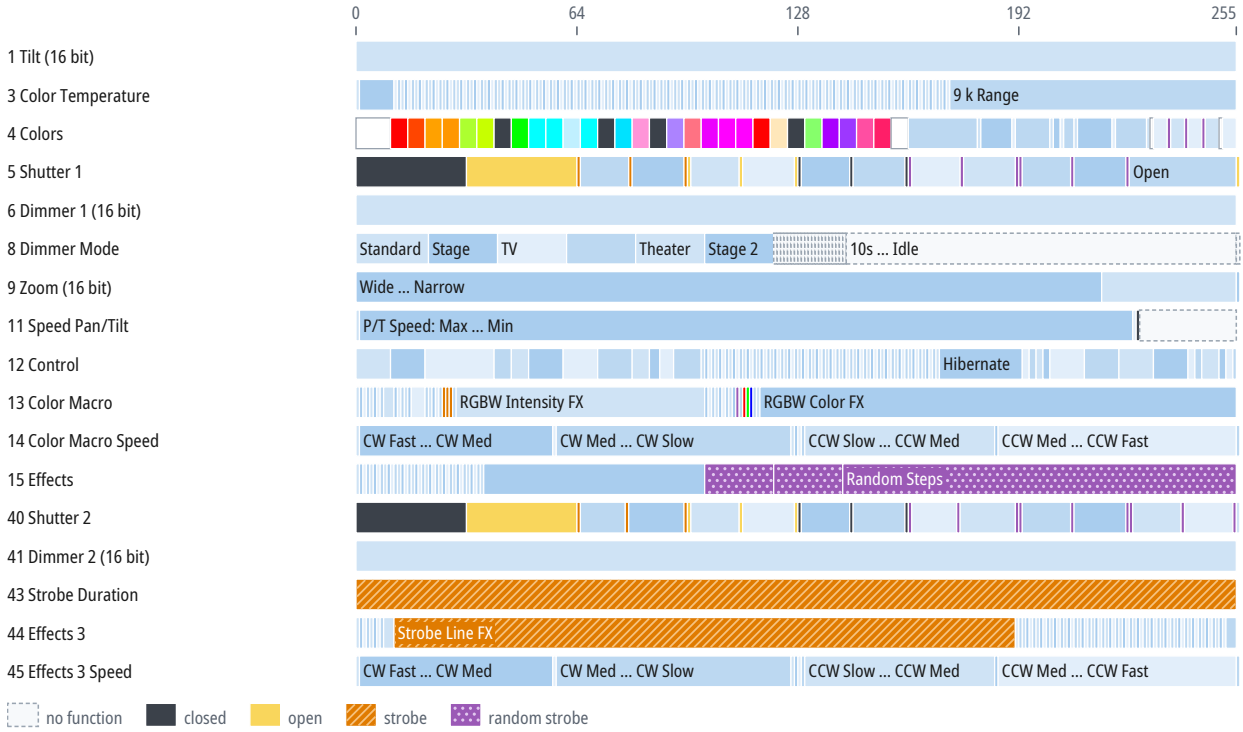
Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	83	2	84	3	85	4	86	5	87	6	88
7	89	8	90	9	91	10	92	11	93	12	94
13	95	14	96	15	97	16	98	17	99	18	100
19	101	20	102	21	103	22	104	23	105	24	106

Mode PIXEL PLUS 82CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Dimmer above 0 (the same in each of the 32 cells); CH 78 Shutter 3 at 32–63 “Open”; CH 79 Dimmer 35 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Shutter 2 50, CH 41 Dimmer 2 255, CH 78 Shutter 3 50, CH 79 Dimmer 35 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–255	270°
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature		Same as CH 3 in the mode “EXTENDED 106CH” (p. 11)
4	Colors		Same as CH 4 in the mode “EXTENDED 106CH” (p. 15)
5	Shutter 1		Same as CH 5 in the mode “EXTENDED 106CH” (p. 17)
6	Dimmer 1	0–255	
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6
8	Dimmer Mode		Same as CH 8 in the mode “EXTENDED 106CH” (p. 17)
9	Zoom		Same as CH 9 in the mode “EXTENDED 106CH” (p. 18)
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Speed Pan/Tilt		Same as CH 11 in the mode “EXTENDED 106CH” (p. 18)

CH	Function	DMX	Description
12	Control		Same as CH 12 in the mode “EXTENDED 106CH” (p. 18)
13	Color Macro		Same as CH 13 in the mode “EXTENDED 106CH” (p. 20)
14	Color Macro Speed		Same as CH 14 in the mode “EXTENDED 106CH” (p. 21)
15	Effects		Same as CH 15 in the mode “EXTENDED 106CH” (p. 22)
16	Red 1		Same as CH 16 in the mode “EXTENDED 106CH” (p. 23)
17	Green 1		Same as CH 17 in the mode “EXTENDED 106CH” (p. 23)
18	Blue 1		Same as CH 18 in the mode “EXTENDED 106CH” (p. 23)
19	White 1		Same as CH 19 in the mode “EXTENDED 106CH” (p. 23)
20	Red 2		Same as CH 20 in the mode “EXTENDED 106CH” (p. 23)
21	Green 2		Same as CH 21 in the mode “EXTENDED 106CH” (p. 23)
22	Blue 2		Same as CH 22 in the mode “EXTENDED 106CH” (p. 23)
23	White 2		Same as CH 23 in the mode “EXTENDED 106CH” (p. 23)
24	Red 3		Same as CH 24 in the mode “EXTENDED 106CH” (p. 23)
25	Green 3		Same as CH 25 in the mode “EXTENDED 106CH” (p. 23)
26	Blue 3		Same as CH 26 in the mode “EXTENDED 106CH” (p. 23)
27	White 3		Same as CH 27 in the mode “EXTENDED 106CH” (p. 23)
28	Red 4		Same as CH 28 in the mode “EXTENDED 106CH” (p. 23)
29	Green 4		Same as CH 29 in the mode “EXTENDED 106CH” (p. 24)
30	Blue 4		Same as CH 30 in the mode “EXTENDED 106CH” (p. 24)
31	White 4		Same as CH 31 in the mode “EXTENDED 106CH” (p. 24)
32	Red 5		Same as CH 32 in the mode “EXTENDED 106CH” (p. 24)
33	Green 5		Same as CH 33 in the mode “EXTENDED 106CH” (p. 24)
34	Blue 5		Same as CH 34 in the mode “EXTENDED 106CH” (p. 24)
35	White 5		Same as CH 35 in the mode “EXTENDED 106CH” (p. 24)
36	Red 6		Same as CH 36 in the mode “EXTENDED 106CH” (p. 24)
37	Green 6		Same as CH 37 in the mode “EXTENDED 106CH” (p. 24)
38	Blue 6		Same as CH 38 in the mode “EXTENDED 106CH” (p. 24)
39	White 6		Same as CH 39 in the mode “EXTENDED 106CH” (p. 24)
40	Shutter 2		Same as CH 40 in the mode “EXTENDED 106CH” (p. 24)
41	Dimmer 2	0–255	
42	Dimmer 2 Fine	0–255	Fine adjustment of CH 41
43	Strobe Duration	0–255	0.007–0.65 s
44	Effects 3		Same as CH 44 in the mode “EXTENDED 106CH” (p. 25)
45	Effects 3 Speed		Same as CH 45 in the mode “EXTENDED 106CH” (p. 26)
46	Dimmer 3	0–255	
78	Shutter 3		Same as CH 78 in the mode “EXTENDED 106CH” (p. 26)
79	Dimmer 35		Same as CH 79 in the mode “EXTENDED 106CH” (p. 27)
80	Dimmer 35 Fine	0–255	Fine adjustment of CH 79
81	Effects 2		Same as CH 81 in the mode “EXTENDED 106CH” (p. 27)
82	Effects 2 Speed		Same as CH 82 in the mode “EXTENDED 106CH” (p. 28)

CH 46–77: 32 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 46); the table below gives each cell's channel numbers.

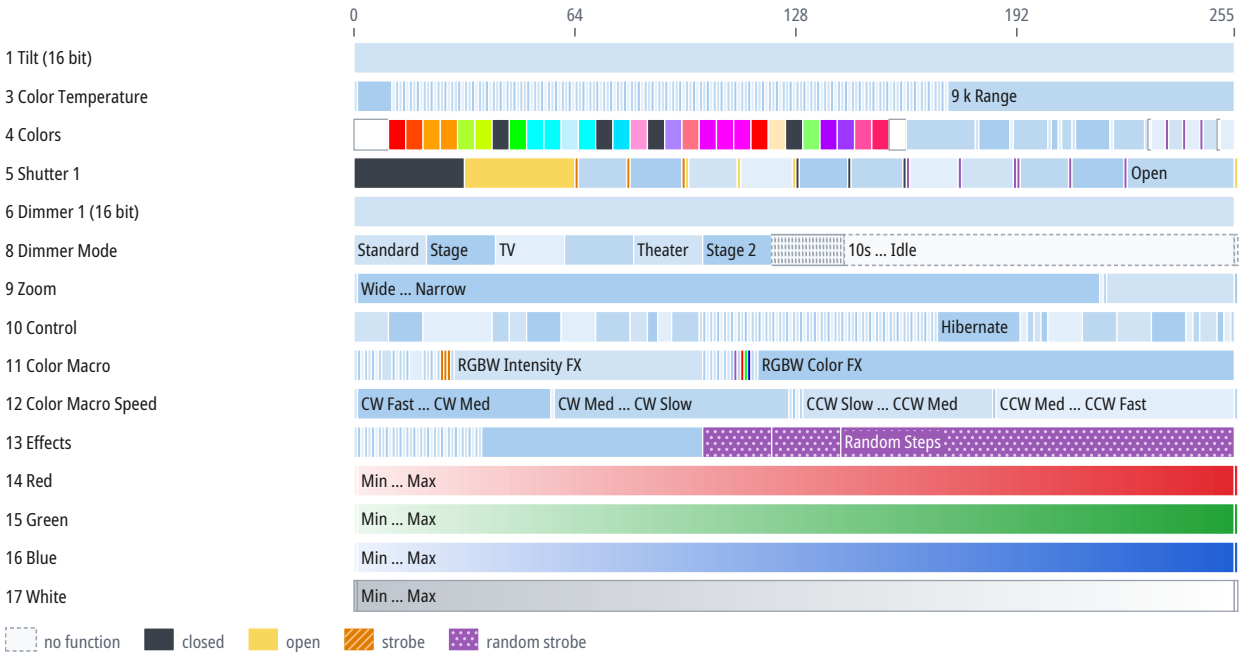
Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	46	2	47	3	48	4	49	5	50	6	51
7	52	8	53	9	54	10	55	11	56	12	57
13	58	14	59	15	60	16	61	17	62	18	63
19	64	20	65	21	66	22	67	23	68	24	69
25	70	26	71	27	72	28	73	29	74	30	75
31	76	32	77								

Mode STANDARD 28CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 18 Shutter 2 at 32–63 “Open”; CH 19 Dimmer 2 above 0; CH 24 Shutter 3 at 32–63 “Open”; CH 25 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 14 Red 255, CH 15 Green 255, CH 16 Blue 255, CH 17 White 255, CH 18 Shutter 2 50, CH 19 Dimmer 2 255, CH 24 Shutter 3 50, CH 25 Dimmer 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–255	270°
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature		Same as CH 3 in the mode “EXTENDED 106CH” (p. 11)
4	Colors		Same as CH 4 in the mode “EXTENDED 106CH” (p. 15)
5	Shutter 1		Same as CH 5 in the mode “EXTENDED 106CH” (p. 17)
6	Dimmer 1	0–255	
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6

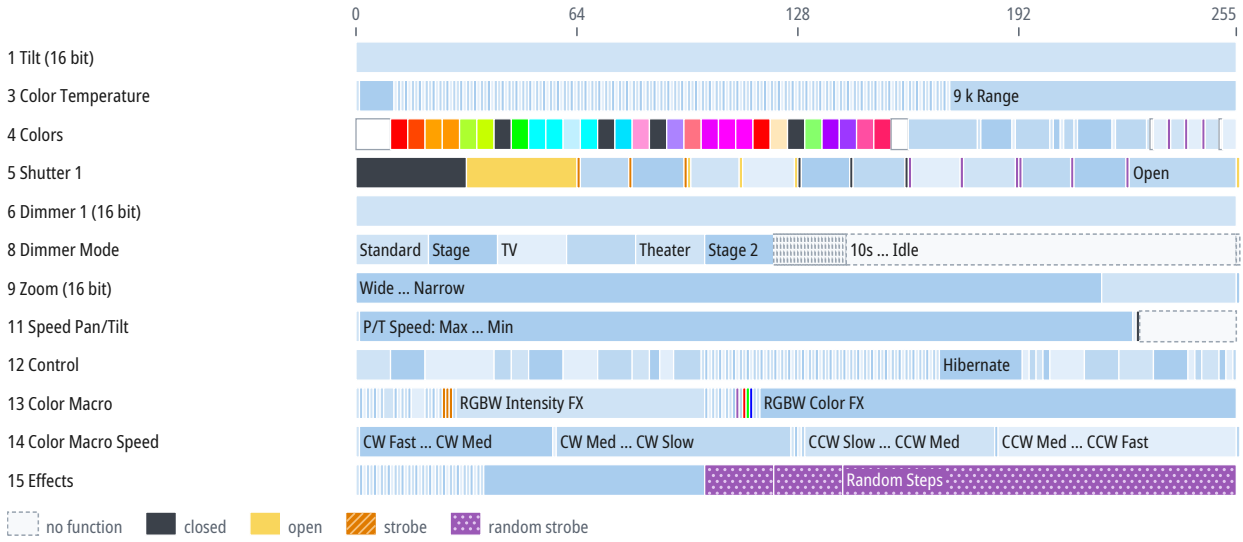
CH	Function	DMX	Description
8	Dimmer Mode		Same as CH 8 in the mode “EXTENDED 106CH” (p. 17)
9	Zoom	0	Wide
		1–215	Wide ... Narrow
		216	Narrow
		217	Overdrive Min
		218–254	Overdrive Min ... Overdrive Max
		255	Overdrive Max
10	Control		Same as CH 12 in the mode “EXTENDED 106CH” (p. 18)
11	Color Macro		Same as CH 13 in the mode “EXTENDED 106CH” (p. 20)
12	Color Macro Speed		Same as CH 14 in the mode “EXTENDED 106CH” (p. 21)
13	Effects		Same as CH 15 in the mode “EXTENDED 106CH” (p. 22)
14	Red	0	Min
		1–254	Min ... Max
		255	Max
15	Green	0	Min
		1–254	Min ... Max
		255	Max
16	Blue	0	Min
		1–254	Min ... Max
		255	Max
17	White	0	Min
		1–254	Min ... Max
		255	Max
18	Shutter 2		Same as CH 40 in the mode “EXTENDED 106CH” (p. 24)
19	Dimmer 2	0–255	
20	Dimmer 2 Fine	0–255	Fine adjustment of CH 19
21	Strobe Duration	0	Min 7ms
		1–254	Min 7ms ... Max 650ms
		255	Max 650ms
22	Effects 3		Same as CH 44 in the mode “EXTENDED 106CH” (p. 25)
23	Effects 3 Speed		Same as CH 45 in the mode “EXTENDED 106CH” (p. 26)
24	Shutter 3		Same as CH 78 in the mode “EXTENDED 106CH” (p. 26)
25	Dimmer 3	0–255	Closed ... Open
		255	Open
26	Dimmer 3 Fine	0–255	Fine adjustment of CH 25
27	Effects 2		Same as CH 81 in the mode “EXTENDED 106CH” (p. 27)
28	Effects 2 Speed		Same as CH 82 in the mode “EXTENDED 106CH” (p. 28)

Mode PIXEL 50CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 6 Dimmer 1 above 0; CH 40 Shutter 2 at 32–63 “Open”; CH 41 Dimmer 2 above 0; CH 46 Shutter 3 at 32–63 “Open”; CH 47 Dimmer 3 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Shutter 2 50, CH 41 Dimmer 2 255, CH 46 Shutter 3 50, CH 47 Dimmer 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–255	270°
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature		Same as CH 3 in the mode “EXTENDED 106CH” (p. 11)
4	Colors		Same as CH 4 in the mode “EXTENDED 106CH” (p. 15)
5	Shutter 1		Same as CH 5 in the mode “EXTENDED 106CH” (p. 17)
6	Dimmer 1	0–255	
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6
8	Dimmer Mode		Same as CH 8 in the mode “EXTENDED 106CH” (p. 17)
9	Zoom		Same as CH 9 in the mode “EXTENDED 106CH” (p. 18)
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Speed Pan/Tilt		Same as CH 11 in the mode “EXTENDED 106CH” (p. 18)
12	Control		Same as CH 12 in the mode “EXTENDED 106CH” (p. 18)
13	Color Macro		Same as CH 13 in the mode “EXTENDED 106CH” (p. 20)
14	Color Macro Speed		Same as CH 14 in the mode “EXTENDED 106CH” (p. 21)
15	Effects		Same as CH 15 in the mode “EXTENDED 106CH” (p. 22)
16	Red 1		Same as CH 16 in the mode “EXTENDED 106CH” (p. 23)
17	Green 1		Same as CH 17 in the mode “EXTENDED 106CH” (p. 23)

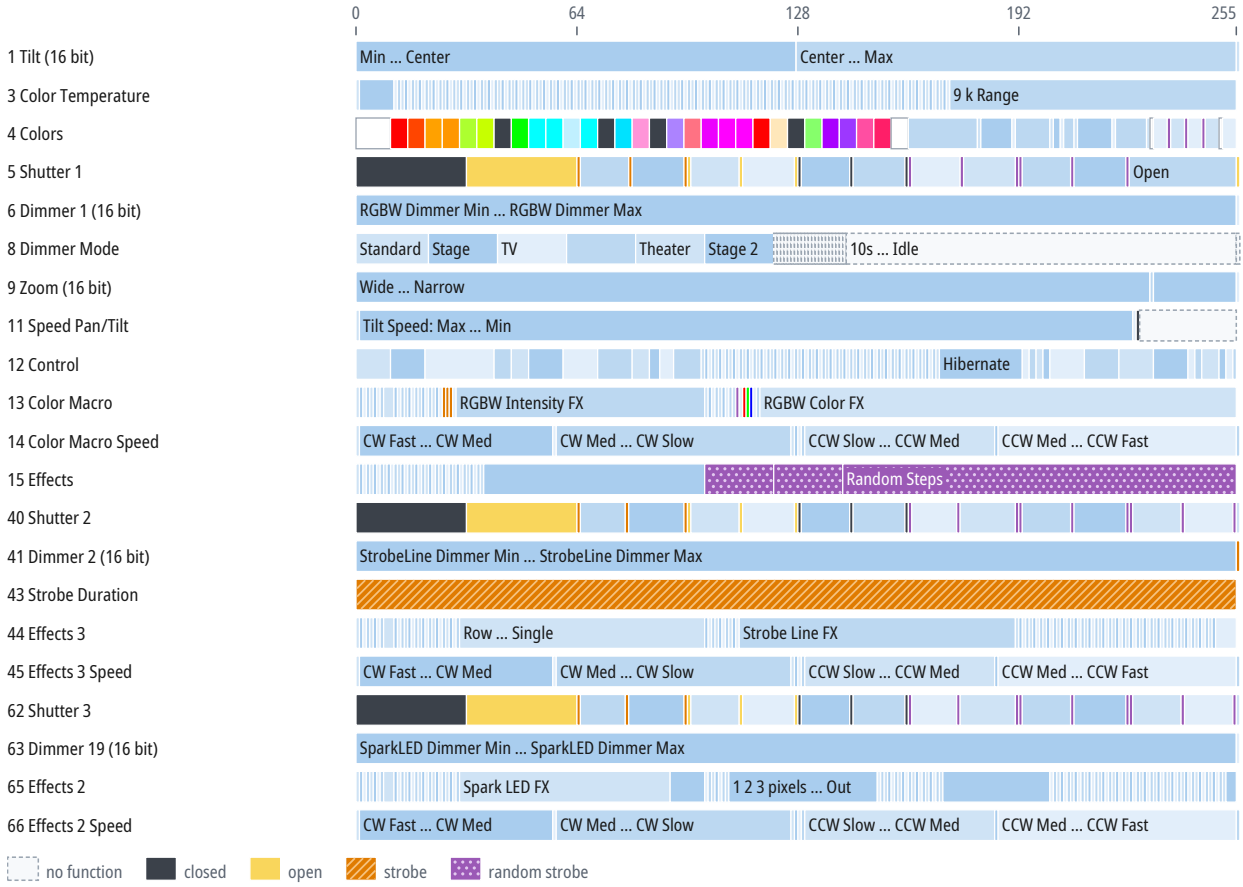
CH	Function	DMX	Description
18	Blue 1		Same as CH 18 in the mode “EXTENDED 106CH” (p. 23)
19	White 1		Same as CH 19 in the mode “EXTENDED 106CH” (p. 23)
20	Red 2		Same as CH 20 in the mode “EXTENDED 106CH” (p. 23)
21	Green 2		Same as CH 21 in the mode “EXTENDED 106CH” (p. 23)
22	Blue 2		Same as CH 22 in the mode “EXTENDED 106CH” (p. 23)
23	White 2		Same as CH 23 in the mode “EXTENDED 106CH” (p. 23)
24	Red 3		Same as CH 24 in the mode “EXTENDED 106CH” (p. 23)
25	Green 3		Same as CH 25 in the mode “EXTENDED 106CH” (p. 23)
26	Blue 3		Same as CH 26 in the mode “EXTENDED 106CH” (p. 23)
27	White 3		Same as CH 27 in the mode “EXTENDED 106CH” (p. 23)
28	Red 4		Same as CH 28 in the mode “EXTENDED 106CH” (p. 23)
29	Green 4		Same as CH 29 in the mode “EXTENDED 106CH” (p. 24)
30	Blue 4		Same as CH 30 in the mode “EXTENDED 106CH” (p. 24)
31	White 4		Same as CH 31 in the mode “EXTENDED 106CH” (p. 24)
32	Red 5		Same as CH 32 in the mode “EXTENDED 106CH” (p. 24)
33	Green 5		Same as CH 33 in the mode “EXTENDED 106CH” (p. 24)
34	Blue 5		Same as CH 34 in the mode “EXTENDED 106CH” (p. 24)
35	White 5		Same as CH 35 in the mode “EXTENDED 106CH” (p. 24)
36	Red 6		Same as CH 36 in the mode “EXTENDED 106CH” (p. 24)
37	Green 6		Same as CH 37 in the mode “EXTENDED 106CH” (p. 24)
38	Blue 6		Same as CH 38 in the mode “EXTENDED 106CH” (p. 24)
39	White 6		Same as CH 39 in the mode “EXTENDED 106CH” (p. 24)
40	Shutter 2		Same as CH 40 in the mode “EXTENDED 106CH” (p. 24)
41	Dimmer 2	0–255	
42	Dimmer 2 Fine	0–255	Fine adjustment of CH 41
43	Strobe Duration	0–255	0.007–0.65 s
44	Effects 3		Same as CH 44 in the mode “EXTENDED 106CH” (p. 25)
45	Effects 3 Speed		Same as CH 45 in the mode “EXTENDED 106CH” (p. 26)
46	Shutter 3		Same as CH 78 in the mode “EXTENDED 106CH” (p. 26)
47	Dimmer 3		Same as CH 25 in the mode “STANDARD 28CH” (p. 33)
48	Dimmer 3 Fine	0–255	Fine adjustment of CH 47
49	Effects 2		Same as CH 81 in the mode “EXTENDED 106CH” (p. 27)
50	Effects 2 Speed		Same as CH 82 in the mode “EXTENDED 106CH” (p. 28)

Mode PIXEL COMP SPARK LED 72CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 40 Shutter 2 at 32–63 “Open”; CH 62 Shutter 3 at 32–63 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Shutter 2 50, CH 62 Shutter 3 50, CH 63 Dimmer 19 255, CH 67 Dimmer 20 255, CH 68 Dimmer 21 255, CH 69 Dimmer 22 255, CH 70 Dimmer 23 255, CH 71 Dimmer 24 255, CH 72 Dimmer 25 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature		Same as CH 3 in the mode “EXTENDED 106CH” (p. 11)
4	Colors		Same as CH 4 in the mode “EXTENDED 106CH” (p. 15)
5	Shutter 1		Same as CH 5 in the mode “EXTENDED 106CH” (p. 17)

CH	Function	DMX	Description
6	Dimmer 1	0–255	RGBW Dimmer Min … RGBW Dimmer Max
		255	RGBW Dimmer Max
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6
8	Dimmer Mode		Same as CH 8 in the mode “EXTENDED 106CH” (p. 17)
9	Zoom	0–230	Wide … Narrow
		230	Narrow
		230–231	Zoom
		231–255	Overdrive Min … Overdrive Max
		255	Overdrive Max
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Speed Pan/Tilt	0	Tilt Speed: Max
		1–224	Tilt Speed: Max … Min
		225	Tilt Speed: Min
		226	Blackout Tilt Move
		227–255	Blackout Mode
12	Control	0–9	Pixel Control
		10–19	Pixel order Normal
		20–39	Pixel Order Inverse
		40–44	Low Noise - Mute
		45–49	Low Noise - Studio
		50–59	Fan Control - Low
		60–69	Fan Control - High
		70–79	Fan Control - Auto
		80–84	Reset All
		85–87	Reset Movement
		88–99	Reset Zoom
		100	900Hz
		101	910Hz
		102	920Hz
		103	930Hz
		104	940Hz
		105	950Hz
		106	960Hz
		107	970Hz
		108	980Hz
		109	990Hz
		110	1000Hz
		111	1010Hz
		112	1020Hz
		113	1030Hz
		114	1040Hz
		115	1050Hz

CH	Function	DMX	Description
12	Control (continued)	116	1060Hz
		117	1070Hz
		118	1080Hz
		119	1090Hz
		120	1100Hz
		121	1110Hz
		122	1120Hz
		123	1130Hz
		124	1140Hz
		125	1150Hz
		126	1160Hz
		127	1170Hz
		128	1180Hz
		129	1190Hz
		130	1200Hz
		131	1210Hz
		132	1220Hz
		133	1230Hz
		134	1240Hz
		135	1250Hz
		136	1260Hz
		137	1270Hz
		138	1280Hz
		139	1290Hz
		140	1300Hz
		141	1310Hz
		142	1320Hz
		143	1330Hz
		144	1340Hz
		145	1350Hz
		146	1360Hz
		147	1370Hz
		148	1380Hz
		149	1390Hz
		150	1400Hz
		151	1410Hz
		152	1420Hz
		153	1430Hz
		154	1440Hz
		155	1450Hz
		156	1460Hz
		157	1470Hz

CH	Function	DMX	Description
12	Control (continued)	158	1480Hz
		159	1490Hz
		160	1500Hz
		161	2500Hz
		162	4000Hz
		163	5000Hz
		164	6000Hz
		165	10000Hz
		166	15000Hz
		167	20000Hz
		168	25000Hz
		169–192	Hibernate
		193–194	Hibernate Fixture
		195–196	Hibernate Off
		197–198	Sun Protection Position
		199–200	Sun Protection Off
		201–210	Linear
		211–220	Square
		221–230	Inverse Square
		231–240	S Curve
		241–242	Zoom Speed Slow
		243–244	Zoom Speed Fast
		245–249	Zoom Speed
		250–251	Display off
		252–253	Display On
		254–255	Display Intensity
13	Color Macro	0	RGBW Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down
		7	Steps
		8–10	RGBW Waveforms
		11	Single
		12	Single Bounce
		13	2 Pixels
		14	3 Pixels
		15	4 Pixels
		16	5 Pixels
		17	6 Pixels

CH	Function	DMX	Description
13	Color Macro (continued)	18	1 2 3 4 Pixels
		19	1 2 3 4 Pixels ... Alternate Spark LED
		20	Alternate Spark LED
		21	Burst Spark LED
		22	Alternate Spark LED 2
		23	Burst RGBW
		24	Lens/SparkLED Alternate
		25	Alternate Strobe LED
		26	Burst Strobe LED
		27	Alternate Strobe LED 2
		28	Burst RGBW
		29–100	RGBW Intensity FX
		101	RGBW Cells
		102	RGBWCMY Cells
		103	Color Wheel Cells
		104	Red White Cells
		105	Green White Cells
		106	Blue White Cells
		107	Red Green Cells
		108	Red Blue Cells
		109	Blue Green Cells
		110	Random White Cell
		111	White Flash
		112	Red Flash
		113	Green Flash
		114	Blue Flash
		115	Color Wheel Flash
		116	Alternate Color
		117–255	RGBW Color FX
14	Color Macro Speed		Same as CH 14 in the mode “EXTENDED 106CH” (p. 21)
15	Effects		Same as CH 15 in the mode “EXTENDED 106CH” (p. 22)
16	Red 1		Same as CH 16 in the mode “EXTENDED 106CH” (p. 23)
17	Green 1		Same as CH 17 in the mode “EXTENDED 106CH” (p. 23)
18	Blue 1		Same as CH 18 in the mode “EXTENDED 106CH” (p. 23)
19	White 1		Same as CH 19 in the mode “EXTENDED 106CH” (p. 23)
20	Red 2		Same as CH 20 in the mode “EXTENDED 106CH” (p. 23)
21	Green 2		Same as CH 21 in the mode “EXTENDED 106CH” (p. 23)
22	Blue 2		Same as CH 22 in the mode “EXTENDED 106CH” (p. 23)
23	White 2		Same as CH 23 in the mode “EXTENDED 106CH” (p. 23)
24	Red 3		Same as CH 24 in the mode “EXTENDED 106CH” (p. 23)
25	Green 3		Same as CH 25 in the mode “EXTENDED 106CH” (p. 23)
26	Blue 3		Same as CH 26 in the mode “EXTENDED 106CH” (p. 23)

CH	Function	DMX	Description
27	White 3		Same as CH 27 in the mode “EXTENDED 106CH” (p. 23)
28	Red 4		Same as CH 28 in the mode “EXTENDED 106CH” (p. 23)
29	Green 4		Same as CH 29 in the mode “EXTENDED 106CH” (p. 24)
30	Blue 4		Same as CH 30 in the mode “EXTENDED 106CH” (p. 24)
31	White 4		Same as CH 31 in the mode “EXTENDED 106CH” (p. 24)
32	Red 5		Same as CH 32 in the mode “EXTENDED 106CH” (p. 24)
33	Green 5		Same as CH 33 in the mode “EXTENDED 106CH” (p. 24)
34	Blue 5		Same as CH 34 in the mode “EXTENDED 106CH” (p. 24)
35	White 5		Same as CH 35 in the mode “EXTENDED 106CH” (p. 24)
36	Red 6		Same as CH 36 in the mode “EXTENDED 106CH” (p. 24)
37	Green 6		Same as CH 37 in the mode “EXTENDED 106CH” (p. 24)
38	Blue 6		Same as CH 38 in the mode “EXTENDED 106CH” (p. 24)
39	White 6		Same as CH 39 in the mode “EXTENDED 106CH” (p. 24)
40	Shutter 2		Same as CH 40 in the mode “EXTENDED 106CH” (p. 24)
41	Dimmer 2	0–255	StrobeLine Dimmer Min ... StrobeLine Dimmer Max
		255	StrobeLine Dimmer Max
42	Dimmer 2 Fine	0–255	Fine adjustment of CH 41
43	Strobe Duration	0–255	0.007–0.65 s
44	Effects 3	0	Strobe Line Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down
		7	Steps
		8–10	Strobe Line Waveforms
		11	Starfield
		12	Inverse Starfield
		13	1 Pixel
		14	2 Pixels
		15	3 Pixels
		16	4 pixels
		17	5 pixels
		18	7 pixels
		19	8 pixels
		20	Single Row
		21	Single Column
		22	Mirror
		23	Mirror Circle
		24	Knight Rider
		25	Marque

CH	Function	DMX	Description
44	Effects 3 (continued)	26	Center Out
		27	Fireworks
		28	Ring
		29	Row
		30–100	Row ... Single
		101	Single
		102	Single Top / Bottom
		103	1/4
		104	1/4 Top / Bottom
		105	Strobe Line FX: 1/8
		106	1/8 Top-Bottom
		107	Single Bounce
		108	Fill Row
		109	1/4 Bounce
		110	1/4 Bounce Single
		111–190	Strobe Line FX
		191	Row 1
		192	Row 2
		193	Quarter 1
		194	Quarter 2
		195	Quarter 3
		196	Quarter 4
		197	Strobe Line Patterns: 1/8
		198	2/8
		199	3/8
		200	4/8
		201	5/8
		202	6/8
		203	7/8
		204	8/8
		205–236	Column 1...32
		237–248	Lens 1...12
		249–255	Strobe Line Patterns
45	Effects 3 Speed		Same as CH 45 in the mode “EXTENDED 106CH” (p. 26)
46	Dimmer 3	0	StrobeLine Dimmer Min
		1–254	StrobeLine Dimmer Min ... StrobeLine Dimmer Max
		255	StrobeLine Dimmer Max
62	Shutter 3	0–31	Open / Close: Closed
		32–63	Open / Close: Open
		64	Strobe Slow
		65–77	Strobe Slow ... Strobe Medium
		78	Strobe Medium

CH	Function	DMX	Description
62	Shutter 3 (continued)	79–94	Strobe Medium ... Strobe Fast
		95	Strobe Fast
		96	Pulse Open Slow
		97–110	Pulse Open Slow ... Pulse Open Medium
		111	Pulse Open Medium
		112–126	Pulse Open Medium ... Pulse Open Fast
		127	Pulse Open Fast
		128	Pulse Close Slow
		129–142	Pulse Close Slow ... Pulse Close Medium
		143	Pulse Close Medium
		144–158	Pulse Close Medium ... Pulse Close Fast
		159	Pulse Close Fast
		160	Pulse FX Fast
		161–173	Pulse FX Fast ... Pulse FX Medium
		174	Pulse FX Medium
		175–190	Pulse FX Medium ... Pulse FX Fast
		191	Pulse FX Fast
		192	Random Strobe Slow
		193–206	Random Strobe Slow ... Random Strobe Medium
		207	Random Strobe Medium
		208–222	Random Strobe Medium ... Random Strobe Fast
		223	Random Strobe Fast
		224	Random Pixel Strobe Slow
		225–238	Random Pixel Strobe Slow ... Random Pixel Strobe Medium
		239	Random Pixel Strobe Medium
		240–253	Random Pixel Strobe Medium ... Random Pixel Strobe Fast
		254	Random Pixel Strobe Fast
		255	Strobe Line Strobe Random Individual
63	Dimmer 19	0–255	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
64	Dimmer 19 Fine	0–255	Fine adjustment of CH 63
65	Effects 2	0	Spark LED Waveforms
		1	Sinewave - Cross
		2	Sinewave - Full
		3	Sawtooth - Cross
		4	Sawtooth - Full
		5	Ramp Up
		6	Ramp Down
		7	Steps
		8–10	Spark LED Waveforms
		11	Starfield
		12	1 Pixel

CH	Function	DMX	Description
65	Effects 2 (continued)	13	Spark LED FX: 2 Pixels
		14	Spark LED FX: 3 Pixels
		15	Spark LED FX: 4 Pixels
		16	5 Pixels
		17	7 Pixels
		18	8 Pixels
		19	Single Row
		20	Single Column
		21	Build Cells
		22	Pixel Ring Chase
		23	Pixel Row Chase
		24	Pixel Row Chase 2
		25	Center Out
		26	Fireworks
		27	Ring
		28	Row
		29	Snake
		30–90	Spark LED FX
		91–100	Spark LED Lens Combos
		101	Single
		102	Single Bounce
		103	Fill Row
		104	Full Lens Patterns: 2 Pixels
		105	Full Lens Patterns: 3 Pixels
		106	Full Lens Patterns: 4 Pixels
		107	1 2 3 pixels
		108–150	1 2 3 pixels ... Out
		151	Out
		152	Mid
		153	Full Lens Patterns: Center
		154–159	Set 1...6
		160	Block 2-1
		161	Block 2-2
		162	Block 2-3
		163	Block 2-4
		164	Block 2-5
		165	Block 2-6
		166	Block 3-1
		167	Block 3-2
		168	Block 3-3
		169	Block 3-4
		170–200	Full Lens Patterns

CH	Function	DMX	Description
65	Effects 2 (continued)	201	Row 1
		202	Row 2
		203	Row 3
		204–239	Column 1...36
		240–251	Lens 1...12
		252–255	Full Lens Static Patterns
66	Effects 2 Speed		Same as CH 82 in the mode “EXTENDED 106CH” (p. 28)
67	Dimmer 20	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
68	Dimmer 21	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
69	Dimmer 22	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
70	Dimmer 23	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
71	Dimmer 24	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max
72	Dimmer 25	0	SparkLED Dimmer Min
		1–254	SparkLED Dimmer Min ... SparkLED Dimmer Max
		255	SparkLED Dimmer Max

CH 46–61: 16 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 46); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	46	2	47	3	48	4	49	5	50	6	51
7	52	8	53	9	54	10	55	11	56	12	57
13	58	14	59	15	60	16	61				

Mode PIXEL COMP 66CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Shutter 1 at 32–63 or 224–255 “Open”; CH 40 Shutter 2 at 32–63 “Open”; CH 62 Shutter 3 at 32–63 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Shutter 1 50, CH 6 Dimmer 1 255, CH 16 Red 1 255, CH 17 Green 1 255, CH 18 Blue 1 255, CH 19 White 1 255, CH 20 Red 2 255, CH 21 Green 2 255, CH 22 Blue 2 255, CH 23 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Shutter 2 50, CH 62 Shutter 3 50, CH 63 Dimmer 19 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt		Same as CH 1 in the mode “PIXEL COMP SPARK LED 72CH” (p. 36)
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Color Temperature		Same as CH 3 in the mode “EXTENDED 106CH” (p. 11)
4	Colors		Same as CH 4 in the mode “EXTENDED 106CH” (p. 15)
5	Shutter 1		Same as CH 5 in the mode “EXTENDED 106CH” (p. 17)
6	Dimmer 1		Same as CH 6 in the mode “PIXEL COMP SPARK LED 72CH” (p. 37)
7	Dimmer 1 Fine	0–255	Fine adjustment of CH 6
8	Dimmer Mode		Same as CH 8 in the mode “EXTENDED 106CH” (p. 17)

CH	Function	DMX	Description
9	Zoom		Same as CH 9 in the mode “PIXEL COMP SPARK LED 72CH” (p. 37)
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Speed Pan/Tilt		Same as CH 11 in the mode “PIXEL COMP SPARK LED 72CH” (p. 37)
12	Control		Same as CH 12 in the mode “PIXEL COMP SPARK LED 72CH” (p. 37)
13	Color Macro		Same as CH 13 in the mode “PIXEL COMP SPARK LED 72CH” (p. 39)
14	Color Macro Speed		Same as CH 14 in the mode “EXTENDED 106CH” (p. 21)
15	Effects		Same as CH 15 in the mode “EXTENDED 106CH” (p. 22)
16	Red 1		Same as CH 16 in the mode “EXTENDED 106CH” (p. 23)
17	Green 1		Same as CH 17 in the mode “EXTENDED 106CH” (p. 23)
18	Blue 1		Same as CH 18 in the mode “EXTENDED 106CH” (p. 23)
19	White 1		Same as CH 19 in the mode “EXTENDED 106CH” (p. 23)
20	Red 2		Same as CH 20 in the mode “EXTENDED 106CH” (p. 23)
21	Green 2		Same as CH 21 in the mode “EXTENDED 106CH” (p. 23)
22	Blue 2		Same as CH 22 in the mode “EXTENDED 106CH” (p. 23)
23	White 2		Same as CH 23 in the mode “EXTENDED 106CH” (p. 23)
24	Red 3		Same as CH 24 in the mode “EXTENDED 106CH” (p. 23)
25	Green 3		Same as CH 25 in the mode “EXTENDED 106CH” (p. 23)
26	Blue 3		Same as CH 26 in the mode “EXTENDED 106CH” (p. 23)
27	White 3		Same as CH 27 in the mode “EXTENDED 106CH” (p. 23)
28	Red 4		Same as CH 28 in the mode “EXTENDED 106CH” (p. 23)
29	Green 4		Same as CH 29 in the mode “EXTENDED 106CH” (p. 24)
30	Blue 4		Same as CH 30 in the mode “EXTENDED 106CH” (p. 24)
31	White 4		Same as CH 31 in the mode “EXTENDED 106CH” (p. 24)
32	Red 5		Same as CH 32 in the mode “EXTENDED 106CH” (p. 24)
33	Green 5		Same as CH 33 in the mode “EXTENDED 106CH” (p. 24)
34	Blue 5		Same as CH 34 in the mode “EXTENDED 106CH” (p. 24)
35	White 5		Same as CH 35 in the mode “EXTENDED 106CH” (p. 24)
36	Red 6		Same as CH 36 in the mode “EXTENDED 106CH” (p. 24)
37	Green 6		Same as CH 37 in the mode “EXTENDED 106CH” (p. 24)
38	Blue 6		Same as CH 38 in the mode “EXTENDED 106CH” (p. 24)
39	White 6		Same as CH 39 in the mode “EXTENDED 106CH” (p. 24)
40	Shutter 2		Same as CH 40 in the mode “EXTENDED 106CH” (p. 24)
41	Dimmer 2		Same as CH 41 in the mode “PIXEL COMP SPARK LED 72CH” (p. 41)
42	Dimmer 2 Fine	0–255	Fine adjustment of CH 41
43	Strobe Duration	0–255	0.007–0.65 s
44	Effects 3		Same as CH 44 in the mode “PIXEL COMP SPARK LED 72CH” (p. 41)
45	Effects 3 Speed		Same as CH 45 in the mode “EXTENDED 106CH” (p. 26)
46	Dimmer 3	0	StrobeLine Dimmer Min

CH	Function	DMX	Description
46	Dimmer 3 (continued)	1–254	StrobeLine Dimmer Min … StrobeLine Dimmer Max
		255	StrobeLine Dimmer Max
62	Shutter 3		Same as CH 62 in the mode “PIXEL COMP SPARK LED 72CH” (p. 42)
63	Dimmer 19		Same as CH 63 in the mode “PIXEL COMP SPARK LED 72CH” (p. 43)
64	Dimmer 19 Fine	0–255	Fine adjustment of CH 63
65	Effects 2		Same as CH 65 in the mode “PIXEL COMP SPARK LED 72CH” (p. 43)
66	Effects 2 Speed		Same as CH 82 in the mode “EXTENDED 106CH” (p. 28)

CH 46–61: 16 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 46); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	46	2	47	3	48	4	49	5	50	6	51
7	52	8	53	9	54	10	55	11	56	12	57
13	58	14	59	15	60	16	61				

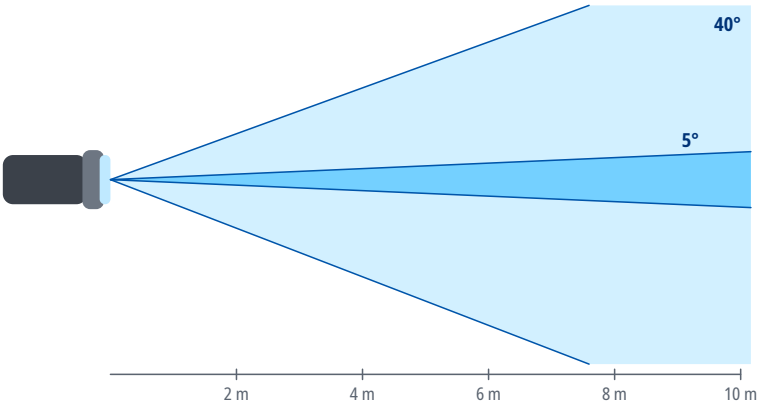
10 Technical specifications

Parameter	Value
Light	
Light source	LED
Movement	
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x22A6, device model ID 0x1678)
Electrical	
Power connectors	powerCON TRUE1
Dimensions and construction	
Weight	17.9 kg
Operating environment	
Ingress protection	IP65
Meaning of the IP code (IEC 60529)	Dust-tight; protected against water jets
Operating temperature	-20 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–2950 K
Strobe frequency	0.5–10 Hz
Strobe flash duration	0.007–0.65 s
Color wheel rotation	up to 200 °/s (33 rpm)

Spot diameter



Distance	Ø 5°	Ø 40°
2 m	0.17 m	1.5 m
4 m	0.35 m	2.9 m
6 m	0.52 m	4.4 m
8 m	0.7 m	5.8 m
10 m	0.87 m	7.3 m
15 m	1.3 m	10.9 m

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.

- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.