DMX REFERENCE

Focus Flex L19

ADJ



Manufacturer	ADJ
GDTF file	ADJ_Focus_Flex_L19_93844.gdtf
GDTF revision	25-17-04 Release · 2025-04-17
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1 About this manual

This document describes the Focus Flex L19 by ADJ. It was compiled from the GDTF file ADJ_Focus_Flex_L19_93844.gdtf from the GDTF-Share library.

File revision: “25-17-04 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 ADJ; 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	19 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
22 CH	22	23	1, 23, 45, 67, ...
31 CH STD	31	16	1, 32, 63, 94, ...
40 CH	40	12	1, 41, 81, 121, ...
104 CH	104	4	1, 105, 209, 313
31 CH STD RGBW	31	16	1, 32, 63, 94, ...
31 CH STD CMY	31	16	1, 32, 63, 94, ...
34 CH	34	15	1, 35, 69, 103, ...


Read the manual before use


Do not stare into the light


Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ 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.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ 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.

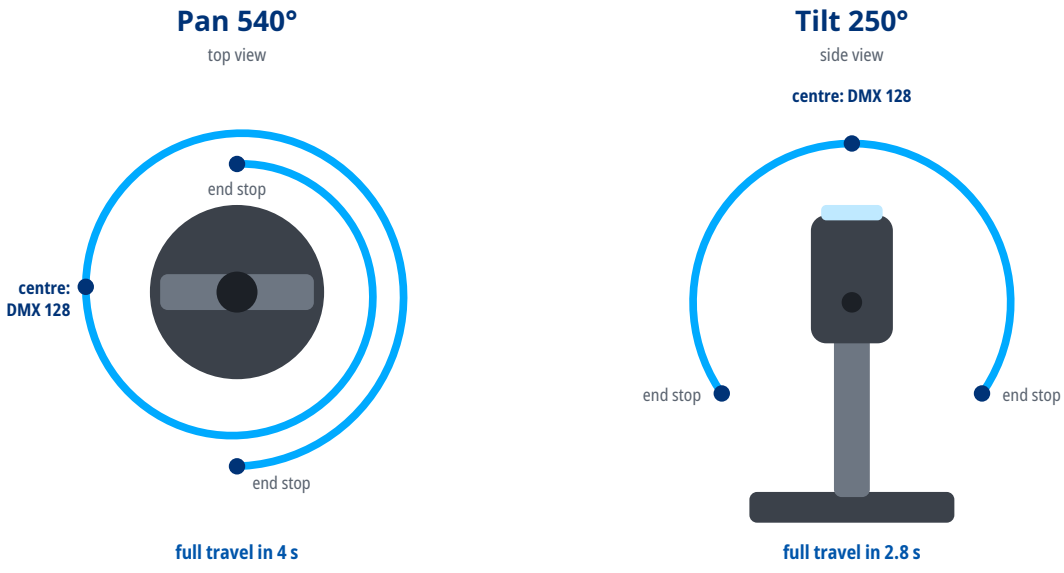
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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 Focus Flex L19 by ADJ Lighting is a powerful moving head luminaire that offers versatility and creativity to lighting designers. It features 19 40-Watt RGBL color mixing LEDs that can be controlled independently, allowing for a broad range of output colors. The fixture also offers Virtual CMY mode, Virtual Foreground and Background Color Wheel control, and variable color temperature. With motorized zoom and fine pan & tilt motor control, the Focus Flex L19 can create broad washes, concise beams, and impressive aerial effects.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

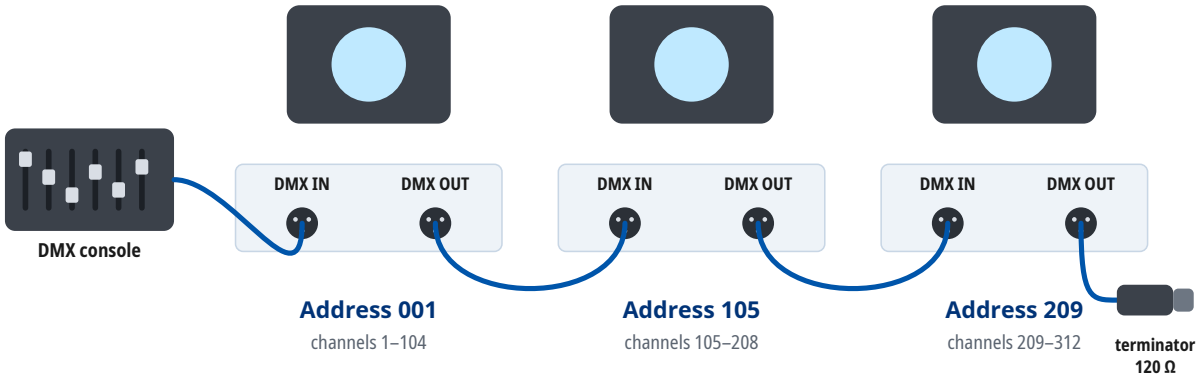
⚠ **WARNING**

- 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: 19 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 104 CH: every unit occupies 104 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 “104 CH”: 104.
- 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 “104 CH”, you can use, for example, the start addresses 1, 105, 209, 313.
- 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

	22 CH 22 channels	31 CH STD 31 channels	40 CH 40 channels	104 CH 104 channels	31 CH STD RGBW 31 channels	31 CH STD CMY 31 channels	34 CH 34 channels
Pan / Tilt	1, 2	1, 3	1, 3	1, 3	1, 3	1, 3	1, 3
Pan / Tilt resolution	8 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
Dimmer	16	21	30	94	21	21	24
Dimmer resolution	8 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
Shutter / strobe	15	20	29	93	20	20	23
Color mixing	3–6	5–8	5–16	5–80	5–8	5–7	5, 7, 9
Color temperature	7	9, 10	17, 18	81, 82	9, 10	8, 9	11, 12
Color wheel	8	11–13	19–21	83–85	11–13	10–12	13–15
Zoom	17	23	32	96	23	23	26
Effects / macros	9–14, 18–20	14–19, 27–29	22–27, 36–38	86–91, 100–102	14–19, 27–29	13–18, 27–29	16–21, 30–32
Pixel control			✓				

Color wheel 1

1. Pale Yellow — DMX 1
2. Straw — DMX 2
3. Gold Tint — DMX 3
4. Spring Yellow — DMX 4
5. Medium Yellow — DMX 5
6. Yellow — DMX 6
7. Deep Amber — DMX 7
8. Deep Straw — DMX 8
9. Loving Amber — DMX 9
10. Gold Amber — DMX 10
11. Orange — DMX 11
12. Deep Orange — DMX 12
13. Dark Amber — DMX 13
14. Millennium Gold — DMX 14
15. Deep Golden Amber — DMX 15
16. Scarlet — DMX 16
17. Primary Red — DMX 17
18. Bright Red — DMX 18
19. Medium Red — DMX 19
20. Fire — DMX 20
21. Pink — DMX 21
22. Medium Pink — DMX 22
23. Dark Pink — DMX 23
24. Bright Pink — DMX 24

25 Bright Rose **DMX 25**

26 Special Rose Pink **DMX 26**

27 Vanity Fair **DMX 27**

28 Magenta **DMX 28**

29 Dark Magenta **DMX 29**

30 Rose Purple **DMX 30**

31 Mauve **DMX 31**

32 Medium Purple **DMX 32**

33 Lavender **DMX 33**

34 Palace blue **DMX 34**

35 Dark Blue **DMX 35**

36 Medium Blue **DMX 36**

37 Deep Blue **DMX 37**

38 Daylight Blue **DMX 38**

39 Slate Blue **DMX 39**

40 Light Blue **DMX 40**

41 Sky Blue **DMX 41**

42 Pale Navy Blue **DMX 42**

43 Marine Blue **DMX 43**

44 Peacock Blue **DMX 44**

45 Lagoon Blue **DMX 45**

46 Medium Blue Green **DMX 46**

47 Dark Yellow Green **DMX 47**

48 Primary Green **DMX 48**

49 Fern Green **DMX 49**

50 Moss Green **DMX 50**

51 Dark Green **DMX 51**

52 Lime Green **DMX 52**

53 Pale Green **DMX 53**

54 Quarter CT Blue **DMX 54**

55 Half CT Blue **DMX 55**

56 Full CT Blue **DMX 56**

57 Double CT Blue **DMX 57**

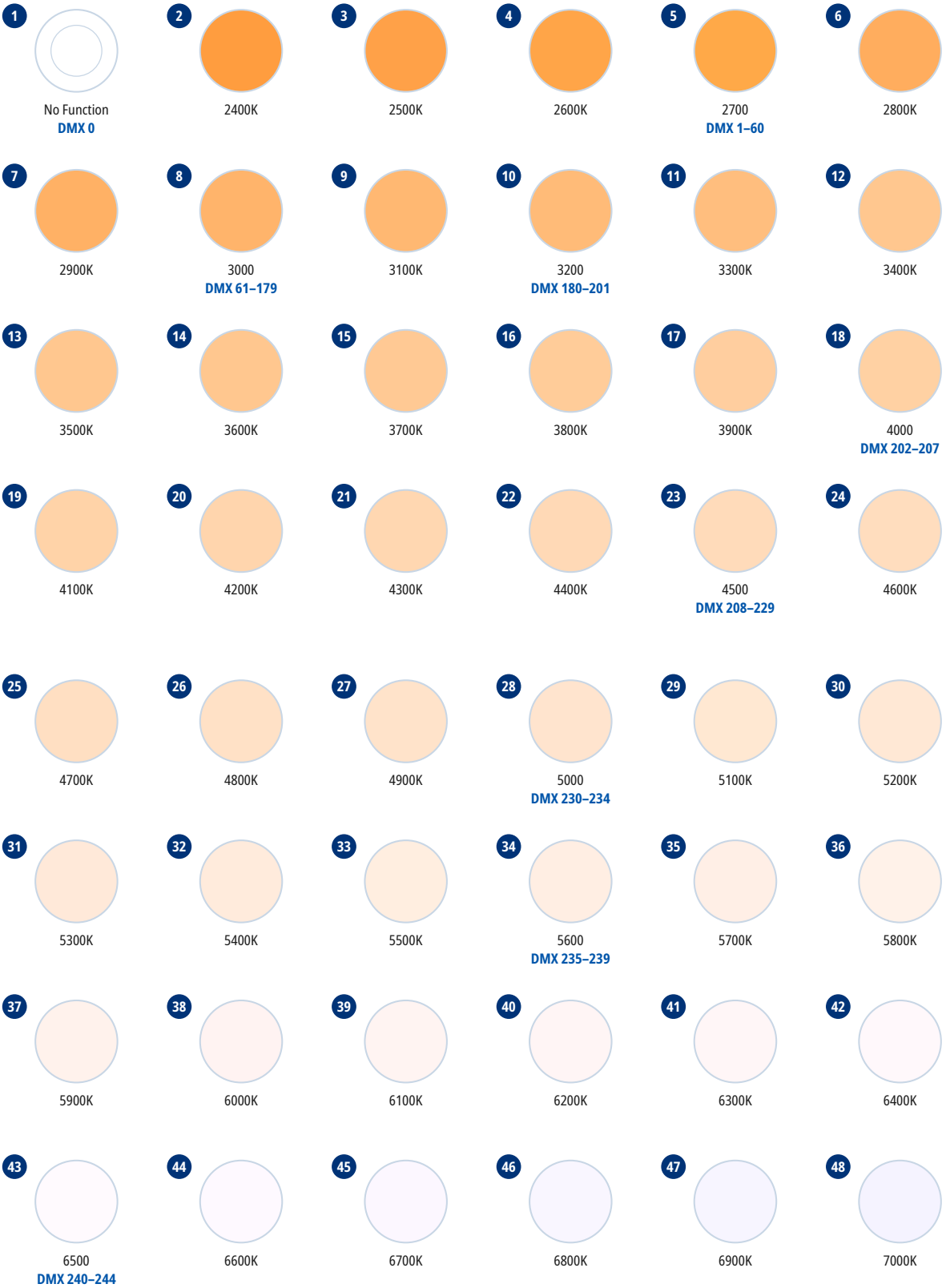
58 Quarter CT Orange **DMX 58**

59 Half CT Orange **DMX 59**

60 LEE 204 - Full C T Orange **DMX 60–61**

61 Open **DMX 0–1**

Color wheel 2



49 7100K
50 7200K
51 7300K
52 7400K
53 7500K
54 7600K
55 7700K
56 7800K
57 7900K
58 8000K
DMX 245–249
59 8100K
60 8200K
61 8300K
62 8400K
63 8500K
64 10000K
DMX 250–255

Color wheel 3

1 Off
DMX 0
2 Color Macro 1
DMX 1–4
3 Color Macro 2
DMX 5–8
4 Color Macro 3
DMX 9–12
5 Color Macro 4
DMX 13–16
6 Color Macro 5
DMX 17–20
7 Color Macro 6
DMX 21–24
8 Color Macro 7
DMX 25–28
9 Color Macro 8
DMX 29–32
10 Color Macro 9
DMX 33–36
11 Color Macro 10
DMX 37–40
12 Color Macro 11
DMX 41–44
13 Color Macro 12
DMX 45–48
14 Color Macro 13
DMX 49–52
15 Color Macro 14
DMX 53–56
16 Color Macro 15
DMX 57–60
17 Color Macro 16
DMX 61–64
18 Color Macro 17
DMX 65–68
19 Color Macro 18
DMX 69–72
20 Color Macro 19
DMX 73–76
21 Color Macro 20
DMX 77–80
22 Color Macro 21
DMX 81–84
23 Color Macro 22
DMX 85–88
24 Color Macro 23
DMX 89–92

25 Color Macro 24
DMX 93–96

26 Color Macro 25
DMX 97–100

27 Color Macro 26
DMX 101–104

28 Color Macro 27
DMX 105–108

29 Color Macro 28
DMX 109–112

30 Color Macro 29
DMX 113–116

31 Color Macro 30
DMX 117–120

32 Color Macro 31
DMX 121–124

33 Color Macro 32
DMX 128

34 Color Macro 33
DMX 129–132

35 Color Macro 34
DMX 133–136

36 Color Macro 35
DMX 137–140

37 Color Macro 36
DMX 141–144

38 Color Macro 37
DMX 145–148

39 Color Macro 38
DMX 149–152

40 Color Macro 39
DMX 153–156

41 Color Macro 40
DMX 157–160

42 Color Macro 41
DMX 161–164

43 Color Macro 42
DMX 165–168

44 Color Macro 43
DMX 169–172

45 Color Macro 44
DMX 173–176

46 Color Macro 45
DMX 177–180

47 Color Macro 46
DMX 181–184

48 Color Macro 47
DMX 185–188

49 Color Macro 48
DMX 189–192

50 Color Macro 49
DMX 193–196

51 Color Macro 50
DMX 197–200

52 Color Macro 51
DMX 201–204

53 Color Macro 52
DMX 209

54 Color Macro 53
DMX 210–212

55 Color Macro 54
DMX 213–216

56 Color Macro 55
DMX 217–220

57 Color Macro 56
DMX 221–224

58 Color Macro 57
DMX 225–228

59 Color Macro 58
DMX 229–232

60 Color Macro 59
DMX 233–236

61 Color Macro 60
DMX 237–240

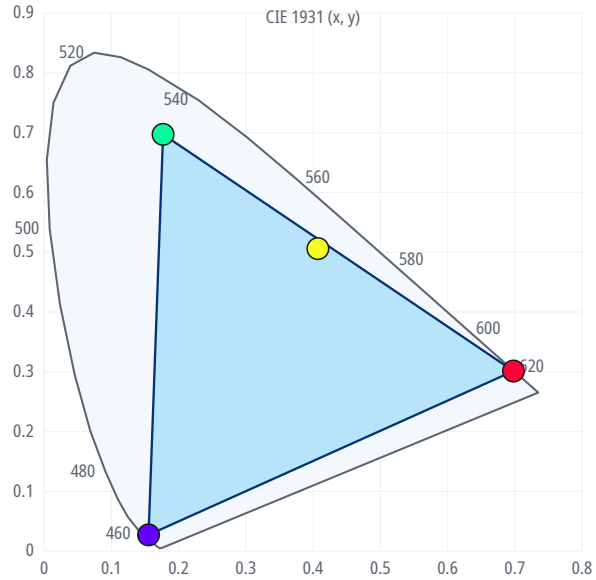
62 Color Macro 61
DMX 241–244

63 Color Macro 62
DMX 245–248

64 Color Macro 63
DMX 249–252

65 Color Macro 64
DMX 253–255

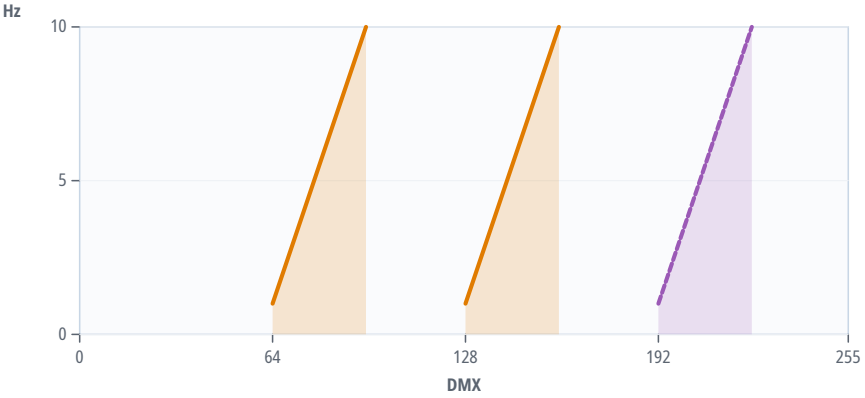
LED colors and the colors they mix



LED	x	y	nm
Red	0.698	0.301	499
Green	0.177	0.697	499
Blue	0.155	0.027	499
Lime	0.407	0.506	499

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

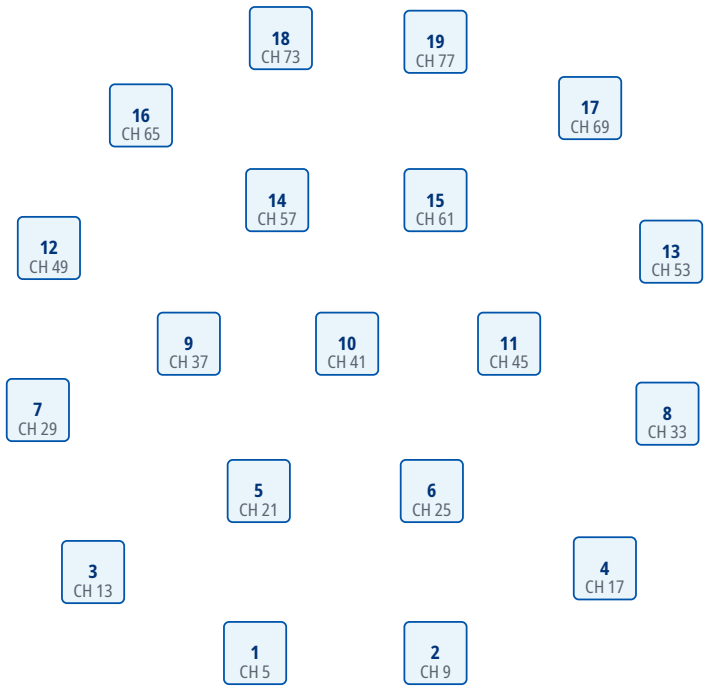
Strobe rate



CH 29 · 40 CH

- 64–95: 1–10 Hz
  Strobe Effect Slow to Fast
- 128–159: 1–10 Hz
  Pulse-Effect in Sequences
- 192–223: 1–10 Hz
  Random Strobe Effect Slow to Fast

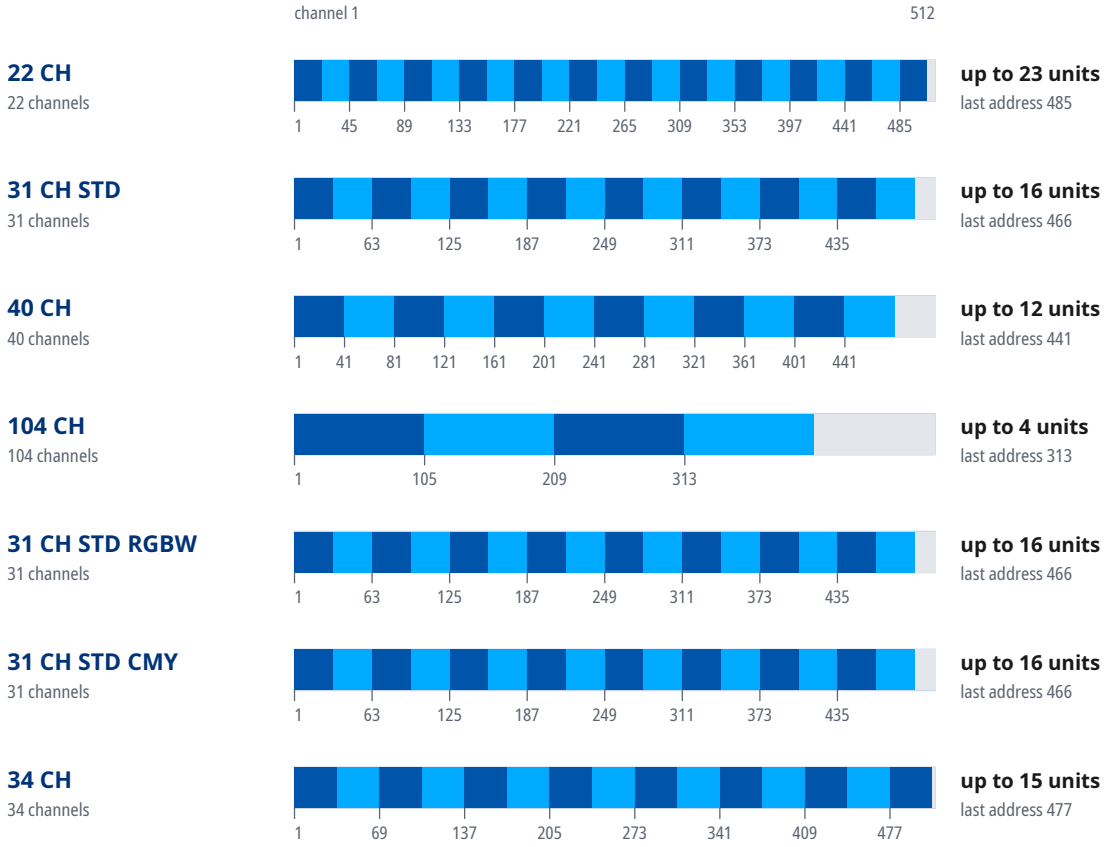
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “40 CH”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “104 CH”

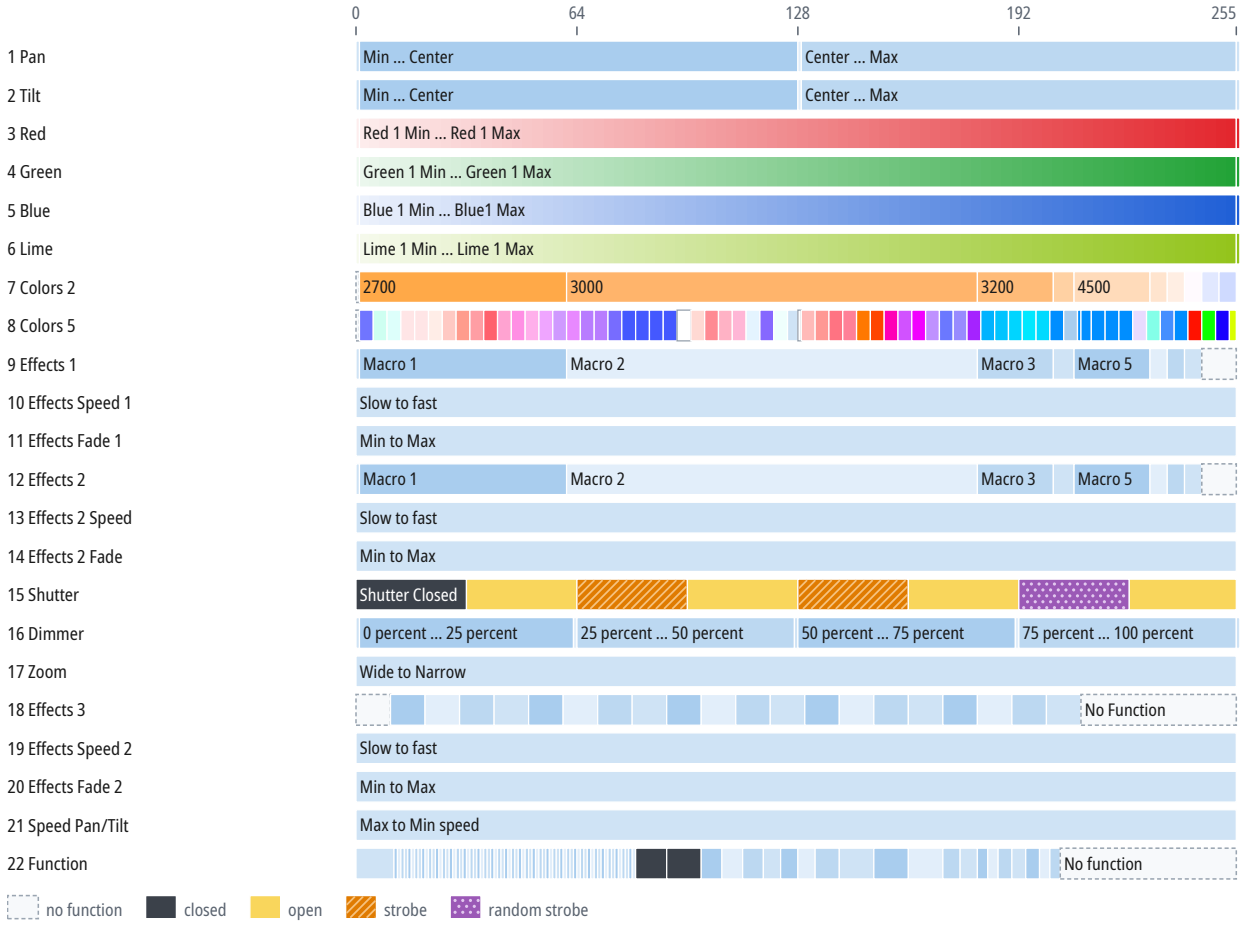
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 105	11	U3 · 209	16	U4 · 313
2	105	7	U2 · 209	12	U3 · 313	17	U5 · 1
3	209	8	U2 · 313	13	U4 · 1	18	U5 · 105
4	313	9	U3 · 1	14	U4 · 105	19	U5 · 209
5	U2 · 1	10	U3 · 105	15	U4 · 209	20	U5 · 313

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 22 CH

The GDTF file gives these values for a console's Highlight function: CH 3 Red 255, CH 4 Green 255, CH 5 Blue 255, CH 6 Lime 255, CH 15 Shutter 47, CH 16 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
2	Tilt	0	Min
		1–127	Min ... Center
		128	Center
		129–254	Center ... Max
		255	Max
3	Red	0	Red 1 Min
		1–254	Red 1 Min ... Red 1 Max
		255	Red 1 Max
4	Green	0	Green 1 Min

CH	Function	DMX	Description
4	Green (continued)	1–254	Green 1 Min ... Green 1 Max
		255	Green 1 Max
5	Blue	0	Blue 1 Min
		1–254	Blue 1 Min ... Blue1 Max
		255	Blue1 Max
6	Lime	0	Lime 1 Min
		1–254	Lime 1 Min ... Lime 1 Max
		255	Lime 1 Max
7	Colors 2		Linear From 2700 K to 10000 K
		0	No Function
		1–60	2700
		61–179	3000
		180–201	3200
		202–207	4000
		208–229	4500
		230–234	5000
		235–239	5600
		240–244	6500
		245–249	8000K (9702–9821 K)
		250–255	10000K (9851–10000 K)
8	Colors 5		Color Macro
		0	Off
		1–4	Color Macro 1
		5–8	Color Macro 2
		9–12	Color Macro 3
		13–16	Color Macro 4
		17–20	Color Macro 5
		21–24	Color Macro 6
		25–28	Color Macro 7
		29–32	Color Macro 8
		33–36	Color Macro 9
		37–40	Color Macro 10
		41–44	Color Macro 11
		45–48	Color Macro 12
		49–52	Color Macro 13
		53–56	Color Macro 14
		57–60	Color Macro 15
		61–64	Color Macro 16
		65–68	Color Macro 17
		69–72	Color Macro 18
		73–76	Color Macro 19
		77–80	Color Macro 20

CH	Function	DMX	Description
8	Colors 5 (continued)	81–84	Color Macro 21
		85–88	Color Macro 22
		89–92	Color Macro 23
		93–96	Color Macro 24
		97–100	Color Macro 25
		101–104	Color Macro 26
		105–108	Color Macro 27
		109–112	Color Macro 28
		113–116	Color Macro 29
		117–120	Color Macro 30
		121–124	Color Macro 31
		125–127	Color Macro 31 … Color Macro 32
		128	Color Macro 32
		129–132	Color Macro 33
		133–136	Color Macro 34
		137–140	Color Macro 35
		141–144	Color Macro 36
		145–148	Color Macro 37
		149–152	Color Macro 38
		153–156	Color Macro 39
		157–160	Color Macro 40
		161–164	Color Macro 41
		165–168	Color Macro 42
		169–172	Color Macro 43
		173–176	Color Macro 44
		177–180	Color Macro 45
		181–184	Color Macro 46
		185–188	Color Macro 47
		189–192	Color Macro 48
		193–196	Color Macro 49
		197–200	Color Macro 50
		201–204	Color Macro 51
		205–208	Color Macro 51 … Color Macro 52
		209	Color Macro 52
		210–212	Color Macro 53
		213–216	Color Macro 54
		217–220	Color Macro 55
		221–224	Color Macro 56
		225–228	Color Macro 57
		229–232	Color Macro 58
		233–236	Color Macro 59
		237–240	Color Macro 60

CH	Function	DMX	Description
8	Colors 5 (continued)	241–244	Color Macro 61
		245–248	Color Macro 62
		249–252	Color Macro 63
		253–255	Color Macro 64
9	Effects 1		Foreground Effect Macro
		0	Open
		1–60	Macro 1
		61–179	Macro 2
		180–201	Macro 3
		202–207	Macro 4
		208–229	Macro 5
		230–234	Macro 6
		235–239	Macro 7
		240–244	Macro 8
		245–255	No Function
10	Effects Speed 1		Foreground Effect Macro Speed
		0–255	Slow to fast
11	Effects Fade 1		Foreground Effect Macro Fade
		0–255	Min to Max
12	Effects 2		Background Effect Macro
		0	Open
		1–60	Macro 1
		61–179	Macro 2
		180–201	Macro 3
		202–207	Macro 4
		208–229	Macro 5
		230–234	Macro 6
		235–239	Macro 7
		240–244	Macro 8
		245–255	No Function
13	Effects 2 Speed		Background Effect Macro Speed
		0–255	Slow to fast
14	Effects 2 Fade		Background Effect Macro Fade
		0–255	Min to Max
15	Shutter	0–31	Shutter Closed
		32–63	No Function (Shutter Open)
		64–95	Strobe Effect Slow to Fast (1–10 Hz)
		96–127	No Function (Shutter Open)
		128–159	Pulse-Effect in Sequences (1–10 Hz)
		160–191	No Function (Shutter Open)
		192–223	Random Strobe Effect Slow to Fast (1–10 Hz)
		224–255	No Function (Shutter Open)

CH	Function	DMX	Description
16	Dimmer	0	0 percent
		1–62	0 percent … 25 percent
		63	25 percent
		64–126	25 percent … 50 percent
		127	50 percent
		128–190	50 percent … 75 percent
		191	75 percent
		192–254	75 percent … 100 percent
		255	100 percent
17	Zoom	0–255	Wide to Narrow (8–56°)
18	Effects 3	0–9	No Function
		10–19	Program 1
		20–29	Program 2
		30–39	Program 3
		40–49	Program 4
		50–59	Program 5
		60–69	Program 6
		70–79	Program 7
		80–89	Program 8
		90–99	Program 9
		100–109	Program 10
		110–119	Program 11
		120–129	Program 12
		130–139	Program 13
		140–149	Program 14
		150–159	Program 15
		160–169	Program 16
		170–179	Program 17
		180–189	Program 18
		190–199	Program 19
		200–209	Program 20
		210–255	No Function
19	Effects Speed 2		Program Speed
		0–255	Slow to fast
20	Effects Fade 2		Program Fade
		0–255	Min to Max
21	Speed Pan/Tilt	0–255	Max to Min speed
22	Function	0–10	Default refresh rates (1200)
		11	900 Hz
		12	910 Hz
		13	920 Hz
		14	930 Hz

CH	Function	DMX	Description
22	Function (continued)	15	940 Hz
		16	950 Hz
		17	960 Hz
		18	970 Hz
		19	980 Hz
		20	990 Hz
		21	1000 Hz
		22	1010 Hz
		23	1020 Hz
		24	1030 Hz
		25	1040 Hz
		26	1050 Hz
		27	1060 Hz
		28	1070 Hz
		29	1080 Hz
		30	1090 Hz
		31	1100 Hz
		32	1110 Hz
		33	1120 Hz
		34	1130 Hz
		35	1140 Hz
		36	1150 Hz
		37	1160 Hz
		38	1170 Hz
		39	1180 Hz
		40	1190 Hz
		41	1210 Hz
		42	1220 Hz
		43	1230 Hz
		44	1240 Hz
		45	1250 Hz
		46	1260 Hz
		47	1270 Hz
		48	1280 Hz
		49	1290 Hz
		50	1300 Hz
		51	1310 Hz
		52	1320 Hz
		53	1330 Hz
		54	1340 Hz
		55	1350 Hz
		56	1360 Hz

CH	Function	DMX	Description
22	Function (continued)	57	1370 Hz
		58	1380 Hz
		59	1390 Hz
		60	1400 Hz
		61	1410 Hz
		62	1420 Hz
		63	1430 Hz
		64	1440 Hz
		65	1450 Hz
		66	1460 Hz
		67	1470 Hz
		68	1480 Hz
		69	1490 Hz
		70	1500 Hz
		71	2500 Hz
		72	4000 Hz
		73	5000 Hz
		74	6000 Hz
		75	10000 Hz
		76	15000 Hz
		77	20000 Hz
		78	25000 Hz
		79	Disable LED refresh Rates
		80	Special Functions
		81–89	Enable blackout while pan/tilt moving
		90–99	Disable blackout while pan/tilt moving
		100–105	Fan Mode Low (hold 3s)
		106–111	Fan Mode High (hold 3s)
		112–117	Fan Mode Auto (hold 3s)
		118–122	Enable Pan Invert (hold 3s)
		123–127	Disable Pan Invert (hold 3s)
		128–132	Enable Tilt Invert (hold 3s)
		133–139	Disable Tilt Invert (hold 3s)
		140–149	Reset All
		150–159	Reset Pan/Tilt
		160–169	Reset Effect
		170–174	Enable Zoom Speed Fast
		175–179	Disable Zoom Speed Fast
		180–182	Enable White Calibration (hold 3s)
		183–185	Disable White Calibration (hold 3s)
		186–189	Fan Mode Mute (hold 3s)
		190–193	Enable Zoom Mode 2 (hold 2s)

CH	Function	DMX	Description
22	Function (continued)	194–197	Disable Zoom Mode 2 (hold 3s)
		198–200	Enable LP Mode 1 (Hold 3s)
		201–203	Enable LP Mode 2 (Hold 3s)
		204–255	No function

Mode 31 CH STD

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

The GDTF file gives these values for a console's Highlight function: CH 5 Red 255, CH 6 Green 255, CH 7 Blue 255, CH 8 Lime 255, CH 11 Colors 3 0, CH 12 Colors 4 0, CH 20 Shutter 47, CH 21 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1

CH	Function	DMX	Description
3	Tilt	0–127	Min … Center
		128–255	Center … Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red	0	Red Min
		1–254	Red Min … Red Max
		255	Red Max
6	Green	0	Green Min
		1–254	Green Min … Green Max
		255	Green Max
7	Blue	0	Blue Min
		1–254	Blue Min … Blue Max
		255	Blue Max
8	Lime	0	Lime Min
		1–254	Lime Min … Lime Max
		255	Lime Max
9	Colors		Linear From 2700 K to 10000 K
		0–255	Linear From 2700 K to 10000 K (2700–10000 K)
10	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
11	Colors 3	0	Virtual Foreground Color Wheel Open: Open
		1	Pale Yellow
		2	Straw
		3	Gold Tint
		4	Spring Yellow
		5	Medium Yellow
		6	Yellow
		7	Deep Amber
		8	Deep Straw
		9	Loving Amber
		10	Gold Amber
		11	Orange
		12	Deep Orange
		13	Dark Amber
		14	Millennium Gold
		15	Deep Golden Amber
		16	Scarlet
		17	Primary Red
		18	Bright Red
		19	Medium Red
		20	Fire
		21	Pink
		22	Medium Pink

CH	Function	DMX	Description
11	Colors 3 (continued)	23	Dark Pink
		24	Bright Pink
		25	Bright Rose
		26	Special Rose Pink
		27	Vanity Fair
		28	Magenta
		29	Dark Magenta
		30	Rose Purple
		31	Mauve
		32	Medium Purple
		33	Lavender
		34	Palace blue
		35	Dark Blue
		36	Medium Blue
		37	Deep Blue
		38	Daylight Blue
		39	Slate Blue
		40	Light Blue
		41	Sky Blue
		42	Pale Navy Blue
		43	Marine Blue
		44	Peacock Blue
		45	Lagoon Blue
		46	Medium Blue Green
		47	Dark Yellow Green
		48	Primary Green
		49	Fern Green
		50	Moss Green
		51	Dark Green
		52	Lime Green
		53	Pale Green
		54	Quarter CT Blue
		55	Half CT Blue
		56	Full CT Blue
		57	Double CT Blue
		58	Quarter CT Orange
		59	Half CT Orange
		60	Full CT Orange
		61–179	No Function
		180–201	Clockwise fast to slow (7200–14 °/s)
		202–207	Color 3 Wheel Spin: Stop
		208–229	Counter-clockwise slow to fast (14–7200 °/s)

CH	Function	DMX	Description
11	Colors 3 (continued)	230–234	Open
		235–239	Color 3 Wheel Random: Fast
		240–244	Medium
		245–249	Color 3 Wheel Random: Slow
		250–255	Open
12	Colors 4	0	Virtual Background Color Wheel Open: Open
		1	Pale Yellow
		2	Straw
		3	Gold Tint
		4	Spring Yellow
		5	Medium Yellow
		6	Yellow
		7	Deep Amber
		8	Deep Straw
		9	Loving Amber
		10	Gold Amber
		11	Orange
		12	Deep Orange
		13	Dark Amber
		14	Millennium Gold
		15	Deep Golden Amber
		16	Scarlet
		17	Primary Red
		18	Bright Red
		19	Medium Red
		20	Fire
		21	Pink
		22	Medium Pink
		23	Dark Pink
		24	Bright Pink
		25	Bright Rose
		26	Special Rose Pink
		27	Vanity Fair
		28	Magenta
		29	Dark Magenta
		30	Rose Purple
		31	Mauve
		32	Medium Purple
		33	Lavender
		34	Palace blue
		35	Dark Blue
		36	Medium Blue

CH	Function	DMX	Description
12	Colors 4 (continued)	37	Deep Blue
		38	Daylight Blue
		39	Slate Blue
		40	Light Blue
		41	Sky Blue
		42	Pale Navy Blue
		43	Marine Blue
		44	Peacock Blue
		45	Lagoon Blue
		46	Medium Blue Green
		47	Dark Yellow Green
		48	Primary Green
		49	Fern Green
		50	Moss Green
		51	Dark Green
		52	Lime Green
		53	Pale Green
		54	Quarter CT Blue
		55	Half CT Blue
		56	Full CT Blue
		57	Double CT Blue
		58	Quarter CT Orange
		59	Half CT Orange
		60	Full CT Orange
		61–179	No Function
		180–201	Clockwise fast to slow (7200–14 °/s)
		202–207	Color 4 Wheel Spin: Stop
		208–229	Counter-clockwise slow to fast (14–7200 °/s)
		230–234	Open
		235–239	Color 4 Wheel Random: Fast
		240–244	Medium
		245–249	Color 4 Wheel Random: Slow
		250–255	Open
13	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
14	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
15	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
16	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
17	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
18	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
19	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
20	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
21	Dimmer	0–63	0 percent ... 25 percent

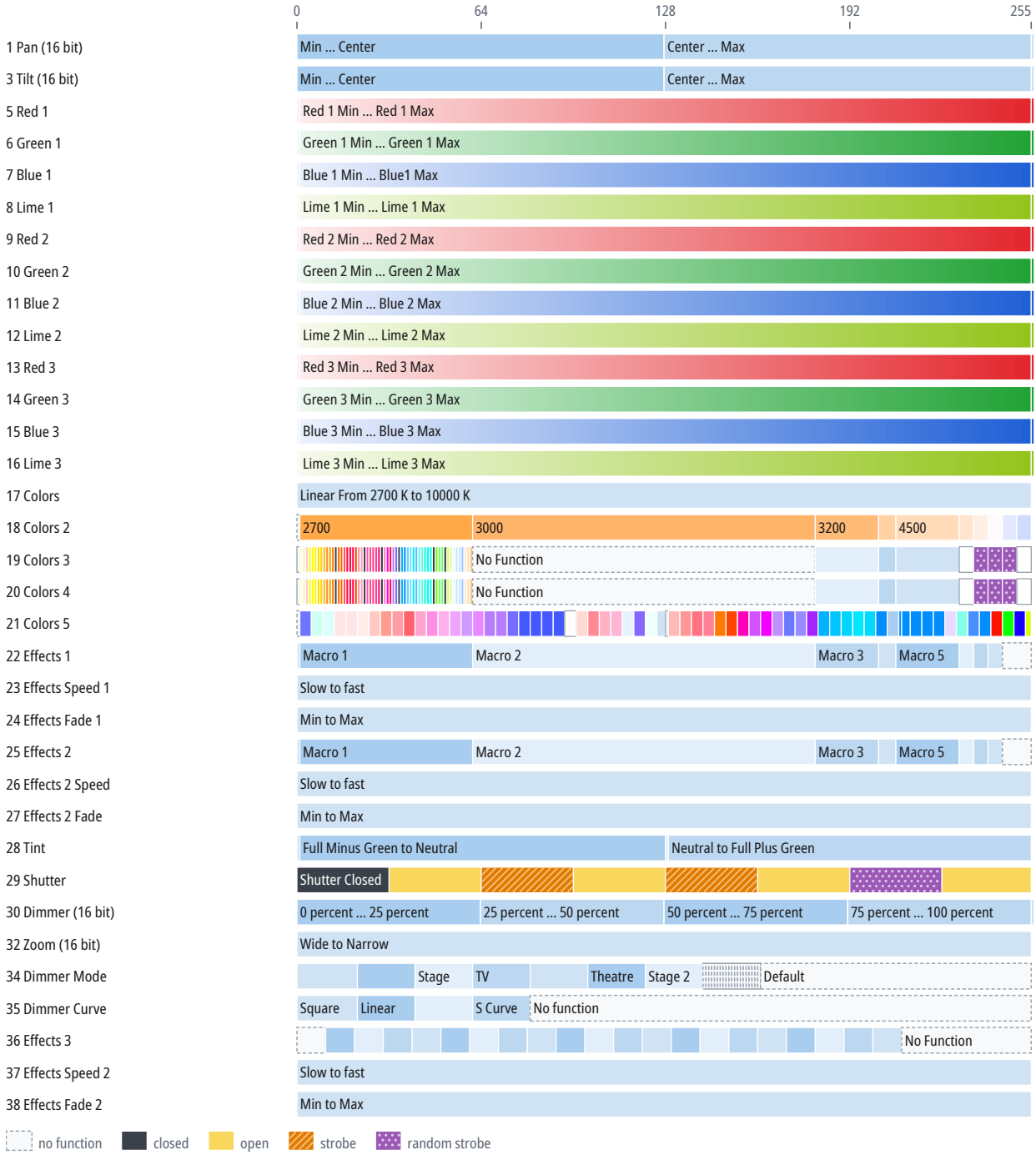
CH	Function	DMX	Description
21	Dimmer (continued)	63	25 percent
		64–127	25 percent ... 50 percent
		127	50 percent
		128–191	50 percent ... 75 percent
		191	75 percent
		192–255	75 percent ... 100 percent
		255	100 percent
22	Dimmer Fine	0–255	Fine adjustment of CH 21
23	Zoom	0–255	Wide to Narrow (8–56°)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Dimmer Mode	0–20	Default to unit setting
		21–40	Standard
		41–60	Stage
		61–80	TV
		81–100	Architectural
		101–120	Theatre
		121–140	Stage 2
		141	0/1s Delay
		142	0/2s Delay
		143	0/3s Delay
		144	0/4s Delay
		145	0/5s Delay
		146	0/6s Delay
		147	0/7s Delay
		148	0/8s Delay
		149	0/9s Delay
		150	1s Delay
		151	1/5s Delay
		152–160	2...10s Delay
		161–255	Default
26	Dimmer Curve		Dimmer Curves
		0–20	Square
		21–40	Linear
		41–60	Inverted Square
		61–80	S Curve
		81–255	No function
27	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
28	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
29	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
30	Speed Pan/Tilt	0–255	Max to Min speed
31	Function		Same as CH 22 in the mode “22 CH” (p. 20)

Mode 40 CH

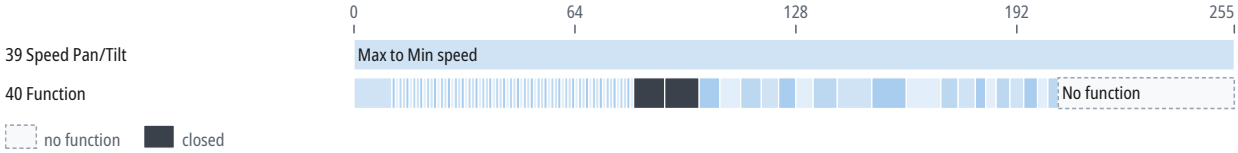
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Red 1 255, CH 6 Green 1 255, CH 7 Blue 1 255, CH 8 Lime 1 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255, CH 12 Lime 2 255, CH 13 Red 3 255, CH 14 Green 3 255, CH 15 Blue 3 255, CH 16 Lime 3 255, CH 19 Colors 3 0, CH 20 Colors 4 0, CH 29 Shutter 47, CH 30 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “31 CH STD” (p. 23)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “31 CH STD” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red 1	0	Red 1 Min
		1–254	Red 1 Min ... Red 1 Max
		255	Red 1 Max
6	Green 1	0	Green 1 Min
		1–254	Green 1 Min ... Green 1 Max
		255	Green 1 Max
7	Blue 1	0	Blue 1 Min
		1–254	Blue 1 Min ... Blue1 Max
		255	Blue1 Max
8	Lime 1	0	Lime 1 Min
		1–254	Lime 1 Min ... Lime 1 Max
		255	Lime 1 Max
9	Red 2	0	Red 2 Min
		1–254	Red 2 Min ... Red 2 Max
		255	Red 2 Max
10	Green 2	0	Green 2 Min
		1–254	Green 2 Min ... Green 2 Max
		255	Green 2 Max
11	Blue 2	0	Blue 2 Min
		1–254	Blue 2 Min ... Blue 2 Max
		255	Blue 2 Max
12	Lime 2	0	Lime 2 Min
		1–254	Lime 2 Min ... Lime 2 Max
		255	Lime 2 Max
13	Red 3	0	Red 3 Min
		1–254	Red 3 Min ... Red 3 Max
		255	Red 3 Max
14	Green 3	0	Green 3 Min
		1–254	Green 3 Min ... Green 3 Max
		255	Green 3 Max
15	Blue 3	0	Blue 3 Min

CH	Function	DMX	Description
15	Blue 3 (continued)	1–254	Blue 3 Min … Blue 3 Max
		255	Blue 3 Max
16	Lime 3	0	Lime 3 Min
		1–254	Lime 3 Min … Lime 3 Max
		255	Lime 3 Max
17	Colors		Same as CH 9 in the mode “31 CH STD” (p. 24)
18	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
19	Colors 3		Same as CH 11 in the mode “31 CH STD” (p. 24)
20	Colors 4		Same as CH 12 in the mode “31 CH STD” (p. 26)
21	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
22	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
23	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
24	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
25	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
26	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
27	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
28	Tint	0	Idle
		1–127	Full Minus Green to Neutral
		128	Neutral White
		129–255	Neutral to Full Plus Green
29	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
30	Dimmer		Same as CH 21 in the mode “31 CH STD” (p. 27)
31	Dimmer Fine	0–255	Fine adjustment of CH 30
32	Zoom	0–255	Wide to Narrow (8–56°)
33	Zoom Fine	0–255	Fine adjustment of CH 32
34	Dimmer Mode		Same as CH 25 in the mode “31 CH STD” (p. 28)
35	Dimmer Curve		Same as CH 26 in the mode “31 CH STD” (p. 28)
36	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
37	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
38	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
39	Speed Pan/Tilt	0–255	Max to Min speed
40	Function		Same as CH 22 in the mode “22 CH” (p. 20)

Mode 104 CH

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

The GDTF file gives these values for a console's Highlight function: CH 5 Red 255 (the same in each of the 19 cells), CH 6 Green 255 (the same in each of the 19 cells), CH 7 Blue 255 (the same in each of the 19 cells), CH 8 Lime 255 (the same in each of the 19 cells), CH 83 Colors 3 0, CH 84 Colors 4 0, CH 93 Shutter 47, CH 94 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “31 CH STD” (p. 23)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “31 CH STD” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red 1	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %

CH	Function	DMX	Description
5	Red 1 (continued)	191	75 %
		192–254	75 % … 100 %
		255	100 %
6	Green 1	0	0 %
		1–62	0 % … 25 %
		63	25 %
		64–126	25 % … 50 %
		127	50 %
		128–190	50 % … 75 %
		191	75 %
		192–254	75 % … 100 %
		255	100 %
7	Blue 1	0	0 %
		1–62	0 % … 25 %
		63	25 %
		64–126	25 % … 50 %
		127	50 %
		128–190	50 % … 75 %
		191	75 %
		192–254	75 % … 100 %
		255	100 %
8	Lime 1	0	0 %
		1–62	0 % … 25 %
		63	25 %
		64–126	25 % … 50 %
		127	50 %
		128–190	50 % … 75 %
		191	75 %
		192–254	75 % … 100 %
		255	100 %
81	Colors		Same as CH 9 in the mode “31 CH STD” (p. 24)
82	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
83	Colors 3		Same as CH 11 in the mode “31 CH STD” (p. 24)
84	Colors 4		Same as CH 12 in the mode “31 CH STD” (p. 26)
85	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
86	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
87	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
88	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
89	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
90	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
91	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
92	Tint		Same as CH 28 in the mode “40 CH” (p. 31)

CH	Function	DMX	Description
93	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
94	Dimmer	0–63	0 % … 25 %
		63	25 %
		64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
95	Dimmer Fine	0–255	Fine adjustment of CH 94
96	Zoom	0–255	Wide to Narrow (8–56°)
97	Zoom Fine	0–255	Fine adjustment of CH 96
98	Dimmer Mode		Same as CH 25 in the mode “31 CH STD” (p. 28)
99	Dimmer Curve		Same as CH 26 in the mode “31 CH STD” (p. 28)
100	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
101	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
102	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
103	Speed Pan/Tilt	0–255	Max to Min speed
104	Function	0–10	Default refresh rates (1200)
		11	900 Hz
		12	910 Hz
		13	920 Hz
		14	930 Hz
		15	940 Hz
		16	950 Hz
		17	960 Hz
		18	970 Hz
		19	980 Hz
		20	990 Hz
		21	1000 Hz
		22	1010 Hz
		23	1020 Hz
		24	1030 Hz
		25	1040 Hz
		26	1050 Hz
		27	1060 Hz
		28	1070 Hz
		29	1080 Hz
		30	1090 Hz
		31	1100 Hz
		32	1110 Hz
		33	1120 Hz

CH	Function	DMX	Description
104	Function (continued)	34	1130 Hz
		35	1140 Hz
		36	1150 Hz
		37	1160 Hz
		38	1170 Hz
		39	1180 Hz
		40	1190 Hz
		41	1210 Hz
		42	1220 Hz
		43	1230 Hz
		44	1240 Hz
		45	1250 Hz
		46	1260 Hz
		47	1270 Hz
		48	1280 Hz
		49	1290 Hz
		50	1300 Hz
		51	1310 Hz
		52	1320 Hz
		53	1330 Hz
		54	1340 Hz
		55	1350 Hz
		56	1360 Hz
		57	1370 Hz
		58	1380 Hz
		59	1390 Hz
		60	1400 Hz
		61	1410 Hz
		62	1420 Hz
		63	1430 Hz
		64	1440 Hz
		65	1450 Hz
		66	1460 Hz
		67	1470 Hz
		68	1480 Hz
		69	1490 Hz
		70	1500 Hz
		71	2500 Hz
		72	4000 Hz
		73	5000 Hz
		74	6000 Hz
		75	10000 Hz

CH	Function	DMX	Description
104	Function (continued)	76	15000 Hz
		77	20000 Hz
		78	25000 Hz
		79	Disable LED refresh Rates
		80–89	Enable blackout while pan/tilt moving
		90–99	Disable blackout while pan/tilt moving
		100–105	Fan Mode Low (hold 3s)
		106–111	Fan Mode High (hold 3s)
		112–117	Fan Mode Auto (hold 3s)
		118–122	Enable Pan Invert (hold 3s)
		123–127	Disable Pan Invert (hold 3s)
		128–132	Enable Tilt Invert (hold 3s)
		133–139	Disable Tilt Invert (hold 3s)
		140–149	Reset All
		150–159	Reset Pan/Tilt
		160–169	Reset Effect
		170–174	Enable Zoom Speed Fast
		175–179	Disable Zoom Speed Fast
		180–182	Enable White Calibration (hold 3s)
		183–185	Disable White Calibration (hold 3s)
		186–189	Fan Mode Mute (hold 3s)
		190–193	Enable Zoom Mode 2 (hold 2s)
		194–197	Disable Zoom Mode 2 (hold 3s)
		198–200	Enable LP Mode 1 (Hold 3s)
		201–203	Enable LP Mode 2 (Hold 3s)
		204–255	No function

CH 5–80: 19 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 5–8); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Lime	Cell	Red	Green	Blue	Lime
1	5	6	7	8	2	9	10	11	12
3	13	14	15	16	4	17	18	19	20
5	21	22	23	24	6	25	26	27	28
7	29	30	31	32	8	33	34	35	36
9	37	38	39	40	10	41	42	43	44
11	45	46	47	48	12	49	50	51	52
13	53	54	55	56	14	57	58	59	60
15	61	62	63	64	16	65	66	67	68
17	69	70	71	72	18	73	74	75	76
19	77	78	79	80					

Mode 31 CH STD RGBW

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

The GDTF file gives these values for a console's Highlight function: CH 5 Red 255, CH 6 Green 255, CH 7 Blue 255, CH 8 White 255, CH 11 Colors 3 0, CH 12 Colors 4 0, CH 20 Shutter 47, CH 21 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “31 CH STD” (p. 23)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “31 CH STD” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red		Same as CH 5 in the mode “31 CH STD” (p. 24)
6	Green		Same as CH 6 in the mode “31 CH STD” (p. 24)
7	Blue		Same as CH 7 in the mode “31 CH STD” (p. 24)
8	White	0	White Min
		1–254	White Min ... White Max

CH	Function	DMX	Description
8	White (continued)	255	White Max
9	Colors		Same as CH 9 in the mode “31 CH STD” (p. 24)
10	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
11	Colors 3		Same as CH 11 in the mode “31 CH STD” (p. 24)
12	Colors 4		Same as CH 12 in the mode “31 CH STD” (p. 26)
13	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
14	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
15	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
16	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
17	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
18	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
19	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
20	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
21	Dimmer		Same as CH 21 in the mode “31 CH STD” (p. 27)
22	Dimmer Fine	0–255	Fine adjustment of CH 21
23	Zoom	0–255	Wide to Narrow (8–56°)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Dimmer Mode		Same as CH 25 in the mode “31 CH STD” (p. 28)
26	Dimmer Curve		Same as CH 26 in the mode “31 CH STD” (p. 28)
27	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
28	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
29	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
30	Speed Pan/Tilt	0–255	Max to Min speed
31	Function		Same as CH 104 in the mode “104 CH” (p. 34)

Mode 31 CH STD CMY

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

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Yellow 0, CH 10 Colors 3 0, CH 11 Colors 4 0, CH 20 Shutter 47, CH 21 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “31 CH STD” (p. 23)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “31 CH STD” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	Cyan Min
		1–254	Cyan Min ... Cyan Max
		255	Cyan Max
6	Magenta	0	Magenta Min
		1–254	Magenta Min ... Magenta Max

CH	Function	DMX	Description
6	Magenta (continued)	255	Magenta Max
7	Yellow	0	Yellow Min
		1–254	Yellow Min ... Yellow Max
		255	Yellow Max
8	Colors		Same as CH 9 in the mode “31 CH STD” (p. 24)
9	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
10	Colors 3		Same as CH 11 in the mode “31 CH STD” (p. 24)
11	Colors 4		Same as CH 12 in the mode “31 CH STD” (p. 26)
12	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
13	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
14	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
15	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
16	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
17	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
18	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
19	Tint		Same as CH 28 in the mode “40 CH” (p. 31)
20	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
21	Dimmer		Same as CH 21 in the mode “31 CH STD” (p. 27)
22	Dimmer Fine	0–255	Fine adjustment of CH 21
23	Zoom	0–255	Wide to Narrow (8–56°)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Dimmer Mode		Same as CH 25 in the mode “31 CH STD” (p. 28)
26	Dimmer Curve		Same as CH 26 in the mode “31 CH STD” (p. 28)
27	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
28	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
29	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
30	Speed Pan/Tilt	0–255	Max to Min speed
31	Function		Same as CH 104 in the mode “104 CH” (p. 34)

Mode 34 CH

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

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 9 Yellow 0, CH 13 Colors 3 0, CH 14 Colors 4 0, CH 23 Shutter 47, CH 24 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “31 CH STD” (p. 23)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “31 CH STD” (p. 24)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–255	Cyan Min ... Cyan Max
		255	Cyan Max
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–255	Magenta Min ... Magenta Max
		255	Magenta Max

CH	Function	DMX	Description
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow	0–255	Yellow Min ... Yellow Max
		255	Yellow Max
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	Colors		Same as CH 9 in the mode “31 CH STD” (p. 24)
12	Colors 2		Same as CH 7 in the mode “22 CH” (p. 17)
13	Colors 3		Same as CH 11 in the mode “31 CH STD” (p. 24)
14	Colors 4		Same as CH 12 in the mode “31 CH STD” (p. 26)
15	Colors 5		Same as CH 8 in the mode “22 CH” (p. 17)
16	Effects 1		Same as CH 9 in the mode “22 CH” (p. 19)
17	Effects Speed 1		Same as CH 10 in the mode “22 CH” (p. 19)
18	Effects Fade 1		Same as CH 11 in the mode “22 CH” (p. 19)
19	Effects 2		Same as CH 12 in the mode “22 CH” (p. 19)
20	Effects 2 Speed		Same as CH 13 in the mode “22 CH” (p. 19)
21	Effects 2 Fade		Same as CH 14 in the mode “22 CH” (p. 19)
22	Tint		Same as CH 28 in the mode “40 CH” (p. 31)
23	Shutter		Same as CH 15 in the mode “22 CH” (p. 19)
24	Dimmer		Same as CH 21 in the mode “31 CH STD” (p. 27)
25	Dimmer Fine	0–255	Fine adjustment of CH 24
26	Zoom	0–255	Wide to Narrow (8–56°)
27	Zoom Fine	0–255	Fine adjustment of CH 26
28	Dimmer Mode		Same as CH 25 in the mode “31 CH STD” (p. 28)
29	Dimmer Curve		Same as CH 26 in the mode “31 CH STD” (p. 28)
30	Effects 3		Same as CH 18 in the mode “22 CH” (p. 20)
31	Effects Speed 2		Same as CH 19 in the mode “22 CH” (p. 20)
32	Effects Fade 2		Same as CH 20 in the mode “22 CH” (p. 20)
33	Speed Pan/Tilt	0–255	Max to Min speed
34	Function		Same as CH 104 in the mode “104 CH” (p. 34)

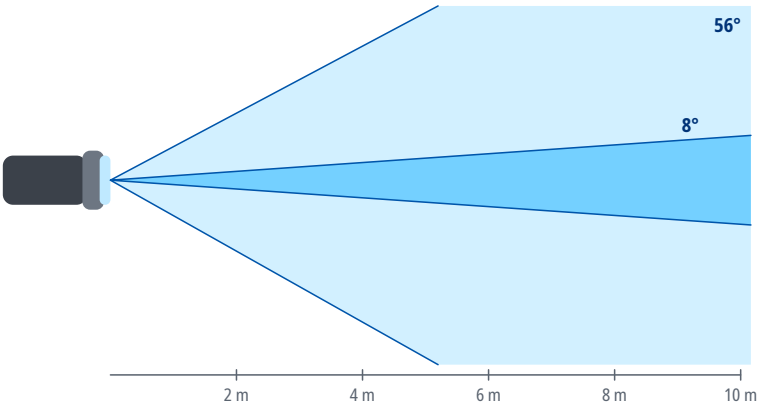
10 Technical specifications

Parameter	Value
Light source	LED
Zoom	8–56°
Pan	540°
Tilt	250°
RDM	yes (manufacturer ID 0x1900, device model ID 0x0038)
Weight	19 kg
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2400–10000 K
Strobe frequency	1–10 Hz
Color wheel 1 rotation	up to 7200 °/s (1200 rpm)
Color wheel 1 rotation	up to 7200 °/s (1200 rpm)

Spot diameter



Distance	Ø 8°	Ø 56°
2 m	0.28 m	2.1 m
4 m	0.56 m	4.3 m
6 m	0.84 m	6.4 m
8 m	1.1 m	8.5 m
10 m	1.4 m	10.6 m
15 m	2.1 m	16 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.