DMX REFERENCE

SEVEN BATTEN 14

Elation



Manufacturer	Elation
GDTF file	Elation_Seven_Batten_14_57778.gdtf
GDTF revision	2024-16-02 First Release · 2024-02-16
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1 About this manual

This document describes the SEVEN BATTEN 14 by Elation. It was compiled from the GDTF file Elation_Seven_Batten_14_57778.gdtf from the GDTF-Share library.

File revision: “2024-16-02 First 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	7.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
RGB 3CH	3	170	1, 4, 7, 10, ...
RGBSeven 3CH	3	170	1, 4, 7, 10, ...
8Bit 7CH	7	73	1, 8, 15, 22, ...
16Bit 14CH	14	36	1, 15, 29, 43, ...
16bit + Dim 16CH	16	32	1, 17, 33, 49, ...
Ext 15CH	15	34	1, 16, 31, 46, ...
Cells 14CH	14	36	1, 15, 29, 43, ...
Cells Dim 16CH	16	32	1, 17, 33, 49, ...
Ext Cells 22CH	22	23	1, 23, 45, 67, ...
HSI 4CH	4	128	1, 5, 9, 13, ...
HSI Mast 10CH	10	51	1, 11, 21, 31, ...
HSI Cell 14CH	14	36	1, 15, 29, 43, ...



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.

⚠ WARNING

- This device emits ultraviolet (UV) radiation, which can harm the eyes and skin.
- Do not look directly into the light source and avoid prolonged exposure of the eyes and skin at close range. Install the device so that people are not exposed at close range.
- People with increased sensitivity to light, including those taking medication that increases this sensitivity, should avoid UV exposure.

⚠ 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.

4 Product description

Description in the GDTF file

“The SEVEN BATTEN 14™ is a seven color 1.2 foot (0.4m) long batten wash luminaire with (12) 25W 7-in-1 RGBAW + Lime + UV (395nm) LEDs. Features include individual hue, saturation, and intensity control, special RGB SEVEN 3 channel mode (RGB + dynamic white, amber, lime, and UV), 2 pixel mapping zones with pixel flip mode, smooth color mixing, 12 internal programs with speed and fade control, 64 unique 7-color macros, selectable dimming curve modes, adjustable LED refresh rate and gamma brightness for flicker free operation for TV and FILM, DMX Art-Net, Kling-Net, and RDM (Remote Device Management) protocol support, 3/5pin DMX, RJ45 ethernet, and Locking Power in/out connections, a 220° manual tilt adjustable mounting bracket, OLED menu display with a 4-button control panel, a multi-voltage universal auto switching power supply (100-240v), a rugged powder coated die-cast aluminum exterior, and an integrated gel / frost filter slot.”

5 Installation

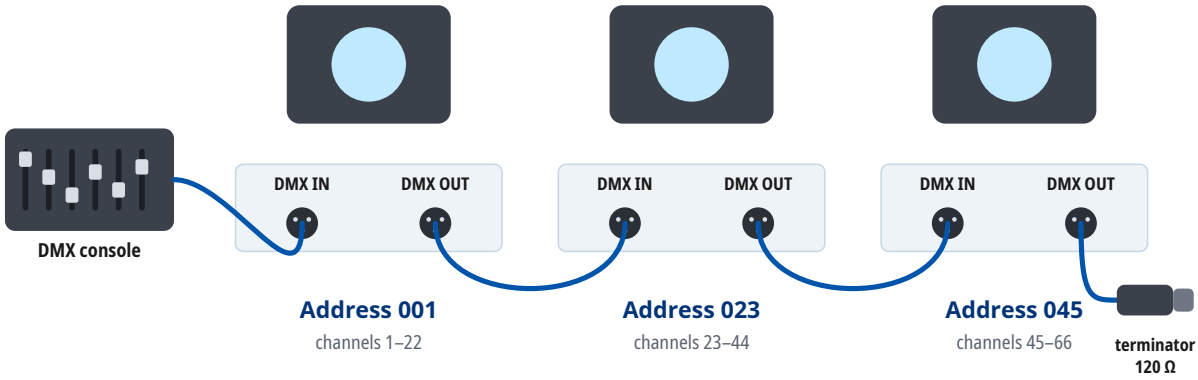
⚠ **WARNING**

- 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: 7.7 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 Ext Cells 22CH: every unit occupies 22 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 “Ext Cells 22CH”: 22.
- 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 “Ext Cells 22CH”, you can use, for example, the start addresses 1, 23, 45, 67.
- 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

	RGB 3CH 3 channels	RGBSeven 3CH 3 channels	8Bit 7CH 7 channels	16Bit 14CH 14 channels	16bit + Dim 16CH 16 channels	Ext 15CH 15 channels	Cells 14CH 14 channels	Cells Dim 16CH 16 channels
Dimmer					1	2		1
Shutter / strobe						1		
Color mixing	1–3	1–3	1–7	7× (1–13)	7× (3–15)	9–15	1–14	3–16
Color wheel						8		
Effects / macros						5–7		

Color wheel

1 Open
DMX 0

2 
Color Macro 1
DMX 1–4

3
Color Macro 2
DMX 5–8

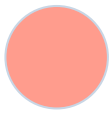
4
Color Macro 3
DMX 9–12

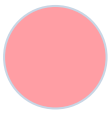
5
Color Macro 4
DMX 13–16

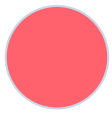
6
Color Macro 5
DMX 17–20

7
Color Macro 6
DMX 21–24

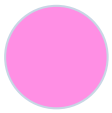
8
Color Macro 7
DMX 25–28

9 
Color Macro 8
DMX 29–32

10 
Color Macro 9
DMX 33–36

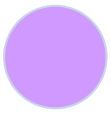
11 
Color Macro 10
DMX 37–40

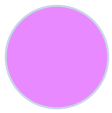
12 
Color Macro 11
DMX 41–44

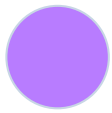
13 
Color Macro 12
DMX 45–48

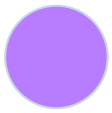
14
Color Macro 13
DMX 49–52

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 
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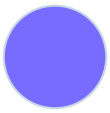
DMX 69–72

20 
Color Macro 19
DMX 73–76

21 
Color Macro 20
DMX 77–80

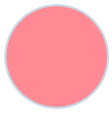
22 
Color Macro 21
DMX 81–84

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

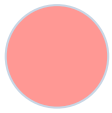
30
Color Macro 29
DMX 113–116

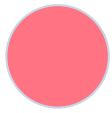
31 
Color Macro 30
DMX 117–120

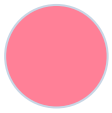
32
Color Macro 31
DMX 121–124

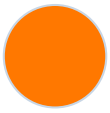
33
Color Macro 32
DMX 125–128

34
Color Macro 33
DMX 129–132

35 
Color Macro 34
DMX 133–136

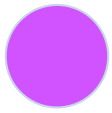
36 
Color Macro 35
DMX 137–140

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 205–208**

54 Color Macro 53 **DMX 209–212**

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**

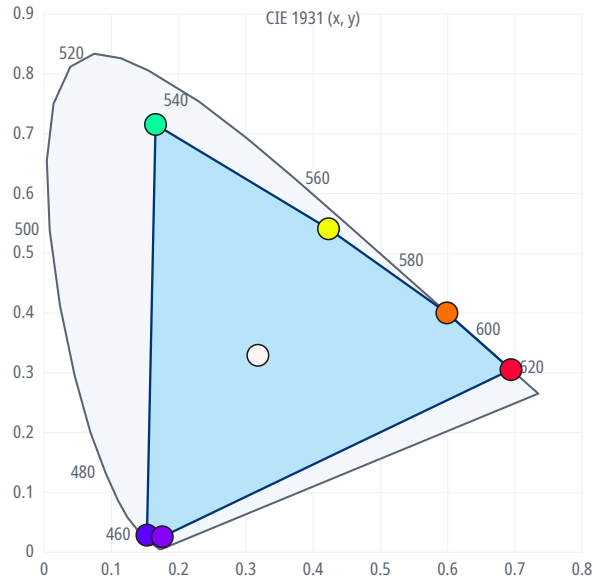
62 Color Macro 61 **DMX 241–244**

63 Color Macro 62 **DMX 245–248**

64 Color Macro 63 **DMX 249–252**

65 Color Macro 64 **DMX 253–255**

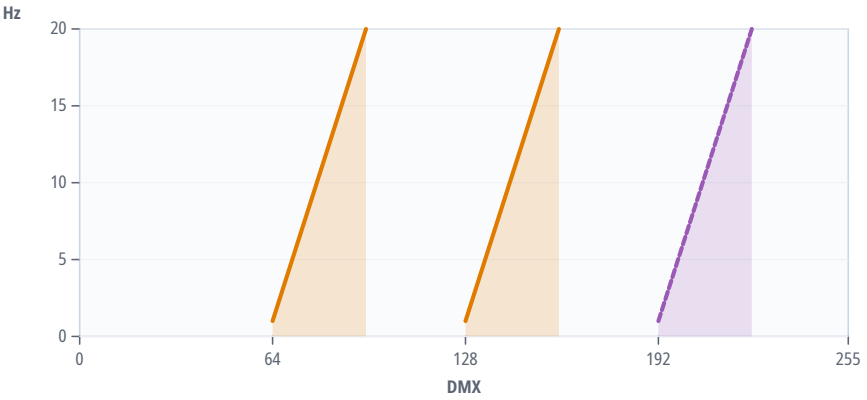
LED colors and the colors they mix



LED	x	y	nm
Red-LED	0.694	0.305	621
Green-LED	0.166	0.716	525
Blue-LED	0.153	0.029	455
Lime-LED	0.423	0.541	568
Amber-LED	0.599	0.400	594
UV-LED	0.176	0.026	400
White-LED	0.318	0.329	

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

Strobe rate



CH 1 · Ext Cells 22CH

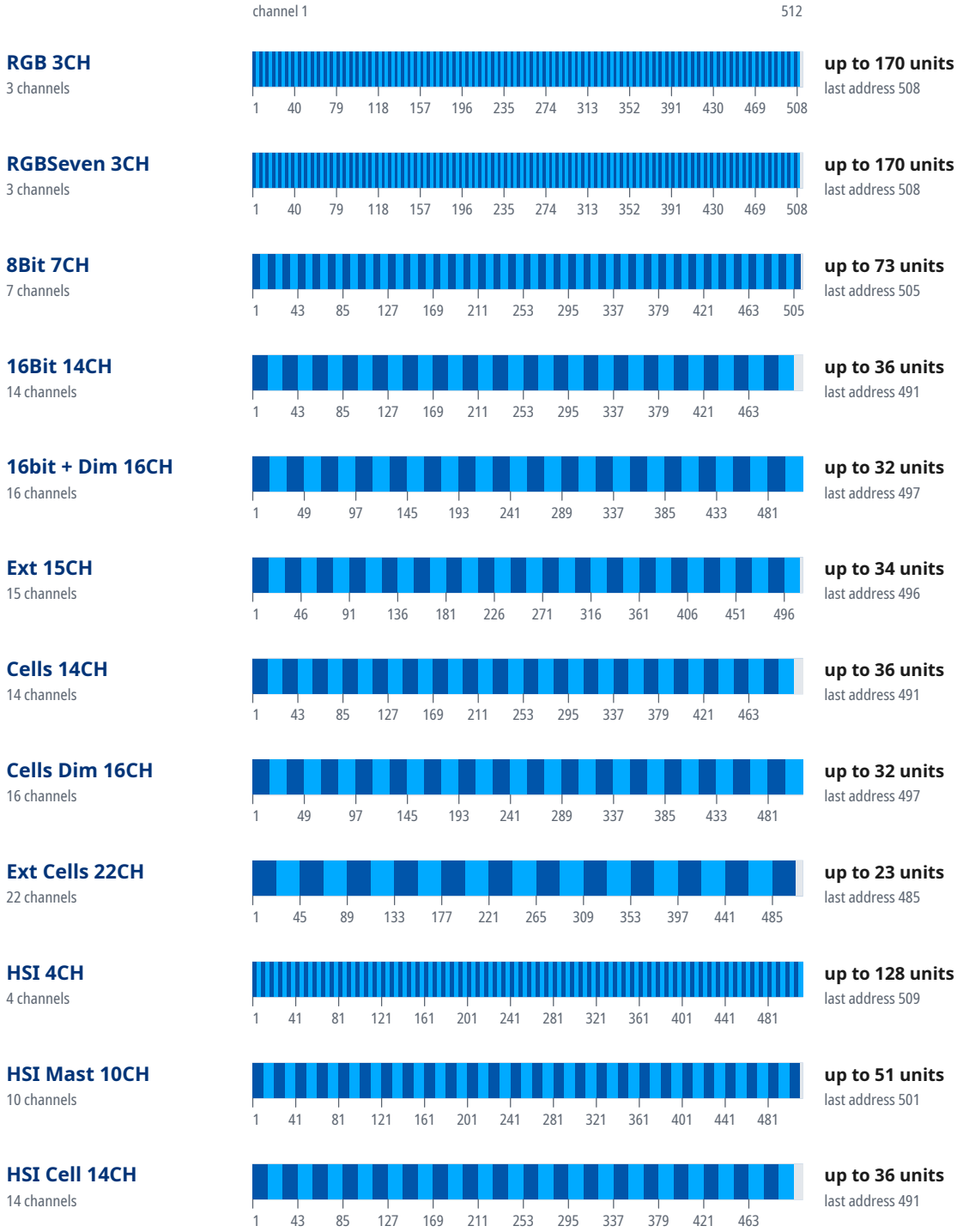
64–95: 1–20 Hz

128–159: 1–20 Hz
Shutter1StrobePulse

192–223: 1–20 Hz
Shutter1StrobeRandom

9 DMX channels

Units in one DMX universe



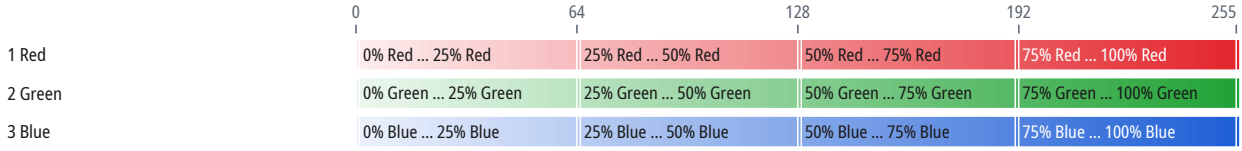
Start addresses of 20 units in the mode “Ext Cells 22CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	111	11	221	16	331
2	23	7	133	12	243	17	353
3	45	8	155	13	265	18	375
4	67	9	177	14	287	19	397
5	89	10	199	15	309	20	419

Mode RGB 3CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255.

Channel functions at a glance



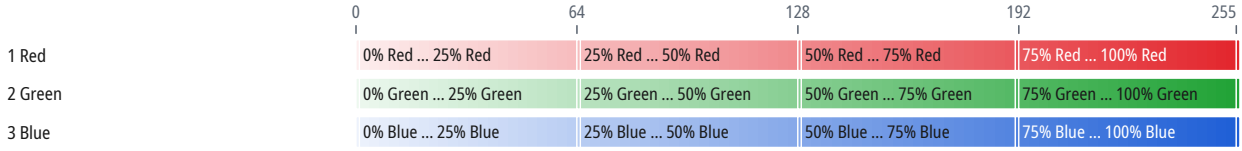
CH	Function	DMX	Description
1	Red	0	0% Red
		1–63	0% Red ... 25% Red
		64	25% Red
		65–127	25% Red ... 50% Red
		128	50% Red
		129–190	50% Red ... 75% Red
		191	75% Red
		192–254	75% Red ... 100% Red
		255	100% Red
2	Green	0	0% Green
		1–63	0% Green ... 25% Green
		64	25% Green
		65–127	25% Green ... 50% Green
		128	50% Green
		129–190	50% Green ... 75% Green
		191	75% Green
		192–254	75% Green ... 100% Green
		255	100% Green
3	Blue	0	0% Blue
		1–63	0% Blue ... 25% Blue
		64	25% Blue
		65–127	25% Blue ... 50% Blue
		128	50% Blue
		129–190	50% Blue ... 75% Blue

CH	Function	DMX	Description
3	Blue (continued)	191	75% Blue
		192–254	75% Blue ... 100% Blue
		255	100% Blue

Mode RGBSeven 3CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255.

Channel functions at a glance

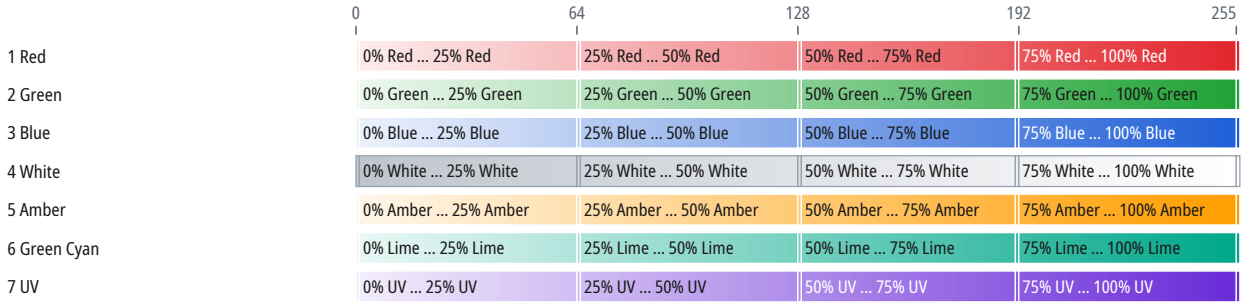


CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “RGB 3CH” (p. 10)
2	Green		Same as CH 2 in the mode “RGB 3CH” (p. 10)
3	Blue		Same as CH 3 in the mode “RGB 3CH” (p. 10)

Mode 8Bit 7CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Amber 255, CH 6 Green Cyan 255, CH 7 UV 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “RGB 3CH” (p. 10)
2	Green		Same as CH 2 in the mode “RGB 3CH” (p. 10)
3	Blue		Same as CH 3 in the mode “RGB 3CH” (p. 10)
4	White	0	0% White
		1–63	0% White ... 25% White
		64	25% White
		65–127	25% White ... 50% White
		128	50% White
		129–190	50% White ... 75% White
		191	75% White
		192–254	75% White ... 100% White

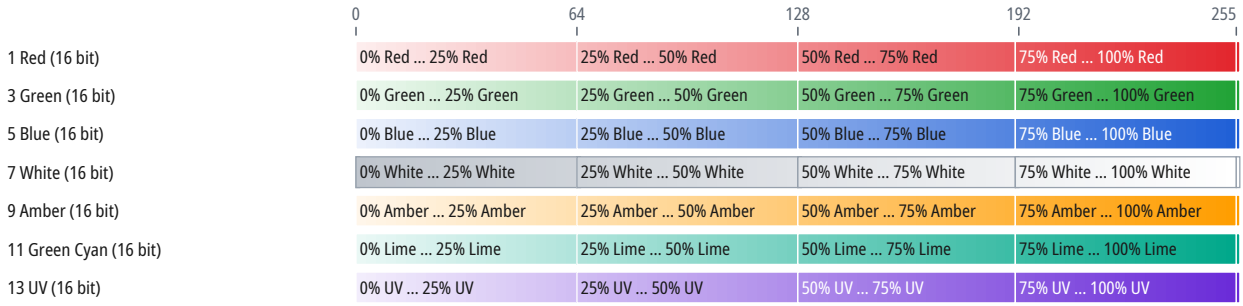
CH	Function	DMX	Description
4	White (continued)	255	100% White
5	Amber	0	0% Amber
		1–63	0% Amber … 25% Amber
		64	25% Amber
		65–127	25% Amber … 50% Amber
		128	50% Amber
		129–190	50% Amber … 75% Amber
		191	75% Amber
		192–254	75% Amber … 100% Amber
		255	100% Amber
6	Green Cyan	0	0% Lime
		1–63	0% Lime … 25% Lime
		64	25% Lime
		65–127	25% Lime … 50% Lime
		128	50% Lime
		129–190	50% Lime … 75% Lime
		191	75% Lime
		192–254	75% Lime … 100% Lime
		255	100% Lime
7	UV	0	0% UV
		1–63	0% UV … 25% UV
		64	25% UV
		65–127	25% UV … 50% UV
		128	50% UV
		129–190	50% UV … 75% UV
		191	75% UV
		192–254	75% UV … 100% UV
		255	100% UV

Mode 16Bit 14CH

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 1 Red 255, CH 3 Green 255, CH 5 Blue 255, CH 7 White 255, CH 9 Amber 0, CH 11 Green Cyan 0, CH 13 UV 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0–64	0% Red … 25% Red
		64–128	25% Red … 50% Red
		128–191	50% Red … 75% Red
		191–255	75% Red … 100% Red
		255	100% Red
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green	0–64	0% Green … 25% Green
		64–128	25% Green … 50% Green
		128–191	50% Green … 75% Green
		191–255	75% Green … 100% Green
		255	100% Green
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue	0–64	0% Blue … 25% Blue
		64–128	25% Blue … 50% Blue
		128–191	50% Blue … 75% Blue
		191–255	75% Blue … 100% Blue
		255	100% Blue
6	Blue Fine	0–255	Fine adjustment of CH 5
7	White	0–64	0% White … 25% White
		64–128	25% White … 50% White
		128–191	50% White … 75% White
		191–255	75% White … 100% White
		255	100% White
8	White Fine	0–255	Fine adjustment of CH 7
9	Amber	0–64	0% Amber … 25% Amber
		64–128	25% Amber … 50% Amber
		128–191	50% Amber … 75% Amber
		191–255	75% Amber … 100% Amber
		255	100% Amber
10	Amber Fine	0–255	Fine adjustment of CH 9
11	Green Cyan	0–64	0% Lime … 25% Lime
		64–128	25% Lime … 50% Lime
		128–191	50% Lime … 75% Lime
		191–255	75% Lime … 100% Lime
		255	100% Lime
12	Green Cyan Fine	0–255	Fine adjustment of CH 11

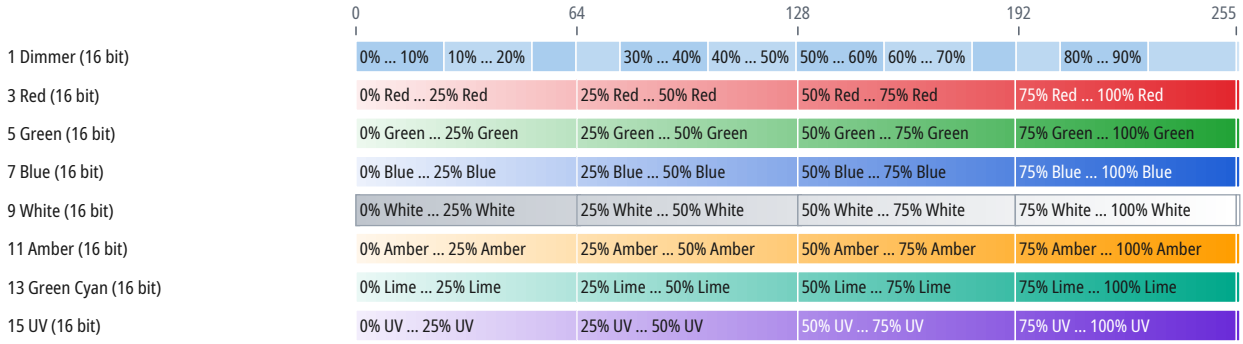
CH	Function	DMX	Description
13	UV	0–64	0% UV ... 25% UV
		64–128	25% UV ... 50% UV
		128–191	50% UV ... 75% UV
		191–255	75% UV ... 100% UV
		255	100% UV
14	UV Fine	0–255	Fine adjustment of CH 13

Mode 16bit + Dim 16CH

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 1 Dimmer 255, CH 3 Red 255, CH 5 Green 255, CH 7 Blue 255, CH 9 White 255, CH 11 Amber 0, CH 13 Green Cyan 0, CH 15 UV 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0–25	0% ... 10%
		25–51	10% ... 20%
		51–63	20% ... 25%
		64–76	25% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		128–153	50% ... 60%
		153–179	60% ... 70%
		179–191	70% ... 75%
		191	75%
		192–204	75% ... 80%
		204–230	80% ... 90%
		230–255	90% ... 100%
		255	100%
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Red		Same as CH 1 in the mode “16Bit 14CH” (p. 13)
4	Red Fine	0–255	Fine adjustment of CH 3
5	Green		Same as CH 3 in the mode “16Bit 14CH” (p. 13)

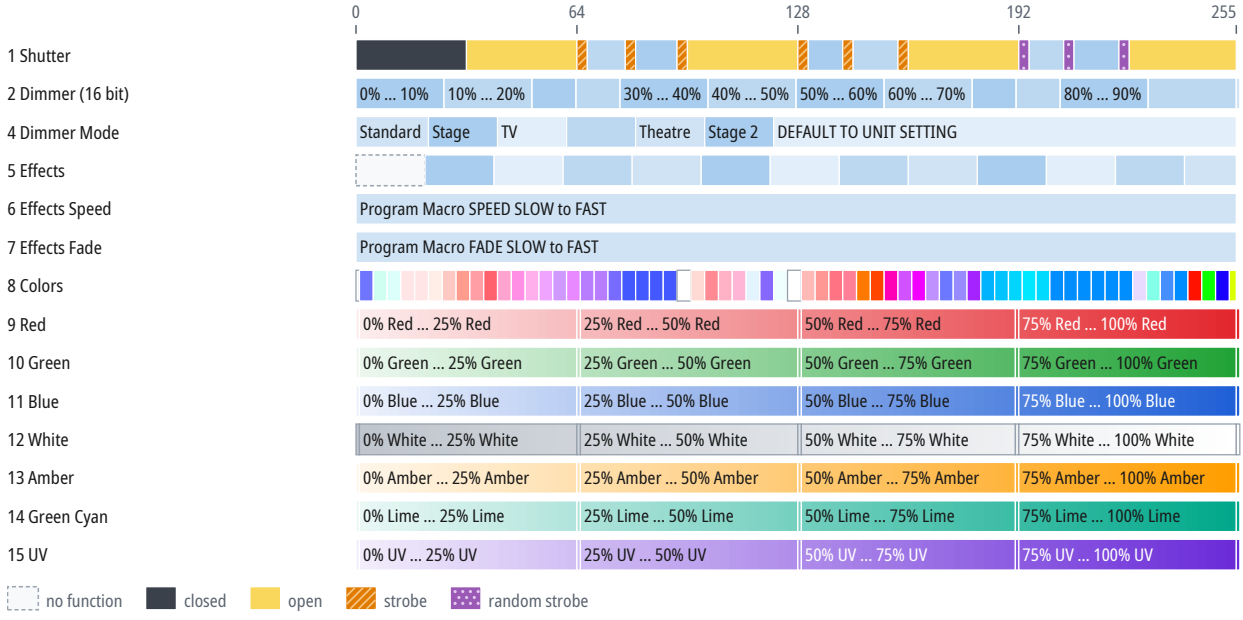
CH	Function	DMX	Description
6	Green Fine	0–255	Fine adjustment of CH 5
7	Blue		Same as CH 5 in the mode “16Bit 14CH” (p. 13)
8	Blue Fine	0–255	Fine adjustment of CH 7
9	White		Same as CH 7 in the mode “16Bit 14CH” (p. 13)
10	White Fine	0–255	Fine adjustment of CH 9
11	Amber		Same as CH 9 in the mode “16Bit 14CH” (p. 13)
12	Amber Fine	0–255	Fine adjustment of CH 11
13	Green Cyan		Same as CH 11 in the mode “16Bit 14CH” (p. 13)
14	Green Cyan Fine	0–255	Fine adjustment of CH 13
15	UV		Same as CH 13 in the mode “16Bit 14CH” (p. 14)
16	UV Fine	0–255	Fine adjustment of CH 15

Mode Ext 15CH

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 1 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 50, CH 2 Dimmer 255, CH 9 Red 255, CH 10 Green 255, CH 11 Blue 255, CH 12 White 255, CH 13 Amber 0, CH 14 Green Cyan 0, CH 15 UV 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter	0–31	Shutter Closed (1)
		32–63	Shutter Open (1)
		64–66	Strobe slow
		67–77	Strobe slow ... Strobe mid
		78–80	Strobe mid
		81–92	Strobe mid ... Strobe fast

CH	Function	DMX	Description
1	Shutter (continued)	93–95	Strobe fast
		96–127	Shutter Open (2)
		128–130	Pulse slow
		131–140	Pulse slow ... Pulse mid
		141–143	Pulse mid
		144–156	Pulse mid ... Pulse fast
		157–159	Pulse fast
		160–191	Shutter Open (3)
		192–194	Str Rnd slow
		195–204	Str Rnd slow ... Str Rnd mid
		205–207	Str Rnd mid
		208–220	Str Rnd mid ... Str Rnd fast
		221–223	Str Rnd fast
		224–255	Shutter Open (4)
2	Dimmer		Same as CH 1 in the mode “16bit + Dim 16CH” (p. 14)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–120	Stage 2
		121–255	DEFAULT TO UNIT SETTING
5	Effects	0–19	No Function
		20–39	PROGRAM 01
		40–59	PROGRAM 02
		60–79	PROGRAM 03
		80–99	PROGRAM 04
		100–119	PROGRAM 05
		120–139	PROGRAM 06
		140–159	PROGRAM 07
		160–179	PROGRAM 08
		180–199	PROGRAM 09
		200–219	PROGRAM 10
		220–239	PROGRAM 11
		240–255	PROGRAM 12
6	Effects Speed		Program Macro SPEED SLOW to FAST
		0–255	Program Macro SPEED SLOW to FAST
7	Effects Fade		Program Macro FADE SLOW to FAST
		0–255	Program Macro FADE SLOW to FAST
8	Colors		Color Macros

CH	Function	DMX	Description
8	Colors (continued)	0	Open
		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
		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
		125–128	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

CH	Function	DMX	Description
8	Colors (continued)	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 52
		209–212	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
		241–244	Color Macro 61
		245–248	Color Macro 62
		249–252	Color Macro 63
		253–255	Color Macro 64
9	Red		Same as CH 1 in the mode “RGB 3CH” (p. 10)
10	Green		Same as CH 2 in the mode “RGB 3CH” (p. 10)
11	Blue		Same as CH 3 in the mode “RGB 3CH” (p. 10)
12	White		Same as CH 4 in the mode “8Bit 7CH” (p. 11)
13	Amber		Same as CH 5 in the mode “8Bit 7CH” (p. 12)
14	Green Cyan		Same as CH 6 in the mode “8Bit 7CH” (p. 12)
15	UV		Same as CH 7 in the mode “8Bit 7CH” (p. 12)

Mode Cells 14CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 4 White 1 255, CH 5 Amber 1 0, CH 6 Green Cyan 1 0, CH 7 UV 1 0, CH 8 Red 2 255, CH 9 Green 2 255, CH 10 Blue 2 255, CH 11 White 2 255, CH 12 Amber 2 255, CH 13 Green Cyan 2 255, CH 14 UV 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0	0% Red 1
		1–63	0% Red 1 … 25% Red 1
		64	25% Red 1
		65–127	25% Red 1 … 50% Red 1
		128	50% Red 1
		129–190	50% Red 1 … 75% Red 1
		191	75% Red 1
		192–254	75% Red 1 … 100% Red 1
		255	100% Red 1
2	Green 1	0	0% Green 1
		1–63	0% Green 1 … 25% Green 1
		64	25% Green 1
		65–127	25% Green 1 … 50% Green 1
		128	50% Green 1
		129–190	50% Green 1 … 75% Green 1
		191	75% Green 1
		192–254	75% Green 1 … 100% Green 1
		255	100% Green 1
3	Blue 1	0	0% Blue 1
		1–63	0% Blue 1 … 25% Blue 1
		64	25% Blue 1

CH	Function	DMX	Description
3	Blue 1 (continued)	65–127	25% Blue 1 … 50% Blue 1
		128	50% Blue 1
		129–190	50% Blue 1 … 75% Blue 1
		191	75% Blue 1
		192–254	75% Blue 1 … 100% Blue 1
		255	100% Blue 1
4	White 1	0	0% White 1
		1–63	0% White 1 … 25% White 1
		64	25% White 1
		65–127	25% White 1 … 50% White 1
		128	50% White 1
		129–190	50% White 1 … 75% White 1
		191	75% White 1
		192–254	75% White 1 … 100% White 1
		255	100% White 1
5	Amber 1	0	0% Amber 1
		1–63	0% Amber 1 … 25% Amber 1
		64	25% Amber 1
		65–127	25% Amber 1 … 50% Amber 1
		128	50% Amber 1
		129–190	50% Amber 1 … 75% Amber 1
		191	75% Amber 1
		192–254	75% Amber 1 … 100% Amber 1
		255	100% Amber 1
6	Green Cyan 1		Lime 1
		0	0% Lime 1
		1–63	0% Lime 1 … 25% Lime 1
		64	25% Lime 1
		65–127	25% Lime 1 … 50% Lime 1
		128	50% Lime 1
		129–190	50% Lime 1 … 75% Lime 1
		191	75% Lime 1
		192–254	75% Lime 1 … 100% Lime 1
		255	100% Lime 1
7	UV 1	0	0% UV 1
		1–63	0% UV 1 … 25% UV 1
		64	25% UV 1
		65–127	25% UV 1 … 50% UV 1
		128	50% UV 1
		129–190	50% UV 1 … 75% UV 1
		191	75% UV 1
		192–254	75% UV 1 … 100% UV 1

CH	Function	DMX	Description
7	UV 1 (continued)	255	100% UV 1
8	Red 2	0	0% Red 2
		1–63	0% Red 2 … 25% Red 2
		64	25% Red 2
		65–127	25% Red 2 … 50% Red 2
		128	50% Red 2
		129–190	50% Red 2 … 75% Red 2
		191	75% Red 2
		192–254	75% Red 2 … 100% Red 2
		255	100% Red 2
9	Green 2	0	0% Green 2
		1–63	0% Green 2 … 25% Green 2
		64	25% Green 2
		65–127	25% Green 2 … 50% Green 2
		128	50% Green 2
		129–190	50% Green 2 … 75% Green 2
		191	75% Green 2
		192–254	75% Green 2 … 100% Green 2
		255	100% Green 2
10	Blue 2	0	0% Blue 2
		1–63	0% Blue 2 … 25% Blue 2
		64	25% Blue 2
		65–127	25% Blue 2 … 50% Blue 2
		128	50% Blue 2
		129–190	50% Blue 2 … 75% Blue 2
		191	75% Blue 2
		192–254	75% Blue 2 … 100% Blue 2
		255	100% Blue 2
11	White 2	0	0% White 2
		1–63	0% White 2 … 25% White 2
		64	25% White 2
		65–127	25% White 2 … 50% White 2
		128	50% White 2
		129–190	50% White 2 … 75% White 2
		191	75% White 2
		192–254	75% White 2 … 100% White 2
		255	100% White 2
12	Amber 2	0	0% Amber 2
		1–63	0% Amber 2 … 25% Amber 2
		64	25% Amber 2
		65–127	25% Amber 2 … 50% Amber 2
		128	50% Amber 2

CH	Function	DMX	Description
12	Amber 2 (continued)	129–190	50% Amber 2 … 75% Amber 2
		191	75% Amber 2
		192–254	75% Amber 2 … 100% Amber 2
		255	100% Amber 2
13	Green Cyan 2		Lime 2
		0	0% Lime 2
		1–63	0% Lime 2 … 25% Lime 2
		64	25% Lime 2
		65–127	25% Lime 2 … 50% Lime 2
		128	50% Lime 2
		129–190	50% Lime 2 … 75% Lime 2
		191	75% Lime 2
		192–254	75% Lime 2 … 100% Lime 2
		255	100% Lime 2
14	UV 2	0	0% UV 2
		1–63	0% UV 2 … 25% UV 2
		64	25% UV 2
		65–127	25% UV 2 … 50% UV 2
		128	50% UV 2
		129–190	50% UV 2 … 75% UV 2
		191	75% UV 2
		192–254	75% UV 2 … 100% UV 2
		255	100% UV 2

Mode Cells Dim 16CH

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 1 Dimmer 255, CH 3 Red 1 255, CH 4 Green 1 255, CH 5 Blue 1 255, CH 6 White 1 255, CH 7 Amber 1 0, CH 8 Green Cyan 1 0, CH 9 UV 1 0, CH 10 Red 2 255, CH 11 Green 2 255, CH 12 Blue 2 255, CH 13 White 2 255, CH 14 Amber 2 255, CH 15 Green Cyan 2 255, CH 16 UV 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “16bit + Dim 16CH” (p. 14)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Red 1		Same as CH 1 in the mode “Cells 14CH” (p. 19)
4	Green 1		Same as CH 2 in the mode “Cells 14CH” (p. 19)
5	Blue 1		Same as CH 3 in the mode “Cells 14CH” (p. 19)
6	White 1		Same as CH 4 in the mode “Cells 14CH” (p. 20)
7	Amber 1		Same as CH 5 in the mode “Cells 14CH” (p. 20)
8	Green Cyan 1		Same as CH 6 in the mode “Cells 14CH” (p. 20)
9	UV 1		Same as CH 7 in the mode “Cells 14CH” (p. 20)
10	Red 2		Same as CH 8 in the mode “Cells 14CH” (p. 21)
11	Green 2		Same as CH 9 in the mode “Cells 14CH” (p. 21)
12	Blue 2		Same as CH 10 in the mode “Cells 14CH” (p. 21)
13	White 2		Same as CH 11 in the mode “Cells 14CH” (p. 21)
14	Amber 2		Same as CH 12 in the mode “Cells 14CH” (p. 21)
15	Green Cyan 2		Same as CH 13 in the mode “Cells 14CH” (p. 22)
16	UV 2		Same as CH 14 in the mode “Cells 14CH” (p. 22)

Mode Ext Cells 22CH

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 1 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 50, CH 2 Dimmer 255, CH 9 Red 1 255, CH 10 Green 1 255, CH 11 Blue 1 255, CH 12 White 1 255, CH 13 Amber 1 0, CH 14 Green Cyan 1 0, CH 15 UV 1 0, CH 16 Red 2 255, CH 17 Green 2 255, CH 18 Blue 2 255, CH 19 White 2 255, CH 20 Amber 2 255, CH 21 Green Cyan 2 255, CH 22 UV 2 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “Ext 15CH” (p. 15)
2	Dimmer		Same as CH 1 in the mode “16bit + Dim 16CH” (p. 14)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Dimmer Mode		Same as CH 4 in the mode “Ext 15CH” (p. 16)
5	Effects		Same as CH 5 in the mode “Ext 15CH” (p. 16)
6	Effects Speed		Same as CH 6 in the mode “Ext 15CH” (p. 16)
7	Effects Fade		Same as CH 7 in the mode “Ext 15CH” (p. 16)
8	Colors		Same as CH 8 in the mode “Ext 15CH” (p. 16)
9	Red 1		Same as CH 1 in the mode “Cells 14CH” (p. 19)
10	Green 1		Same as CH 2 in the mode “Cells 14CH” (p. 19)
11	Blue 1		Same as CH 3 in the mode “Cells 14CH” (p. 19)
12	White 1		Same as CH 4 in the mode “Cells 14CH” (p. 20)

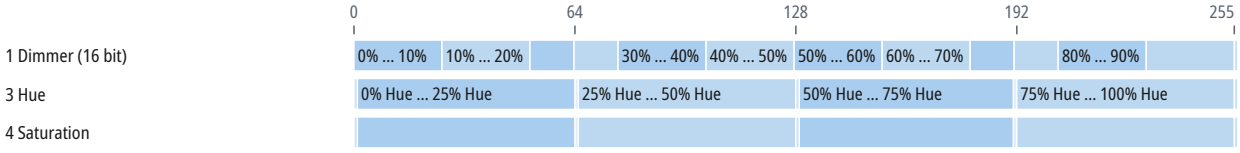
CH	Function	DMX	Description
13	Amber 1		Same as CH 5 in the mode “Cells 14CH” (p. 20)
14	Green Cyan 1		Same as CH 6 in the mode “Cells 14CH” (p. 20)
15	UV 1		Same as CH 7 in the mode “Cells 14CH” (p. 20)
16	Red 2		Same as CH 8 in the mode “Cells 14CH” (p. 21)
17	Green 2		Same as CH 9 in the mode “Cells 14CH” (p. 21)
18	Blue 2		Same as CH 10 in the mode “Cells 14CH” (p. 21)
19	White 2		Same as CH 11 in the mode “Cells 14CH” (p. 21)
20	Amber 2		Same as CH 12 in the mode “Cells 14CH” (p. 21)
21	Green Cyan 2		Same as CH 13 in the mode “Cells 14CH” (p. 22)
22	UV 2		Same as CH 14 in the mode “Cells 14CH” (p. 22)

Mode HSI 4CH

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 1 Dimmer 255.

Channel functions at a glance



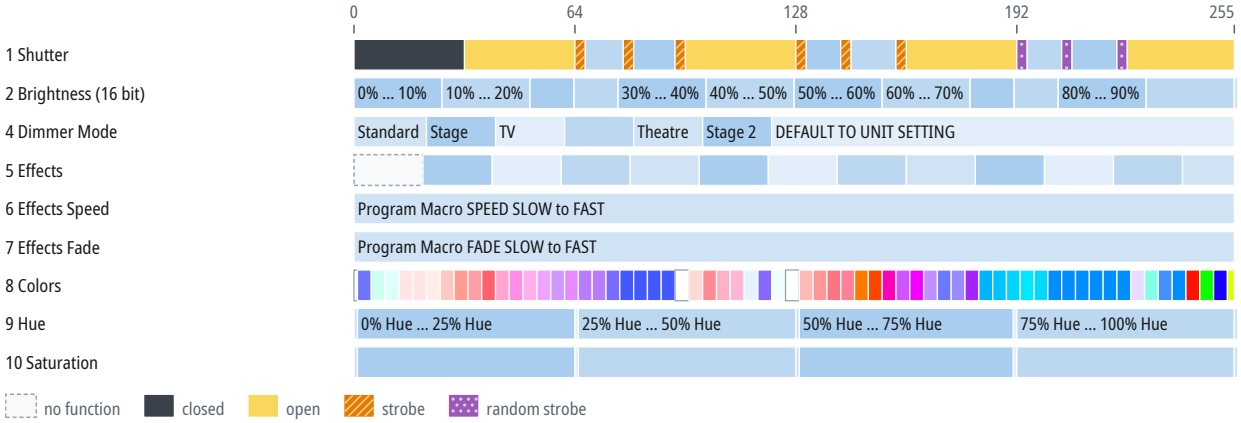
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “16bit + Dim 16CH” (p. 14)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Hue	0	0% Hue
		1–63	0% Hue … 25% Hue
		64	25% Hue
		65–127	25% Hue … 50% Hue
		128	50% Hue
		129–190	50% Hue … 75% Hue
		191	75% Hue
		192–254	75% Hue … 100% Hue
		255	100% Hue
4	Saturation	0	0% Saturation
		1–63	0% Saturation … 25% Saturation
		64	25% Saturation
		65–127	25% Saturation … 50% Saturation
		128	50% Saturation
		129–190	50% Saturation … 75% Saturation
		191	75% Saturation
		192–254	75% Saturation … 100% Saturation
		255	100% Saturation

Mode HSI Mast 10CH

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 1 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 50.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “Ext 15CH” (p. 15)
2	Brightness	0–25	0% ... 10%
		25–51	10% ... 20%
		51–63	20% ... 25%
		64–76	25% ... 30%
		76–102	30% ... 40%
		102–127	40% ... 50%
		128–153	50% ... 60%
		153–179	60% ... 70%
		179–191	70% ... 75%
		191	75%
		192–204	75% ... 80%
		204–230	80% ... 90%
		230–255	90% ... 100%
		255	100%
3	Brightness Fine	0–255	Fine adjustment of CH 2
4	Dimmer Mode		Same as CH 4 in the mode “Ext 15CH” (p. 16)
5	Effects		Same as CH 5 in the mode “Ext 15CH” (p. 16)
6	Effects Speed		Same as CH 6 in the mode “Ext 15CH” (p. 16)
7	Effects Fade		Same as CH 7 in the mode “Ext 15CH” (p. 16)
8	Colors		Same as CH 8 in the mode “Ext 15CH” (p. 16)
9	Hue		Same as CH 3 in the mode “HSI 4CH” (p. 25)
10	Saturation		Same as CH 4 in the mode “HSI 4CH” (p. 25)

Mode HSI Cell 14CH

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 1 Shutter at 32–63 or 96–127 or 160–191 or 224–255. The GDTF file gives these values for a console's Highlight function: CH 1 Shutter 50, CH 2 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Shutter		Same as CH 1 in the mode “Ext 15CH” (p. 15)
2	Dimmer		Same as CH 1 in the mode “16bit + Dim 16CH” (p. 14)
3	Dimmer Fine	0–255	Fine adjustment of CH 2
4	Dimmer Mode		Same as CH 4 in the mode “Ext 15CH” (p. 16)
5	Effects		Same as CH 5 in the mode “Ext 15CH” (p. 16)
6	Effects Speed		Same as CH 6 in the mode “Ext 15CH” (p. 16)
7	Effects Fade		Same as CH 7 in the mode “Ext 15CH” (p. 16)
8	Colors		Same as CH 8 in the mode “Ext 15CH” (p. 16)
9	Hue 1	0	0% Hue 1
		1–63	0% Hue 1 … 25% Hue 1
		64	25% Hue 1
		65–127	25% Hue 1 … 50% Hue 1
		128	50% Hue 1
		129–190	50% Hue 1 … 75% Hue 1
		191	75% Hue 1
		192–254	75% Hue 1 … 100% Hue 1
		255	100% Hue 1
10	Saturation 1	0	0% Saturation 1
		1–63	0% Saturation 1 … 25% Saturation 1
		64	25% Saturation 1
		65–127	25% Saturation 1 … 50% Saturation 1

CH	Function	DMX	Description
10	Saturation 1 (continued)	128	50% Saturation 1
		129–190	50% Saturation 1 … 75% Saturation 1
		191	75% Saturation 1
		192–254	75% Saturation 1 … 100% Saturation 1
		255	100% Saturation 1
11	Brightness 1	0	0% Brightness 1
		1–24	0% Brightness 1 … 10% Brightness 1
		25	10% Brightness 1
		26–50	10% Brightness 1 … 20% Brightness 1
		51	20% Brightness 1
		52–63	20% Brightness 1 … 25% Brightness 1
		64	25% Brightness 1
		65–75	25% Brightness 1 … 30% Brightness 1
		76	30% Brightness 1
		77–101	30% Brightness 1 … 40% Brightness 1
		102	40% Brightness 1
		103–127	40% Brightness 1 … 50% Brightness 1
		128	50% Brightness 1
		129–152	50% Brightness 1 … 60% Brightness 1
		153	60% Brightness 1
		154–178	60% Brightness 1 … 70% Brightness 1
		179	70% Brightness 1
		180–190	70% Brightness 1 … 75% Brightness 1
		191	75% Brightness 1
		192–203	75% Brightness 1 … 80% Brightness 1
		204	80% Brightness 1
		205–229	80% Brightness 1 … 90% Brightness 1
		230	90% Brightness 1
		231–254	90% Brightness 1 … 100% Brightness 1
		255	100% Brightness 1
12	Hue 2	0	0% Hue 2
		1–63	0% Hue 2 … 25% Hue 2
		64	25% Hue 2
		65–127	25% Hue 2 … 50% Hue 2
		128	50% Hue 2
		129–190	50% Hue 2 … 75% Hue 2
		191	75% Hue 2
		192–254	75% Hue 2 … 100% Hue 2
		255	100% Hue 2
13	Saturation 2	0	0% Saturation 2
		1–63	0% Saturation 2 … 25% Saturation 2
		64	25% Saturation 2

CH	Function	DMX	Description
13	Saturation 2 (continued)	65–127	25% Saturation 2 … 50% Saturation 2
		128	50% Saturation 2
		129–190	50% Saturation 2 … 75% Saturation 2
		191	75% Saturation 2
		192–254	75% Saturation 2 … 100% Saturation 2
		255	100% Saturation 2
14	Brightness 2	0	0% Brightness 2
		1–24	0% Brightness 2 … 10% Brightness 2
		25	10% Brightness 2
		26–50	10% Brightness 2 … 20% Brightness 2
		51	20% Brightness 2
		52–63	20% Brightness 2 … 25% Brightness 2
		64	25% Brightness 2
		65–75	25% Brightness 2 … 30% Brightness 2
		76	30% Brightness 2
		77–101	30% Brightness 2 … 40% Brightness 2
		102	40% Brightness 2
		103–127	40% Brightness 2 … 50% Brightness 2
		128	50% Brightness 2
		129–152	50% Brightness 2 … 60% Brightness 2
		153	60% Brightness 2
		154–178	60% Brightness 2 … 70% Brightness 2
		179	70% Brightness 2
		180–190	70% Brightness 2 … 75% Brightness 2
		191	75% Brightness 2
		192–203	75% Brightness 2 … 80% Brightness 2
		204	80% Brightness 2
		205–229	80% Brightness 2 … 90% Brightness 2
		230	90% Brightness 2
		231–254	90% Brightness 2 … 100% Brightness 2
		255	100% Brightness 2

10 Technical specifications

Parameter	Value
Light source	LED
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RDM	yes (manufacturer ID 0x22A6, device model ID 0x0026)
Power connectors	powerCON TRUE1 IN, powerCONTRUE1TOP OUT
Weight	7.7 kg
Operating temperature	-15 to 45 °C

Speeds and ranges

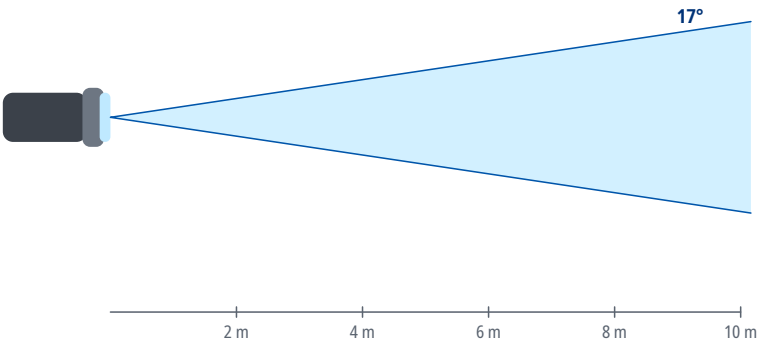
Parameter	Value
Strobe frequency	1–20 Hz

Dimensions

weight 7.7 kg



Spot diameter



Distance	Ø 17°
2 m	0.6 m
4 m	1.2 m
6 m	1.8 m
8 m	2.4 m
10 m	3 m
15 m	4.5 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.

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.