DMX REFERENCE

# VOLT plus PAR S

VOLT+ PAR S

Elation




| | |
|---|---|
| **Manufacturer** | Elation |
| **GDTF file** | Elation_VOLT_plus_PAR_S_140095.gdtf |
| **GDTF revision** | 26-24-04 Release · 2026-04-24 |
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# 1 About this manual

This document describes the VOLT+ PAR S by Elation. It was compiled from the GDTF file Elation_VOLT_plus_PAR_S_140095.gdtf from the GDTF-Share library.

File revision: “26-24-04 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 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 | 3.8 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Dimmer 1CH | 1 | 512 | 1, 2, 3, 4, ... |
| RGB 3CH | 3 | 170 | 1, 4, 7, 10, ... |
| Color 6CH | 6 | 85 | 1, 7, 13, 19, ... |
| Color and Dimmer 9CH | 9 | 56 | 1, 10, 19, 28, ... |
| CMY 11CH | 11 | 46 | 1, 12, 23, 34, ... |
| CMY Extended 14CH | 14 | 36 | 1, 15, 29, 43, ... |
| Standard 14CH | 14 | 36 | 1, 15, 29, 43, ... |
| Extended 20CH | 20 | 25 | 1, 21, 41, 61, ... |


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**

“Introducing the VOLT+ PAR S, a next-generation replacement fixture in Elation’s popular VOLT Series that delivers the ultimate in battery-powered lighting performance with enhanced efficiency, versatility, and durability in a compact, sleek form factor.”

# 5 Installation

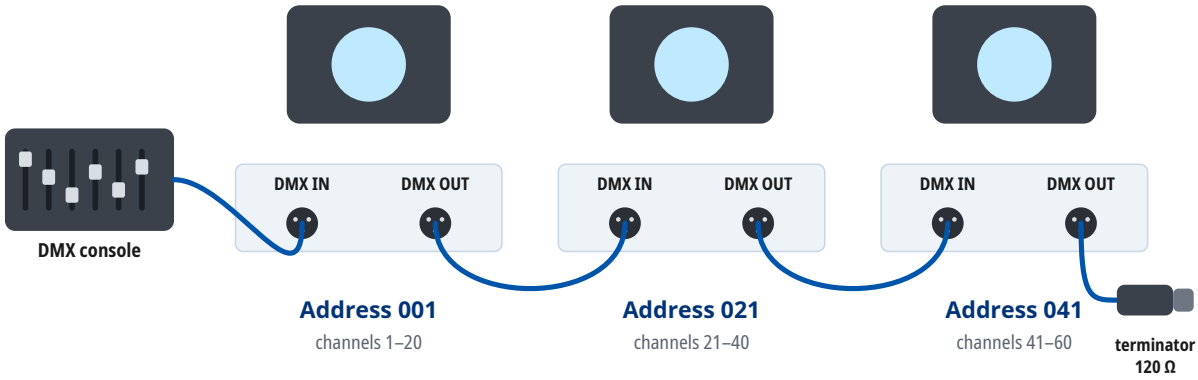
⚠ **WARNING**

- 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: 3.75 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 20CH: every unit occupies 20 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 20CH”: 20.
- 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 20CH”, you can use, for example, the start addresses 1, 21, 41, 61.
- 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

| | Dimmer 1CH<br>1 channel | RGB 3CH<br>3 channels | Color 6CH<br>6 channels | Color and Dimmer 9CH<br>9 channels | CMY 11CH<br>11 channels | CMY Extended 14CH<br>14 channels | Standard 14CH<br>14 channels | Extended 20CH<br>20 channels |
|---|---|---|---|---|---|---|---|---|
| Dimmer | 1 | ✓ | ✓ | 1 | 1 | 1 | 1 | 1 |
| Dimmer resolution | 8 bit | | | 16 bit | 16 bit | 16 bit | 16 bit | 16 bit |
| Shutter / strobe | | | | 3 | 3 | 3 | 3 | 3 |
| Color mixing | | 1–3 | 1–6 | 4, 6, 8 | 4–6 | 4, 6, 8 | 4–9 | 6× (4–14) |
| Color temperature | | | | | 8 | 11 | 11 | 17 |
| Color wheel | | | | | 7, 9 | 10, 12 | 10, 12 | 16, 18 |

## Color wheel 1

| | | | | | |
|---|---|---|---|---|---|
| 1  Open **DMX 0–24** | 2  2400 K **DMX 24** | 3  2500 K **DMX 25** | 4  2600 K **DMX 26** | 5  2700 K **DMX 27** | 6  2800 K **DMX 28** |
| 7  2900 K **DMX 29** | 8  3000 K **DMX 30** | 9  3100 K **DMX 31** | 10  3200 K **DMX 32** | 11  3300 K **DMX 33** | 12  3400 K **DMX 34** |
| 13  3500 K **DMX 35** | 14  3600 K **DMX 36** | 15  3700 K **DMX 37** | 16  3800 K **DMX 38** | 17  3900 K **DMX 39** | 18  4000 K **DMX 40** |
| 19  4100 K **DMX 41** | 20  4200 K **DMX 42** | 21  4300 K **DMX 43** | 22  4400 K **DMX 44** | 23  4500 K **DMX 45** | 24  4600 K **DMX 46** |
| 25  4700 K **DMX 47** | 26  4800 K **DMX 48** | 27  4900 K **DMX 49** | 28  5000 K **DMX 50** | 29  5100 K **DMX 51** | 30  5200 K **DMX 52** |
| 31  5300 K **DMX 53** | 32  5400 K **DMX 54** | 33  5500 K **DMX 55** | 34  5600 K **DMX 56** | 35  5700 K **DMX 57** | 36  5800 K **DMX 58** |
| 37  5900 K **DMX 59** | 38  6000 K **DMX 60** | 39  6100 K **DMX 61** | 40  6200 K **DMX 62** | 41  6300 K **DMX 63** | 42  6400 K **DMX 64** |
| 43  6500 K **DMX 65** | 44  6600 K **DMX 66** | 45  6700 K **DMX 67** | 46  6800 K **DMX 68** | 47  6900 K **DMX 69** | 48  7000 K **DMX 70** |

49 7100 K **DMX 71**

50 7200 K **DMX 72**

51 7300 K **DMX 73**

52 7400 K **DMX 74**

53 7500 K **DMX 75**

54 7600 K **DMX 76**

55 7700 K **DMX 77**

56 7800 K **DMX 78**

57 7900 K **DMX 79**

58 8000 K **DMX 80**

59 8100 K **DMX 81**

60 8200 K **DMX 82**

61 8300 K **DMX 83**

62 8400 K **DMX 84**

63 8500 K **DMX 85–86**

## Color wheel 2

1 OFF

2 RED

3 GREEN

4 BLUE

5 WHITE

6 AMBER

7 UV

8 RED + GREEN

9 RED + BLUE

10 RED + WHITE

11 RED + AMBER

12 RED + UV

13 GREEN + BLUE

14 GREEN + WHITE

15 GREEN + AMBER

16 GREEN + UV

17 BLUE + WHITE

18 BLUE + AMBER

19 BLUE + UV

20 WHITE + AMBER

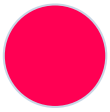
21 WHITE + UV

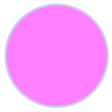
22 AMBER + UV

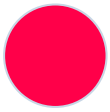
23 RED + GREEN + BLUE

24 RED + GREEN + WHITE

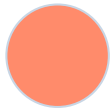
25 
RED + GREEN + AMBER

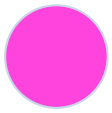
26 
RED + GREEN + UV

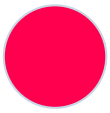
27 
RED + BLUE + WHITE

28 
RED + BLUE + AMBER

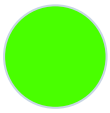
29 
RED + BLUE + UV

30 
RED + WHITE + AMBER

31 
RED + WHITE + UV

32 
RED + AMBER + UV

33 
GREEN + BLUE + WHITE

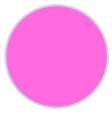
34 
GREEN + BLUE + AMBER

35 
GREEN + BLUE + UV

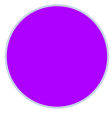
36 
GREEN + WHITE + AMBER

37 
GREEN + WHITE + UV

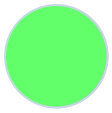
38 
GREEN + AMBER + UV

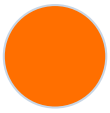
39 
BLUE + WHITE + AMBER

40 
BLUE + WHITE + UV

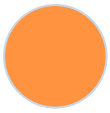
41 
BLUE + AMBER + UV

42 
WHITE + AMBER + UV

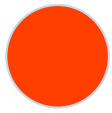
43 
RED + GREEN + BLUE + WHITE

44 
RED + GREEN + BLUE + AMBER

45 
RED + GREEN + BLUE + UV

46 
RED + GREEN +WHITE + AMBER

47 
RED + GREEN + WHITE + UV

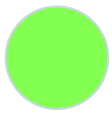
48 
RED + GREEN + AMBER + UV

49 
RED + BLUE + WHITE + AMBER

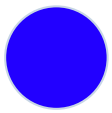
50 
RED + BLUE + WHITE + UV

51 
RED + BLUE + AMBER + UV

52 
RED + WHITE + AMBER + UV

53 
GREEN + BLUE + WHITE + AMBER

54 
GREEN + BLUE + WHITE + UV

55 
GREEN + BLUE + AMBER + UV

56 
GREEN + WHITE + AMBER + UV

57 
BLUE + WHITE + AMBER + UV

58 
RED + GREEN + BLUE + WHITE + AMBER

59 
RED + GREEN + BLUE + WHITE + UV

60 
RED + GREEN + BLUE + AMBER + UV

61 
RED + GREEN + WHITE + AMBER + UV

62 
RED + BLUE + WHITE + AMBER + UV

63 
GREEN +BLUE + WHITE + AMBER + UV

64 
RED + GREEN + BLUE + WHITE + AMBER + UV

## Color wheel 3

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**

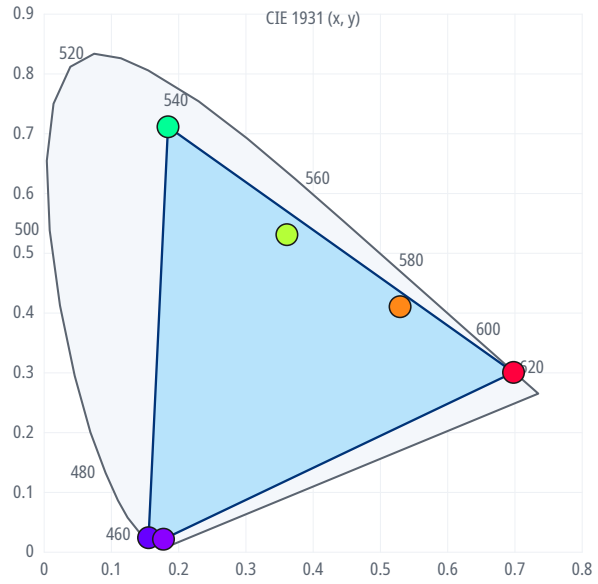
58 Quarter CT Orange
**DMX 58**

59 Half CT Orange
**DMX 59**

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

61 Open
**DMX 0–1**

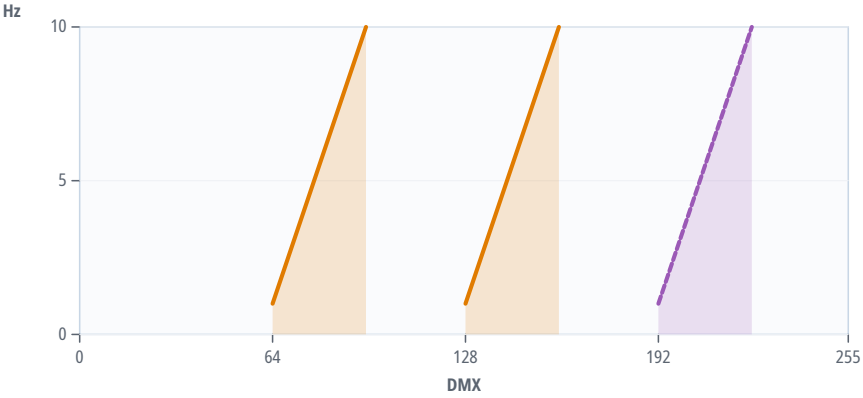
## LED colors and the colors they mix




| LED | x | y | nm |
|---|---|---|---|
| Red-LED | 0.698 | 0.301 | 484 |
| Green-LED | 0.184 | 0.712 | 484 |
| Blue-LED | 0.155 | 0.024 | 484 |
| Lime-LED | 0.361 | 0.531 | 484 |
| Amber-LED | 0.529 | 0.411 | 484 |
| UV-LED | 0.177 | 0.022 | 484 |

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

## Strobe rate




**CH 3 · Standard 14CH**

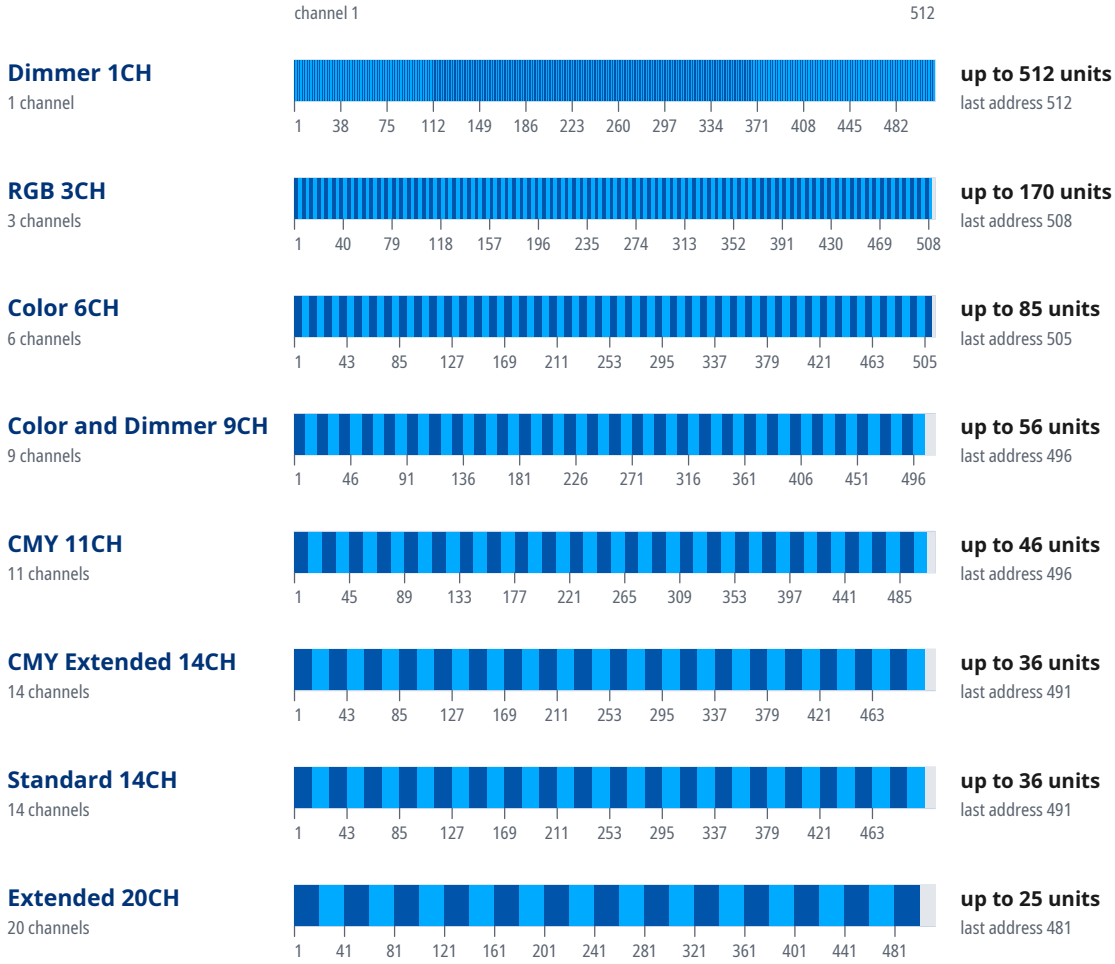
64–95: 1–10 Hz
Strobe Effect Slow to Fast

128–159: 1–10 Hz
Pulse-Effect in Sequences

192–223: 1–10 Hz
Random Strobe Effect Slow to Fast

# 9 DMX channels

### Units in one DMX universe



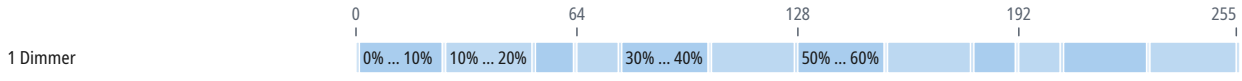

### Start addresses of 20 units in the mode “Extended 20CH”

| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 101 | 11 | 201 | 16 | 301 |
| 2 | 21 | 7 | 121 | 12 | 221 | 17 | 321 |
| 3 | 41 | 8 | 141 | 13 | 241 | 18 | 341 |
| 4 | 61 | 9 | 161 | 14 | 261 | 19 | 361 |
| 5 | 81 | 10 | 181 | 15 | 281 | 20 | 381 |

## Mode Dimmer 1CH

The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

### Channel functions at a glance

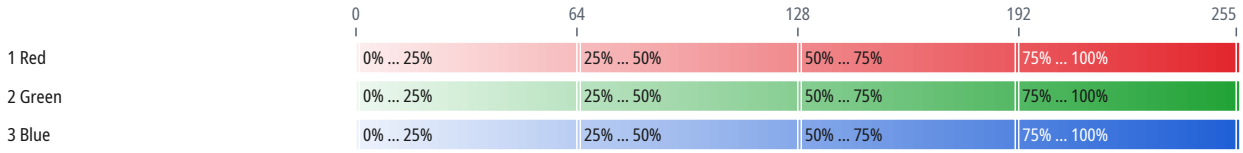


| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer | 0 | 0% |
| | | 1–24 | 0% … 10% |
| | | 25 | 10% |
| | | 26–50 | 10% … 20% |
| | | 51 | 20% |
| | | 52–62 | 20% … 25% |
| | | 63 | 25% |
| | | 64–75 | 25% … 30% |
| | | 76 | 30% |
| | | 77–101 | 30% … 40% |
| | | 102 | 40% |
| | | 103–126 | 40% … 50% |
| | | 127 | 50% |
| | | 128–152 | 50% … 60% |
| | | 153 | 60% |
| | | 154–177 | 60% … 70% |
| | | 178 | 70% |
| | | 179–190 | 70% … 75% |
| | | 191 | 75% |
| | | 192–203 | 75% … 80% |
| | | 204 | 80% |
| | | 205–228 | 80% … 90% |
| | | 229 | 90% |
| | | 230–254 | 90% … 100% |
| | | 255 | 100% |

## 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



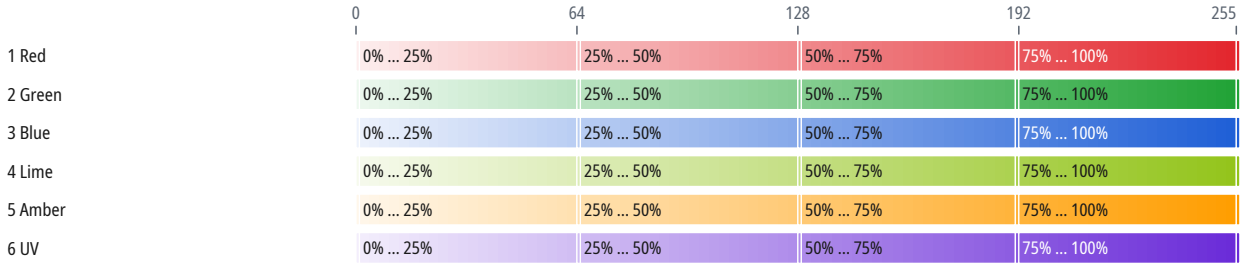

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Red | 0 | 0% |
| | | 1–63 | 0% … 25% |
| | | 64 | 25% |
| | | 65–127 | 25% … 50% |
| | | 128 | 50% |

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

## Mode Color 6CH

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 Lime 0, CH 5 Amber 0, CH 6 UV 0.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Red | | Same as CH 1 in the mode “RGB 3CH” (p. 13) |
| **2** | Green | | Same as CH 2 in the mode “RGB 3CH” (p. 14) |
| **3** | Blue | | Same as CH 3 in the mode “RGB 3CH” (p. 14) |
| **4** | Lime | 0 | 0% |
| | | 1–63 | 0% … 25% |
| | | 64 | 25% |

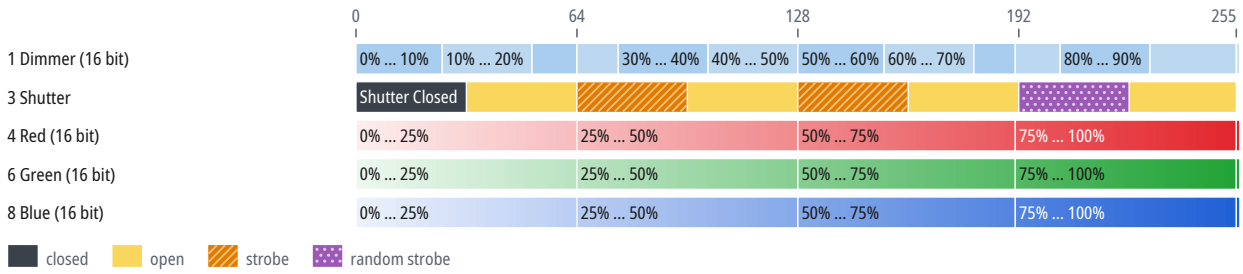
| CH | Function | DMX | Description |
|---|---|---|---|
| **4** | Lime (continued) | 65–127 | 25% … 50% |
| | | 128 | 50% |
| | | 129–190 | 50% … 75% |
| | | 191 | 75% |
| | | 192–254 | 75% … 100% |
| | | 255 | 100% |
| **5** | Amber | 0 | 0% |
| | | 1–63 | 0% … 25% |
| | | 64 | 25% |
| | | 65–127 |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

## Mode Color and Dimmer 9CH

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 Shutter 47, CH 4 Red 255, CH 6 Green 255, CH 8 Blue 255.

### Channel functions at a glance



| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer | 0–25 | 0% … 10% |
| | | 25–51 | 10% … 20% |
| | | 51–64 | 20% … 25% |
| | | 64–76 | 25% … 30% |
| | | 76–102 | 30% … 40% |
| | | 102–128 | 40% … 50% |
| | | 128–153 | 50% … 60% |
| | | 153–179 | 60% … 70% |
| | | 179–191 | 70% … 75% |
| | | 191–204 | 75% … 80% |
| | | 204–230 | 80% … 90% |
| | | 230–255 | 90% … 100% |
| | | 255 | 100% |
| **2** | Dimmer Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | 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) |
| **4** | Red | 0–64 | 0% … 25% |
| | | 64–128 | 25% … 50% |
| | | 128–191 | 50% … 75% |
| | | 191–255 | 75% … 100% |
| | | 255 | 100% |
| **5** | Red Fine | 0–255 | Fine adjustment of CH 4 |
| **6** | Green | 0–64 | 0% … 25% |
| | | 64–128 | 25% … 50% |
| | | 128–191 | 50% … 75% |
| | | 191–255 | 75% … 100% |
| | | 255 | 100% |
| **7** | Green Fine | 0–255 | Fine adjustment of CH 6 |

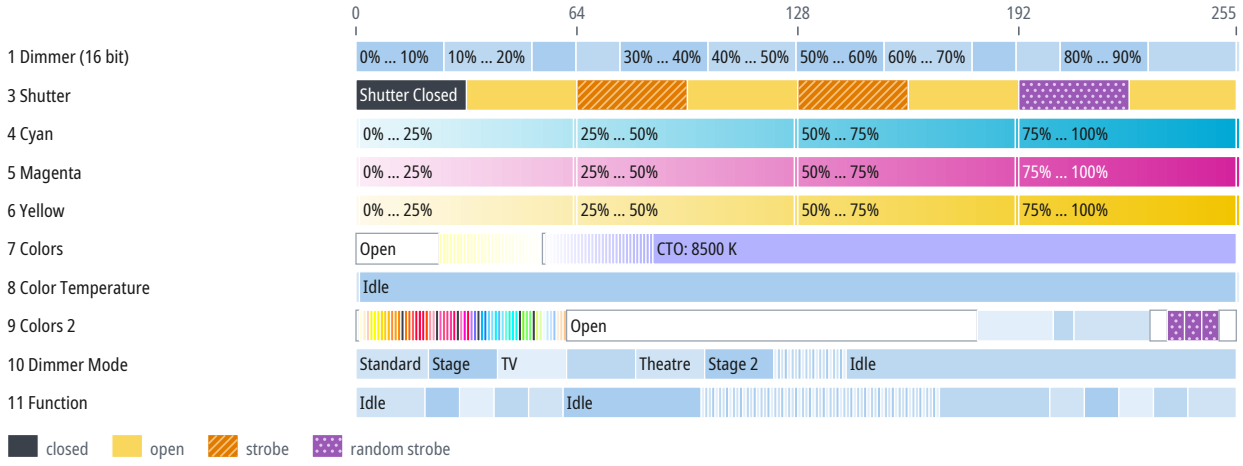
| CH | Function | DMX | Description |
|---|---|---|---|
| **8** | Blue | 0–64 | 0% … 25% |
| | | 64–128 | 25% … 50% |
| | | 128–191 | 50% … 75% |
| | | 191–255 | 75% … 100% |
| | | 255 | 100% |
| **9** | Blue Fine | 0–255 | Fine adjustment of CH 8 |

## Mode CMY 11CH

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 Shutter 47, CH 4 Cyan 0, CH 5 Magenta 0, CH 6 Yellow 0, CH 7 Colors 0, CH 9 Colors 2 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 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **3** | Shutter | | Same as CH 3 in the mode “Color and Dimmer 9CH” (p. 16) |
| **4** | Cyan | 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% |
| **5** | Magenta | 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% |
| **6** | Yellow | 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** | Colors | 0–23 | Open |
| | | 24 | 2400 K |
| | | 25 | 2500 K |
| | | 26 | 2600 K |
| | | 27 | 2700 K |
| | | 28 | 2800 K |
| | | 29 | 2900 K |
| | | 30 | 3000 K |
| | | 31 | 3100 K |
| | | 32 | 3200 K |
| | | 33 | 3300 K |
| | | 34 | 3400 K |
| | | 35 | 3500 K |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Colors (continued) | 36 | 3600 K |
| | | 37 | 3700 K |
| | | 38 | 3800 K |
| | | 39 | 3900 K |
| | | 40 | 4000 K |
| | | 41 | 4100 K |
| | | 42 | 4200 K |
| | | 43 | 4300 K |
| | | 44 | 4400 K |
| | | 45 | 4500 K |
| | | 46 | 4600 K |
| | | 47 | 4700 K |
| | | 48 | 4800 K |
| | | 49 | 4900 K |
| | | 50 | 5000 K |
| | | 51 | 5100 K |
| | | 52 | 5200 K |
| | | 53 | 5300 K |
| | | 54 | 5400 K |
| | | 55 | 5500 K |
| | | 56 | 5600 K |
| | | 57 | 5700 K |
| | | 58 | 5800 K |
| | | 59 | 5900 K |
| | | 60 | 6000 K |
| | | 61 | 6100 K |
| | | 62 | 6200 K |
| | | 63 | 6300 K |
| | | 64 | 6400 K |
| | | 65 | 6500 K |
| | | 66 | 6600 K |
| | | 67 | 6700 K |
| | | 68 | 6800 K |
| | | 69 | 6900 K |
| | | 70 | 7000 K |
| | | 71 | 7100 K |
| | | 72 | 7200 K |
| | | 73 | 7300 K |
| | | 74 | 7400 K |
| | | 75 | 7500 K |
| | | 76 | 7600 K |

| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Colors (continued) | 77 | 7700 K |
| | | 78 | 7800 K |
| | | 79 | 7900 K |
| | | 80 | 8000 K |
| | | 81 | 8100 K |
| | | 82 | 8200 K |
| | | 83 | 8300 K |
| | | 84 | 8400 K |
| | | 85 | 2400 K to: 8500 K |
| | | 86–255 | CTO: 8500 K |
| **8** | Color Temperature | | CTC Crossfade |
| | | 0 | CTC |
| | | 1–254 | Idle |
| | | 255 | Color Mix |
| **9** | Colors 2 | 0 | 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 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **9** | Colors 2 (continued) | 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 | Open |
| | | 180–201 | Clockwise fast to slow (7200–14 °/s) |
| | | 202–207 | Color 1 Wheel Spin: Stop |
| | | 208–229 | Counter-clockwise slow to fast (14–7200 °/s) |
| | | 230–234 | Open |
| | | 235–239 | Color 2 Wheel Random: Fast |
| | | 240–244 | Medium |
| | | 245–249 | Color 2 Wheel Random: Slow |

| CH | Function | DMX | Description |
|---|---|---|---|
| **9** | Colors 2 (continued) | 250–255 | Open |
| **10** | Dimmer Mode | 0–20 | Standard |
| | | 21–40 | Stage |
| | | 41–60 | TV |
| | | 61–80 | Architectural |
| | | 81–100 | Theatre |
| | | 101–120 | Stage 2 |
| | | 121 | 0s Delay |
| | | 122 | 0/1s Delay |
| | | 123 | 0/2s Delay |
| | | 124 | 0/3s Delay |
| | | 125 | 0/4s Delay |
| | | 126 | 0/5s Delay |
| | | 127 | 0/6s Delay |
| | | 128 | 0/7s Delay |
| | | 129 | 0/8s Delay |
| | | 130 | 0/9s Delay |
| | | 131 | 1s Delay |
| | | 132 | 1/5s Delay |
| | | 133–141 | 2...10s Delay |
| | | 142–255 | Idle |
| **11** | Function | 0–19 | Idle |
| | | 20–29 | 2hr Run Time |
| | | 30–39 | 4hr Run Time |
| | | 40–49 | 8hr Run Time |
| | | 50–59 | 12hr Run Time |
| | | 60–99 | Idle |
| | | 100 | 900 Hz |
| | | 101 | 910 Hz |
| | | 102 | 920 Hz |
| | | 103 | 930 Hz |
| | | 104 | 940 Hz |
| | | 105 | 950 Hz |
| | | 106 | 960 Hz |
| | | 107 | 970 Hz |
| | | 108 | 980 Hz |
| | | 109 | 990 Hz |
| | | 110 | 1000 Hz |
| | | 111 | 1010 Hz |
| | | 112–113 | 1020 Hz (1020–1030 Hz) |
| | | 114 | 1040 Hz |
| | | 115 | 1050 Hz |

| CH | Function | DMX | Description |
|---|---|---|---|
| **11** | Function (continued) | 116 | 1060 Hz |
| | | 117 | 1070 Hz |
| | | 118 | 1080 Hz |
| | | 119 | 1090 Hz |
| | | 120 | 1100 Hz |
| | | 121 | 1110 Hz |
| | | 122 | 1120 Hz |
| | | 123 | 1130 Hz |
| | | 124 | 1140 Hz |
| | | 125 | 1150 Hz |
| | | 126 | 1160 Hz |
| | | 127 | 1170 Hz |
| | | 128 | 1180 Hz |
| | | 129 | 1190 Hz |
| | | 130 | 1200 Hz |
| | | 131 | 1210 Hz |
| | | 132 | 1220 Hz |
| | | 133 | 1230 Hz |
| | | 134 | 1240 Hz |
| | | 135 | 1250 Hz |
| | | 136 | 1260 Hz |
| | | 137 | 1270 Hz |
| | | 138 | 1280 Hz |
| | | 139 | 1290 Hz |
| | | 140 | 1300 Hz |
| | | 141 | 1310 Hz |
| | | 142 | 1320 Hz |
| | | 143 | 1330 Hz |
| | | 144 | 1340 Hz |
| | | 145 | 1350 Hz |
| | | 146 | 1360 Hz |
| | | 147 | 1370 Hz |
| | | 148 | 1380 Hz |
| | | 149 | 1390 Hz |
| | | 150 | 1400 Hz |
| | | 151 | 1410 Hz |
| | | 152 | 1420 Hz |
| | | 153 | 1430 Hz |
| | | 154 | 1440 Hz |
| | | 155 | 1450 Hz |
| | | 156 | 1460 Hz |
| | | 157 | 1470 Hz |

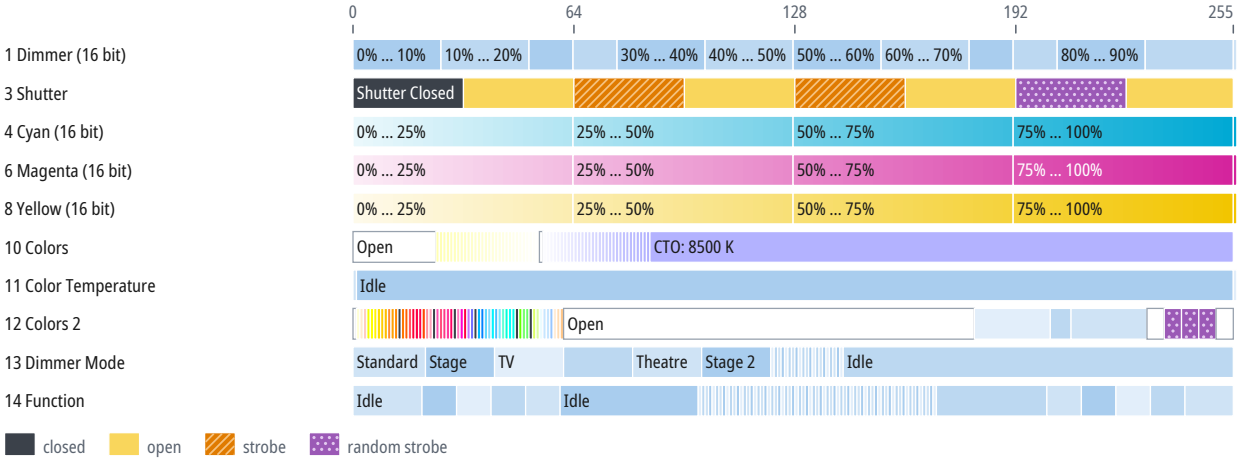
| CH | Function | DMX | Description |
|---|---|---|---|
| **11** | Function (continued) | 158 | 1480 Hz |
| | | 159 | 1490 Hz |
| | | 160 | 1500 Hz |
| | | 161 | 2500 Hz |
| | | 162 | 4000 Hz |
| | | 163 | 5000 Hz |
| | | 164 | 6000 Hz |
| | | 165 | 10000 Hz |
| | | 166 | 15000 Hz |
| | | 167 | 20000 Hz |
| | | 168 | 25000 Hz |
| | | 169–200 | Dimmer Curve: Idle |
| | | 201–210 | Curve Linear (default) |
| | | 211–220 | Curve Square |
| | | 221–230 | Curve Inverse Square |
| | | 231–240 | Curve S-Curve |
| | | 241–255 | Idle (4) |

## Mode CMY Extended 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 Dimmer 255, CH 3 Shutter 47, CH 4 Cyan 0, CH 6 Magenta 0, CH 8 Yellow 0, CH 10 Colors 0, CH 12 Colors 2 0.

### Channel functions at a glance



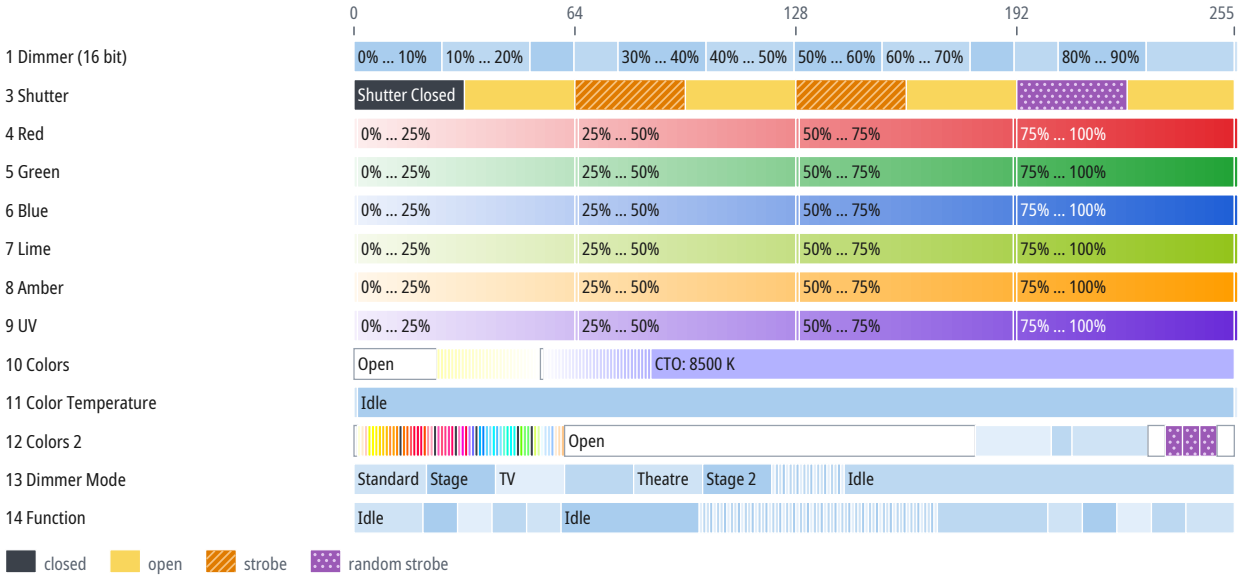
| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer | | Same as CH 1 in the mode “CMY 11CH” (p. 17) |
| **2** | Dimmer Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Shutter | | Same as CH 3 in the mode “Color and Dimmer 9CH” (p. 16) |
| **4** | Cyan | 0–63 | 0% … 25% |
| | | 63 | 25% |
| | | 64–127 | 25% … 50% |
| | | 127 | 50% |
| | | 128–191 | 50% … 75% |
| | | 191 | 75% |
| | | 192–255 | 75% … 100% |
| | | 255 | 100% |
| **5** | Cyan Fine | 0–255 | Fine adjustment of CH 4 |
| **6** | Magenta | 0–63 | 0% … 25% |
| | | 63 | 25% |
| | | 64–127 | 25% … 50% |
| | | 127 | 50% |
| | | 128–191 | 50% … 75% |
| | | 191 | 75% |
| | | 192–255 | 75% … 100% |
| | | 255 | 100% |
| **7** | Magenta Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Yellow | 0–63 | 0% … 25% |
| | | 63 | 25% |
| | | 64–127 | 25% … 50% |
| | | 127 | 50% |
| | | 128–191 | 50% … 75% |
| | | 191 | 75% |
| | | 192–255 | 75% … 100% |
| | | 255 | 100% |
| **9** | Yellow Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Colors | | Same as CH 7 in the mode “CMY 11CH” (p. 18) |
| **11** | Color Temperature | | Same as CH 8 in the mode “CMY 11CH” (p. 20) |
| **12** | Colors 2 | | Same as CH 9 in the mode “CMY 11CH” (p. 20) |
| **13** | Dimmer Mode | | Same as CH 10 in the mode “CMY 11CH” (p. 22) |
| **14** | Function | | Same as CH 11 in the mode “CMY 11CH” (p. 22) |

## Mode Standard 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 Dimmer 255, CH 3 Shutter 47, CH 4 Red 255, CH 5 Green 255, CH 6 Blue 255, CH 7 Lime 255, CH 8 Amber 255, CH 9 UV 255, CH 10 Colors 0, CH 12 Colors 2 0.

### Channel functions at a glance



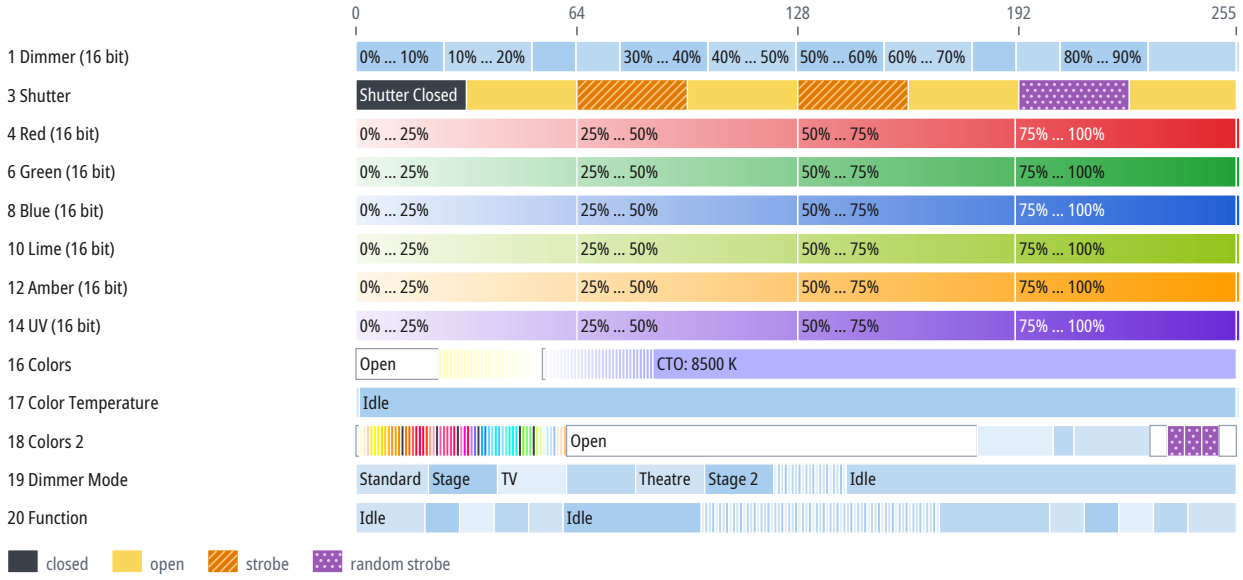

| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer | | Same as CH 1 in the mode “CMY 11CH” (p. 17) |
| **2** | Dimmer Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Shutter | | Same as CH 3 in the mode “Color and Dimmer 9CH” (p. 16) |
| **4** | Red | | Same as CH 1 in the mode “RGB 3CH” (p. 13) |
| **5** | Green | | Same as CH 2 in the mode “RGB 3CH” (p. 14) |
| **6** | Blue | | Same as CH 3 in the mode “RGB 3CH” (p. 14) |
| **7** | Lime | | Same as CH 4 in the mode “Color 6CH” (p. 14) |
| **8** | Amber | | Same as CH 5 in the mode “Color 6CH” (p. 15) |
| **9** | UV | | Same as CH 6 in the mode “Color 6CH” (p. 15) |
| **10** | Colors | | Same as CH 7 in the mode “CMY 11CH” (p. 18) |
| **11** | Color Temperature | | Same as CH 8 in the mode “CMY 11CH” (p. 20) |
| **12** | Colors 2 | | Same as CH 9 in the mode “CMY 11CH” (p. 20) |
| **13** | Dimmer Mode | | Same as CH 10 in the mode “CMY 11CH” (p. 22) |
| **14** | Function | | Same as CH 11 in the mode “CMY 11CH” (p. 22) |

## Mode Extended 20CH

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 Shutter 47, CH 4 Red 255, CH 6 Green 255, CH 8 Blue 255, CH 10 Lime 255, CH 12 Amber 255, CH 14 UV 255, CH 16 Colors 0, CH 18 Colors 2 0.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Dimmer | | Same as CH 1 in the mode “CMY 11CH” (p. 17) |
| **2** | Dimmer Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Shutter | | Same as CH 3 in the mode “Color and Dimmer 9CH” (p. 16) |
| **4** | Red | | Same as CH 4 in the mode “Color and Dimmer 9CH” (p. 16) |
| **5** | Red Fine | 0–255 | Fine adjustment of CH 4 |
| **6** | Green | | Same as CH 6 in the mode “Color and Dimmer 9CH” (p. 16) |
| **7** | Green Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Blue | | Same as CH 8 in the mode “Color and Dimmer 9CH” (p. 17) |
| **9** | Blue Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Lime | | Color Add_GC 1 |
| | | 0–64 | 0% ... 25% |
| | | 64–128 | 25% ... 50% |
| | | 128–191 | 50% ... 75% |
| | | 191–255 | 75% ... 100% |
| | | 255 | 100% |
| **11** | Lime Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Amber | 0–64 | 0% ... 25% |
| | | 64–128 | 25% ... 50% |
| | | 128–191 | 50% ... 75% |
| | | 191–255 | 75% ... 100% |
| | | 255 | 100% |

| CH | Function | DMX | Description |
|---|---|---|---|
| **13** | Amber Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | UV | 0–64 | 0% ... 25% |
| | | 64–128 | 25% ... 50% |
| | | 128–191 | 50% ... 75% |
| | | 191–255 | 75% ... 100% |
| | | 255 | 100% |
| **15** | UV Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Colors | | Same as CH 7 in the mode “CMY 11CH” (p. 18) |
| **17** | Color Temperature | | Same as CH 8 in the mode “CMY 11CH” (p. 20) |
| **18** | Colors 2 | | Same as CH 9 in the mode “CMY 11CH” (p. 20) |
| **19** | Dimmer Mode | | Same as CH 10 in the mode “CMY 11CH” (p. 22) |
| **20** | Function | | Same as CH 11 in the mode “CMY 11CH” (p. 22) |

# 10 Technical specifications

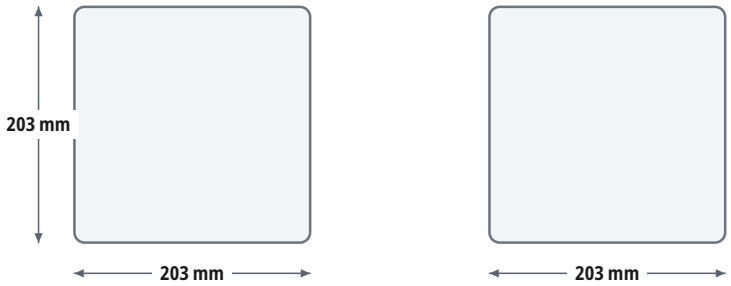
| Parameter | Value |
|---|---|
| **Light** | |
| Light source | LED |
| LED power | 40 W |
| Luminous flux | 1,877 lm |
| Color temperature | 6,500 K |
| Color rendering index (CRI) | 81 |
| **Optics** | |
| Beam angle | 20° |
| **Control** | |
| DMX connection | 5-pin XLR IN/OUT, 3-pin XLR IN/OUT |
| RDM | yes (manufacturer ID 0x22A6, device model ID 0x005D) |
| **Electrical** | |
| Power connectors | powerCON TRUE1 IN, powerCONTRUE1TOP OUT |
| **Dimensions and construction** | |
| Weight | 3.8 kg |
| **Operating environment** | |
| Operating temperature | -15 to 45 °C |

### Speeds and ranges

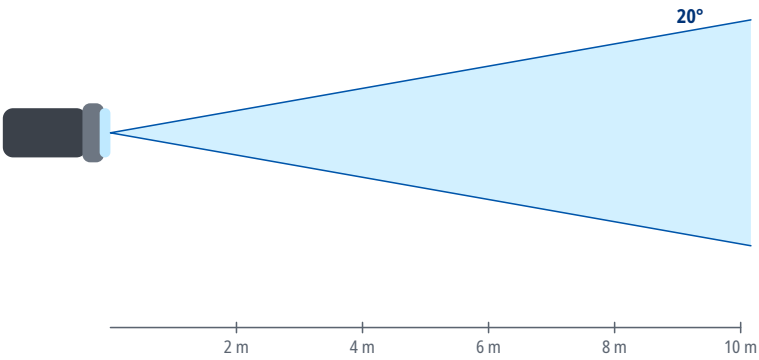
| Parameter | Value |
|---|---|
| Strobe frequency | 1–10 Hz |
| LED frequency | 900–25000 Hz |
| Color wheel 3 rotation | up to 7200 °/s (1200 rpm) |

### Dimensions

**weight 3.8 kg**




### Spot diameter




| Distance | Ø 20° |
|---|---|
| 2 m | 0.71 m |
| 4 m | 1.4 m |
| 6 m | 2.1 m |
| 8 m | 2.8 m |
| 10 m | 3.5 m |
| 15 m | 5.3 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.