DMX REFERENCE

Par 500 IP

Harbinger par 500 IP

Harbinger



Manufacturer	Harbinger
GDTF file	Harbinger_Par_500_IP_165755.gdtf
GDTF revision	2026-10-22 OVER
Generated	2026-11-24

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1 About this manual

This document describes the Harbinger par 500 IP by Harbinger. It was compiled from the GDTF file Harbinger_Par_500_IP_165755.gdtf from the GDTF-Share library.

File revision: “2026-10-22 OVER”.

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 Harbinger; 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	4.9 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
13 standard	13	39	1, 14, 27, 40, ...
1 CH Dim	1	512	1, 2, 3, 4, ...
2 CH Dim	2	256	1, 3, 5, 7, ...
3 CH DIM Strobe CCT	3	170	1, 4, 7, 10, ...
4 CH rgb	4	128	1, 5, 9, 13, ...
6CH Raw Color	6	85	1, 7, 13, 19, ...
7CH Dim CCT Color Picker	7	73	1, 8, 15, 22, ...
EXT 21 CH	21	24	1, 22, 43, 64, ...
10CH RGB	10	51	1, 11, 21, 31, ...
15CH RGB EXT	15	34	1, 16, 31, 46, ...
10CH CMY	10	51	1, 11, 21, 31, ...
15CH EXT	15	34	1, 16, 31, 46, ...


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.

4 Installation

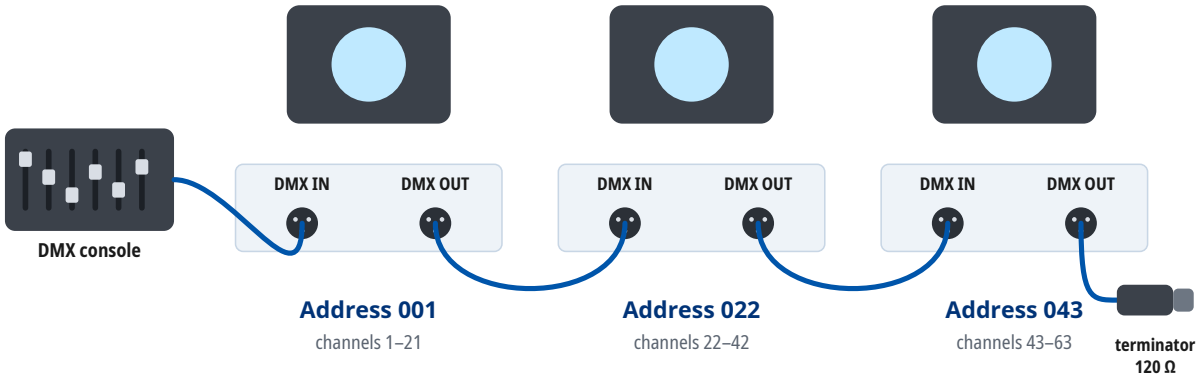
⚠ **WARNING**

- 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: 4.9 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

5 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 21 CH: every unit occupies 21 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.

6 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 21 CH”: 21.
- 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 21 CH”, you can use, for example, the start addresses 1, 22, 43, 64.
- 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.

7 Functions at a glance

Functions in each DMX mode

	13 standard 13 channels	1 CH Dim 1 channel	2 CH Dim 2 channels	3 CH DIM Strobe CCT 3 channels	4 CH rgb 4 channels	6CH Raw Color 6 channels	7CH Dim CCT Color Picker 7 channels	EXT 21 CH 21 channels
Dimmer	1	1	1	1	1	✓	1	1
Dimmer resolution	16 bit	8 bit	8 bit	8 bit	8 bit		16 bit	16 bit
Shutter / strobe	3			2			3	3
Color mixing	4–9				2–4	1–6		6× (4–14)
Color temperature	10		2	3			4	16
Color wheel	12						6	19

Color wheel

1 Color 1: open
DMX 0

2 Pale Yellow
DMX 1

3 Straw
DMX 2

4 Gold Tint
DMX 3

5 Spring Yellow
DMX 5

6 Medium Yellow
DMX 6

7 Yellow
DMX 7

8 Deep Amber
DMX 8

9 Deep Straw
DMX 9

10 Loving Amber
DMX 10

11 Gold Amber
DMX 11

12 Orange
DMX 12

13 Deep Orange
DMX 13

14 Dark Amber
DMX 14

15 Millenium Gold
DMX 15

16 Deep Golden Amber
DMX 16

17 Scarlet
DMX 17

18 Primary Red
DMX 18

19 Bright Red
DMX 19

20 Medium Red
DMX 20

21 Fire
DMX 21

22 Pink
DMX 22

23 Medium Pink
DMX 23

24 Dark Pink
DMX 24

25 Bright Pink
DMX 25

26 Bright Rose
DMX 26

27 Special Rose Pink
DMX 27

28 Vanity Fair
DMX 28

29 Magenta
DMX 29

30 Dark Magenta
DMX 30

31 Rose Purple
DMX 31

32 Mauve
DMX 32

33 Medium Purple
DMX 33

34 Lavender
DMX 34

35 Palace Blue
DMX 35

36 Dark Blue
DMX 36

37 Wheel Slot 36
DMX 37

38 Deep Blue
DMX 38

39 Daylight Blue
DMX 39

40 Slate Blue
DMX 40

41 Light Blue
DMX 41

42 Sky Blue
DMX 42

43 Pale Navy Blue
DMX 43

44 Marine Blue
DMX 44

45 Peacock Blue
DMX 45

46 Lagoon Blue
DMX 46

47 Medium Blue Green
DMX 47

48 Dark Yellow Green
DMX 48

49 Primary Green **DMX 49**

50 Fern Green **DMX 50**

51 Moss Green **DMX 51**

52 Dark Green **DMX 52**

53 Lime Green **DMX 53**

54 Pale Green **DMX 54**

55 Quarter Ct Blue **DMX 55**

56 Half Ct Blue **DMX 56**

57 Full Ct Blue **DMX 57**

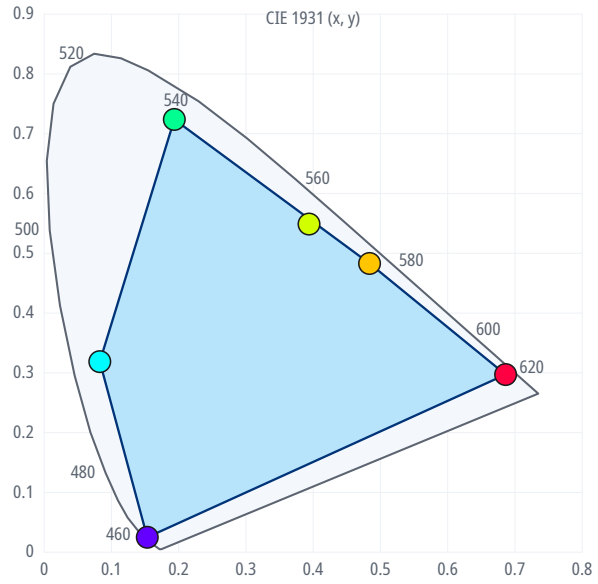
58 Double Ct Blue **DMX 58**

59 Quarter Ct Orange **DMX 59**

60 Half Ct Orange **DMX 60**

61 Full Ct Orange **DMX 61**

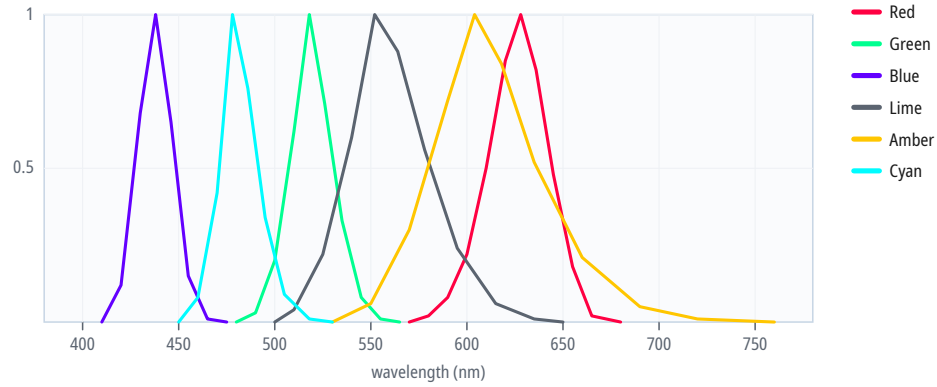
LED colors and the colors they mix



LED	x	y	nm
Red	0.686	0.297	623
Green	0.194	0.724	525
Blue	0.153	0.025	453
Lime	0.394	0.549	
Amber	0.484	0.483	
Cyan	0.083	0.319	489

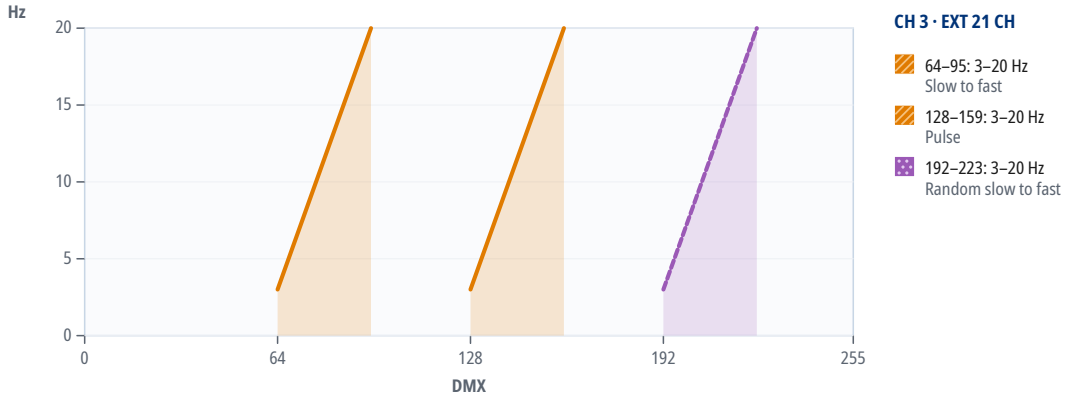
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Spectra of the light sources



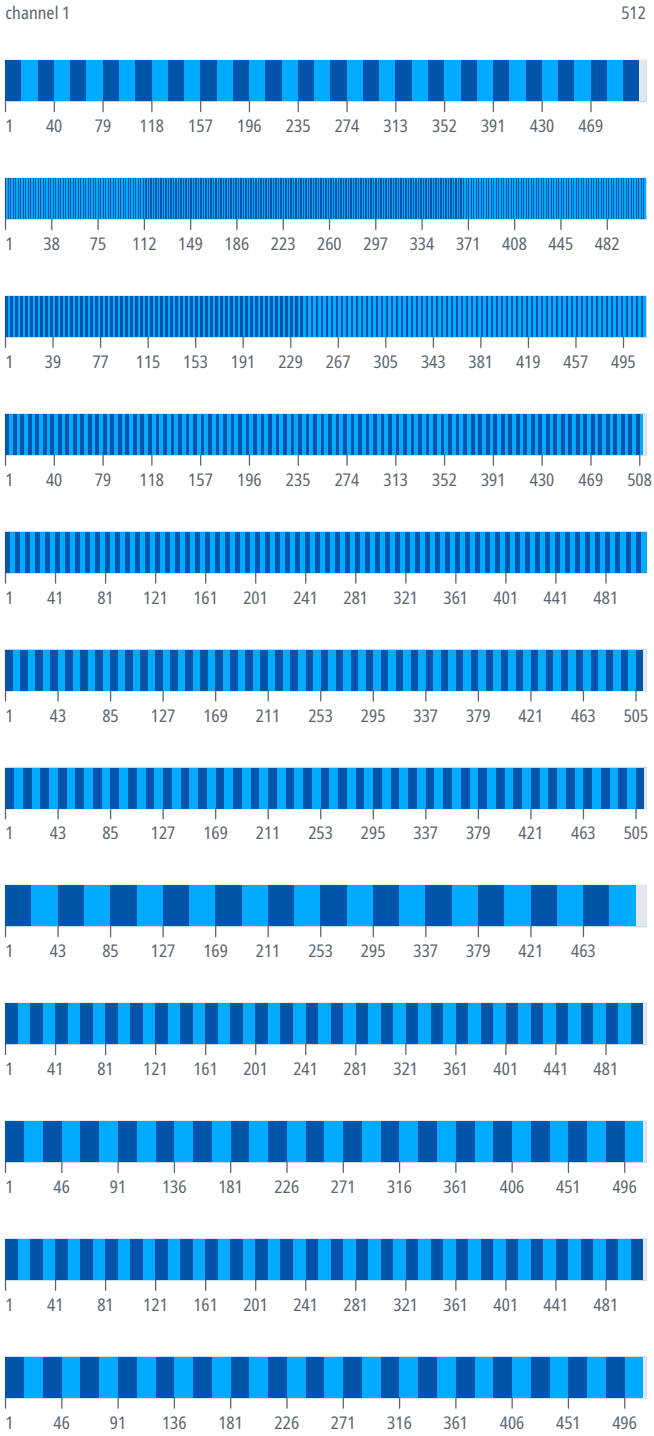
Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

Strobe rate


Hz
20
15
10
5
0
0
64
128
192
255
DMX
CH 3 · EXT 21 CH
64–95: 3–20 Hz
Slow to fast
128–159: 3–20 Hz
Pulse
192–223: 3–20 Hz
Random slow to fast

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “EXT 21 CH”

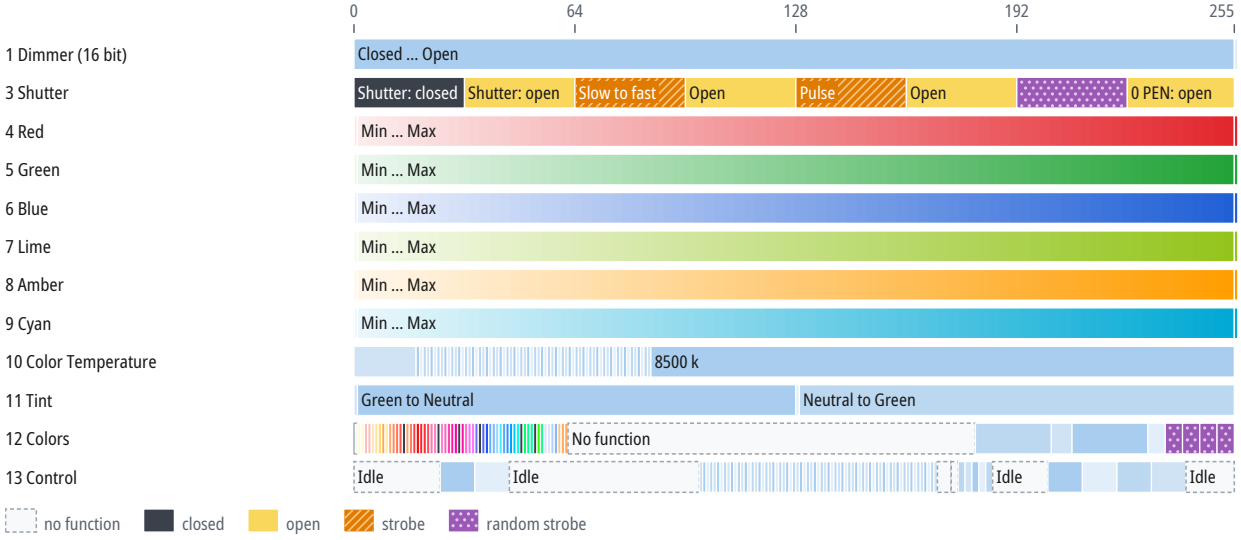
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	106	11	211	16	316
2	22	7	127	12	232	17	337
3	43	8	148	13	253	18	358
4	64	9	169	14	274	19	379
5	85	10	190	15	295	20	400

Mode 13 standard

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 4 Red 255, CH 5 Green 255, CH 6 Blue 255, CH 7 Lime 255, CH 8 Amber 255, CH 9 Cyan 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0–255	Closed ... Open
		255	Open
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter	0–31	Shutter: closed
		32–63	Shutter: open
		64–95	Slow to fast (3–20 Hz)
		96–127	Open
		128–159	Pulse (3–20 Hz)
		160–191	Open
		192–223	Random slow to fast (3–20 Hz)
		224–255	0 PEN: open
4	Red		Color RGB_Red 1

CH	Function	DMX	Description
4	Red (continued)	0	Min
		1–254	Min ... Max
		255	Max
5	Green		Color RGB_Green 1
		0	Min
		1–254	Min ... Max
		255	Max
6	Blue		Color RGB_Blue 1
		0	Min
		1–254	Min ... Max
		255	Max
7	Lime	0	Min
		1–254	Min ... Max
		255	Max
8	Amber	0	Min
		1–254	Min ... Max
		255	Max
9	Cyan		Color RGB_Cyan 1
		0	Min
		1–254	Min ... Max
		255	Max
10	Color Temperature	0–17	CCT Presets: open
		18	1800k
		19	1900k
		20	2000k
		21	2100k
		22	2200k
		23	2300k
		24	2400k
		25	2500k
		26	2600k
		27	2700k
		28	2800k
		29	2900k
		30	3000k
		31	3100k
		32	3200k
		33	3300k
		34	3400k
		35	3500k
		36	3600k

CH	Function	DMX	Description
10	Color Temperature (continued)	37	3700k
		38	3800k
		39	3900k
		40	4000k
		41	4100k
		42	4200k
		43	4300k
		44	4400k
		45	4500k
		46	4600k
		47	4700k
		48	4800k
		49	4900k
		50	5000k
		51	5100k
		52	5200k
		53	5300k
		54	5400k
		55	5500k
		56	5600k
		57	5700k
		58	5800k
		59	5900k
		60	6000k
		61	6100k
		62	6200k
		63	6300k
		64	6400k
		65	6500k
		66	6600k
		67	6700k
		68	6800k
		69	6900k
		70	7000k
		71	7100k
		72	7200k
		73	7300k
		74	7400k
		75	7500k
		76	7600k
		77	7700k

CH	Function	DMX	Description
10	Color Temperature (continued)	78	7800k
		79	7900k
		80	8000k
		81	8100k
		82	8200k
		83	8300k
		84	8400k
		85	8500k
		86–255	8500 k
11	Tint	0	Idle
		1–127	Green to Neutral
		128	Neutral
		129–255	Neutral to Green
12	Colors	0	Color 1: open
		1	Pale Yellow
		2	Straw
		3–4	Gold Tint
		5	Spring Yellow
		6	Medium Yellow
		7	Yellow
		8	Deep Amber
		9	Deep Straw
		10	Loving Amber
		11	Gold Amber
		12	Orange
		13	Deep Orange
		14	Dark Amber
		15	Millenium Gold
		16	Deep Golden Amber
		17	Scarlet
		18	Primary Red
		19	Bright Red
		20	Medium Red
		21	Fire
		22	Pink
		23	Medium Pink
		24	Dark Pink
		25	Bright Pink
		26	Bright Rose
		27	Special Rose Pink
		28	Vanity Fair

CH	Function	DMX	Description
12	Colors (continued)	29	Magenta
		30	Dark Magenta
		31	Rose Purple
		32	Mauve
		33	Medium Purple
		34	Lavender
		35	Palace Blue
		36	Dark Blue
		37	Wheel Slot 36
		38	Deep Blue
		39	Daylight Blue
		40	Slate Blue
		41	Light Blue
		42	Sky Blue
		43	Pale Navy Blue
		44	Marine Blue
		45	Peacock Blue
		46	Lagoon Blue
		47	Medium Blue Green
		48	Dark Yellow Green
		49	Primary Green
		50	Fern Green
		51	Moss Green
		52	Dark Green
		53	Lime Green
		54	Pale Green
		55	Quarter Ct Blue
		56	Half Ct Blue
		57	Full Ct Blue
		58	Double Ct Blue
		59	Quarter Ct Orange
		60	Half Ct Orange
		61	Full Ct Orange
		62–179	No function
		180–201	Clockwise fast to slow (30–20 °/s)
		202–207	Color Effects 1: stop
		208–229	Counter clockwise slow to fast (20–30 °/s)
		230–234	Color Effects 1: open
		235–239	Color 1 Wheel Random: fast (8–10 Hz)
		240–244	Medium (3–5 Hz)
		245–249	Color 1 Wheel Random: slow (1–2 Hz)
		250–255	Color 1 Wheel Random: open

CH	Function	DMX	Description
13	Control	0–24	Idle
		25–34	Bllnder out put Mode
		35–44	Constandd Output Mode
		45–99	Idle
		100	900
		101	910
		102	920
		103	930
		104	940
		105	950
		106	960
		107	970
		108	980
		109	990
		110	1000
		111	1010
		112	1020
		113	1030
		114	1040
		115	1050
		116	1060
		117	1070
		118	1080
		119	1090
		120	1100
		121	1110
		122	1120
		123	1130
		124	1140
		125	1150
		126	1160
		127	1170
		128	1180
		129	1190
		130	1200
		131	1210
		132	1220
		133	1230
		134	1240
		135	1250
		136	1260
		137	1270

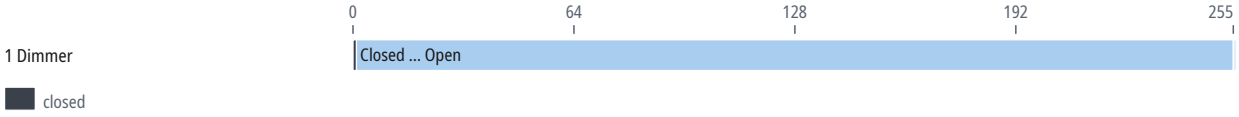
CH	Function	DMX	Description
13	Control (continued)	138	1280
		139	1290
		140	1300
		141	1310
		142	1320
		143	1330
		144	1340
		145	1350
		146	1360
		147	1370
		148	1380
		149	1390
		150	1400
		151	1410
		152	1420
		153	1430
		154	1440
		155	1450
		156	1460
		157	1470
		158	1480
		159	1490
		160	1500
		161	2500
		162	4000
		163	5000
		164	6000
		165	10000
		166	15000
		167	20000
		168	25000
		169–172	Idle
		173–174	Idle 2
		175–176	Highest Fidelity
		177–178	Balanced Output and Fidelity
		179–180	Highest OutPut
		181–182	Bright(Highest Output)
		183–184	Uniform(Elation Full Spectrum Match)
		185–200	Idle
		201–210	Liner
		211–220	Square

CH	Function	DMX	Description
13	Control (continued)	221–230	Inverse Square
		231–240	S-curve
		241–255	Idle

Mode 1 CH Dim

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

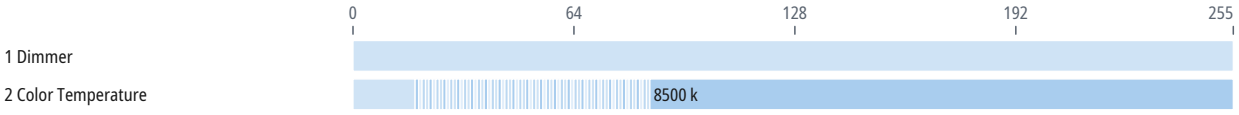


CH	Function	DMX	Description
1	Dimmer	0	Closed
		1–254	Closed ... Open
		255	Open

Mode 2 CH Dim

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

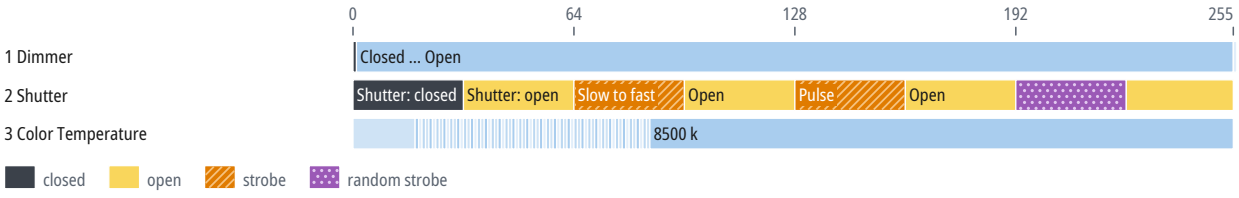


CH	Function	DMX	Description
1	Dimmer	0–255	
2	Color Temperature		Same as CH 10 in the mode “13 standard” (p. 12)

Mode 3 CH DIM Strobe CCT

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 2 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 Shutter 255.

Channel functions at a glance

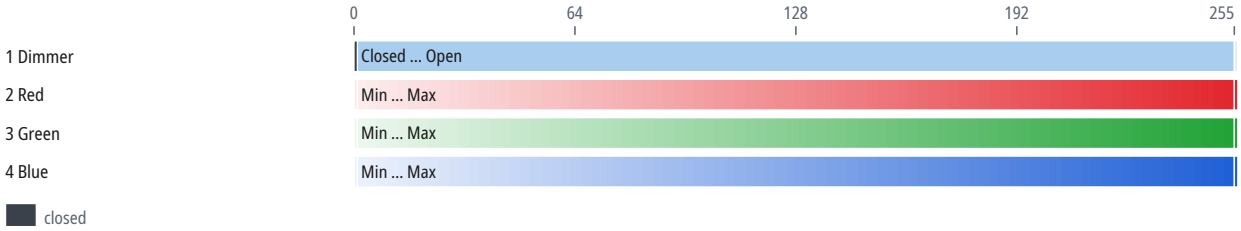


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “1 CH Dim” (p. 18)
2	Shutter	0–31	Shutter: closed
		32–63	Shutter: open
		64–95	Slow to fast (3–20 Hz)
		96–127	Open
		128–159	Pulse (3–20 Hz)
		160–191	Open
		192–223	Random slow to fast (3–20 Hz)
		224–255	Shutter 1: open
3	Color Temperature		Same as CH 10 in the mode “13 standard” (p. 12)

Mode 4 CH rgb

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 Red 255, CH 3 Green 255, CH 4 Blue 255.

Channel functions at a glance

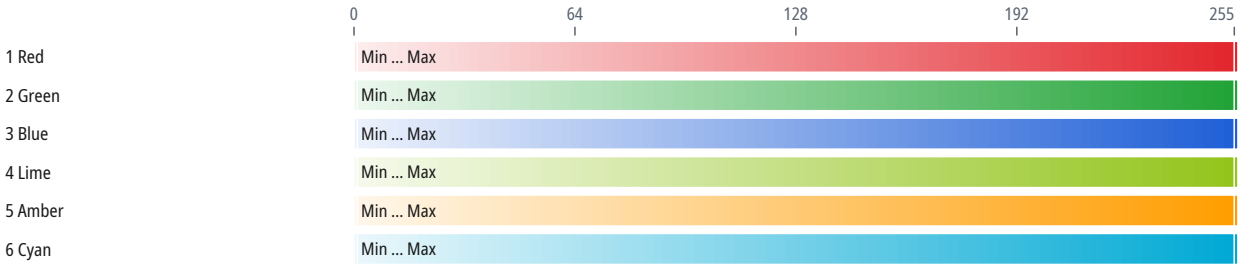


CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “1 CH Dim” (p. 18)
2	Red		Same as CH 4 in the mode “13 standard” (p. 11)
3	Green		Same as CH 5 in the mode “13 standard” (p. 12)
4	Blue		Same as CH 6 in the mode “13 standard” (p. 12)

Mode 6CH Raw Color

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 255, CH 5 Amber 255, CH 6 Cyan 255.

Channel functions at a glance



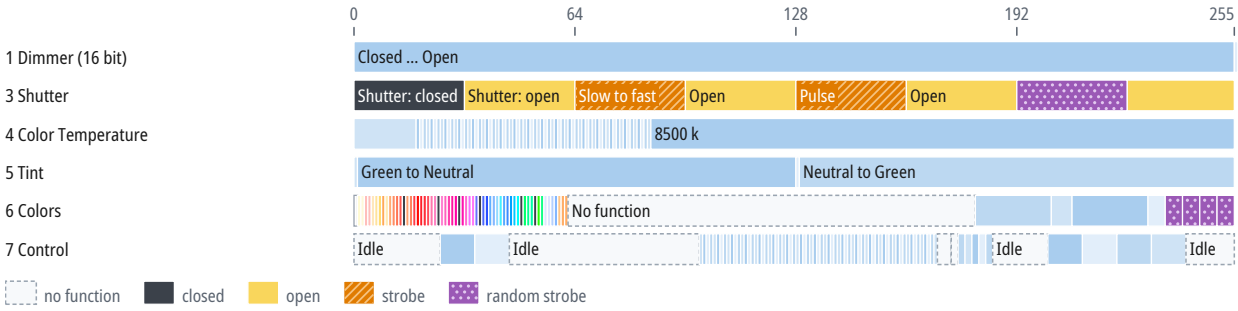
CH	Function	DMX	Description
1	Red		Same as CH 4 in the mode “13 standard” (p. 11)
2	Green		Same as CH 5 in the mode “13 standard” (p. 12)
3	Blue		Same as CH 6 in the mode “13 standard” (p. 12)
4	Lime		Same as CH 7 in the mode “13 standard” (p. 12)
5	Amber		Same as CH 8 in the mode “13 standard” (p. 12)
6	Cyan	0	Min
		1–254	Min … Max
		255	Max

Mode 7CH Dim CCT Color Picker

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance



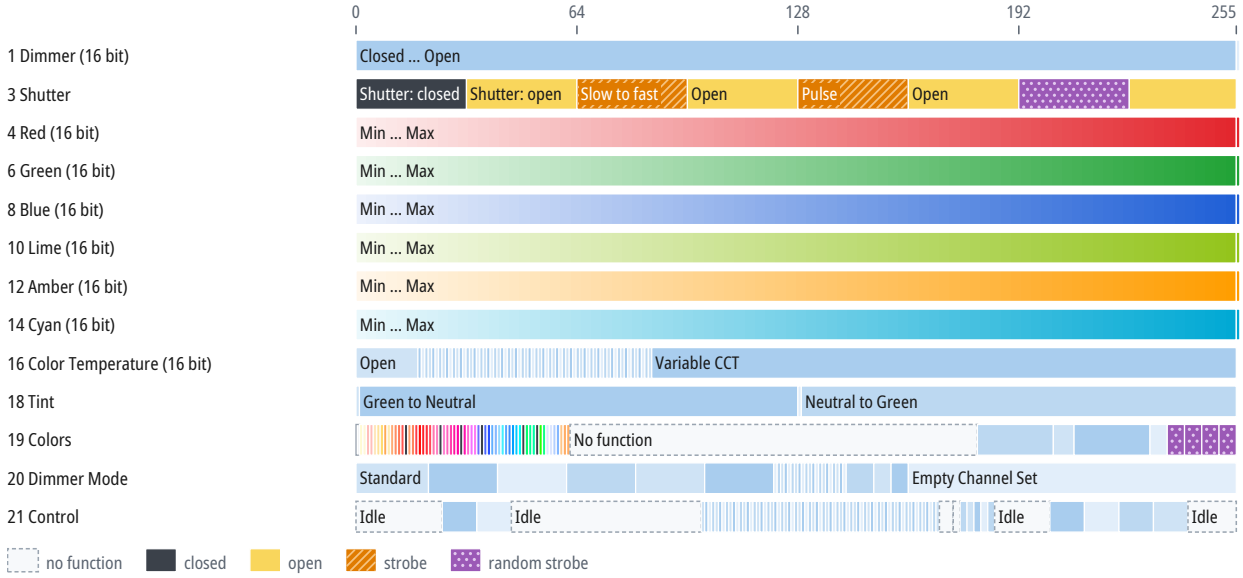
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13 standard” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Color Temperature		Same as CH 10 in the mode “13 standard” (p. 12)
5	Tint		Same as CH 11 in the mode “13 standard” (p. 14)
6	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
7	Control		Same as CH 13 in the mode “13 standard” (p. 16)

Mode EXT 21 CH

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 100, CH 4 Red 0, CH 6 Green 0, CH 8 Blue 0, CH 10 Lime 0, CH 12 Amber 0, CH 14 Cyan 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13 standard” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Red		Color RGB_Red 1
		0–255	Min ... Max
		255	Max
5	Red Fine	0–255	Fine adjustment of CH 4
6	Green		Color RGB_Green 1
		0–255	Min ... Max
		255	Max
7	Green Fine	0–255	Fine adjustment of CH 6
8	Blue		Color RGB_Blue 1
		0–255	Min ... Max
		255	Max
9	Blue Fine	0–255	Fine adjustment of CH 8
10	Lime	0–255	Min ... Max
		255	Max
11	Lime Fine	0–255	Fine adjustment of CH 10
12	Amber	0–255	Min ... Max
		255	Max

CH	Function	DMX	Description
13	Amber Fine	0–255	Fine adjustment of CH 12
14	Cyan		Color RGB_Cyan 1
		0–255	Min ... Max
		255	Max
15	Cyan Fine	0–255	Fine adjustment of CH 14
16	Color Temperature		Variable CCT
		0–17	Open
		18	1800k
		19	1900k
		20	2000k
		21	2100k
		22	2200k
		23	2300k
		24	2400k
		25	2500k
		26	2600k
		27	2700k
		28	2800k
		29	2900k
		30	3000k
		31	3100k
		32	3200k
		33	3300k
		34	3400k
		35	3500k
		36	3600k
		37	3700k
		38	3800k
		39	3900k
		40	4000k
		41	4100k
		42	4200k
		43	4300k
		44	4400k
		45	4500k
		46	4600k
		47	4700k
		48	4800k
		49	4900k
		50	5000k
		51	5100k

CH	Function	DMX	Description
16	Color Temperature (continued)	52	5200k
		53	5300k
		54	5400k
		55	5500k
		56	5600k
		57	5700k
		58	5800k
		59	5900k
		60	6000k
		61	6100k
		62	6200k
		63	6300k
		64	6400k
		65	6500k
		66	6600k
		67	6700k
		68	6800k
		69	6900k
		70	7000k
		71	7100k
		72	7200k
		73	7300k
		74	7400k
		75	7500k
		76	7600k
		77	7700k
		78	7800k
		79	7900k
		80	8000k
		81	8100k
		82	8200k
		83	8300k
		84	8400k
		85	8500k
		86–255	Variable CCT
17	Color Temperature Fine	0–255	Fine adjustment of CH 16
18	Tint		Same as CH 11 in the mode “13 standard” (p. 14)
19	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
20	Dimmer Mode	0–20	Standard
		21–120	Dimmer Mode: Empty Channel Set
		121	0s

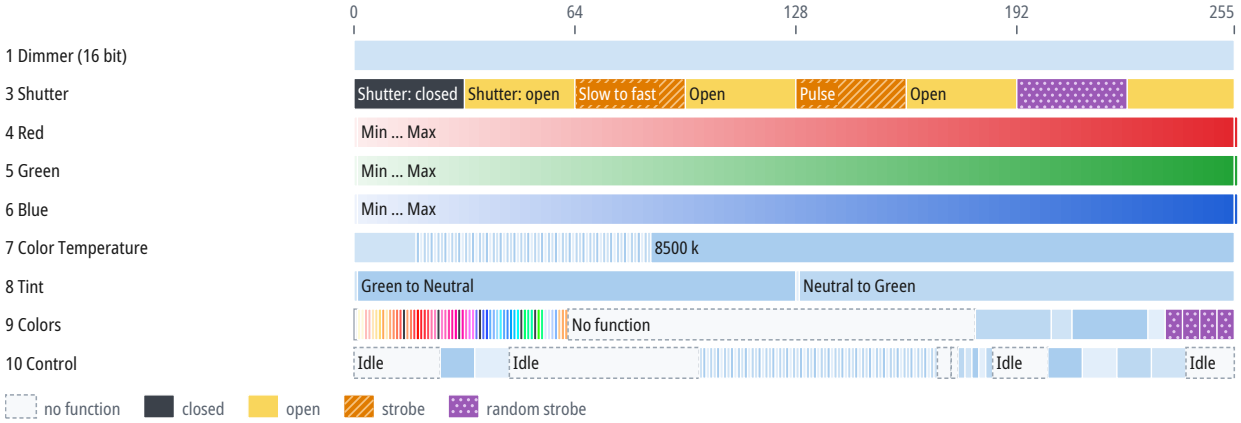
CH	Function	DMX	Description
20	Dimmer Mode (continued)	122	0.1s
		123	0.2s
		124	0.3s
		125	0.4s
		126	0.5s
		127	0.6s
		128	0.7s
		129	0.8s
		130	0.9s
		131	1.0s
		132	1.5s
		133	2.0s
		134	3.0s
		135	4.0s
		136	5.0s
		137	6.0s
		138	7.0s
		139	8.0s
		140	9.0s
		141	10s
		142–149	Idle
		150–255	Dim to Warm: Empty Channel Set
21	Control		Same as CH 13 in the mode “13 standard” (p. 16)

Mode 10CH RGB

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 4 Red 255, CH 5 Green 255, CH 6 Blue 255.

Channel functions at a glance



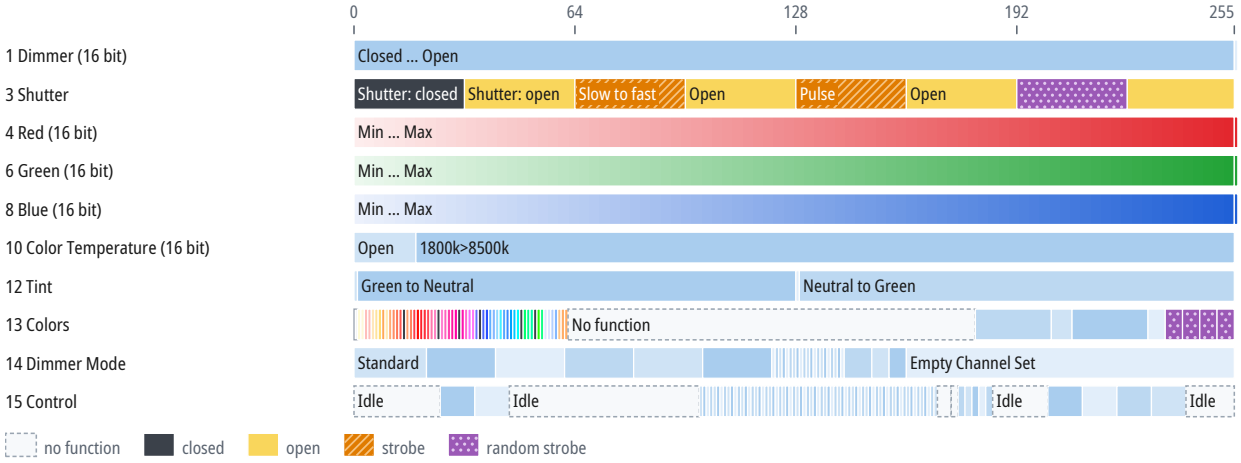
CH	Function	DMX	Description
1	Dimmer	0–255	
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Red		Same as CH 4 in the mode “13 standard” (p. 11)
5	Green		Same as CH 5 in the mode “13 standard” (p. 12)
6	Blue		Same as CH 6 in the mode “13 standard” (p. 12)
7	Color Temperature		Same as CH 10 in the mode “13 standard” (p. 12)
8	Tint		Same as CH 11 in the mode “13 standard” (p. 14)
9	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
10	Control		Same as CH 13 in the mode “13 standard” (p. 16)

Mode 15CH RGB EXT

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 100, CH 4 Red 0, CH 6 Green 0, CH 8 Blue 0.

Channel functions at a glance



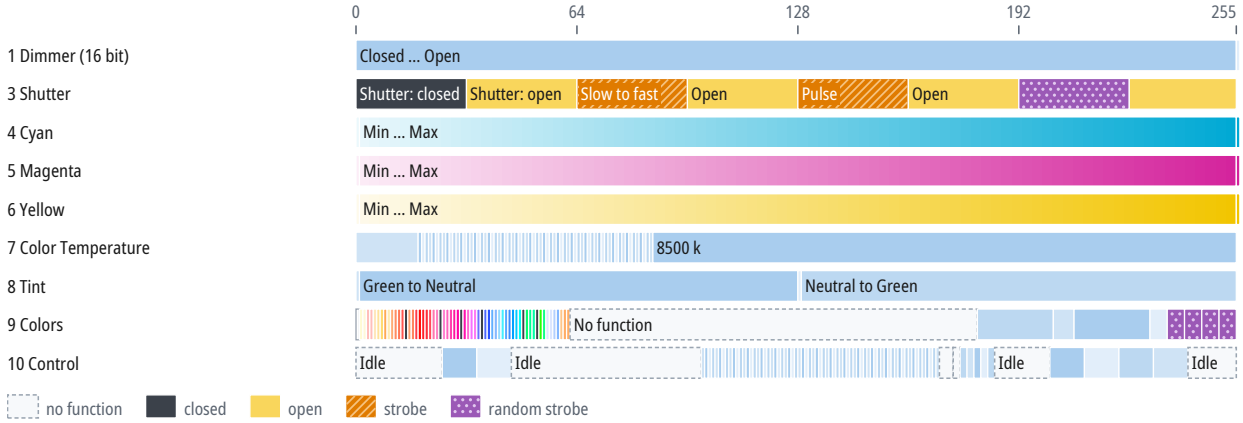
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13 standard” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Red		Same as CH 4 in the mode “EXT 21 CH” (p. 21)
5	Red Fine	0–255	Fine adjustment of CH 4
6	Green		Same as CH 6 in the mode “EXT 21 CH” (p. 21)
7	Green Fine	0–255	Fine adjustment of CH 6
8	Blue		Same as CH 8 in the mode “EXT 21 CH” (p. 21)
9	Blue Fine	0–255	Fine adjustment of CH 8
10	Color Temperature		Variable CCT
		0–17	Open
		18–255	1800k>8500k (1800–8500 K)
11	Color Temperature Fine	0–255	Fine adjustment of CH 10
12	Tint		Same as CH 11 in the mode “13 standard” (p. 14)
13	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
14	Dimmer Mode		Same as CH 20 in the mode “EXT 21 CH” (p. 23)
15	Control		Same as CH 13 in the mode “13 standard” (p. 16)

Mode 10CH CMY

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 4 Cyan 255, CH 5 Magenta 255, CH 6 Yellow 255.

Channel functions at a glance



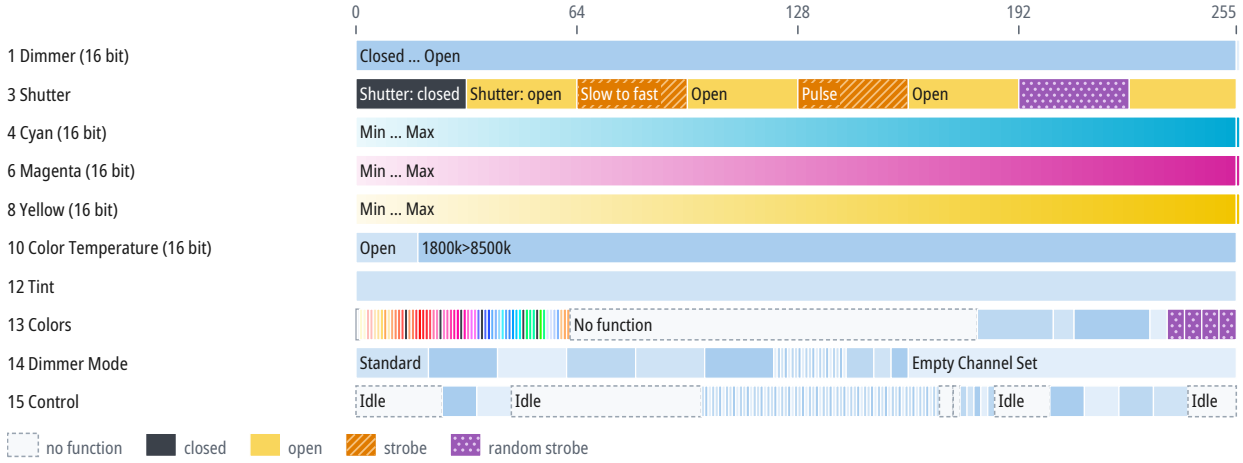
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13 standard” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Cyan		Same as CH 6 in the mode “6CH Raw Color” (p. 20)
5	Magenta	0	Min
		1–254	Min ... Max
		255	Max
6	Yellow	0	Min
		1–254	Min ... Max
		255	Max
7	Color Temperature		Same as CH 10 in the mode “13 standard” (p. 12)
8	Tint		Same as CH 11 in the mode “13 standard” (p. 14)
9	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
10	Control		Same as CH 13 in the mode “13 standard” (p. 16)

Mode 15CH EXT

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 Dimmer above 0; CH 3 Shutter at 32–63, 96–127, 160–191 or 224–255 “open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 4 Cyan 0, CH 6 Magenta 0, CH 8 Yellow 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “13 standard” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 2 in the mode “3 CH DIM Strobe CCT” (p. 19)
4	Cyan	0–255	Min ... Max
		255	Max
5	Cyan Fine	0–255	Fine adjustment of CH 4
6	Magenta	0–255	Min ... Max
		255	Max
7	Magenta Fine	0–255	Fine adjustment of CH 6
8	Yellow	0–255	Min ... Max
		255	Max
9	Yellow Fine	0–255	Fine adjustment of CH 8
10	Color Temperature		Same as CH 10 in the mode “15CH RGB EXT” (p. 26)
11	Color Temperature Fine	0–255	Fine adjustment of CH 10
12	Tint	0–255	
13	Colors		Same as CH 12 in the mode “13 standard” (p. 14)
14	Dimmer Mode		Same as CH 20 in the mode “EXT 21 CH” (p. 23)
15	Control		Same as CH 13 in the mode “13 standard” (p. 16)

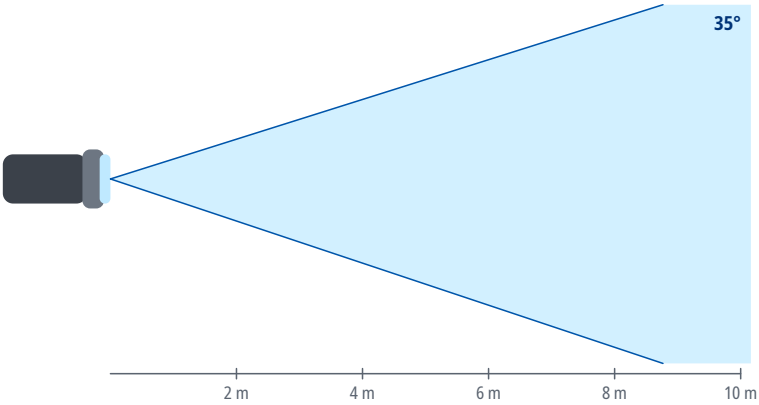
9 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	70 W
Luminous flux	35,350 lm
Color temperature	8,500 K
Color rendering index (CRI)	92
Optics	
Beam angle	35°
Control	
RDM	yes (manufacturer ID 0x3806, device model ID 0x62C5)
Dimensions and construction	
Weight	4.9 kg
Operating environment	
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	1800–8500 K
Strobe frequency	3–20 Hz
Color wheel rotation	up to 30 °/s (5 rpm)

Spot diameter



Distance	Ø 35°
2 m	1.3 m
4 m	2.5 m
6 m	3.8 m
8 m	5 m
10 m	6.3 m
15 m	9.5 m

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

10 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.

11 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.

12 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.