DMX REFERENCE

Soft Panel 300TW

CKC Lighting



Manufacturer	CKC Lighting
GDTF file	CKC_Lighting_Soft_Panel_300TW_114920.gdtf
GDTF revision	Revision 1 · 2025-10-24
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1 About this manual

This document describes the Soft Panel 300TW by CKC Lighting. It was compiled from the GDTF file CKC_Lighting_Soft_Panel_300TW_114920.gdtf from the GDTF-Share library.

File revision: “Revision 1”.

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 CKC Lighting; 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	13 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
4CH D+CCT	4	128	1, 5, 9, 13, ...
8CH RGBWLC+D+Strobe	8	64	1, 9, 17, 25, ...
6CH RGBWLC	6	85	1, 7, 13, 19, ...
3CH HSI	3	170	1, 4, 7, 10, ...
14CH All	14	36	1, 15, 29, 43, ...

No light? Check these channels

- 8CH RGBWLC+D+Strobe: CH 7 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- 14CH All: CH 7 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”


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

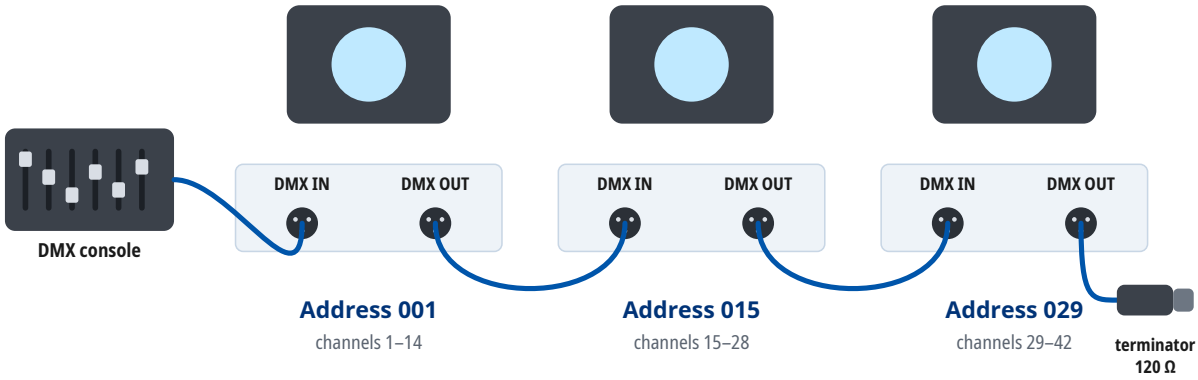
⚠ **WARNING**

- 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: 13 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 14CH All: every unit occupies 14 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

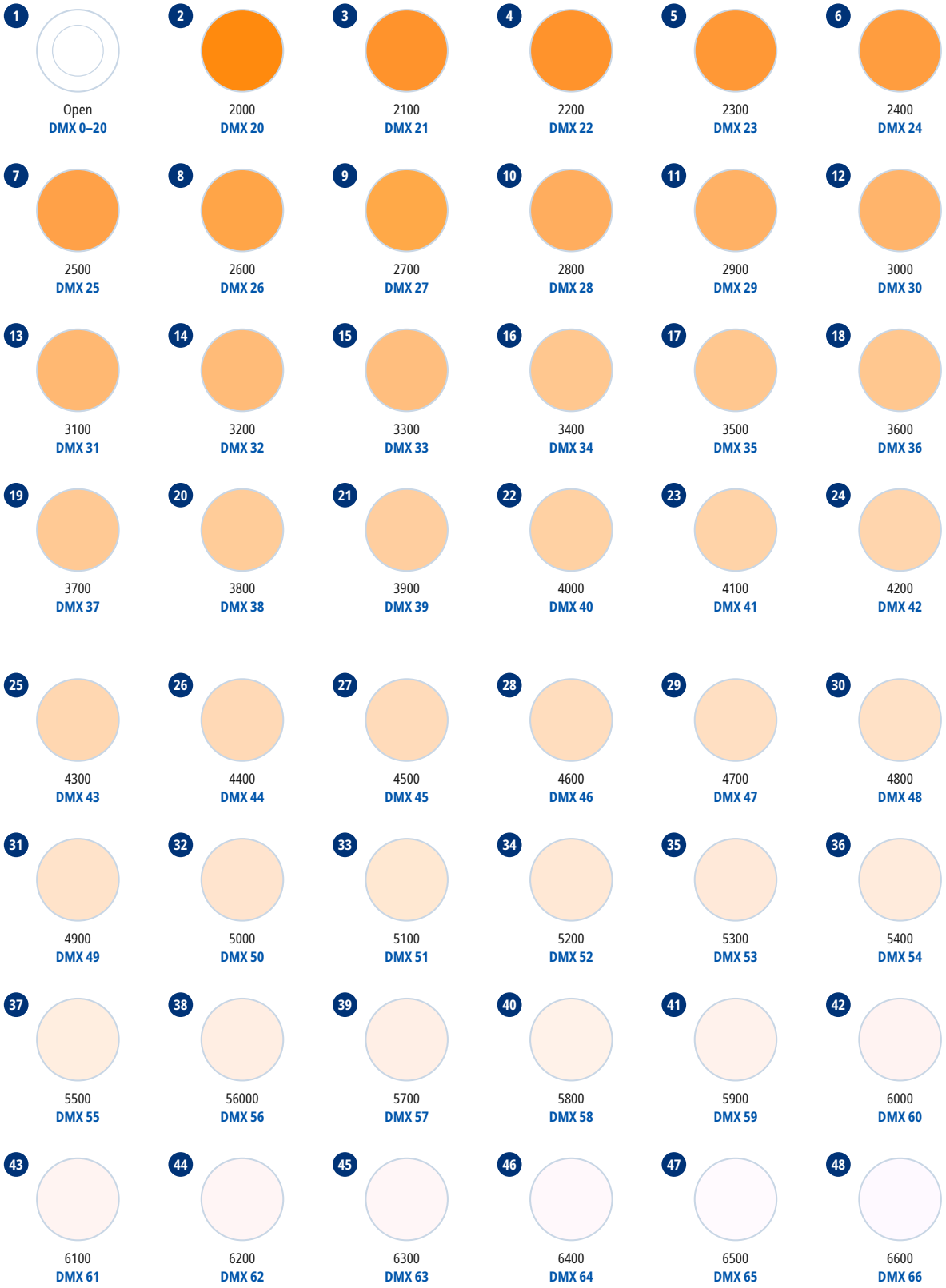
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “14CH All”: 14.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “14CH All”, you can use, for example, the start addresses 1, 15, 29, 43.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

7 Functions at a glance

Functions in each DMX mode

	4CH D+CCT 4 channels	8CH RGBWLC+D+Strobe 8 channels	6CH RGBWLC 6 channels	3CH HSI 3 channels	14CH All 14 channels
Dimmer	1	8	✓	3	8
Dimmer resolution	8 bit	8 bit		8 bit	16 bit
Shutter / strobe		7			7
Color mixing		1–6	1–6		1–6
Color temperature	2				10

Color wheel


1
Open
DMX 0–20
2
2000
DMX 20
3
2100
DMX 21
4
2200
DMX 22
5
2300
DMX 23
6
2400
DMX 24
7
2500
DMX 25
8
2600
DMX 26
9
2700
DMX 27
10
2800
DMX 28
11
2900
DMX 29
12
3000
DMX 30
13
3100
DMX 31
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3200
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3400
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56000
DMX 56
39
5700
DMX 57
40
5800
DMX 58
41
5900
DMX 59
42
6000
DMX 60
43
6100
DMX 61
44
6200
DMX 62
45
6300
DMX 63
46
6400
DMX 64
47
6500
DMX 65
48
6600
DMX 66

49 6700 DMX 67

50 6800 DMX 68

51 6900 DMX 69

52 7000 DMX 70

53 7100 DMX 71

54 7200 DMX 72

55 7300 DMX 73

56 7400 DMX 74

57 7500 DMX 75

58 7600 DMX 76

59 7700 DMX 77

60 7800 DMX 78

61 7900 DMX 79

62 8000 DMX 80

63 8100 DMX 81

64 8200 DMX 82

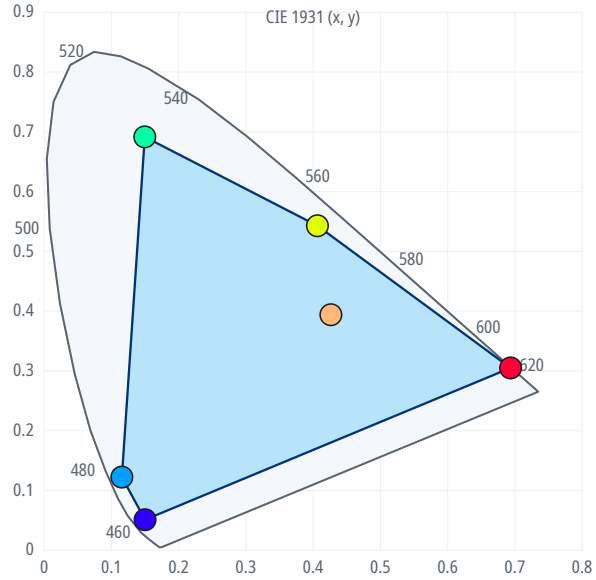
65 8300 DMX 83

66 8400 DMX 84

67 8500 DMX 85

68 10000K DMX 100–101

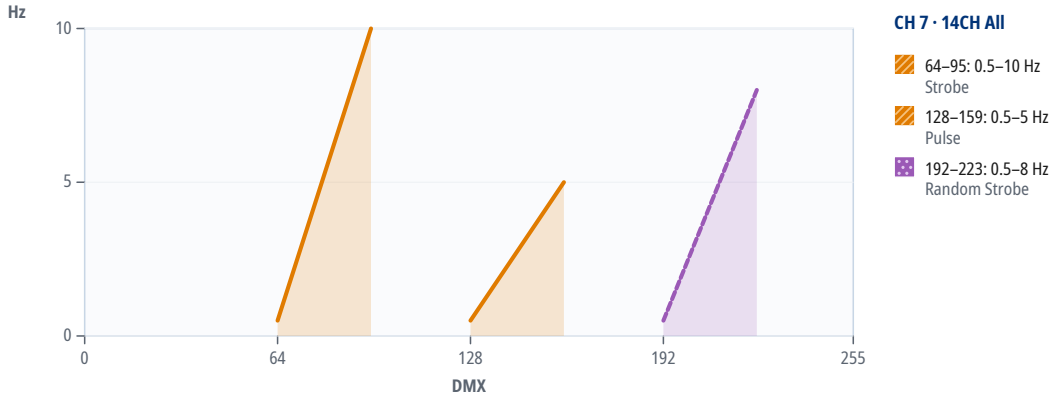
LED colors and the colors they mix



LED	x	y
Red	0.694	0.305
Green	0.150	0.692
Blue	0.150	0.051
White	0.426	0.394
Lime	0.406	0.543
Cyan	0.116	0.122

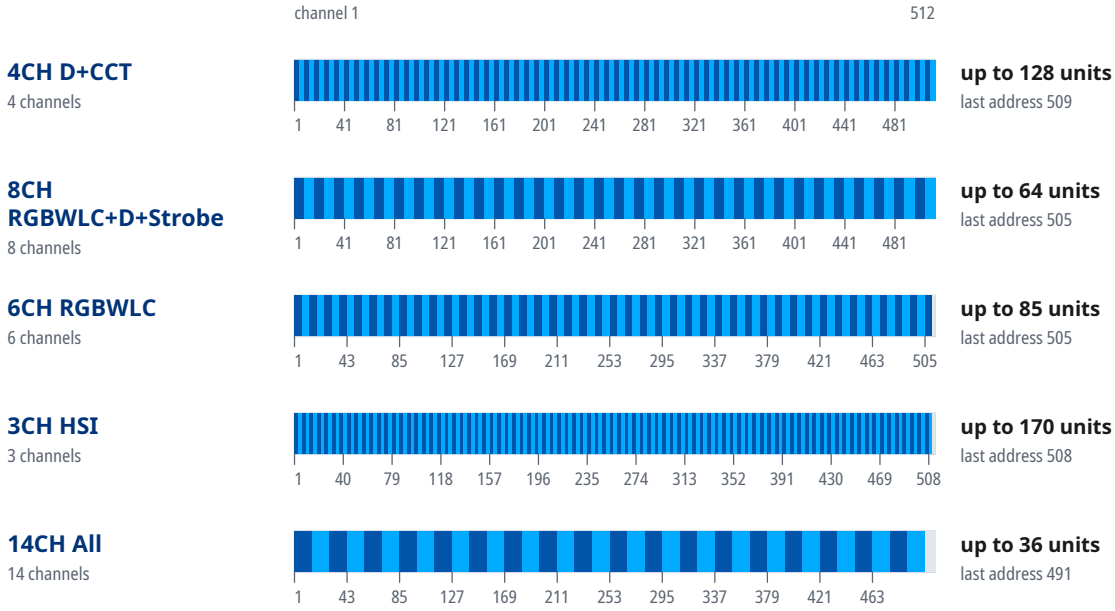
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

Strobe rate



8 DMX channels

Units in one DMX universe



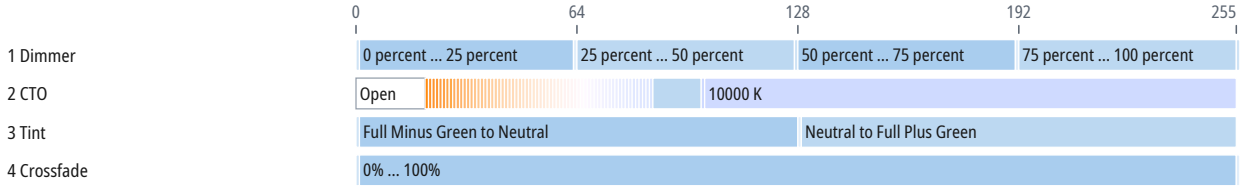
Start addresses of 20 units in the mode “14CH All”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	71	11	141	16	211
2	15	7	85	12	155	17	225
3	29	8	99	13	169	18	239
4	43	9	113	14	183	19	253
5	57	10	127	15	197	20	267

Mode 4CH D+CCT

The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 CTO 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0	0 percent
		1–62	0 percent ... 25 percent
		63	25 percent
		64–126	25 percent ... 50 percent
		127	50 percent
		128–190	50 percent ... 75 percent
		191	75 percent
		192–254	75 percent ... 100 percent
		255	100 percent
2	CTO	0–19	Open
		20	2000
		21	2100
		22	2200
		23	2300
		24	2400
		25	2500
		26	2600
		27	2700
		28	2800
		29	2900
		30	3000
		31	3100
		32	3200
		33	3300
		34	3400
		35	3500
		36	3600
		37	3700
		38	3800
		39	3900
		40	4000
		41	4100

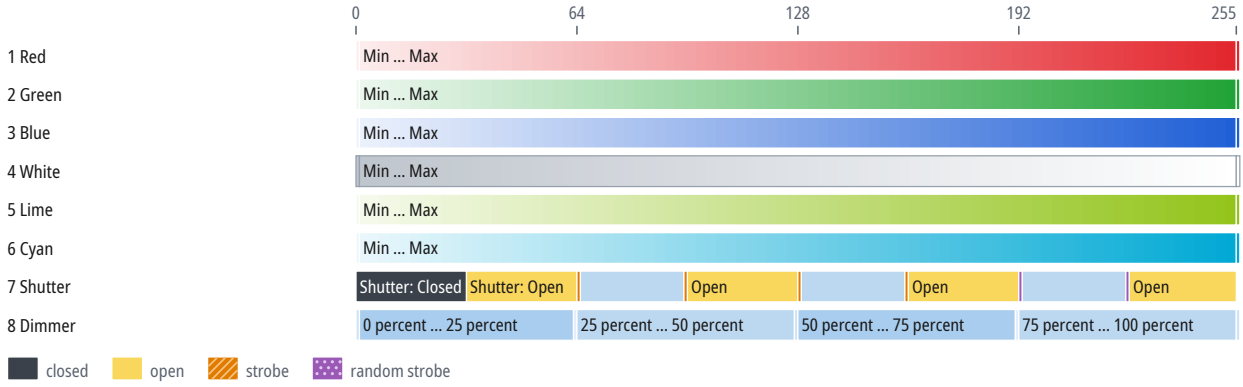
CH	Function	DMX	Description
2	CTO (continued)	42	4200
		43	4300
		44	4400
		45	4500
		46	4600
		47	4700
		48	4800
		49	4900
		50	5000
		51	5100
		52	5200
		53	5300
		54	5400
		55	5500
		56	56000
		57	5700
		58	5800
		59	5900
		60	6000
		61	6100
		62	6200
		63	6300
		64	6400
		65	6500
		66	6600
		67	6700
		68	6800
		69	6900
		70	7000
		71	7100
		72	7200
		73	7300
		74	7400
		75	7500
		76	7600
		77	7700
		78	7800
		79	7900
		80	8000
		81	8100
		82	8200
		83	8300

CH	Function	DMX	Description
2	CTO (continued)	84	8400
		85	8500
		86–99	8500 … 10000
		100	10000
		101–255	10000 K
3	Tint	0	Idle
		1–127	Full Minus Green to Neutral
		128	Neutral White
		129–255	Neutral to Full Plus Green
4	Crossfade	0	0%
		1–254	0% … 100%
		255	100%

Mode 8CH RGBWLC+D+Strobe

If the device receives DMX in this mode but gives no light, check these channels: CH 7 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 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Lime 255, CH 6 Cyan 255, CH 7 Shutter 50, CH 8 Dimmer 255.

Channel functions at a glance



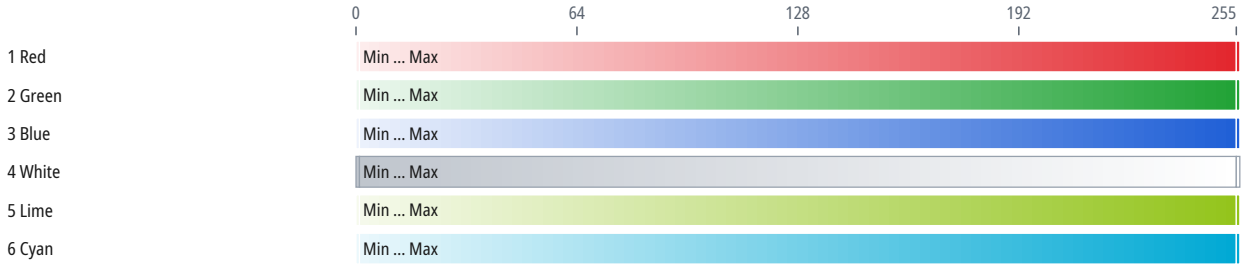
CH	Function	DMX	Description
1	Red	0	Min
		1–254	Min … Max
		255	Max
2	Green	0	Min
		1–254	Min … Max
		255	Max
3	Blue	0	Min
		1–254	Min … Max
		255	Max
4	White	0	Min
		1–254	Min … Max
		255	Max

CH	Function	DMX	Description
5	Lime	0	Min
		1–254	Min ... Max
		255	Max
6	Cyan	0	Min
		1–254	Min ... Max
		255	Max
7	Shutter	0–31	Shutter: Closed
		32–63	Shutter: Open
		64	Strobe Min
		65–94	Strobe Min ... Strobe Max
		95	Strobe Max
		96–127	Open
		128	Strobe Pulse Min
		129–158	Strobe Pulse Min ... Strobe Pulse Max
		159	Strobe Pulse Max
		160–191	Open
		192	Random Strobe Min
		193–222	Random Strobe Min ... Random Strobe Max
		223	Random Strobe Max
		224–255	Open
8	Dimmer		Same as CH 1 in the mode “4CH D+CCT” (p. 10)

Mode 6CH RGBWLC

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 Lime 255, CH 6 Cyan 255.

Channel functions at a glance

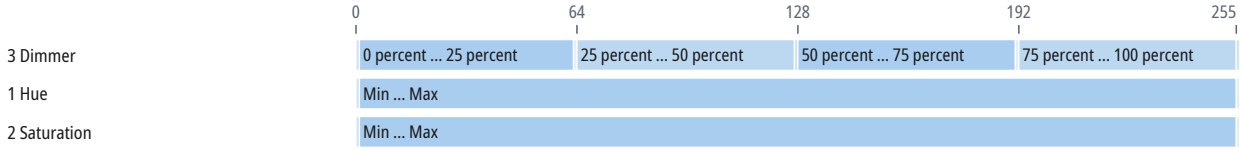


CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
2	Green		Same as CH 2 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
3	Blue		Same as CH 3 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
4	White		Same as CH 4 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
5	Lime		Same as CH 5 in the mode “8CH RGBWLC+D+Strobe” (p. 13)
6	Cyan		Same as CH 6 in the mode “8CH RGBWLC+D+Strobe” (p. 13)

Mode 3CH HSI

The GDTF file gives these values for a console's Highlight function: CH 3 Dimmer 255.

Channel functions at a glance



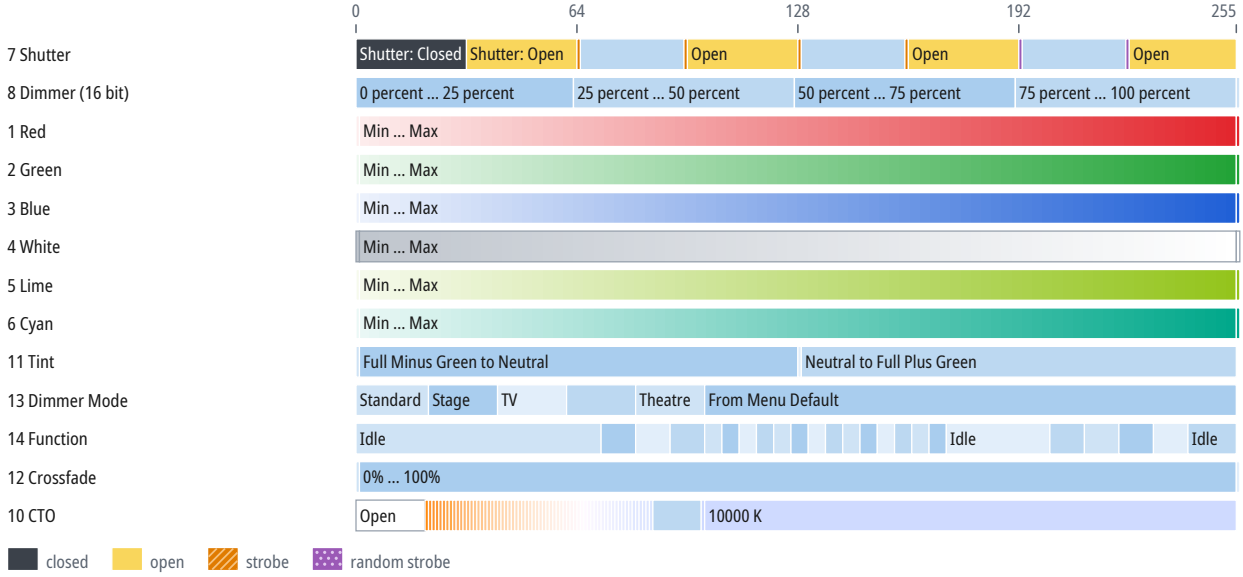
CH	Function	DMX	Description
1	Hue	0	Min
		1–254	Min ... Max
		255	Max
2	Saturation	0	Min
		1–254	Min ... Max
		255	Max
3	Dimmer		Same as CH 1 in the mode “4CH D+CCT” (p. 10)

Mode 14CH All

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 7 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 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Lime 255, CH 6 Cyan 255, CH 7 Shutter 50, CH 8 Dimmer 255, CH 10 CTO 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
2	Green		Same as CH 2 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
3	Blue		Same as CH 3 in the mode “8CH RGBWLC+D+Strobe” (p. 12)

CH	Function	DMX	Description
4	White		Same as CH 4 in the mode “8CH RGBWLC+D+Strobe” (p. 12)
5	Lime		Same as CH 5 in the mode “8CH RGBWLC+D+Strobe” (p. 13)
6	Cyan		Same as CH 6 in the mode “8CH RGBWLC+D+Strobe” (p. 13)
7	Shutter		Same as CH 7 in the mode “8CH RGBWLC+D+Strobe” (p. 13)
8	Dimmer	0–63	0 percent … 25 percent
		63–127	25 percent … 50 percent
		127–191	50 percent … 75 percent
		191–255	75 percent … 100 percent
		255	100 percent
9	Dimmer Fine	0–255	Fine adjustment of CH 8
10	CTO		Same as CH 2 in the mode “4CH D+CCT” (p. 10)
11	Tint		Same as CH 3 in the mode “4CH D+CCT” (p. 12)
12	Crossfade		Same as CH 4 in the mode “4CH D+CCT” (p. 12)
13	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	From Menu Default
14	Function	0–70	Idle
		71–80	Fan Mode Low
		81–90	Fan Mode Auto
		91–100	Fan Mode High
		101–105	900
		106–110	1000
		111–115	1100
		116–120	1200 (default)
		121–125	1300
		126–130	1400
		131–135	1500
		136–140	2500
		141–145	4000
		146–150	5000
		151–155	10000
		156–160	15000
		161–165	20000
		166–170	25000
		171–200	Idle
		201–210	Dimmer Curve Linear (default)
		211–220	Dimmer Curve Square

CH	Function	DMX	Description
14	Function (continued)	221–230	Dimmer Curve Inverse Square
		231–240	Dimmer Curve S-Curve
		241–255	Idle

9 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	295 W
Luminous flux	14,984 lm
Color temperature	8,056 K
Color rendering index (CRI)	72
Optics	
Beam angle	111°
Dimensions and construction	
Weight	13 kg
Operating environment	
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2400–10000 K
Strobe frequency	0.5–10 Hz
LED frequency	900–25000 Hz

Dimensions

weight 13 kg



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.