DMX REFERENCE

ACME THUNDERBOLT (LP-14410)

THUNDERBOLT (LP-14410)

ACME



Manufacturer	ACME
GDTF file	ACME_ACME_THUNDERBOLT_LP-14410_70765.gdtf
GDTF revision	ACME THUNDERBOLT (LP-14410) · 2024-08-13
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Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Installation 5
5 Connections 5
6 Operation 6
7 Functions at a glance 6
8 DMX channels 10
Mode 1 4 DMX 11
Mode 2 8 DMX 16Bit 11
Mode 3 8 DMX 12
Mode 4 9 DMX 13
Mode 5 52 DMX 16
Mode 6 1Pixel 17
Mode 7 2Pixel 18
Mode 8 3Pixel 19
Mode 9 4Pixel 21
Mode 10 6Pixel 23
Mode 11 12Pixel 25
9 Technical specifications 26
10 Maintenance and cleaning 26
11 Troubleshooting 27
12 Disposal 27

1 About this manual

This document describes the THUNDERBOLT (LP-14410) by ACME. It was compiled from the GDTF file ACME_ACME_THUNDERBOLT_LP-14410_70765.gdtf from the GDTF-Share library.

File revision: “ACME THUNDERBOLT (LP-14410)”.

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 ACME; 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	17 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 1 4 DMX	4	128	1, 5, 9, 13, ...
Mode 2 8 DMX 16Bit	8	64	1, 9, 17, 25, ...
Mode 3 8 DMX	8	64	1, 9, 17, 25, ...
Mode 4 9 DMX	9	56	1, 10, 19, 28, ...
Mode 5 52 DMX	52	9	1, 53, 105, 157, ...
Mode 6 1Pixel	12	42	1, 13, 25, 37, ...
Mode 7 2Pixel	16	32	1, 17, 33, 49, ...
Mode 8 3Pixel	20	25	1, 21, 41, 61, ...
Mode 9 4Pixel	24	21	1, 25, 49, 73, ...
Mode 10 6Pixel	32	16	1, 33, 65, 97, ...
Mode 11 12Pixel	56	9	1, 57, 113, 169, ...



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

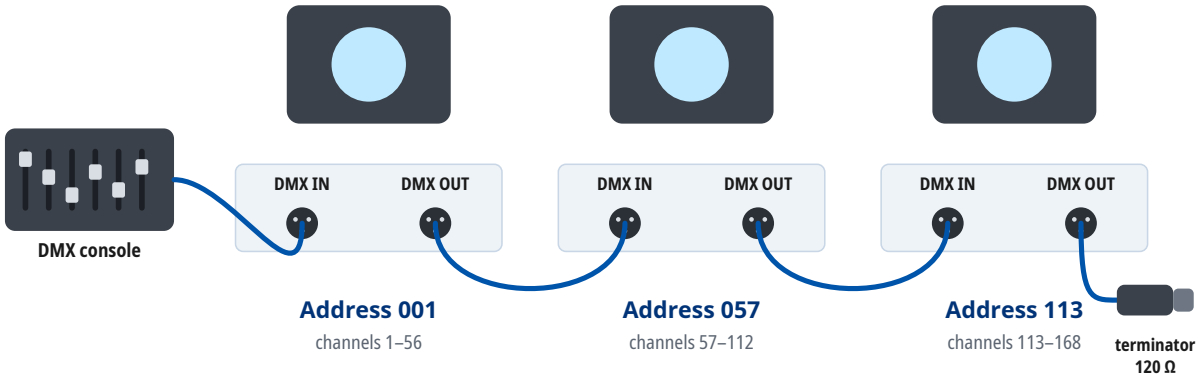
⚠ **WARNING**

- 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: 17 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 11 12Pixel: every unit occupies 56 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 “Mode 11 12Pixel”: 56.
- 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 “Mode 11 12Pixel”, you can use, for example, the start addresses 1, 57, 113, 169.
- 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

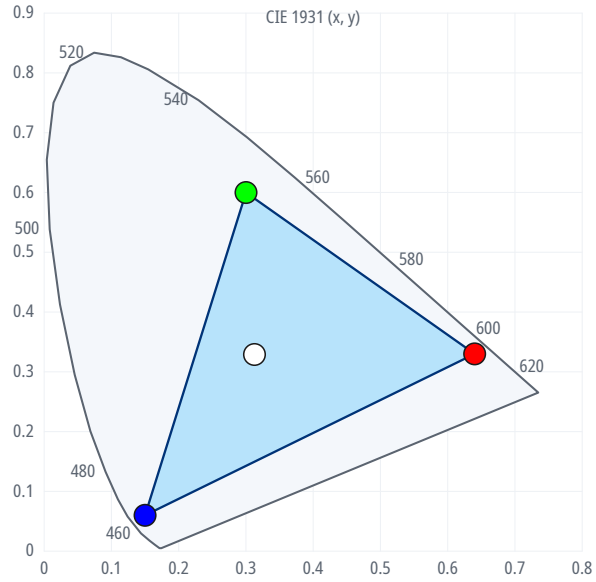
Functions in each DMX mode

	Mode 1 4 DMX 4 channels	Mode 2 8 DMX 16Bit 8 channels	Mode 3 8 DMX 8 channels	Mode 4 9 DMX 9 channels	Mode 5 52 DMX 52 channels	Mode 6 1Pixel 12 channels	Mode 7 2Pixel 16 channels	Mode 8 3Pixel 20 channels
Dimmer	✓	✓	5	5	49	5	5	5
Shutter / strobe			6–8	6	50–52	6–8	6–8	6–8
Color mixing	1–4	4× (1–7)	1–4	1–4	1–48	1–4, 9–12	1–4, 9–16	1–4, 9–20
Color wheel				7				
Effects / macros				7, 8				
Pixel control					12 cells			✓

Color wheel


1
Open
2
Color 1
3
Color 2
4
Color 3
5
Color 4
6
Color 5
7
Color 6
8
Color 7
9
Color 8
10
Color 9
11
Color 10
12
Color 11
13
Color 12
14
Color 13
15
Color 14
16
Color 15
17
Color 16
18
Color 17
19
Color 18
20
Color 19
21
Color 20
22
Color 21
23
Color 22
24
Color 23
25
Color 24
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Color 29
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32
Color 31
33
Color 32
34
Color 33

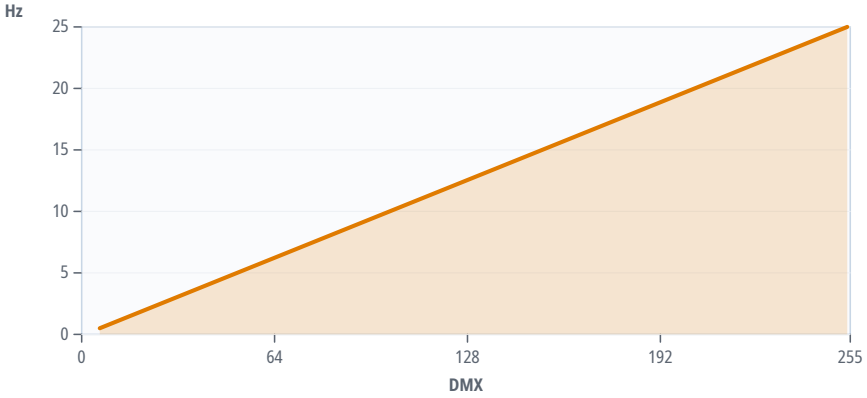
LED colors and the colors they mix



LED	x	y
Red	0.640	0.330
Green	0.300	0.600
Blue	0.150	0.060
White	0.313	0.329

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

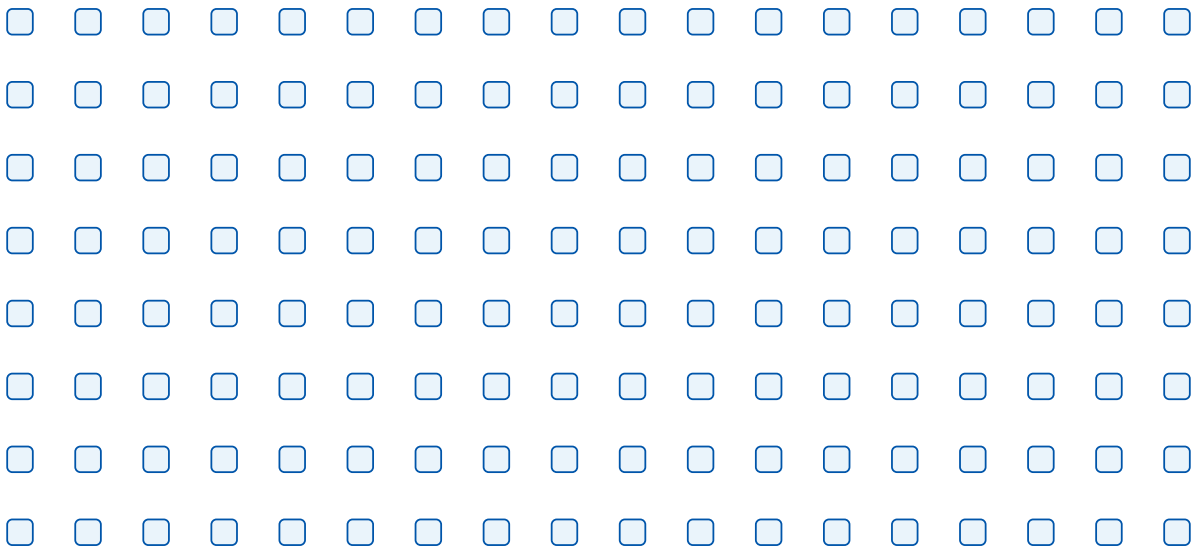
Strobe rate



CH 7 · Mode 11 12Pixel

6–254: 0.5–25 Hz
Shutter1Strobe 1

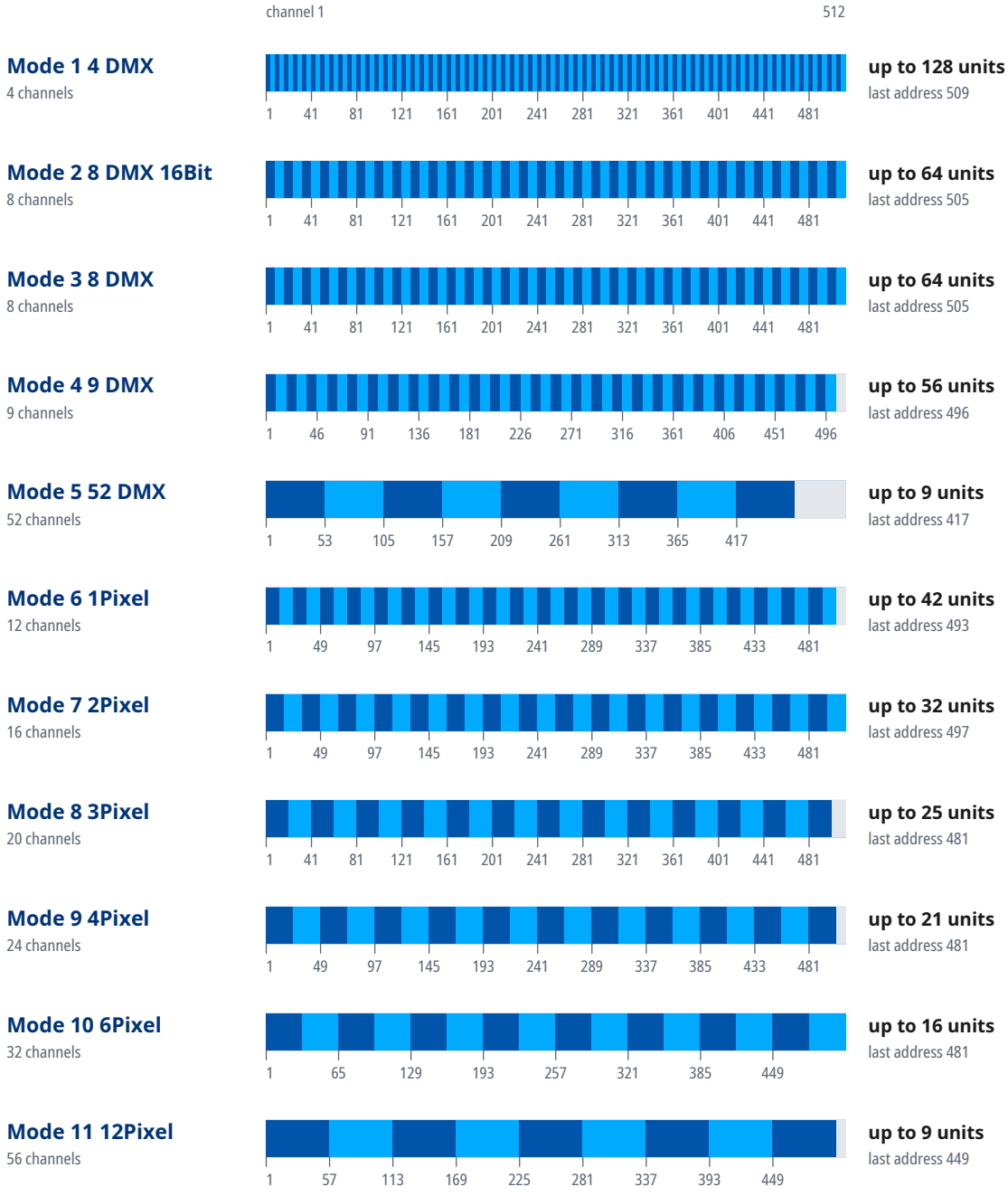
Cells (pixels)



Cells where the GDTF file places them (seen from above), 144 in all in the mode “Mode 11 12Pixel”.

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 11 12Pixel”

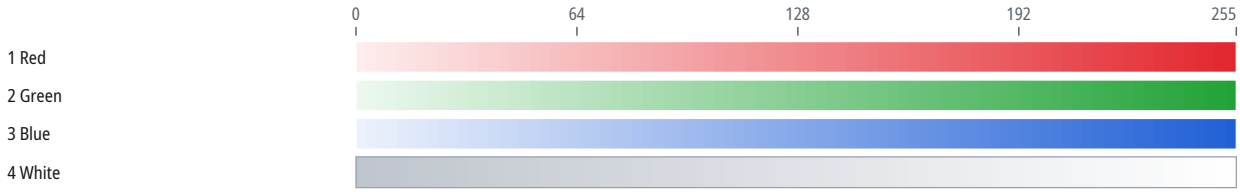
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	281	11	U2 · 57	16	U2 · 337
2	57	7	337	12	U2 · 113	17	U2 · 393
3	113	8	393	13	U2 · 169	18	U2 · 449
4	169	9	449	14	U2 · 225	19	U3 · 1
5	225	10	U2 · 1	15	U2 · 281	20	U3 · 57

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 1 4 DMX

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



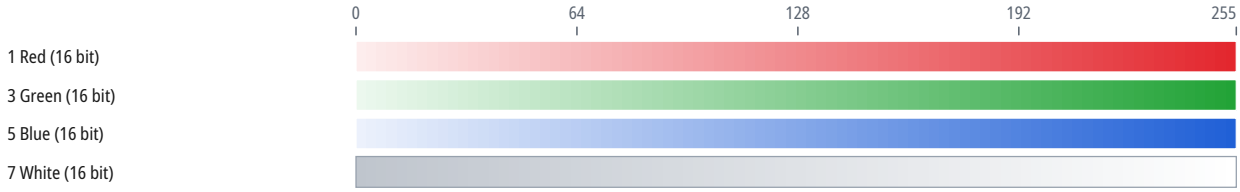
CH	Function	DMX	Description
1	Red	0–255	
2	Green	0–255	
3	Blue	0–255	
4	White	0–255	

Mode 2 8 DMX 16Bit

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

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

Channel functions at a glance

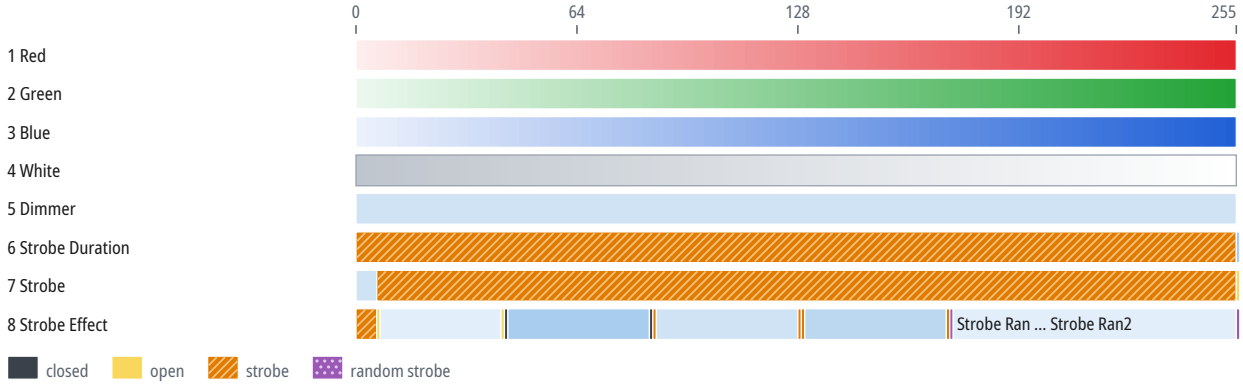


CH	Function	DMX	Description
1	Red	0–255	
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green	0–255	
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue	0–255	
6	Blue Fine	0–255	Fine adjustment of CH 5
7	White	0–255	
8	White Fine	0–255	Fine adjustment of CH 7

Mode 3 8 DMX

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Strobe at 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 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Strobe 255.

Channel functions at a glance

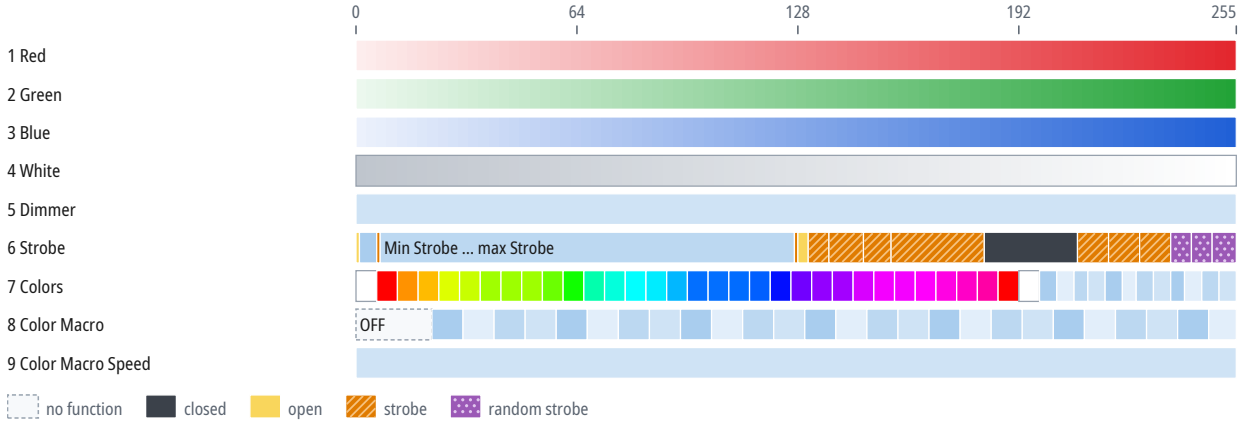


CH	Function	DMX	Description
1	Red	0–255	
2	Green	0–255	
3	Blue	0–255	
4	White	0–255	
5	Dimmer	0–255	
6	Strobe Duration	0–254	Strobe Duration 1 (1–25 s)
		255	Hyper
7	Strobe	0–5	No function
		6–254	Shutter 1 Strobe (0.5–25 Hz)
		255	Open
8	Strobe Effect	0–5	Normal
		6	Min Pulse Open
		7–41	Min Pulse Open ... max Pulse Open
		42	Max Pulse Open
		43	Min Pulse Close
		44–84	Min Pulse Close ... max Pulse Close
		85	Max Pulse Close
		86	Min Pulse
		87–127	Min Pulse ... max Pulse
		128	Max Pulse
		129	Min Lightning
		130–170	Min Lightning ... max Lightning
		171	Max Lightning
		172	Strobe Ran
		173–254	Strobe Ran ... Strobe Ran2
		255	Strobe Ran2

Mode 4 9 DMX

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 6 Strobe at 0–5 “Open” or 128–130. 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 5 Dimmer 255, CH 6 Strobe 128.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0–255	
2	Green	0–255	
3	Blue	0–255	
4	White	0–255	
5	Dimmer	0–255	
6	Strobe	0–5	Open
		6	Min Strobe
		7–126	Min Strobe ... max Strobe
		127	Max Strobe
		128–130	Open 2
		131–136	Ramp 1
		137–146	Ramp 2
		147–154	Ramp 3
		155–181	Shutter 1 Strobe Pulse Open 5 (0.2–20 Hz)
		182–208	Shutter Close Open (0.2–20 Hz)
		209–217	Linhtning 1
		218–226	Linhtning 2
		227–235	Linhtning 3
		236–241	Strobe Ran1
		242–247	Strobe Ran2
		248–255	Strobe Ran3
7	Colors	0–5	Color 1: Open
		6–11	Color 1
		12–17	Color 3
		18–23	Color 4
		24–29	Color 5

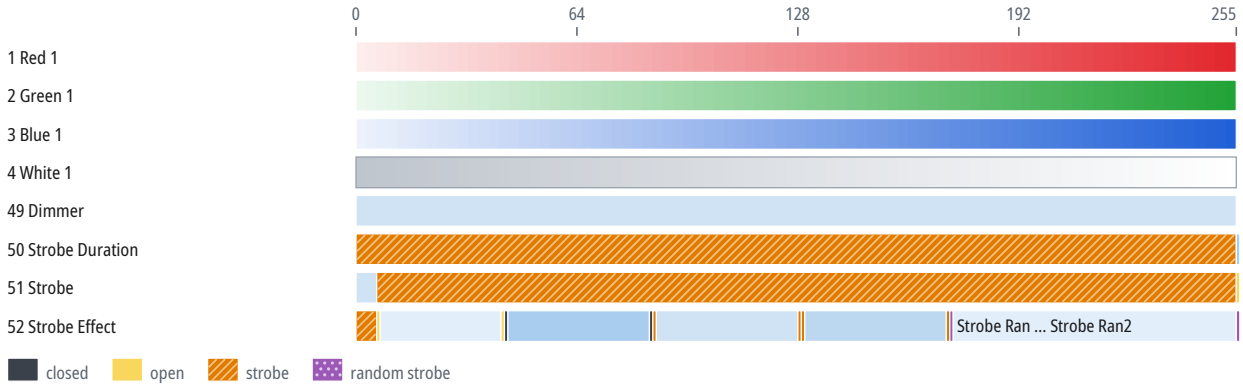
CH	Function	DMX	Description
7	Colors (continued)	30–35	Color 6
		36–41	Color 7
		42–47	Color 8
		48–53	Color 9
		54–59	Color 10
		60–65	Color 11
		66–71	Color 12
		72–77	Color 13
		78–83	Color 14
		84–89	Color 15
		90–95	Color 16
		96–101	Color 17
		102–107	Color 18
		108–113	Color 19
		114–119	Color 20
		120–125	Color 21
		126–131	Color 22
		132–137	Color 23
		138–143	Color 24
		144–149	Color 25
		150–155	Color 26
		156–161	Color 27
		162–167	Color 28
		168–173	Color 29
		174–179	Color 30
		180–185	Color 31
		186–191	Color 32
		192–197	Color 33
		198–202	Macro 1
		203–207	Macro 2
		208–211	Macro 3
		212–216	Macro 4
		217–221	Macro 5
		222–225	Macro 6
		226–230	Macro 7
		231–235	Macro 8
		236–239	Macro 9
		240–244	Macro 10
		245–249	Macro 11
		250–255	Macro 12
8	Color Macro	0–21	OFF
		22–30	Color 1

CH	Function	DMX	Description
8	Color Macro (continued)	31–39	Color 2
		40–48	Color 3
		49–57	Color 4
		58–66	Color 5
		67–75	Color 6
		76–84	Color 7
		85–93	Color 8
		94–102	Color 9
		103–111	Color 10
		112–120	Color 11
		121–129	Color 12
		130–138	Color 13
		139–147	Color 14
		148–156	Color 15
		157–165	Color 16
		166–174	Color 17
		175–183	Color 18
		184–192	Color 19
		193–201	Color 20
		202–210	Color 21
		211–219	Color 22
		220–228	Color 23
		229–237	Color 24
		238–246	Color 25
		247–255	Color 26
9	Color Macro Speed	0–255	

Mode 5 52 DMX

If the device receives DMX in this mode but gives no light, check these channels: CH 49 Dimmer above 0; CH 51 Strobe at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255 (the same in each of the 12 cells), CH 2 Green 255 (the same in each of the 12 cells), CH 3 Blue 255 (the same in each of the 12 cells), CH 49 Dimmer 255, CH 50 Strobe Duration 255, CH 51 Strobe 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
49	Dimmer	0–255	
50	Strobe Duration		Same as CH 6 in the mode “Mode 3 8 DMX” (p. 12)
51	Strobe		Same as CH 7 in the mode “Mode 3 8 DMX” (p. 12)
52	Strobe Effect		Same as CH 8 in the mode “Mode 3 8 DMX” (p. 12)

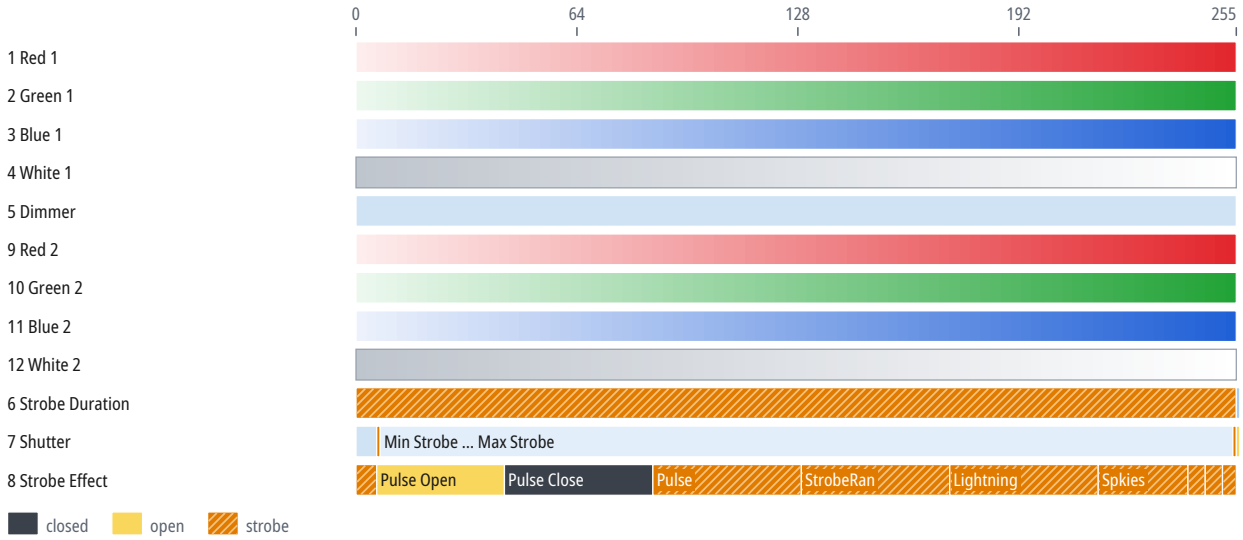
CH 1–48: 12 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 1–4); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	White	Cell	Red	Green	Blue	White
1	1	2	3	4	2	5	6	7	8
3	9	10	11	12	4	13	14	15	16
5	17	18	19	20	6	21	22	23	24
7	25	26	27	28	8	29	30	31	32
9	33	34	35	36	10	37	38	39	40
11	41	42	43	44	12	45	46	47	48

Mode 6 1Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255.

Channel functions at a glance



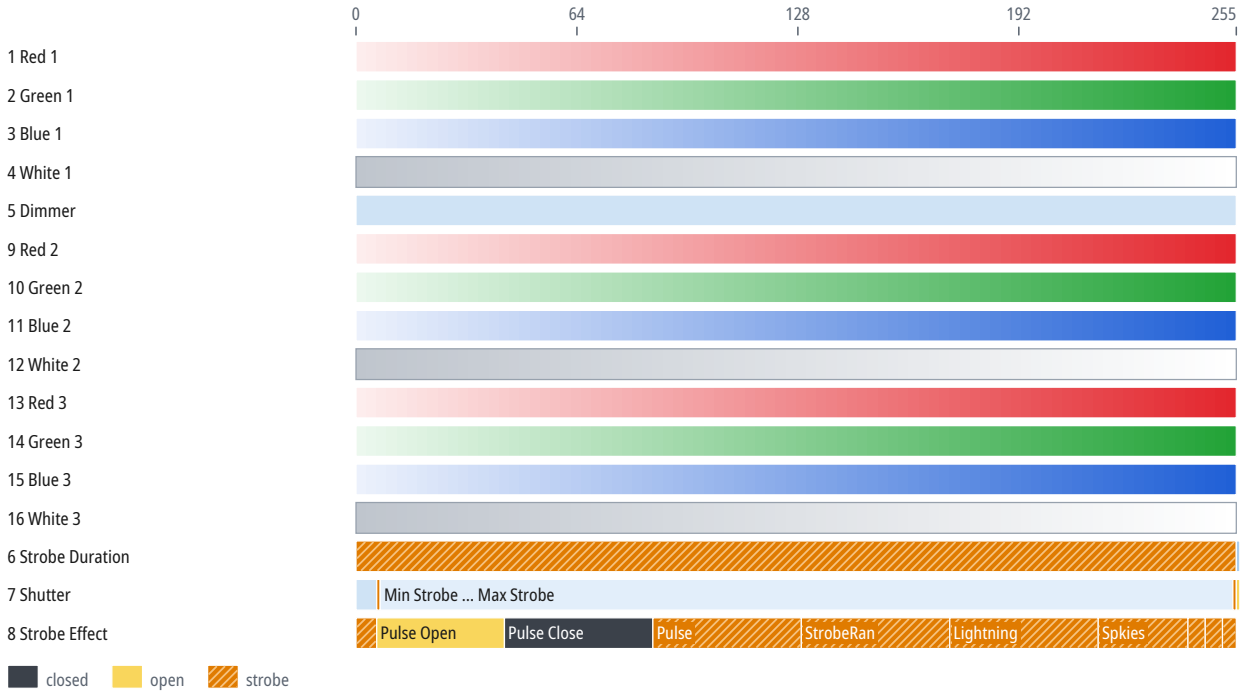
CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration	0–254	Strobe Duration 1
		255	Hyper
7	Shutter	0–5	Off
		6	Min Strobe
		7–253	Min Strobe ... Max Strobe
		254	Max Strobe
		255	Open
8	Strobe Effect	0–5	None
		6–42	Pulse Open (1–5 Hz)
		43–85	Pulse Close (1–5 Hz)
		86–128	Pulse (1–5 Hz)
		129–171	StrobeRan (12–24 Hz)
		172–214	Lightning (1–12 Hz)
		215–240	Spkies (0–5 Hz)
		241–245	Burst (0–5 Hz)
		246–250	Solid Background
		251–255	Burst Background (0–5 Hz)

CH	Function	DMX	Description
9	Red 2	0–255	
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	

Mode 7 2Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255, CH 13 Red 3 255, CH 14 Green 3 255, CH 15 Blue 3 255.

Channel functions at a glance



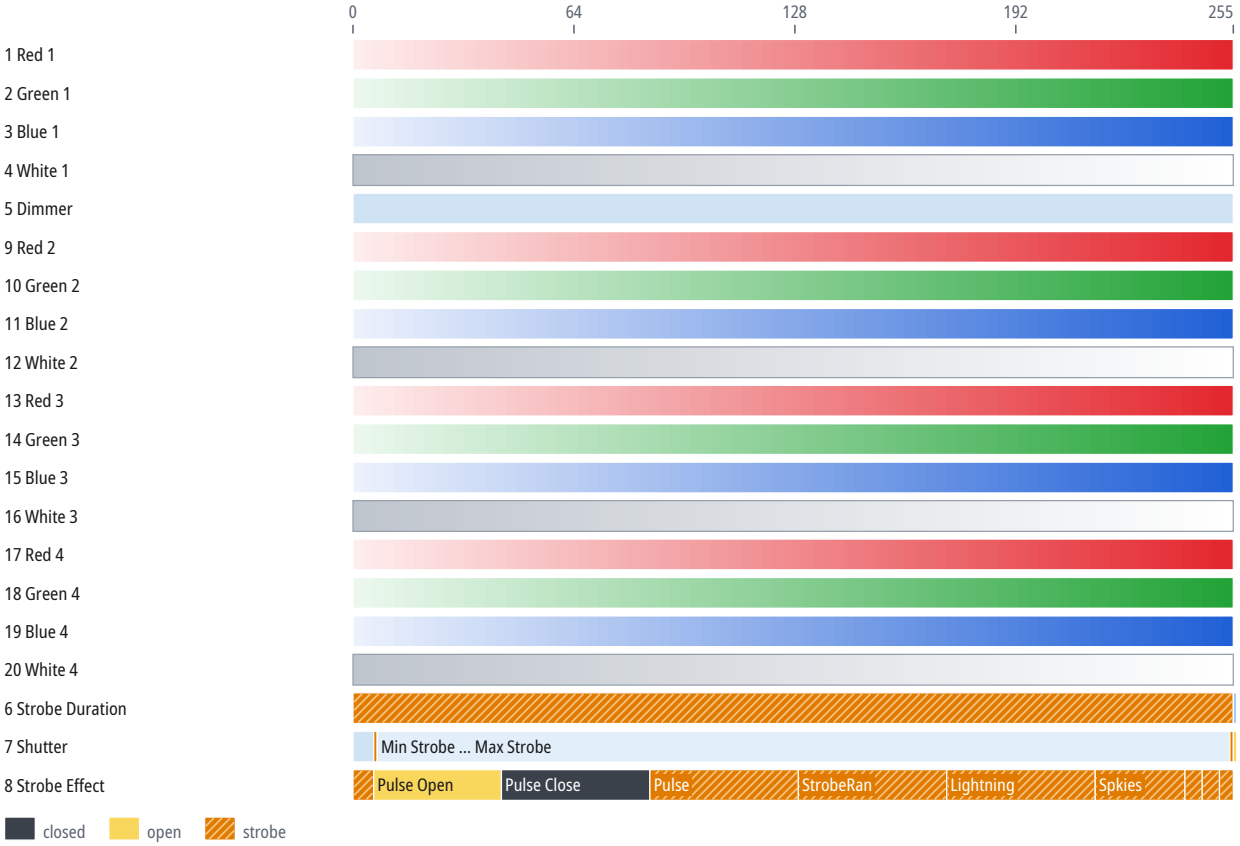
CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration		Same as CH 6 in the mode “Mode 6 1Pixel” (p. 17)
7	Shutter		Same as CH 7 in the mode “Mode 6 1Pixel” (p. 17)
8	Strobe Effect		Same as CH 8 in the mode “Mode 6 1Pixel” (p. 17)
9	Red 2	0–255	
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	

CH	Function	DMX	Description
13	Red 3	0–255	
14	Green 3	0–255	
15	Blue 3	0–255	
16	White 3	0–255	

Mode 8 3Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255, CH 13 Red 3 255, CH 14 Green 3 255, CH 15 Blue 3 255, CH 17 Red 4 255, CH 18 Green 4 255, CH 19 Blue 4 255.

Channel functions at a glance



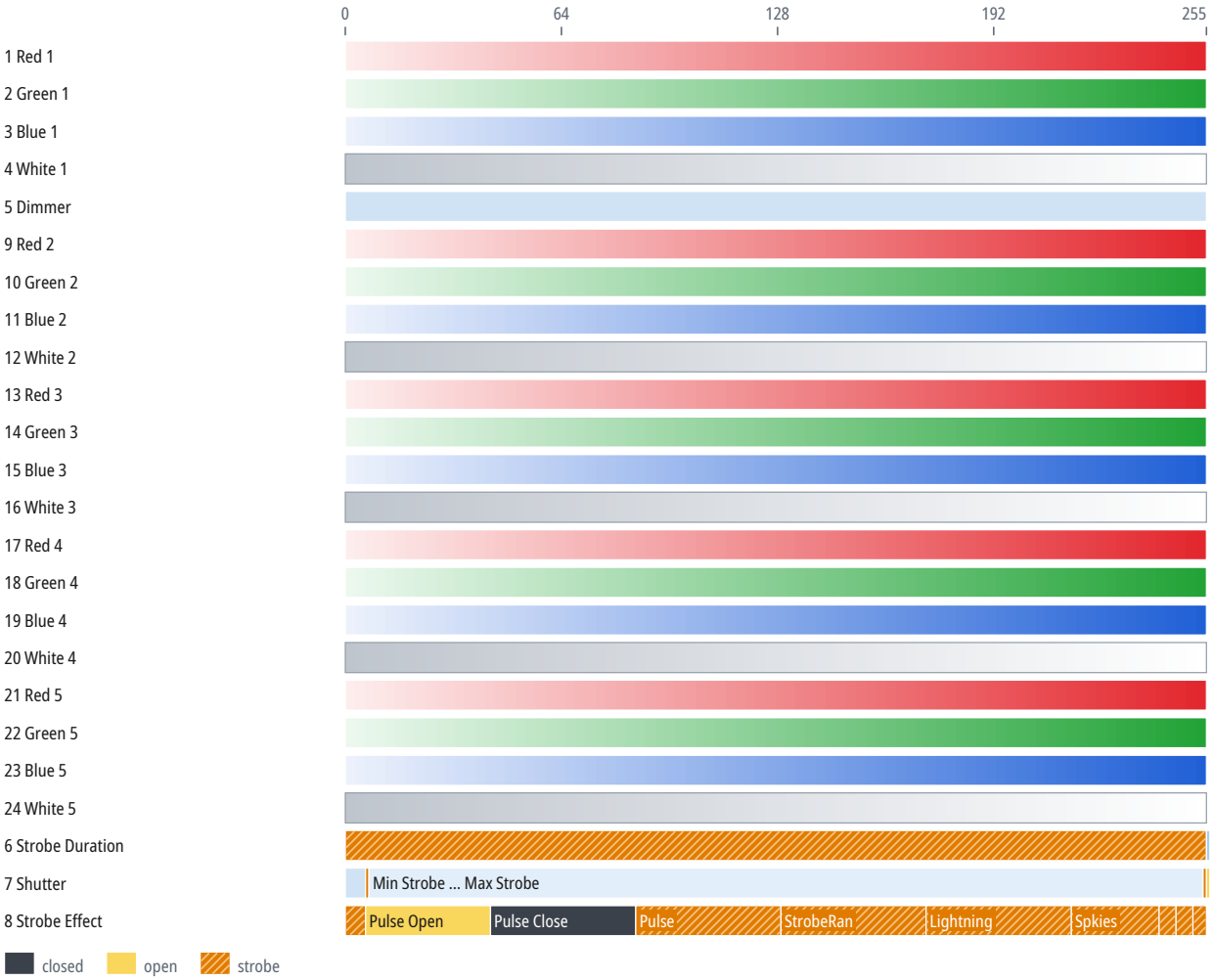
CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration		Same as CH 6 in the mode “Mode 6 1Pixel” (p. 17)
7	Shutter		Same as CH 7 in the mode “Mode 6 1Pixel” (p. 17)
8	Strobe Effect		Same as CH 8 in the mode “Mode 6 1Pixel” (p. 17)
9	Red 2	0–255	

CH	Function	DMX	Description
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	
13	Red 3	0–255	
14	Green 3	0–255	
15	Blue 3	0–255	
16	White 3	0–255	
17	Red 4	0–255	
18	Green 4	0–255	
19	Blue 4	0–255	
20	White 4	0–255	

Mode 9 4Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255, CH 13 Red 3 255, CH 14 Green 3 255, CH 15 Blue 3 255, CH 17 Red 4 255, CH 18 Green 4 255, CH 19 Blue 4 255, CH 21 Red 5 255, CH 22 Green 5 255, CH 23 Blue 5 255.

Channel functions at a glance



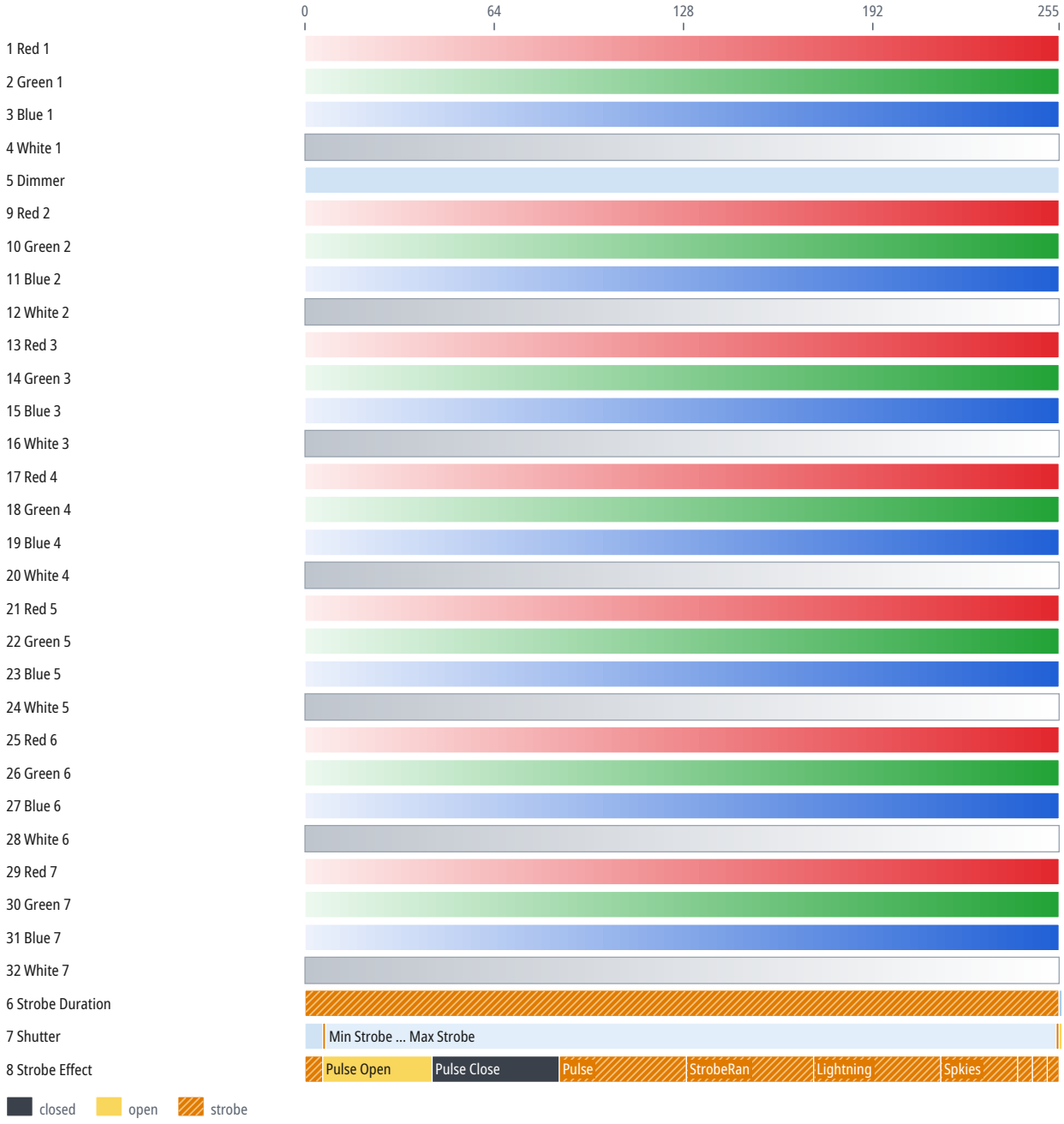
CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration		Same as CH 6 in the mode “Mode 6 1Pixel” (p. 17)
7	Shutter		Same as CH 7 in the mode “Mode 6 1Pixel” (p. 17)
8	Strobe Effect		Same as CH 8 in the mode “Mode 6 1Pixel” (p. 17)
9	Red 2	0–255	

CH	Function	DMX	Description
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	
13	Red 3	0–255	
14	Green 3	0–255	
15	Blue 3	0–255	
16	White 3	0–255	
17	Red 4	0–255	
18	Green 4	0–255	
19	Blue 4	0–255	
20	White 4	0–255	
21	Red 5	0–255	
22	Green 5	0–255	
23	Blue 5	0–255	
24	White 5	0–255	

Mode 10 6Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 2 255, CH 10 Green 2 255, CH 11 Blue 2 255, CH 13 Red 3 255, CH 14 Green 3 255, CH 15 Blue 3 255, CH 17 Red 4 255, CH 18 Green 4 255, CH 19 Blue 4 255, CH 21 Red 5 255, CH 22 Green 5 255, CH 23 Blue 5 255, CH 25 Red 6 255, CH 26 Green 6 255, CH 27 Blue 6 255, CH 29 Red 7 255, CH 30 Green 7 255, CH 31 Blue 7 255.

Channel functions at a glance

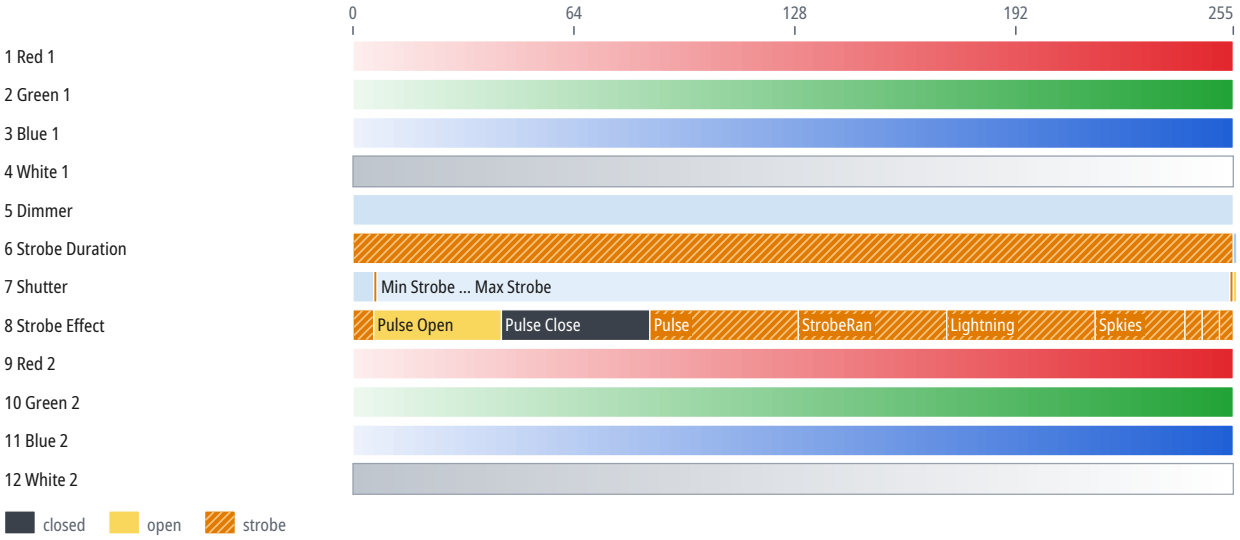


CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration		Same as CH 6 in the mode “Mode 6 1Pixel” (p. 17)
7	Shutter		Same as CH 7 in the mode “Mode 6 1Pixel” (p. 17)
8	Strobe Effect		Same as CH 8 in the mode “Mode 6 1Pixel” (p. 17)
9	Red 2	0–255	
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	
13	Red 3	0–255	
14	Green 3	0–255	
15	Blue 3	0–255	
16	White 3	0–255	
17	Red 4	0–255	
18	Green 4	0–255	
19	Blue 4	0–255	
20	White 4	0–255	
21	Red 5	0–255	
22	Green 5	0–255	
23	Blue 5	0–255	
24	White 5	0–255	
25	Red 6	0–255	
26	Green 6	0–255	
27	Blue 6	0–255	
28	White 6	0–255	
29	Red 7	0–255	
30	Green 7	0–255	
31	Blue 7	0–255	
32	White 7	0–255	

Mode 11 12Pixel

If the device receives DMX in this mode but gives no light, check these channels: CH 5 Dimmer above 0; CH 7 Shutter at 255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 2 Green 1 255, CH 3 Blue 1 255, CH 5 Dimmer 255, CH 6 Strobe Duration 255, CH 7 Shutter 255, CH 9 Red 255 (the same in each of the 12 cells), CH 10 Green 255 (the same in each of the 12 cells), CH 11 Blue 255 (the same in each of the 12 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	
4	White 1	0–255	
5	Dimmer	0–255	
6	Strobe Duration		Same as CH 6 in the mode “Mode 6 1Pixel” (p. 17)
7	Shutter		Same as CH 7 in the mode “Mode 6 1Pixel” (p. 17)
8	Strobe Effect		Same as CH 8 in the mode “Mode 6 1Pixel” (p. 17)
9	Red 2	0–255	
10	Green 2	0–255	
11	Blue 2	0–255	
12	White 2	0–255	

CH 9–56: 12 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 9–12); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	White	Cell	Red	Green	Blue	White
1	9	10	11	12	2	13	14	15	16
3	17	18	19	20	4	21	22	23	24
5	25	26	27	28	6	29	30	31	32
7	33	34	35	36	8	37	38	39	40
9	41	42	43	44	10	45	46	47	48
11	49	50	51	52	12	53	54	55	56

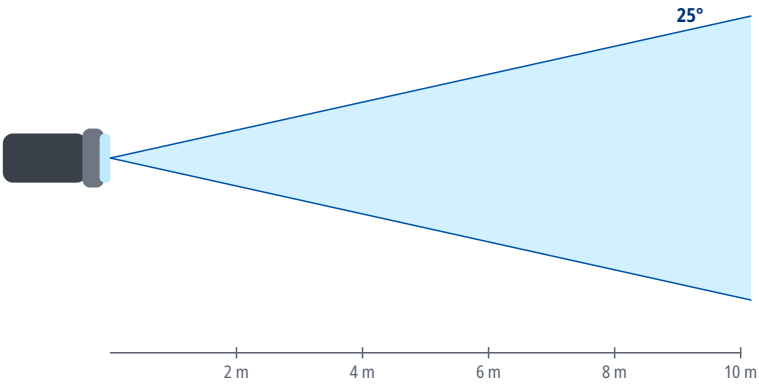
9 Technical specifications

Parameter	Value
Light source	discharge lamp
RDM	yes (manufacturer ID 0x3806, device model ID 0x8115)
Weight	17 kg
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Strobe frequency	0.2–25 Hz
Strobe flash duration	0.2–25 s

Spot diameter



Distance	Ø 25°
2 m	0.89 m
4 m	1.8 m
6 m	2.7 m
8 m	3.5 m
10 m	4.4 m
15 m	6.7 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.