DMX REFERENCE

HY B-EYE K25 Teatro

Clay Paky



Manufacturer	Clay Paky
GDTF file	Clay_Paky_HY_B-EYE_K25_TEATRO_80254.gdtf
GDTF revision	ClayPaky Official File Fw Ver 2_26_002 · 2024-12-05
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1 About this manual

This document describes the HY B-EYE K25 Teatro by Clay Paky. It was compiled from the GDTF file Clay_Paky_HY_B-EYE_K25_TEATRO_80254.gdtf from the GDTF-Share library.

File revision: “ClayPaky Official File Fw Ver 2_26_002”.

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 Clay Paky; 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	27.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Shapes + Frequency	36	14	1, 37, 73, 109, ...
Shapes	35	14	1, 36, 71, 106, ...
Standard + Frequency	22	23	1, 23, 45, 67, ...
Standard	21	24	1, 22, 43, 64, ...
Pixels RGB	111	4	1, 112, 223, 334
Pixels RGBW	148	3	1, 149, 297

No light? Check these channels

- Shapes + Frequency: CH 11 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer 1 above 0; CH 29 Dimmer 2 above 0; CH 30 Dimmer 3 above 0; CH 33 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”
- Shapes: CH 11 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer 1 above 0; CH 29 Dimmer 2 above 0; CH 30 Dimmer 3 above 0; CH 33 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”
- Standard + Frequency: CH 11 Shutter at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer above 0
- Standard: CH 11 Shutter at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer above 0



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.

⚠ WARNING

- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
- Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Description in the GDTF file

“The HY B-EYE K25 TEATRO is a special version of the HY B-EYE K25, designed for venues that need silent operation without sacrificing bright colors.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

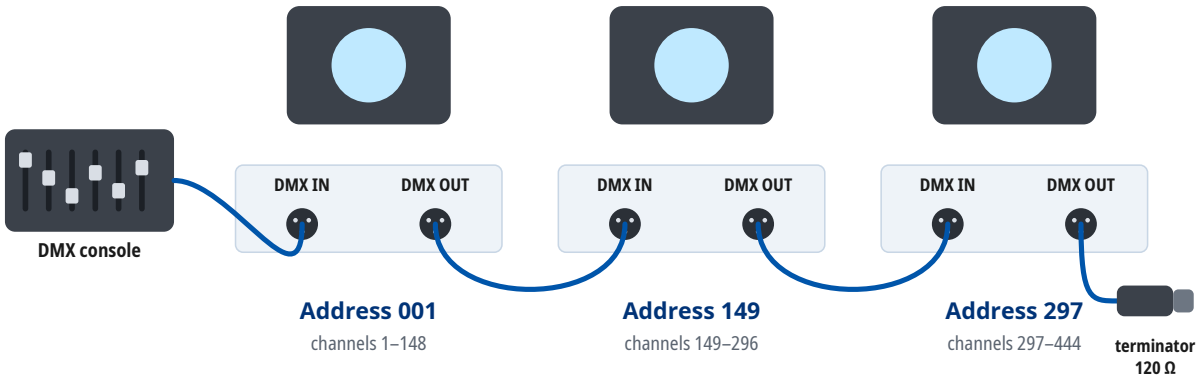
⚠ WARNING

- 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: 27.5 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 Pixels RGBW: every unit occupies 148 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 “Pixels RGBW”: 148.
- 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 “Pixels RGBW”, you can use, for example, the start addresses 1, 149, 297.
- 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

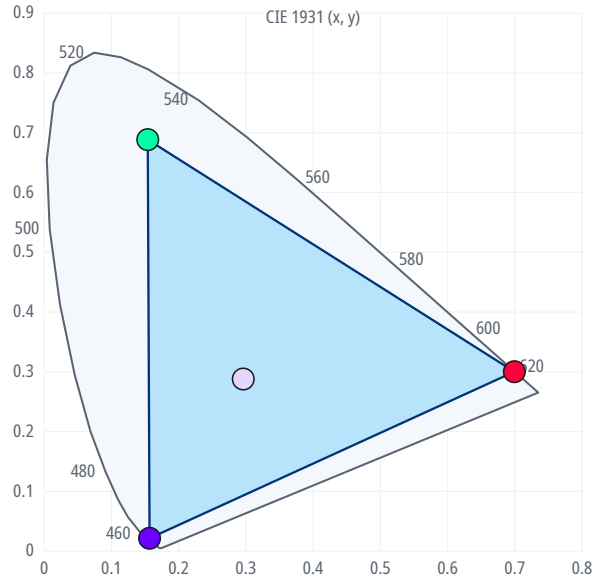
	Shapes + Frequency 36 channels	Shapes 35 channels	Standard + Frequency 22 channels	Standard 21 channels	Pixels RGB 111 channels	Pixels RGBW 148 channels
Pan / Tilt	14, 16	14, 16	14, 16	14, 16		
Dimmer	12, 29, 30	12, 29, 30	12	12		
Shutter / strobe	11, 33, 34	11, 33, 34	11	11		
Color mixing	8 channels (1–28)	8 channels (1–28)	4× (1–7)	4× (1–7)	1–111	1–148
Color temperature	9	9	9	9		
Color wheel	10	10	10	10		
Zoom	20	20	20	20		
Pixel control	✓	✓			37 cells	37 cells

Color wheel

1 No Color Macro
2 Red
3 Green
4 Blue
5 Cyan
6 Yellow
7 Magenta
8 White 7000K
9 White 3700K
10 White 5000K
11 Black
12 Medium Yellow
13 Straw Tint
14 Surprise Peach
15 Fire
16 Medium Amber
17 Gold Amber
18 Dark Amber
19 Sunrise Red
20 Light Pink
21 Medium Pink
22 Pink Carnation
23 Light Lavender
24 Lavender


25 Sky Blue
26 Just Blue
27 Dark Yellow Green
28 Spring Yellow
29 Light Amber
30 Straw
31 Deep Amber
32 Orange
33 Light Rose
34 English Rose
35 Light Salmon
36 Middle Rose
37 Dark Pink
38 Magenta2
39 Peacock Blue
40 Med Blue Green
41 Steel Blue
42 Light Blue
43 Dark Blue
44 Leaf Green
45 Dark Green
46 Mauve
47 Bright Pink
48 Medium Blue
49 Deep Golden Amber
50 Pale Lavender
51 Special Lavender
52 Primary Green
53 Bright Blue
54 Apricot
55 Pale Gold
56 Deep Orange
57 Bastard Amber
58 Flame Red
59 Daylight Blue
60 Lilac Tint
61 Deep Lavender
62 Dark Steel Blue
63 Congo Blue
64 Alice Blue
65 Dirty White
66 White

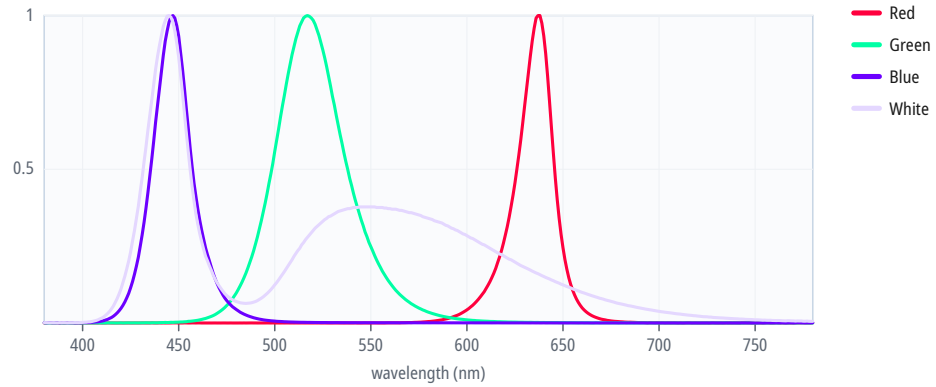
LED colors and the colors they mix



LED	x	y
Red	0.699	0.300
Green	0.154	0.688
Blue	0.157	0.022
White	0.296	0.288

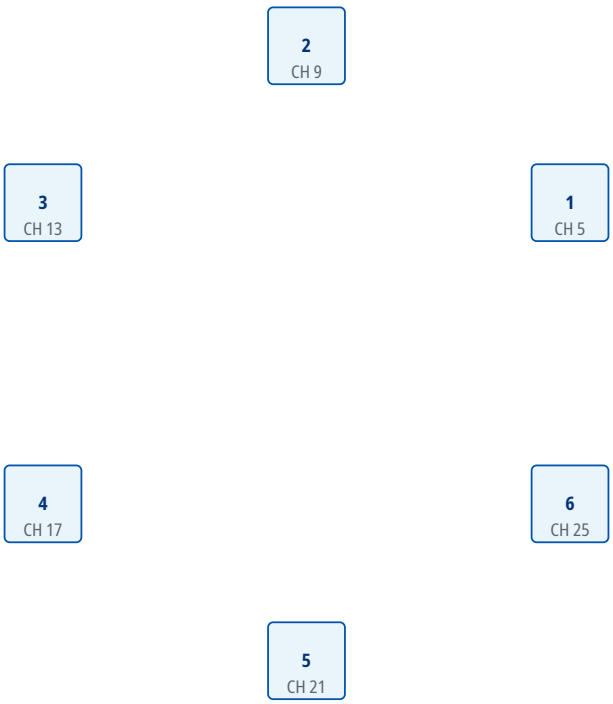
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

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.

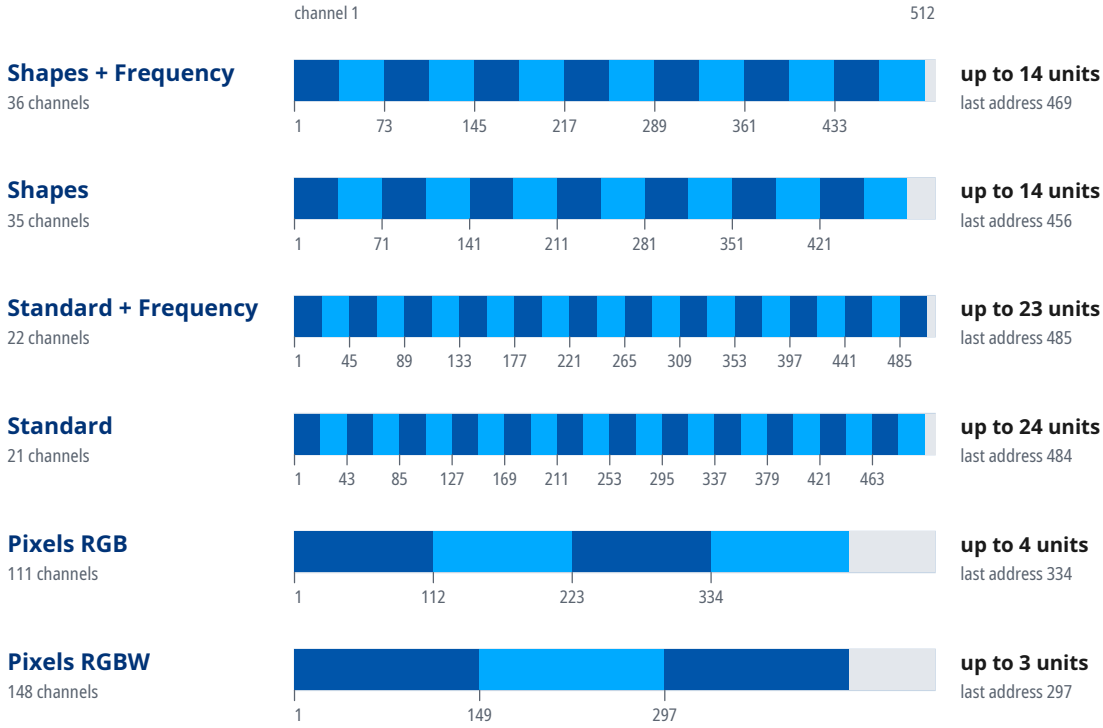
Cells (pixels)



6 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Pixels RGBW”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Pixels RGBW”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 297	11	U4 · 149	16	U6 · 1
2	149	7	U3 · 1	12	U4 · 297	17	U6 · 149
3	297	8	U3 · 149	13	U5 · 1	18	U6 · 297
4	U2 · 1	9	U3 · 297	14	U5 · 149	19	U7 · 1
5	U2 · 149	10	U4 · 1	15	U5 · 297	20	U7 · 149

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.

RDM personalities

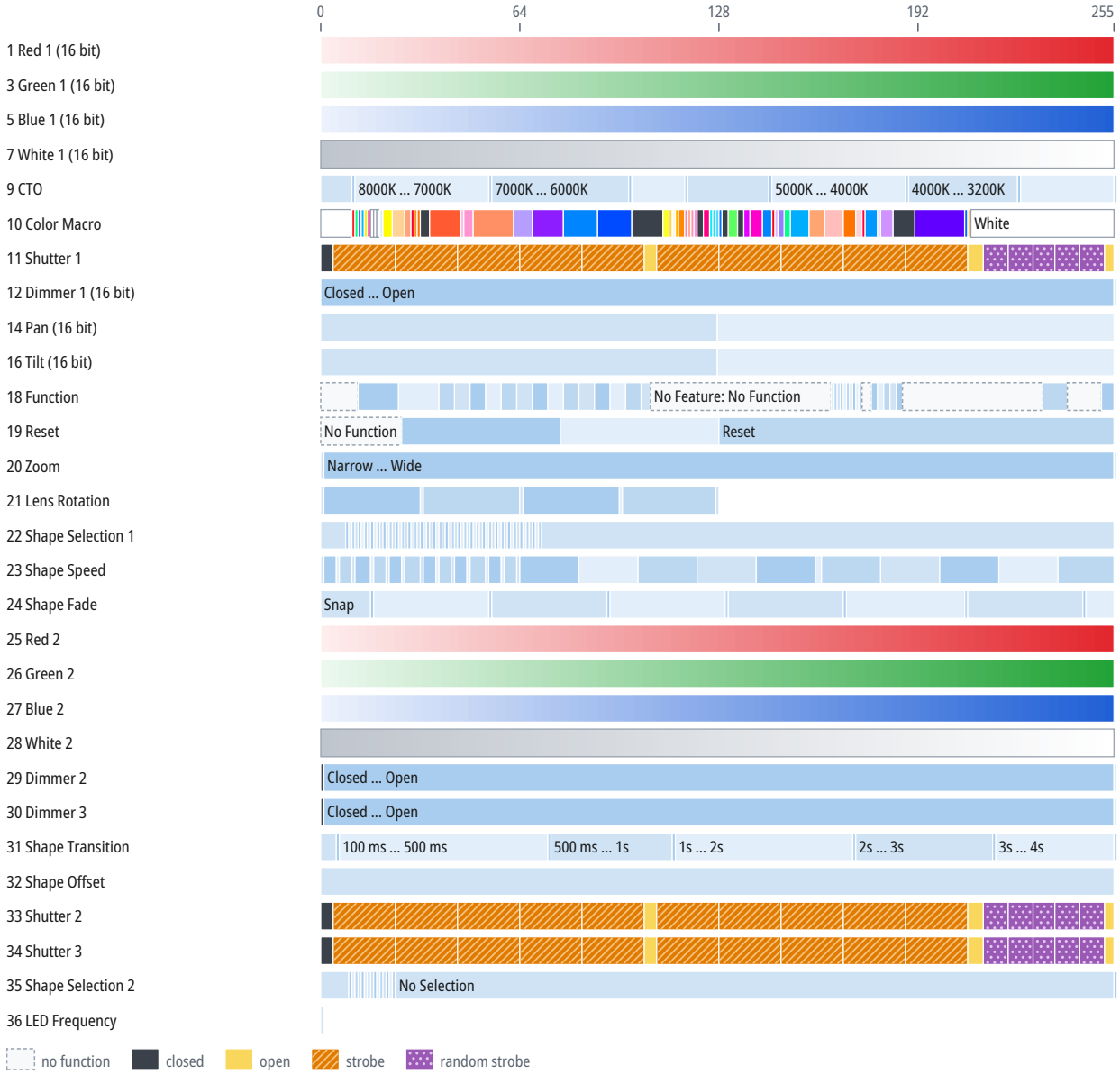
Mode	Channels	RDM personality
Shapes + Frequency	36	4
Shapes	35	2
Standard + Frequency	22	3
Standard	21	1
Pixels RGB	111	–
Pixels RGBW	148	–

Mode Shapes + Frequency

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 11 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer 1 above 0; CH 29 Dimmer 2 above 0; CH 30 Dimmer 3 above 0; CH 33 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 3 Green 1 255, CH 5 Blue 1 255, CH 7 White 1 255, CH 10 Color Macro 0, CH 11 Shutter 1 255, CH 12 Dimmer 1 255, CH 29 Dimmer 2 255, CH 30 Dimmer 3 255, CH 33 Shutter 2 255, CH 34 Shutter 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Red 1 Fine	0–255	Fine adjustment of CH 1
3	Green 1	0–255	

CH	Function	DMX	Description
4	Green 1 Fine	0–255	Fine adjustment of CH 3
5	Blue 1	0–255	
6	Blue 1 Fine	0–255	Fine adjustment of CH 5
7	White 1	0–255	
8	White 1 Fine	0–255	Fine adjustment of CH 7
9	CTO	0–9	No CTO
		10	8000K
		11–53	8000K … 7000K
		54	7000K
		55–98	7000K … 6000K
		99	6000K
		100–116	6000K … 5600K
		117	5600K
		118–143	5600K … 5000K
		144	5000K
		145–187	5000K … 4000K
		188	4000K
		189–223	4000K … 3200K
		224	3200K
		225–254	3200K … 2500K
		255	2500K
10	Color Macro	0–9	No Macro Color
		10	Red
		11	Green
		12	Blue
		13	Cyan
		14	Yellow
		15	Magenta
		16	White 7000K
		17	White 3700K
		18	White 5000K
		19	Black
		20–22	Medium Yellow
		23–26	Straw Tint
		27–28	Surprise Peach
		29	Fire
		30	Medium Amber
		31	Gold Amber
		32–34	Dark Amber
		35–44	Sunrise Red
		45	Light Pink
		46–48	Medium Pink

CH	Function	DMX	Description
10	Color Macro (continued)	49–61	Pink Carnation
		62–67	Light Lavender
		68–77	Lavender
		78–88	Sky Blue
		89–99	Just Blue
		100–109	Dark Yellow Green
		110–111	Sping Yellow
		112	Light Amber
		113	Straw
		114	Deep Amber
		115–116	Orange
		117	Light Rose
		118	English Rose
		119	Light Salmon
		120	Middle Rose
		121–122	Dark Pink
		123–124	Magenta2
		125	Peacock Blue
		126	Med Blue Green
		127	Steel Blue
		128	Light Blue
		129–130	Dark Blue
		131–133	Leaf Green
		134–135	Dark Green
		136–137	Mauve
		138–141	Bright Pink
		142–144	Medium Blue
		145	Deep Golden Amber
		146	Pale Lavender
		147–148	Special Lavender
		149–150	Primary Green
		151–156	Bright Blue
		157–161	Apricot
		162–167	Pale Gold
		168–171	Deep Orange
		172–173	Bastard Amber
		174	Flame Red
		175–178	Daylight Blue
		179	Lilac Tint
		180–183	Deep Lavender
		184–190	Dark Steel Blue
		191–206	Congo Blue

CH	Function	DMX	Description
10	Color Macro (continued)	207	Alice Blue
		208	Dirty White
		209–255	White
11	Shutter 1	0–3	Light OFF: Closed
		4–23	x1 Strb>>
		24–43	x2 Strb>>
		44–63	x3 Strb>>
		64–83	x4 Strb>>
		84–103	x5 Strb>>
		104–107	Light ON: Open
		108–127	x1 PulseC>>
		128–147	x2 PulseC>>
		148–167	x3 PulseC>>
		168–187	x4 PulseC>>
		188–207	x5 PulseC>>
		208–212	Light ON: Open
		213–220	x1 RndStrb>>
		221–228	x2 RndStrb>>
		229–235	x3 RndStrb>>
		236–243	x4 RndStrb>>
		244–251	x5 RndStrb>>
		252–255	Light ON: Open
12	Dimmer 1	0–255	Closed ... Open
		255	Open
13	Dimmer 1 Fine	0–255	Fine adjustment of CH 12
14	Pan	0–127	Pan
		128	Home
		128–255	Pan
15	Pan Fine	0–255	Fine adjustment of CH 14
16	Tilt	0–127	Tilt
		128	Home
		128–255	Tilt
17	Tilt Fine	0–255	Fine adjustment of CH 16
18	Function	0–11	No Feature: No Function
		12–24	Fast Pan/Tilt
		25–37	Normal Pan/Tilt
		38–42	Dimmer Curve 1
		43–47	Dimmer Curve 2
		48–52	Dimmer Curve 3
		53–57	Dimmer Curve 4
		58–62	Gamma Curve 1
		63–67	Gamma Curve 2

CH	Function	DMX	Description
18	Function (continued)	68–72	Gamma Curve 3
		73–77	Halo OFF
		78–82	Halo 750W
		83–87	Halo 1000W
		88–92	Halo 1200W
		93–97	Halo 2000W
		98–102	Halo 2500W
		103–105	Pixel Map ON
		106–163	No Feature: No Function
		164	1000Hz
		165	1500Hz
		166	2400Hz
		167	3700Hz
		168	5600Hz
		169	9400Hz
		170	15100Hz
		171	21400Hz
		172	31000Hz
		173	43700Hz
		174–176	No Feature: No Function
		177–178	Emulate K20 OFF
		179–180	Emulate K20 ON
		181–182	Super Silent
		183–184	Silent
		185–186	Standard
		187–231	No Feature: No Function
		232–239	Skip Warm Up
		240–250	No Feature: No Function
		251–255	Reset to Default
19	Reset	0–25	No Function
		26–76	Zoom Reset
		77–127	Position Reset
		128–255	Reset
20	Zoom	0	Narrow
		1–254	Narrow ... Wide
		255	Wide
21	Lens Rotation		When CH 20 is 0–45:
		0	0 deg
		1–31	0 deg ... 15 deg
		32	15 deg
		33–63	15 deg ... 30 deg
		64	30 deg

CH	Function	DMX	Description
21	Lens Rotation (continued)	65–95	30 deg ... 45 deg
		96	45 deg
		97–126	45 deg ... 60 deg
		127	60 deg
		128–140	x5 Rot Zoom<< (0.3–11.8 °/s)
		141–152	x4 Rot Zoom<< (12.8–23.4 °/s)
		153–165	x3 Rot Zoom<< (24.4–35.9 °/s)
		166–177	x2 Rot Zoom<< (36.9–47.5 °/s)
		178–190	x1 Rot Zoom<< (48.5–60 °/s)
		191–192	Rot Zoom><
		193–205	x1 Rot Zoom>> (60–48.5 °/s)
		206–217	x2 Rot Zoom>> (47.5–36.9 °/s)
		218–230	x3 Rot Zoom>> (35.9–24.4 °/s)
		231–242	x4 Rot Zoom>> (23.4–12.8 °/s)
		243–255	x5 Rot Zoom>> (11.8–0.3 °/s)
			When CH 20 is 46–255:
		0–255	
22	Shape Selection 1	0–7	Shape OFF
		8	Pixel 1
		9	Ring 1
		10	Ring 2
		11	Ring 3
		12	Pixel1 + Ring1
		13	Pixel1 + Ring2
		14	Pixel1 + Ring3
		15	Single Ring
		16	Filled Ring2
		17	Open/Close 1
		18	Open/Close 2
		19	Rnd Pixels 1
		20	Rnd Pixels 2
		21	Rainbow 1
		22	Rainbow 2
		23	Fan
		24	Bar 1
		25	Half Moon
		26	Triangle
		27	Segment 1
		28	Arc 1
		29	Arc 2
		30	Bar 2
		31	Rnd Explotion

CH	Function	DMX	Description
22	Shape Selection 1 (continued)	32	Segment 2
		33	xBump
		34	Image
		35	Bumping Sel
		36	Ramp x6
		37	Ramp x4
		38	LR Scrolling Bar
		39	UD Scrolling Bar
		40	Bar 3
		41	V Arc 1
		42	V Arc 2
		43	H Arc 1
		44	H Arc 2
		45	Mirrored Pixel
		46	Pixel Anim 1
		47	Pixel Anim 2
		48	Pixel Anim 3
		49	Pixel Anim 4
		50	Pixel Anim 5
		51	Semi Arc
		52	Bumping Arc
		53	Pixel Anim 6
		54	V Ramp x2
		55	Following Pixel x2
		56	Syncopation
		57	Bumping 1
		58	Bumping 2
		59	Bumping 3
		60	V Pixel Scrolling
		61	Rnd V Section
		62	Rnd C Section
		63	Rnd Ring 2
		64	Rnd Ring 3
		65	Rnd Ring 1+3
		66	Rnd Ring 2+3
		67	Single Pixel Ring 1
		68	Single Pixel Ring 2
		69	Single Pixel Ring 3
		70	Spiral
		71–255	Shape Selection
23	Shape Speed	0	0 deg
		1–4	0 deg ... 30 deg

CH	Function	DMX	Description
23	Shape Speed (continued)	5	30 deg
		6–9	30 deg ... 60 deg
		10	60 deg
		11–15	60 deg ... 90 deg
		16	90 deg
		17–20	90 deg ... 120 deg
		21	120 deg
		22–25	120 deg ... 150 deg
		26	150 deg
		27–31	150 deg ... 180 deg
		32	180 deg
		33–36	180 deg ... 210 deg
		37	210 deg
		38–41	210 deg ... 240 deg
		42	240 deg
		43–46	240 deg ... 270 deg
		47	270 deg
		48–52	270 deg ... 300 deg
		53	300 deg
		54–57	300 deg ... 330 deg
		58	330 deg
		59–62	330 deg ... 360 deg
		63	360 deg
		64–82	x5 Speed<< (95–77 °/s)
		83–101	x4 Speed<< (76–58 °/s)
		102–120	x3 Speed<< (57–39 °/s)
		121–139	x2 Speed<< (38–20 °/s)
		140–158	x1 Speed<< (19–1 °/s)
		159–160	Shape Speed: Speed><
		161–179	x1 Speed>> (1–19 °/s)
		180–198	x2 Speed>> (20–38 °/s)
		199–217	x3 Speed>> (39–57 °/s)
		218–236	x4 Speed>> (58–76 °/s)
		237–255	x5 Speed>> (77–95 °/s)
24	Shape Fade	0–15	Snap
		16	Gamma 050
		17–53	Gamma 050 ... Gamma 075
		54	Gamma 075
		55–91	Gamma 075 ... Gamma 100
		92	Gamma 100
		93–129	Gamma 100 ... Gamma 125
		130	Gamma 125

CH	Function	DMX	Description
24	Shape Fade (continued)	131–167	Gamma 125 ... Gamma 150
		168	Gamma 150
		169–206	Gamma 150 ... Gamma 175
		207	Gamma 175
		208–244	Gamma 175 ... Gamma 200
		245	Gamma 200
		246–255	Gamma Auto
25	Red 2	0–255	
26	Green 2	0–255	
27	Blue 2	0–255	
28	White 2	0–255	
29	Dimmer 2	0	Closed
		1–254	Closed ... Open
		255	Open
30	Dimmer 3	0	Closed
		1–254	Closed ... Open
		255	Open
31	Shape Transition	0–4	No Fade
		5	100 ms
		6–72	100 ms ... 500 ms
		73	500 ms
		74–112	500 ms ... 1s
		113	1s
		114–170	1s ... 2s
		171	2s
		172–215	2s ... 3s
		216	3s
		217–254	3s ... 4s
		255	4s
32	Shape Offset	0–255	
33	Shutter 2	0–3	Light OFF: Closed
		4–23	x1 Strb>>
		24–43	x2 Strb>>
		44–63	x3 Strb>>
		64–83	x4 Strb>>
		84–103	x5 Strb>>
		104–107	Light ON: Open
		108–127	x1 PulseC>>
		128–147	x2 PulseC>>
		148–167	x3 PulseC>>
		168–187	x4 PulseC>>
		188–207	x5 PulseC>>

CH	Function	DMX	Description
33	Shutter 2 (continued)	208–212	Light ON: Open
		213–220	x1 RndStrb>>
		221–228	x2 RndStrb>>
		229–235	x3 RndStrb>>
		236–243	x4 RndStrb>>
		244–251	x5 RndStrb>>
		252–255	Light ON: Open
34	Shutter 3	0–3	Light OFF: Closed
		4–23	x1 Strb>>
		24–43	x2 Strb>>
		44–63	x3 Strb>>
		64–83	x4 Strb>>
		84–103	x5 Strb>>
		104–107	Light ON: Open
		108–127	x1 PulseC>>
		128–147	x2 PulseC>>
		148–167	x3 PulseC>>
		168–187	x4 PulseC>>
		188–207	x5 PulseC>>
		208–212	Light ON: Open
		213–220	x1 RndStrb>>
		221–228	x2 RndStrb>>
		229–235	x3 RndStrb>>
		236–243	x4 RndStrb>>
		244–251	x5 RndStrb>>
		252–255	Light ON: Open
35	Shape Selection 2	0–8	BG Shape OFF
		9	Pixel 1
		10	Ring 2
		11	Ring 3
		12	Ring 4
		13	Pixel 1 + Ring 2
		14	Pixel 1 + Ring 2-3
		15	Pixel 1 + Ring 2-3-4
		16	Ring 2-3-4
		17	Ring 3-4
		18	Pixel 1 + Ring 4
		19	Ring 2-3
		20	Pixel 1 + Ring 3
		21	Ring 2-4
		22	Pixel 1 + Ring 3-4
		23	Pixel 1 + Ring 2-4

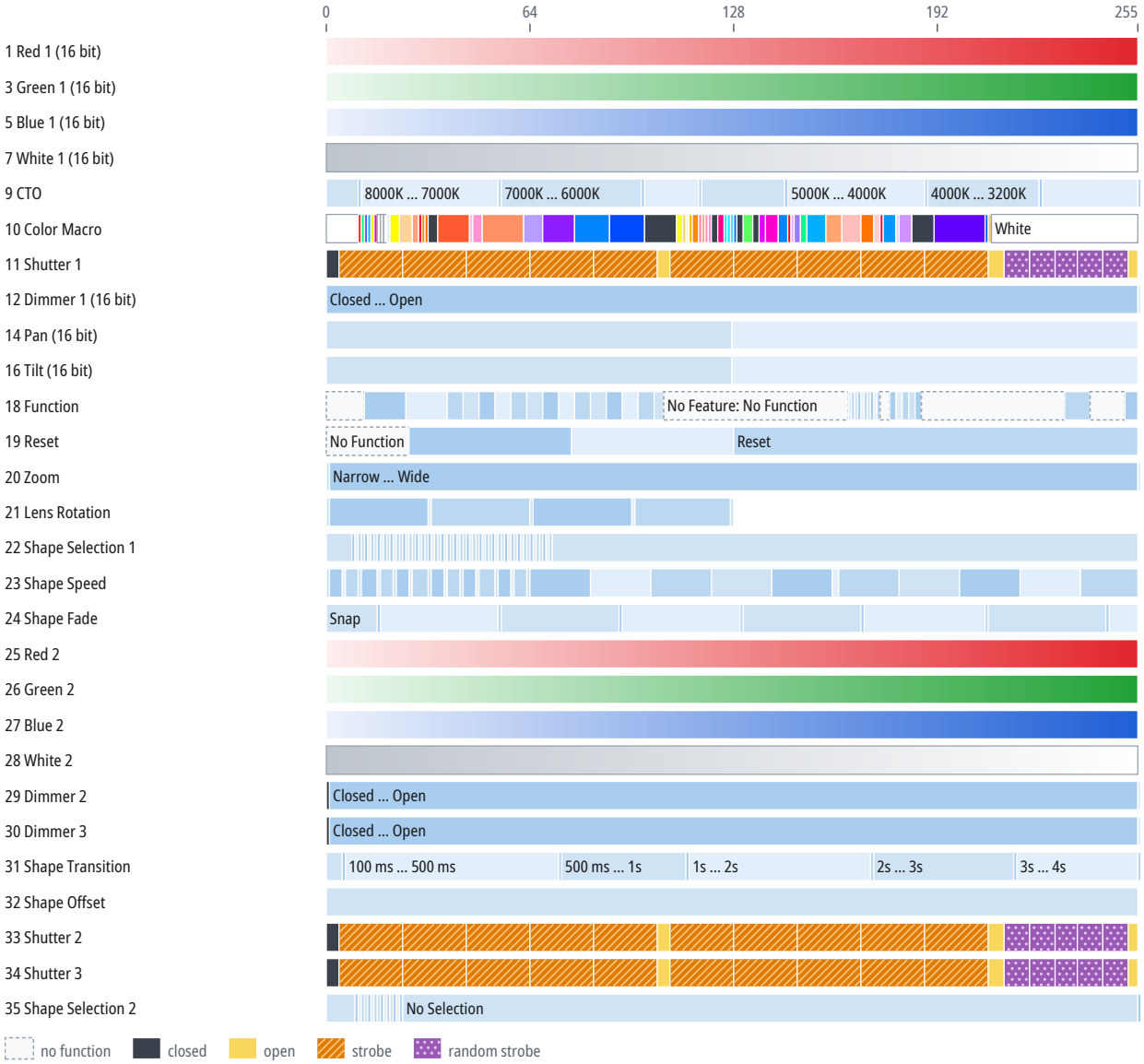
CH	Function	DMX	Description
35	Shape Selection 2 (continued)	24–254	No Selection
		255	Mirror Effect
36	LED Frequency		When CH 18 is 164:
		0–255	1000 Hz (746–1254 Hz)
			When CH 18 is 165:
		0–255	1500 Hz (1246–1754 Hz)
			When CH 18 is 166:
		0–255	2400 Hz (1765–3035 Hz)
			When CH 18 is 167:
		0–255	3700 Hz (3065–4335 Hz)
			When CH 18 is 168:
		0–255	5600 Hz (4330–6870 Hz)
			When CH 18 is 169:
		0–255	9400 Hz (6860–11940 Hz)
			When CH 18 is 170:
		0–255	15100 Hz (11925–18275 Hz)
			When CH 18 is 171:
		0–255	21400 Hz (18225–24575 Hz)
			When CH 18 is 172:
		0–255	31000 Hz (24650–37350 Hz)
			When CH 18 is 173:
		0–255	43700 Hz (37350–50050 Hz)

Mode Shapes

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 11 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer 1 above 0; CH 29 Dimmer 2 above 0; CH 30 Dimmer 3 above 0; CH 33 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Red 1 255, CH 3 Green 1 255, CH 5 Blue 1 255, CH 7 White 1 255, CH 10 Color Macro 0, CH 11 Shutter 1 255, CH 12 Dimmer 1 255, CH 29 Dimmer 2 255, CH 30 Dimmer 3 255, CH 33 Shutter 2 255, CH 34 Shutter 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red 1	0–255	
2	Red 1 Fine	0–255	Fine adjustment of CH 1
3	Green 1	0–255	
4	Green 1 Fine	0–255	Fine adjustment of CH 3

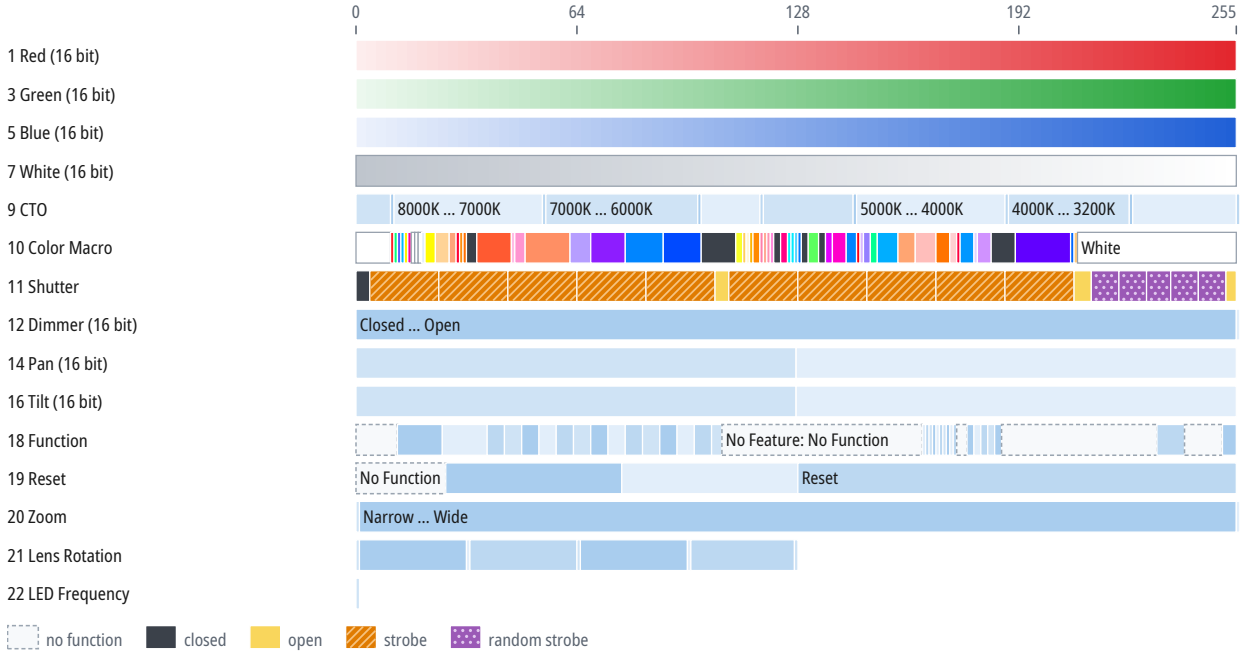
CH	Function	DMX	Description
5	Blue 1	0–255	
6	Blue 1 Fine	0–255	Fine adjustment of CH 5
7	White 1	0–255	
8	White 1 Fine	0–255	Fine adjustment of CH 7
9	CTO		Same as CH 9 in the mode “Shapes + Frequency” (p. 13)
10	Color Macro		Same as CH 10 in the mode “Shapes + Frequency” (p. 13)
11	Shutter 1		Same as CH 11 in the mode “Shapes + Frequency” (p. 15)
12	Dimmer 1		Same as CH 12 in the mode “Shapes + Frequency” (p. 15)
13	Dimmer 1 Fine	0–255	Fine adjustment of CH 12
14	Pan		Same as CH 14 in the mode “Shapes + Frequency” (p. 15)
15	Pan Fine	0–255	Fine adjustment of CH 14
16	Tilt		Same as CH 16 in the mode “Shapes + Frequency” (p. 15)
17	Tilt Fine	0–255	Fine adjustment of CH 16
18	Function		Same as CH 18 in the mode “Shapes + Frequency” (p. 15)
19	Reset		Same as CH 19 in the mode “Shapes + Frequency” (p. 16)
20	Zoom		Same as CH 20 in the mode “Shapes + Frequency” (p. 16)
21	Lens Rotation		Same as CH 21 in the mode “Shapes + Frequency” (p. 16)
22	Shape Selection 1		Same as CH 22 in the mode “Shapes + Frequency” (p. 17)
23	Shape Speed		Same as CH 23 in the mode “Shapes + Frequency” (p. 18)
24	Shape Fade		Same as CH 24 in the mode “Shapes + Frequency” (p. 19)
25	Red 2	0–255	
26	Green 2	0–255	
27	Blue 2	0–255	
28	White 2	0–255	
29	Dimmer 2		Same as CH 29 in the mode “Shapes + Frequency” (p. 20)
30	Dimmer 3		Same as CH 30 in the mode “Shapes + Frequency” (p. 20)
31	Shape Transition		Same as CH 31 in the mode “Shapes + Frequency” (p. 20)
32	Shape Offset	0–255	
33	Shutter 2		Same as CH 33 in the mode “Shapes + Frequency” (p. 20)
34	Shutter 3		Same as CH 34 in the mode “Shapes + Frequency” (p. 21)
35	Shape Selection 2		Same as CH 35 in the mode “Shapes + Frequency” (p. 21)

Mode Standard + Frequency

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 11 Shutter at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 3 Green 255, CH 5 Blue 255, CH 7 White 255, CH 10 Color Macro 0, CH 11 Shutter 255, CH 12 Dimmer 255.

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
9	CTO		Same as CH 9 in the mode “Shapes + Frequency” (p. 13)
10	Color Macro		Same as CH 10 in the mode “Shapes + Frequency” (p. 13)
11	Shutter	0–3	Light OFF: Closed
		4–23	x1 Strb>>
		24–43	x2 Strb>>
		44–63	x3 Strb>>
		64–83	x4 Strb>>
		84–103	x5 Strb>>
		104–107	Light ON: Open
		108–127	x1 PulseC>>

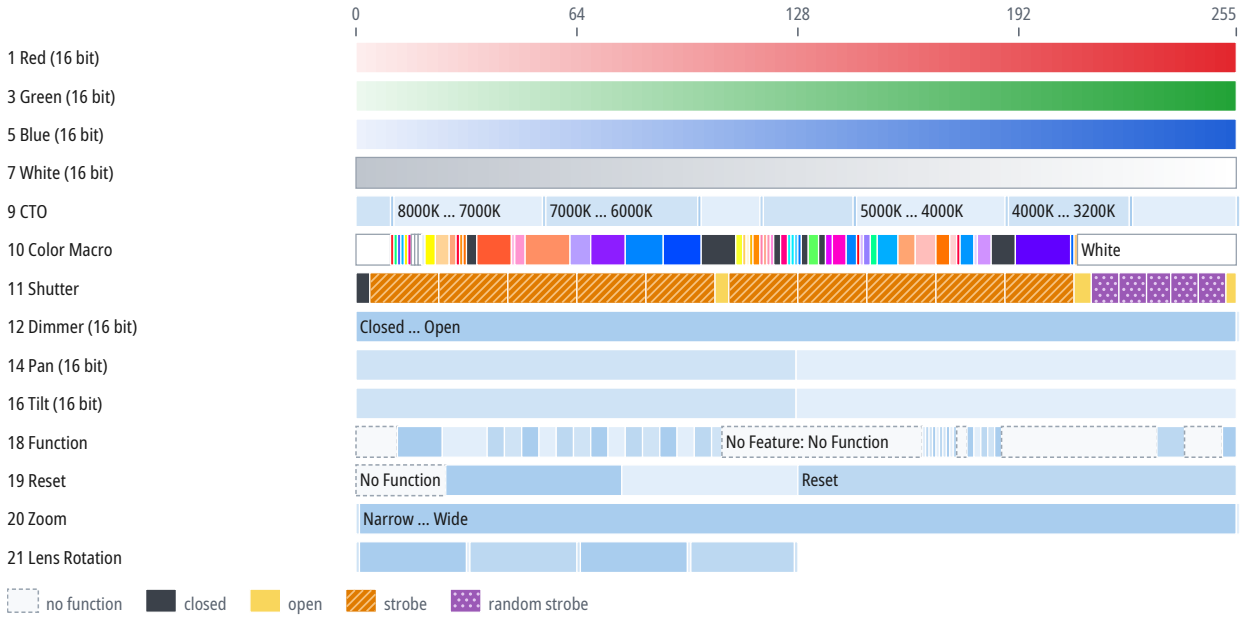
CH	Function	DMX	Description
11	Shutter (continued)	128–147	x2 PulseC>>
		148–167	x3 PulseC>>
		168–187	x4 PulseC>>
		188–207	x5 PulseC>>
		208–212	Light ON: Open
		213–220	x1 RndStrb>>
		221–228	x2 RndStrb>>
		229–235	x3 RndStrb>>
		236–243	x4 RndStrb>>
		244–251	x5 RndStrb>>
		252–255	Light ON: Open
12	Dimmer	0–255	Closed ... Open
		255	Open
13	Dimmer Fine	0–255	Fine adjustment of CH 12
14	Pan		Same as CH 14 in the mode “Shapes + Frequency” (p. 15)
15	Pan Fine	0–255	Fine adjustment of CH 14
16	Tilt		Same as CH 16 in the mode “Shapes + Frequency” (p. 15)
17	Tilt Fine	0–255	Fine adjustment of CH 16
18	Function		Same as CH 18 in the mode “Shapes + Frequency” (p. 15)
19	Reset		Same as CH 19 in the mode “Shapes + Frequency” (p. 16)
20	Zoom		Same as CH 20 in the mode “Shapes + Frequency” (p. 16)
21	Lens Rotation		Same as CH 21 in the mode “Shapes + Frequency” (p. 16)
22	LED Frequency		Same as CH 36 in the mode “Shapes + Frequency” (p. 22)

Mode 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 11 Shutter at 104–107, 208–212 or 252–255 “Open”; CH 12 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 3 Green 255, CH 5 Blue 255, CH 7 White 255, CH 10 Color Macro 0, CH 11 Shutter 255, CH 12 Dimmer 255.

Channel functions at a glance

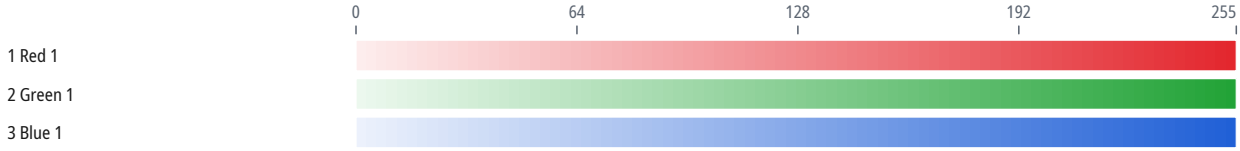


CH	Function	DMX	Description
1	Red	0–255	
2	Red Fine	0–255	Fine adjustment of CH 1
3	Green	0–255	
4	Green Fine	0–255	Fine adjustment of CH 3
5	Blue	0–255	
6	Blue Fine	0–255	Fine adjustment of CH 5
7	White	0–255	
8	White Fine	0–255	Fine adjustment of CH 7
9	CTO		Same as CH 9 in the mode “Shapes + Frequency” (p. 13)
10	Color Macro		Same as CH 10 in the mode “Shapes + Frequency” (p. 13)
11	Shutter		Same as CH 11 in the mode “Standard + Frequency” (p. 25)
12	Dimmer		Same as CH 12 in the mode “Standard + Frequency” (p. 26)
13	Dimmer Fine	0–255	Fine adjustment of CH 12
14	Pan		Same as CH 14 in the mode “Shapes + Frequency” (p. 15)
15	Pan Fine	0–255	Fine adjustment of CH 14
16	Tilt		Same as CH 16 in the mode “Shapes + Frequency” (p. 15)
17	Tilt Fine	0–255	Fine adjustment of CH 16
18	Function		Same as CH 18 in the mode “Shapes + Frequency” (p. 15)

CH	Function	DMX	Description
19	Reset		Same as CH 19 in the mode “Shapes + Frequency” (p. 16)
20	Zoom		Same as CH 20 in the mode “Shapes + Frequency” (p. 16)
21	Lens Rotation		Same as CH 21 in the mode “Shapes + Frequency” (p. 16)

Mode Pixels RGB

Channel functions at a glance



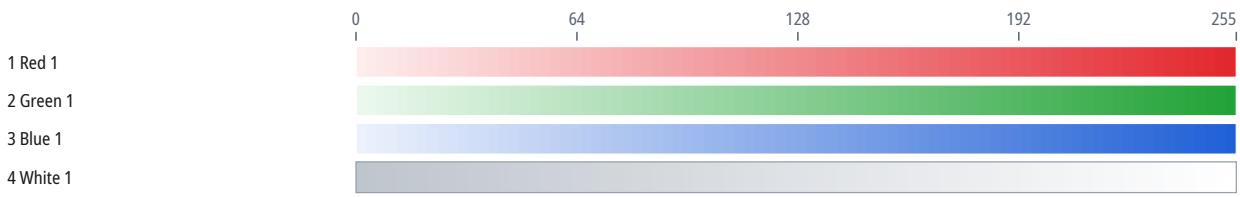
CH	Function	DMX	Description
1	Red 1	0–255	
2	Green 1	0–255	
3	Blue 1	0–255	

CH 1–111: 37 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 1–3); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	1	2	3	2	4	5	6	3	7	8	9
4	10	11	12	5	13	14	15	6	16	17	18
7	19	20	21	8	22	23	24	9	25	26	27
10	28	29	30	11	31	32	33	12	34	35	36
13	37	38	39	14	40	41	42	15	43	44	45
16	46	47	48	17	49	50	51	18	52	53	54
19	55	56	57	20	58	59	60	21	61	62	63
22	64	65	66	23	67	68	69	24	70	71	72
25	73	74	75	26	76	77	78	27	79	80	81
28	82	83	84	29	85	86	87	30	88	89	90
31	91	92	93	32	94	95	96	33	97	98	99
34	100	101	102	35	103	104	105	36	106	107	108
37	109	110	111								

Mode Pixels RGBW

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	

CH 1–148: 37 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
13	49	50	51	52	14	53	54	55	56
15	57	58	59	60	16	61	62	63	64
17	65	66	67	68	18	69	70	71	72
19	73	74	75	76	20	77	78	79	80
21	81	82	83	84	22	85	86	87	88
23	89	90	91	92	24	93	94	95	96
25	97	98	99	100	26	101	102	103	104
27	105	106	107	108	28	109	110	111	112
29	113	114	115	116	30	117	118	119	120
31	121	122	123	124	32	125	126	127	128
33	129	130	131	132	34	133	134	135	136
35	137	138	139	140	36	141	142	143	144
37	145	146	147	148					

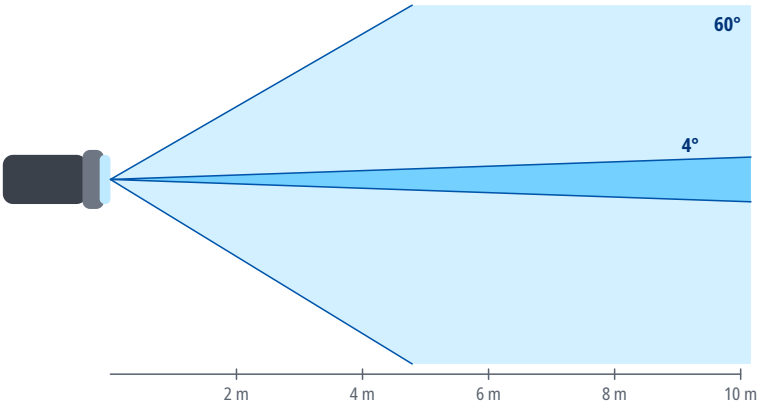
10 Technical specifications

Parameter	Value
Light	
Light source	LED
Optics	
Zoom	4–60°
Movement	
Pan	540°
Tilt	210°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45
RDM	yes (manufacturer ID 0x4350, device model ID 0x2C20)
Electrical	
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	27.5 kg
Operating environment	
Operating temperature	-20 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–8000 K
Strobe frequency	1–25 Hz
LED frequency	746–50050 Hz

Spot diameter



Distance	Ø 4°	Ø 60°
2 m	0.14 m	2.3 m
4 m	0.28 m	4.6 m
6 m	0.42 m	6.9 m
8 m	0.56 m	9.2 m
10 m	0.7 m	11.5 m
15 m	1 m	17.3 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.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

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.