DMX REFERENCE

DLW L1060C4LC IP

DLW



Manufacturer	DLW
GDTF file	DLW_DLW_L1060C4LC_IP_126136.gdtf
GDTF revision	DLW L1060C4LC IP · 2026-01-25
Generated	2026-11-23

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1 About this manual

This document describes the DLW L1060C4LC IP by DLW. It was compiled from the GDTF file DLW_DLW_L1060C4LC_IP_126136.gdtf from the GDTF-Share library.

File revision: “DLW L1060C4LC IP”.

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 DLW; 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	30.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Single Control: 247ch	247	2	1, 248
Single Control: 142ch	142	3	1, 143, 285
Single Control: 29CH	29	17	1, 30, 59, 88, ...
Single Control: 56CH	56	9	1, 57, 113, 169, ...
Single Control:102ch	102	5	1, 103, 205, 307, ...

No light? Check these channels

- Single Control: 247ch: CH 3 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- Single Control: 142ch: CH 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Strobe at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- Single Control: 29CH: CH 6 strobe line CTC at 0 “Off”; CH 9 strobe line Pattern at 0 “Off”; CH 13 strobe line built-in at 0–15 “Off”; CH 20 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 21 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- Single Control: 56CH: CH 24 strobe line CTC at 0 “Off”; CH 27 strobe line Pattern at 0 “Off”; CH 31 strobe line built-in at 0–15 “Off”; CH 38 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 39 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”
- Single Control:102ch: CH 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Strobe at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter 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.

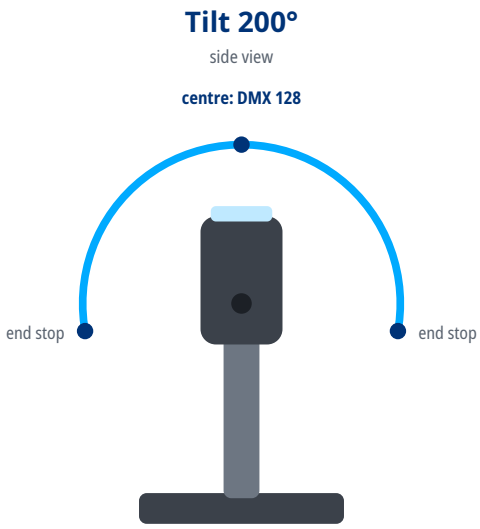
⚠ CAUTION

- 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.

> ⚠ **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

Range of movement



5 Installation

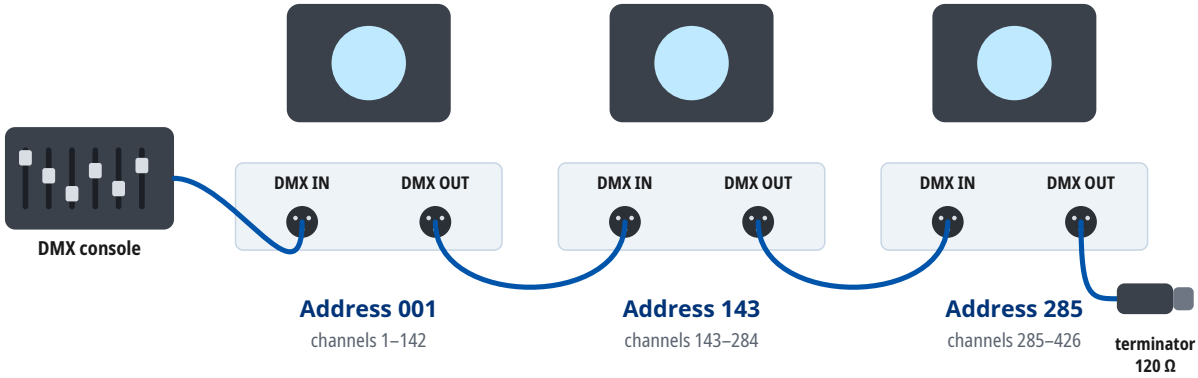
> ⚠ **WARNING**
>
> - Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
> - The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
> - Weight of the device: 30.5 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 Single Control: 142ch: every unit occupies 142 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 “Single Control: 247ch”: 247.
- 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 “Single Control: 247ch”, you can use, for example, the start addresses 1, 248.
- 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

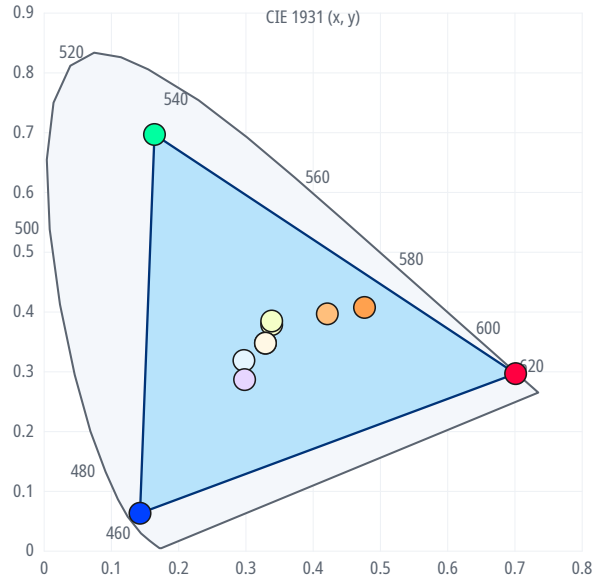
Functions in each DMX mode

	Single Control: 247ch 247 channels	Single Control: 142ch 142 channels	Single Control: 29CH 29 channels	Single Control: 56CH 56 channels	Single Control:102ch 102 channels
Pan / Tilt	10× (18–225)	10× (13–130)	1	10× (1–19)	10× (13–94)
Dimmer	1	1	18, 19	36, 37	1
Dimmer resolution	16 bit	16 bit	8 bit	8 bit	16 bit
Shutter / strobe	3, 4	3, 4	20, 21	38, 39	3, 4
Color mixing	160 channels (21–247)	60 channels (16–142)	24–29	51–56	60 channels (16–102)
Color temperature	5, 6, 15	5, 7	5–7, 16	23–25, 34	5, 7
Zoom	10× (20–227)	10× (15–132)	22	40–49	10× (15–96)
Effects / macros	6–15	6, 7, 9–11	7–16	25–34	6, 7, 9–11
Pixel control	✓				

Color wheel

1. White 2700K - CTC — DMX 1–2
2. White 3200K - CTC — DMX 3–4
3. White 4000K - CTC — DMX 5–6
4. White 4200K - CTC — DMX 7–8
5. White 5600K — DMX 9–11
6. White 6500K - CTC — DMX 11–12
7. White 7500K - CTC — DMX 13–14
8. Blue — DMX 15
9. +Green — DMX 16–52
10. Cyan — DMX 53
11. -Blue — DMX 54–90
12. Green — DMX 91
13. +Red — DMX 92–128
14. Yellow — DMX 129
15. +Green — DMX 130–166
16. Red — DMX 167
17. +Blue — DMX 168–204
18. Magenta — DMX 205
19. -Red

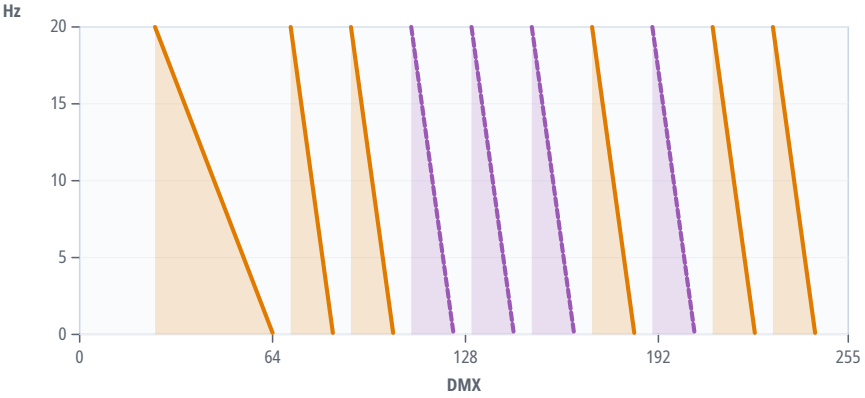
LED colors and the colors they mix



LED	x	y	nm
3200K	0.421	0.397	
4000K	0.338	0.379	
5600K	0.329	0.348	
7500K	0.297	0.319	
Red	0.701	0.297	626
Green	0.164	0.697	525
Blue	0.142	0.063	400
White	0.298	0.287	
3000K	0.476	0.408	
6500K	0.329	0.348	
4200K	0.338	0.385	

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

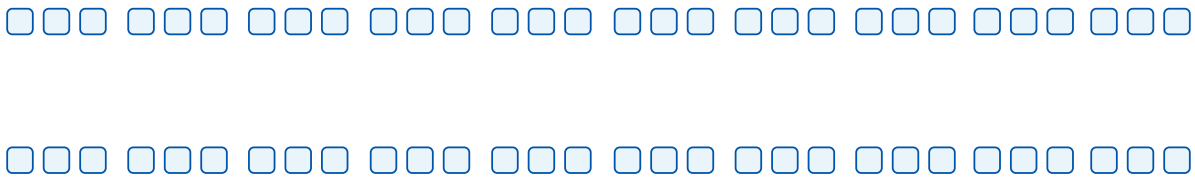
Strobe rate



CH 38 · Single Control: 56CH

- 25–64: 20–0.1 Hz STROBE
- 70–84: 20–0.1 Hz STROBE 100-0%
- 90–104: 20–0.1 Hz STROBE 0-100%
- 110–124: 20–0.1 Hz RANDOM STROBE
- 130–144: 20–0.1 Hz RANDOM STROBE 100-0%
- 150–164: 20–0.1 Hz RANDOM STROBE 0-100%
- 170–184: 20–0.1 Hz PULSE STROBE
- 190–204: 20–0.1 Hz RANDOM PULSE STROBE

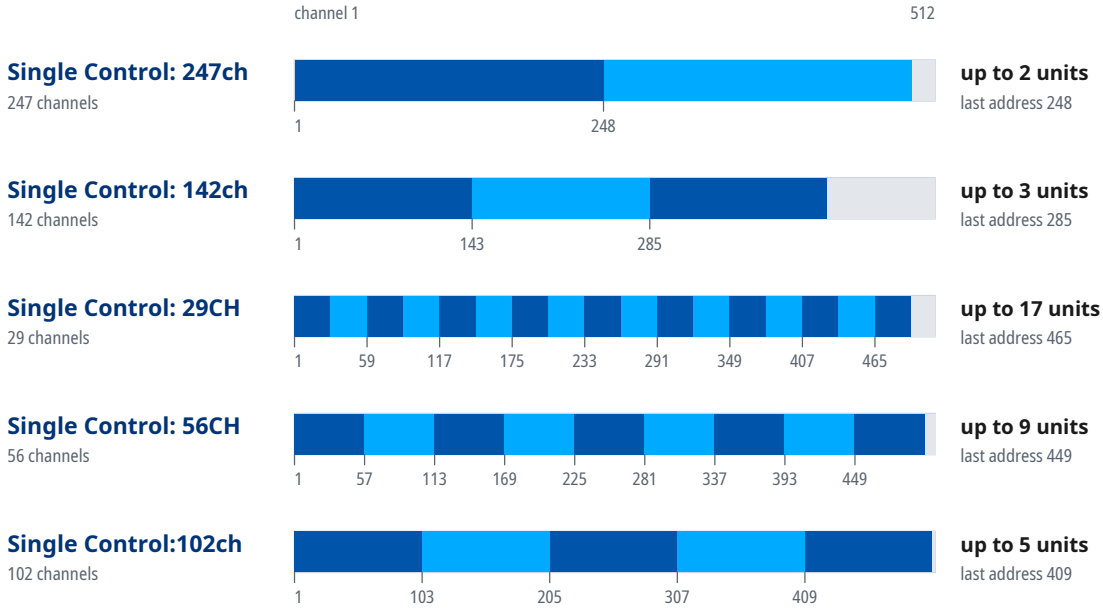
Cells (pixels)



Cells where the GDTF file places them (seen from above), 60 in all in the mode “Single Control: 56CH”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Single Control: 247ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U3 · 248	11	U6 · 1	16	U8 · 248
2	248	7	U4 · 1	12	U6 · 248	17	U9 · 1
3	U2 · 1	8	U4 · 248	13	U7 · 1	18	U9 · 248
4	U2 · 248	9	U5 · 1	14	U7 · 248	19	U10 · 1
5	U3 · 1	10	U5 · 248	15	U8 · 1	20	U10 · 248

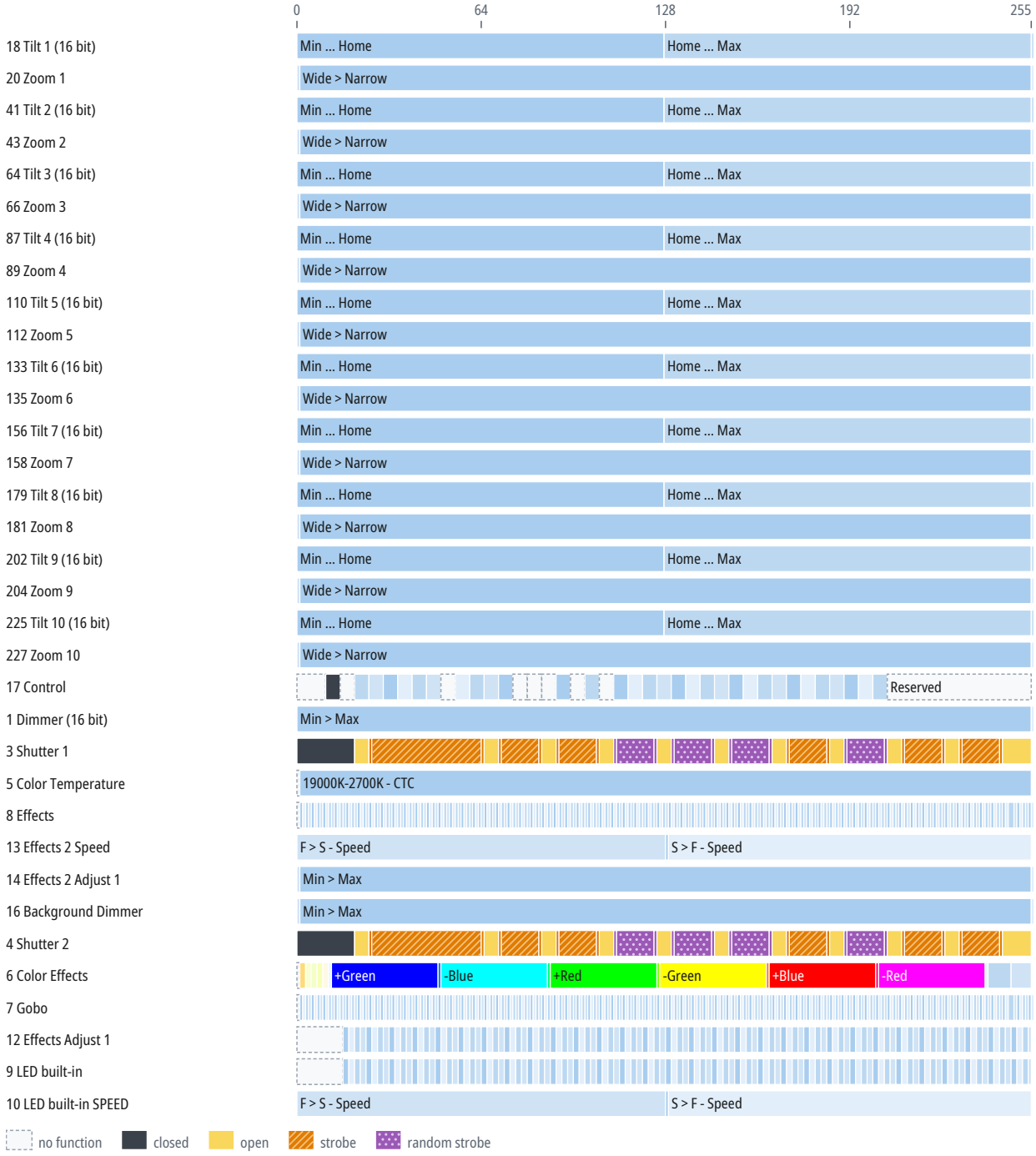
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode Single Control: 247ch

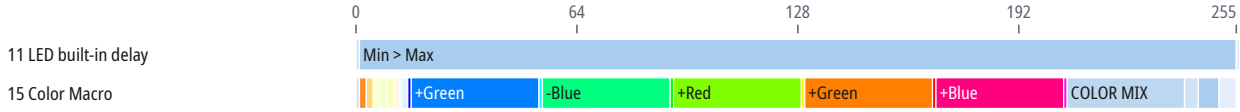
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 3 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 5 Color Temperature 0, CH 6 Color Effects 0, CH 15 Color Macro 0.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0	Min
		0–255	Min > Max
		255	Max
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter 1	0–19	Shutter Closed
		20–24	STROBE CLOSE/OPEN: Shutter Open
		25	STROBE: Fast
		26–63	STROBE: Fast > Slow
		64	STROBE: Slow
		65–69	STROBE OPEN: Shutter Open
		70	STROBE 100-0%: Fast
		71–83	STROBE 100-0%: Fast > Slow
		84	STROBE 100-0%: Slow
		85–89	STROBE OPEN: Shutter Open
		90	STROBE 0-100%: Fast
		91–103	STROBE 0-100%: Fast > Slow
		104	STROBE 0-100%: Slow
		105–109	STROBE OPEN: Shutter Open
		110	RANDOM STROBE: Fast
		111–123	RANDOM STROBE: Fast > Slow
		124	RANDOM STROBE: Slow
		125–129	STROBE OPEN: Shutter Open
		130	RANDOM STROBE 100-0%: Fast
		131–143	RANDOM STROBE 100-0%: Fast > Slow
		144	RANDOM STROBE 100-0%: Slow
		145–149	STROBE OPEN: Shutter Open
		150	RANDOM STROBE 0-100%: Fast
		151–163	RANDOM STROBE 0-100%: Fast > Slow
		164	RANDOM STROBE 0-100%: Slow
		165–169	STROBE OPEN: Shutter Open
		170	PULSE STROBE: Fast
		171–183	PULSE STROBE: Fast > Slow
		184	PULSE STROBE: Slow
		185–189	STROBE OPEN: Shutter Open
		190	RANDOM PULSE STROBE: Fast
		191–203	RANDOM PULSE STROBE: Fast > Slow
		204	RANDOM PULSE STROBE: Slow

CH	Function	DMX	Description
3	Shutter 1 (continued)	205–209	STROBE OPEN: Shutter Open
		210	STROBE 0-100-0%: Fast
		211–223	STROBE 0-100-0%: Fast > Slow
		224	STROBE 0-100-0%: Slow
		225–229	STROBE OPEN: Shutter Open
		230	RANDOM PULSE STROBE: Fast
		231–243	RANDOM PULSE STROBE: Fast > Slow
		244	RANDOM PULSE STROBE: Slow
		245–255	STROBE OPEN: Shutter Open
4	Shutter 2	0–19	Shutter Closed
		20–24	STROBE CLOSE/OPEN: Shutter Open
		25	STROBE: Fast
		26–63	STROBE: Fast > Slow
		64	STROBE: Slow
		65–69	STROBE OPEN: Shutter Open
		70	STROBE 100-0%: Fast
		71–83	STROBE 100-0%: Fast > Slow
		84	STROBE 100-0%: Slow
		85–89	STROBE OPEN: Shutter Open
		90	STROBE 0-100%: Fast
		91–103	STROBE 0-100%: Fast > Slow
		104	STROBE 0-100%: Slow
		105–109	STROBE OPEN: Shutter Open
		110	RANDOM STROBE: Fast
		111–123	RANDOM STROBE: Fast > Slow
		124	RANDOM STROBE: Slow
		125–129	STROBE OPEN: Shutter Open
		130	RANDOM STROBE 100-0%: Fast
		131–143	RANDOM STROBE 100-0%: Fast > Slow
		144	RANDOM STROBE 100-0%: Slow
		145–149	STROBE OPEN: Shutter Open
		150	RANDOM STROBE 0-100%: Fast
		151–163	RANDOM STROBE 0-100%: Fast > Slow
		164	RANDOM STROBE 0-100%: Slow
		165–169	STROBE OPEN: Shutter Open
		170	PULSE STROBE: Fast
		171–183	PULSE STROBE: Fast > Slow
		184	PULSE STROBE: Slow
		185–189	STROBE OPEN: Shutter Open
		190	RANDOM PULSE STROBE: Fast
		191–203	RANDOM PULSE STROBE: Fast > Slow

CH	Function	DMX	Description
4	Shutter 2 (continued)	204	RANDOM PULSE STROBE: Slow
		205–209	STROBE OPEN: Shutter Open
		210	STROBE 0-100-0%: Fast
		211–223	STROBE 0-100-0%: Fast > Slow
		224	STROBE 0-100-0%: Slow
		225–229	STROBE OPEN: Shutter Open
		230	RANDOM PULSE STROBE: Fast
		231–243	RANDOM PULSE STROBE: Fast > Slow
		244	RANDOM PULSE STROBE: Slow
		245–255	STROBE OPEN: Shutter Open
5	Color Temperature	0	CTC OFF: Off
		1–255	19000K-2700K - CTC (19000–2700 K)
6	Color Effects	0	BACKGROUND COLOR MACRO: Off
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4200K - CTC
		7–8	White 5600K - CTC
		9–10	White 8000K - CTC
		11	Blue
		12–48	+Green
		49	Cyan
		50–86	-Blue
		87	Green
		88–124	+Red
		125	Yellow
		126–162	-Green
		163	Red
		164–200	+Blue
		201	Magenta
		202–238	-Red
		239	Blue
		240–247	Color Fade F > S
		248–255	Color Snap F > S
7	Gobo	0	PATTERNS OFF: Off
		1–246	Pattern 1...246 - Macro
		247–248	Pattern 247 - Macro
		249–255	Pattern 249...255 - Macro
8	Effects	0	PATTERNS OFF: Off
		1–246	Pattern 1...246 - Macro
		247–248	Pattern 247 - Macro
		249–255	Pattern 249...255 - Macro

CH	Function	DMX	Description
9	LED built-in	0–15	LED BUILT-IN OFF: Off
		16–17	LED Built-In 1 - Macro
		18–19	LED Built-In 2 - Macro
		20–21	LED Built-In 3 - Macro
		22–23	LED Built-In 4 - Macro
		24–25	LED Built-In 5 - Macro
		26–27	LED Built-In 6 - Macro
		28–29	LED Built-In 7 - Macro
		30–31	LED Built-In 8 - Macro
		32–33	LED Built-In 9 - Macro
		34–35	LED Built-In 10 - Macro
		36–37	LED Built-In 11 - Macro
		38–39	LED Built-In 12 - Macro
		40–41	LED Built-In 13 - Macro
		42–43	LED Built-In 14 - Macro
		44–45	LED Built-In 15 - Macro
		46–47	LED Built-In 16 - Macro
		48–49	LED Built-In 17 - Macro
		50–51	LED Built-In 18 - Macro
		52–53	LED Built-In 19 - Macro
		54–55	LED Built-In 20 - Macro
		56–57	LED Built-In 21 - Macro
		58–59	LED Built-In 22 - Macro
		60–61	LED Built-In 23 - Macro
		62–63	LED Built-In 24 - Macro
		64–65	LED Built-In 25 - Macro
		66–67	LED Built-In 26 - Macro
		68–69	LED Built-In 27 - Macro
		70–71	LED Built-In 28 - Macro
		72–73	LED Built-In 29 - Macro
		74–75	LED Built-In 30 - Macro
		76–77	LED Built-In 31 - Macro
		78–79	LED Built-In 32 - Macro
		80–81	LED Built-In 33 - Macro
		82–83	LED Built-In 34 - Macro
		84–85	LED Built-In 35 - Macro
		86–87	LED Built-In 36 - Macro
		88–89	LED Built-In 37 - Macro
		90–91	LED Built-In 38 - Macro
		92–93	LED Built-In 39 - Macro
		94–95	LED Built-In 40 - Macro

CH	Function	DMX	Description
9	LED built-in (continued)	96–97	LED Built-In 41 - Macro
		98–99	LED Built-In 42 - Macro
		100–101	LED Built-In 43 - Macro
		102–103	LED Built-In 44 - Macro
		104–105	LED Built-In 45 - Macro
		106–107	LED Built-In 46 - Macro
		108–109	LED Built-In 47 - Macro
		110–111	LED Built-In 48 - Macro
		112–113	LED Built-In 49 - Macro
		114–115	LED Built-In 50 - Macro
		116–117	LED Built-In 51 - Macro
		118–119	LED Built-In 52 - Macro
		120–121	LED Built-In 53 - Macro
		122–123	LED Built-In 54 - Macro
		124–125	LED Built-In 55 - Macro
		126–127	LED Built-In 56 - Macro
		128–129	LED Built-In 57 - Macro
		130–131	LED Built-In 58 - Macro
		132–133	LED Built-In 59 - Macro
		134–135	LED Built-In 60 - Macro
		136–137	LED Built-In 61 - Macro
		138–139	LED Built-In 62 - Macro
		140–141	LED Built-In 63 - Macro
		142–143	LED Built-In 64 - Macro
		144–145	LED Built-In 65 - Macro
		146–147	LED Built-In 66 - Macro
		148–149	LED Built-In 67 - Macro
		150–151	LED Built-In 68 - Macro
		152–153	LED Built-In 69 - Macro
		154–155	LED Built-In 70 - Macro
		156–157	LED Built-In 71 - Macro
		158–159	LED Built-In 72 - Macro
		160–161	LED Built-In 73 - Macro
		162–163	LED Built-In 74 - Macro
		164–165	LED Built-In 75 - Macro
		166–167	LED Built-In 76 - Macro
		168–169	LED Built-In 77 - Macro
		170–171	LED Built-In 78 - Macro
		172–173	LED Built-In 79 - Macro
		174–175	LED Built-In 80 - Macro
		176–177	LED Built-In 81 - Macro
		178–179	LED Built-In 82 - Macro

CH	Function	DMX	Description
9	LED built-in (continued)	180–181	LED Built-In 83 - Macro
		182–183	LED Built-In 84 - Macro
		184–185	LED Built-In 85 - Macro
		186–187	LED Built-In 86 - Macro
		188–189	LED Built-In 87 - Macro
		190–191	LED Built-In 88 - Macro
		192–193	LED Built-In 89 - Macro
		194–195	LED Built-In 90 - Macro
		196–197	LED Built-In 91 - Macro
		198–199	LED Built-In 92 - Macro
		200–201	LED Built-In 93 - Macro
		202–203	LED Built-In 94 - Macro
		204–205	LED Built-In 95 - Macro
		206–207	LED Built-In 96 - Macro
		208–209	LED Built-In 97 - Macro
		210–211	LED Built-In 98 - Macro
		212–213	LED Built-In 99 - Macro
		214–215	LED Built-In 100 - Macro
		216–217	LED Built-In 101 - Macro
		218–219	LED Built-In 102 - Macro
		220–221	LED Built-In 103 - Macro
		222–223	LED Built-In 104 - Macro
		224–225	LED Built-In 105 - Macro
		226–227	LED Built-In 106 - Macro
		228–229	LED Built-In 107 - Macro
		230–231	LED Built-In 108 - Macro
		232–233	LED Built-In 109 - Macro
		234–235	LED Built-In 110 - Macro
		236–237	LED Built-In 111 - Macro
		238–239	LED Built-In 112 - Macro
		240–241	LED Built-In 113 - Macro
		242–243	LED Built-In 114 - Macro
		244–245	LED Built-In 115 - Macro
		246–247	LED Built-In 116 - Macro
		248–249	LED Built-In 117 - Macro
		250–251	LED Built-In 118 - Macro
		252–253	LED Built-In 119 - Macro
		254–255	LED Built-In 120 - Macro
10	LED built-in SPEED		LED MACRO SPEED
		0–127	F > S - Speed
		128	Stop Loop
		129–255	S > F - Speed

CH	Function	DMX	Description
11	LED built-in delay		LED MACRO DELAY
		0	Min
		1–254	Min > Max
		255	Max
12	Effects Adjust 1	0–15	BUILT-IN OFF: Off
		16–17	Built-In 1 - Macro
		18–19	Built-In 2 - Macro
		20–21	Built-In 3 - Macro
		22–23	Built-In 4 - Macro
		24–25	Built-In 5 - Macro
		26–27	Built-In 6 - Macro
		28–29	Built-In 7 - Macro
		30–31	Built-In 8 - Macro
		32–33	Built-In 9 - Macro
		34–35	Built-In 10 - Macro
		36–37	Built-In 11 - Macro
		38–39	Built-In 12 - Macro
		40–41	Built-In 13 - Macro
		42–43	Built-In 14 - Macro
		44–45	Built-In 15 - Macro
		46–47	Built-In 16 - Macro
		48–49	Built-In 17 - Macro
		50–51	Built-In 18 - Macro
		52–53	Built-In 19 - Macro
		54–55	Built-In 20 - Macro
		56–57	Built-In 21 - Macro
		58–59	Built-In 22 - Macro
		60–61	Built-In 23 - Macro
		62–63	Built-In 24 - Macro
		64–65	Built-In 25 - Macro
		66–67	Built-In 26 - Macro
		68–69	Built-In 27 - Macro
		70–71	Built-In 28 - Macro
		72–73	Built-In 29 - Macro
		74–75	Built-In 30 - Macro
		76–77	Built-In 31 - Macro
		78–79	Built-In 32 - Macro
		80–81	Built-In 33 - Macro
		82–83	Built-In 34 - Macro
		84–85	Built-In 35 - Macro
		86–87	Built-In 36 - Macro
		88–89	Built-In 37 - Macro

CH	Function	DMX	Description
12	Effects Adjust 1 (continued)	90–91	Built-In 38 - Macro
		92–93	Built-In 39 - Macro
		94–95	Built-In 40 - Macro
		96–97	Built-In 41 - Macro
		98–99	Built-In 42 - Macro
		100–101	Built-In 43 - Macro
		102–103	Built-In 44 - Macro
		104–105	Built-In 45 - Macro
		106–107	Built-In 46 - Macro
		108–109	Built-In 47 - Macro
		110–111	Built-In 48 - Macro
		112–113	Built-In 49 - Macro
		114–115	Built-In 50 - Macro
		116–117	Built-In 51 - Macro
		118–119	Built-In 52 - Macro
		120–121	Built-In 53 - Macro
		122–123	Built-In 54 - Macro
		124–125	Built-In 55 - Macro
		126–127	Built-In 56 - Macro
		128–129	Built-In 57 - Macro
		130–131	Built-In 58 - Macro
		132–133	Built-In 59 - Macro
		134–135	Built-In 60 - Macro
		136–137	Built-In 61 - Macro
		138–139	Built-In 62 - Macro
		140–141	Built-In 63 - Macro
		142–143	Built-In 64 - Macro
		144–145	Built-In 65 - Macro
		146–147	Built-In 66 - Macro
		148–149	Built-In 67 - Macro
		150–151	Built-In 68 - Macro
		152–153	Built-In 69 - Macro
		154–155	Built-In 70 - Macro
		156–157	Built-In 71 - Macro
		158–159	Built-In 72 - Macro
		160–161	Built-In 73 - Macro
		162–163	Built-In 74 - Macro
		164–165	Built-In 75 - Macro
		166–167	Built-In 76 - Macro
		168–169	Built-In 77 - Macro
		170–171	Built-In 78 - Macro
		172–173	Built-In 79 - Macro

CH	Function	DMX	Description
12	Effects Adjust 1 (continued)	174–175	Built-In 80 - Macro
		176–177	Built-In 81 - Macro
		178–179	Built-In 82 - Macro
		180–181	Built-In 83 - Macro
		182–183	Built-In 84 - Macro
		184–185	Built-In 85 - Macro
		186–187	Built-In 86 - Macro
		188–189	Built-In 87 - Macro
		190–191	Built-In 88 - Macro
		192–193	Built-In 89 - Macro
		194–195	Built-In 90 - Macro
		196–197	Built-In 91 - Macro
		198–199	Built-In 92 - Macro
		200–201	Built-In 93 - Macro
		202–203	Built-In 94 - Macro
		204–205	Built-In 95 - Macro
		206–207	Built-In 96 - Macro
		208–209	Built-In 97 - Macro
		210–211	Built-In 98 - Macro
		212–213	Built-In 99 - Macro
		214–215	Built-In 100 - Macro
		216–217	Built-In 101 - Macro
		218–219	Built-In 102 - Macro
		220–221	Built-In 103 - Macro
		222–223	Built-In 104 - Macro
		224–225	Built-In 105 - Macro
		226–227	Built-In 106 - Macro
		228–229	Built-In 107 - Macro
		230–231	Built-In 108 - Macro
		232–233	Built-In 109 - Macro
		234–235	Built-In 110 - Macro
		236–237	Built-In 111 - Macro
		238–239	Built-In 112 - Macro
		240–241	Built-In 113 - Macro
		242–243	Built-In 114 - Macro
		244–245	Built-In 115 - Macro
		246–247	Built-In 116 - Macro
		248–249	Built-In 117 - Macro
		250–251	Built-In 118 - Macro
		252–253	Built-In 119 - Macro
		254–255	Built-In 120 - Macro
13	Effects 2 Speed		LED MACRO SPEED

CH	Function	DMX	Description
13	Effects 2 Speed (continued)	0–127	F > S - Speed
		128	Stop Loop
		129–255	S > F - Speed
14	Effects 2 Adjust 1		LED MACRO DELAY
		0	Min
		1–254	Min > Max
		255	Max
15	Color Macro	0	COLOR MACRO: Open
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15	Blue
		16–52	+Green
		53	Cyan
		54–90	-Blue
		91	Green
		92–128	+Red
		129	Yellow
		130–166	+Green
		167	Red
		168–204	+Blue
		205	Magenta
		206–239	COLOR MIX
		240–243	COLOR EFFECT MACRO
		244–249	Color Fade F > S
		250–255	Color Snap F > S
16	Background Dimmer		BACKGROUND COLOR DIMMER
		0	Min
		1–254	Min > Max
		255	Max
17	Control	0–9	No Function
		10–14	Blackout On Tilt
		15–19	Reserved
		20–24	RGBW Color Mixing Mode
		25–29	CMY Color Mixing Mode
		30–34	Combine Heads
		35–39	Disable Combine Heads
		40–44	Color Presets HTP On

CH	Function	DMX	Description
17	Control (continued)	45–49	Color Presets HTP Off
		50–54	Reserved
		55–59	Tilt Reset
		60–64	Zoom Reset - Normal
		65–69	Zoom Reset - Quiet
		70–74	Reset All
		75–79	Cell Order 1-12
		80–84	Cell Order 12-1
		85–89	Reserved
		90–94	Tilt Reverse
		95–99	Reserved
		100–104	Tilt Reverse Disable
		105–109	Reserved
		110–114	Red Shift On
		115–119	Red Shift Off
		120–124	Fan ECO
		125–129	Fan Full
		130–134	Fan Auto
		135–139	Dimmer Fast
		140–144	Dimmer Smooth
		145–149	Linear
		150–154	Square
		155–159	Inverse Square
		160–164	S Square
		165–169	White Mode
		170–174	Full Mode
		175–179	PWM 600Hz
		180–184	PWM 1200Hz
		185–189	PWM 2000Hz
		190–194	PWM 4000Hz
		195–199	PWM 6000Hz
		200–204	PWM 15000Hz
		205–255	Reserved
18	Tilt 1	0–127	Min ... Home
		127	Home
		128–255	Home ... Max
		255	Max
19	Tilt 1 Fine	0–255	Fine adjustment of CH 18
20	Zoom 1	0	Wide
		1–254	Wide > Narrow
		255	Narrow
21	Red 1	0–255	

CH	Function	DMX	Description
22	Red 1 Fine	0–255	Fine adjustment of CH 21
23	Green 1	0–255	
24	Green 1 Fine	0–255	Fine adjustment of CH 23
25	Blue 1	0–255	
26	Blue 1 Fine	0–255	Fine adjustment of CH 25
27	White 1	0–255	
28	White 1 Fine	0–255	Fine adjustment of CH 27
29	Cool White 1	0–255	
30	Cool White 2	0–255	
31	Cool White 3	0–255	
32	Cool White 4	0–255	
33	Cool White 5	0–255	
34	Cool White 6	0–255	
35	Warm White 1	0–255	
36	Warm White 2	0–255	
37	Warm White 3	0–255	
38	Warm White 4	0–255	
39	Warm White 5	0–255	
40	Warm White 6	0–255	
41	Tilt 2	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
42	Tilt 2 Fine	0–255	Fine adjustment of CH 41
43	Zoom 2	0	Wide
		1–254	Wide > Narrow
		255	Narrow
44	Red 2	0–255	
45	Red 2 Fine	0–255	Fine adjustment of CH 44
46	Green 2	0–255	
47	Green 2 Fine	0–255	Fine adjustment of CH 46
48	Blue 2	0–255	
49	Blue 2 Fine	0–255	Fine adjustment of CH 48
50	White 2	0–255	
51	White 2 Fine	0–255	Fine adjustment of CH 50
52	Cool White 7	0–255	
53	Cool White 8	0–255	
54	Cool White 9	0–255	
55	Cool White 10	0–255	
56	Cool White 11	0–255	
57	Cool White 12	0–255	
58	Warm White 7	0–255	

CH	Function	DMX	Description
59	Warm White 8	0–255	
60	Warm White 9	0–255	
61	Warm White 10	0–255	
62	Warm White 11	0–255	
63	Warm White 12	0–255	
64	Tilt 3	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
65	Tilt 3 Fine	0–255	Fine adjustment of CH 64
66	Zoom 3	0	Wide
		1–254	Wide > Narrow
		255	Narrow
67	Red 3	0–255	
68	Red 3 Fine	0–255	Fine adjustment of CH 67
69	Green 3	0–255	
70	Green 3 Fine	0–255	Fine adjustment of CH 69
71	Blue 3	0–255	
72	Blue 3 Fine	0–255	Fine adjustment of CH 71
73	White 3	0–255	
74	White 3 Fine	0–255	Fine adjustment of CH 73
75	Cool White 13	0–255	
76	Cool White 14	0–255	
77	Cool White 15	0–255	
78	Cool White 16	0–255	
79	Cool White 17	0–255	
80	Cool White 18	0–255	
81	Warm White 13	0–255	
82	Warm White 14	0–255	
83	Warm White 15	0–255	
84	Warm White 16	0–255	
85	Warm White 17	0–255	
86	Warm White 18	0–255	
87	Tilt 4	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
88	Tilt 4 Fine	0–255	Fine adjustment of CH 87
89	Zoom 4	0	Wide
		1–254	Wide > Narrow
		255	Narrow
90	Red 4	0–255	

CH	Function	DMX	Description
91	Red 4 Fine	0–255	Fine adjustment of CH 90
92	Green 4	0–255	
93	Green 4 Fine	0–255	Fine adjustment of CH 92
94	Blue 4	0–255	
95	Blue 4 Fine	0–255	Fine adjustment of CH 94
96	White 4	0–255	
97	White 4 Fine	0–255	Fine adjustment of CH 96
98	Cool White 19	0–255	
99	Cool White 20	0–255	
100	Cool White 21	0–255	
101	Cool White 22	0–255	
102	Cool White 23	0–255	
103	Cool White 24	0–255	
104	Warm White 19	0–255	
105	Warm White 20	0–255	
106	Warm White 21	0–255	
107	Warm White 22	0–255	
108	Warm White 23	0–255	
109	Warm White 24	0–255	
110	Tilt 5	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
111	Tilt 5 Fine	0–255	Fine adjustment of CH 110
112	Zoom 5	0	Wide
		1–254	Wide > Narrow
		255	Narrow
113	Red 5	0–255	
114	Red 5 Fine	0–255	Fine adjustment of CH 113
115	Green 5	0–255	
116	Green 5 Fine	0–255	Fine adjustment of CH 115
117	Blue 5	0–255	
118	Blue 5 Fine	0–255	Fine adjustment of CH 117
119	White 5	0–255	
120	White 5 Fine	0–255	Fine adjustment of CH 119
121	Cool White 25	0–255	
122	Cool White 26	0–255	
123	Cool White 27	0–255	
124	Cool White 28	0–255	
125	Cool White 29	0–255	
126	Cool White 30	0–255	
127	Warm White 25	0–255	

CH	Function	DMX	Description
128	Warm White 26	0–255	
129	Warm White 27	0–255	
130	Warm White 28	0–255	
131	Warm White 29	0–255	
132	Warm White 30	0–255	
133	Tilt 6	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
134	Tilt 6 Fine	0–255	Fine adjustment of CH 133
135	Zoom 6	0	Wide
		1–254	Wide > Narrow
		255	Narrow
136	Red 6	0–255	
137	Red 6 Fine	0–255	Fine adjustment of CH 136
138	Green 6	0–255	
139	Green 6 Fine	0–255	Fine adjustment of CH 138
140	Blue 6	0–255	
141	Blue 6 Fine	0–255	Fine adjustment of CH 140
142	White 6	0–255	
143	White 6 Fine	0–255	Fine adjustment of CH 142
144	Cool White 31	0–255	
145	Cool White 32	0–255	
146	Cool White 33	0–255	
147	Cool White 34	0–255	
148	Cool White 35	0–255	
149	Cool White 36	0–255	
150	Warm White 31	0–255	
151	Warm White 32	0–255	
152	Warm White 33	0–255	
153	Warm White 34	0–255	
154	Warm White 35	0–255	
155	Warm White 36	0–255	
156	Tilt 7	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
157	Tilt 7 Fine	0–255	Fine adjustment of CH 156
158	Zoom 7	0	Wide
		1–254	Wide > Narrow
		255	Narrow
159	Red 7	0–255	

CH	Function	DMX	Description
160	Red 7 Fine	0–255	Fine adjustment of CH 159
161	Green 7	0–255	
162	Green 7 Fine	0–255	Fine adjustment of CH 161
163	Blue 7	0–255	
164	Blue 7 Fine	0–255	Fine adjustment of CH 163
165	White 7	0–255	
166	White 7 Fine	0–255	Fine adjustment of CH 165
167	Cool White 37	0–255	
168	Cool White 38	0–255	
169	Cool White 39	0–255	
170	Cool White 40	0–255	
171	Cool White 41	0–255	
172	Cool White 42	0–255	
173	Warm White 37	0–255	
174	Warm White 38	0–255	
175	Warm White 39	0–255	
176	Warm White 40	0–255	
177	Warm White 41	0–255	
178	Warm White 42	0–255	
179	Tilt 8	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
180	Tilt 8 Fine	0–255	Fine adjustment of CH 179
181	Zoom 8	0	Wide
		1–254	Wide > Narrow
		255	Narrow
182	Red 8	0–255	
183	Red 8 Fine	0–255	Fine adjustment of CH 182
184	Green 8	0–255	
185	Green 8 Fine	0–255	Fine adjustment of CH 184
186	Blue 8	0–255	
187	Blue 8 Fine	0–255	Fine adjustment of CH 186
188	White 8	0–255	
189	White 8 Fine	0–255	Fine adjustment of CH 188
190	Cool White 43	0–255	
191	Cool White 44	0–255	
192	Cool White 45	0–255	
193	Cool White 46	0–255	
194	Cool White 47	0–255	
195	Cool White 48	0–255	
196	Warm White 43	0–255	

CH	Function	DMX	Description
197	Warm White 44	0–255	
198	Warm White 45	0–255	
199	Warm White 46	0–255	
200	Warm White 47	0–255	
201	Warm White 48	0–255	
202	Tilt 9	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
203	Tilt 9 Fine	0–255	Fine adjustment of CH 202
204	Zoom 9	0	Wide
		1–254	Wide > Narrow
		255	Narrow
205	Red 9	0–255	
206	Red 9 Fine	0–255	Fine adjustment of CH 205
207	Green 9	0–255	
208	Green 9 Fine	0–255	Fine adjustment of CH 207
209	Blue 9	0–255	
210	Blue 9 Fine	0–255	Fine adjustment of CH 209
211	White 9	0–255	
212	White 9 Fine	0–255	Fine adjustment of CH 211
213	Cool White 49	0–255	
214	Cool White 50	0–255	
215	Cool White 51	0–255	
216	Cool White 52	0–255	
217	Cool White 53	0–255	
218	Cool White 54	0–255	
219	Warm White 49	0–255	
220	Warm White 50	0–255	
221	Warm White 51	0–255	
222	Warm White 52	0–255	
223	Warm White 53	0–255	
224	Warm White 54	0–255	
225	Tilt 10	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
226	Tilt 10 Fine	0–255	Fine adjustment of CH 225
227	Zoom 10	0	Wide
		1–254	Wide > Narrow
		255	Narrow
228	Red 10	0–255	

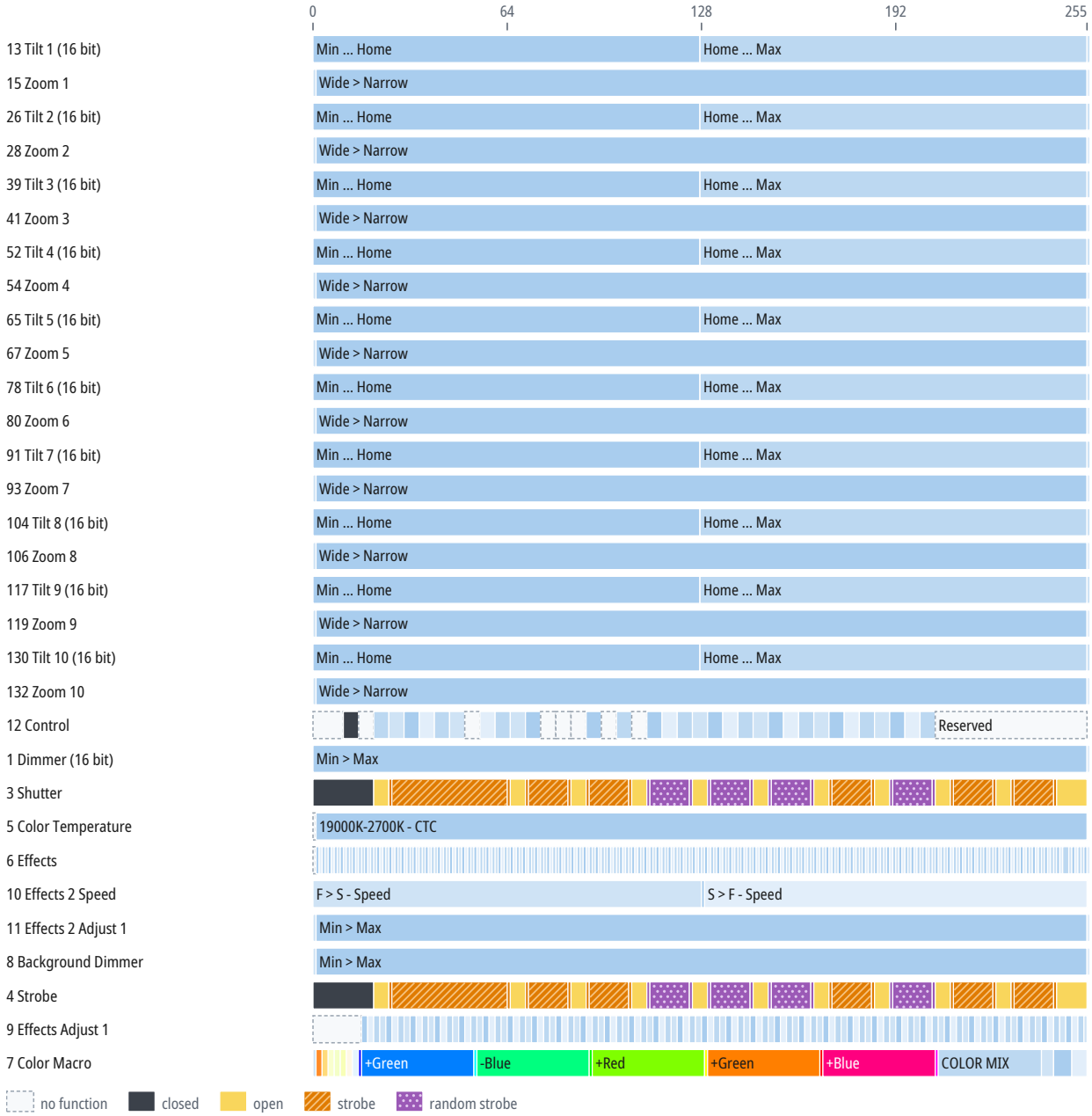
CH	Function	DMX	Description
229	Red 10 Fine	0–255	Fine adjustment of CH 228
230	Green 10	0–255	
231	Green 10 Fine	0–255	Fine adjustment of CH 230
232	Blue 10	0–255	
233	Blue 10 Fine	0–255	Fine adjustment of CH 232
234	White 10	0–255	
235	White 10 Fine	0–255	Fine adjustment of CH 234
236	Cool White 55	0–255	
237	Cool White 56	0–255	
238	Cool White 57	0–255	
239	Cool White 58	0–255	
240	Cool White 59	0–255	
241	Cool White 60	0–255	
242	Warm White 55	0–255	
243	Warm White 56	0–255	
244	Warm White 57	0–255	
245	Warm White 58	0–255	
246	Warm White 59	0–255	
247	Warm White 60	0–255	

Mode Single Control: 142ch

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 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Strobe at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 5 Color Temperature 0, CH 7 Color Macro 0, CH 16 Red 1 255, CH 18 Green 1 255, CH 29 Red 2 255, CH 31 Green 2 255, CH 42 Red 3 255, CH 44 Green 3 255, CH 55 Red 4 255, CH 57 Green 4 255, CH 68 Red 5 255, CH 70 Green 5 255, CH 81 Red 6 255, CH 83 Green 6 255, CH 94 Red 7 255, CH 96 Green 7 255, CH 107 Red 8 255, CH 109 Green 8 255, CH 120 Red 9 255, CH 122 Green 9 255, CH 133 Red 10 255, CH 135 Green 10 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “Single Control: 247ch” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter	0–19	Shutter Closed
		20–24	STROBE CLOSE/OPEN: Shutter Open
		25	STROBE: Fast
		26–63	STROBE: Fast > Slow
		64	STROBE: Slow
		65–69	STROBE OPEN: Shutter Open
		70	STROBE 100-0%: Fast
		71–83	STROBE 100-0%: Fast > Slow
		84	STROBE 100-0%: Slow
		85–89	STROBE OPEN: Shutter Open
		90	STROBE 0-100%: Fast
		91–103	STROBE 0-100%: Fast > Slow
		104	STROBE 0-100%: Slow
		105–109	STROBE OPEN: Shutter Open
		110	RANDOM STROBE: Fast
		111–123	RANDOM STROBE: Fast > Slow
		124	RANDOM STROBE: Slow
		125–129	STROBE OPEN: Shutter Open
		130	RANDOM STROBE 100-0%: Fast
		131–143	RANDOM STROBE 100-0%: Fast > Slow
		144	RANDOM STROBE 100-0%: Slow
		145–149	STROBE OPEN: Shutter Open
		150	RANDOM STROBE 0-100%: Fast
		151–163	RANDOM STROBE 0-100%: Fast > Slow
		164	RANDOM STROBE 0-100%: Slow
		165–169	STROBE OPEN: Shutter Open
		170	PULSE STROBE: Fast
		171–183	PULSE STROBE: Fast > Slow
		184	PULSE STROBE: Slow
		185–189	STROBE OPEN: Shutter Open
		190	RANDOM PULSE STROBE: Fast
		191–203	RANDOM PULSE STROBE: Fast > Slow
		204	RANDOM PULSE STROBE: Slow
		205–209	STROBE OPEN: Shutter Open
		210	STROBE 0-100-0%: Fast
		211–223	STROBE 0-100-0%: Fast > Slow
		224	STROBE 0-100-0%: Slow
		225–229	STROBE OPEN: Shutter Open
		230	RANDOM PULSE STROBE: Fast

CH	Function	DMX	Description
3	Shutter (continued)	231–243	RANDOM PULSE STROBE: Fast > Slow
		244	RANDOM PULSE STROBE: Slow
		245–255	STROBE OPEN: Shutter Open
4	Strobe	0–19	Shutter Closed
		20–24	STROBE CLOSE/OPEN: Shutter Open
		25	STROBE: Fast
		26–63	STROBE: Fast > Slow
		64	STROBE: Slow
		65–69	STROBE OPEN: Shutter Open
		70	STROBE 100-0%: Fast
		71–83	STROBE 100-0%: Fast > Slow
		84	STROBE 100-0%: Slow
		85–89	STROBE OPEN: Shutter Open
		90	STROBE 0-100%: Fast
		91–103	STROBE 0-100%: Fast > Slow
		104	STROBE 0-100%: Slow
		105–109	STROBE OPEN: Shutter Open
		110	RANDOM STROBE: Fast
		111–123	RANDOM STROBE: Fast > Slow
		124	RANDOM STROBE: Slow
		125–129	STROBE OPEN: Shutter Open
		130	RANDOM STROBE 100-0%: Fast
		131–143	RANDOM STROBE 100-0%: Fast > Slow
		144	RANDOM STROBE 100-0%: Slow
		145–149	STROBE OPEN: Shutter Open
		150	RANDOM STROBE 0-100%: Fast
		151–163	RANDOM STROBE 0-100%: Fast > Slow
		164	RANDOM STROBE 0-100%: Slow
		165–169	STROBE OPEN: Shutter Open
		170	PULSE STROBE: Fast
		171–183	PULSE STROBE: Fast > Slow
		184	PULSE STROBE: Slow
		185–189	STROBE OPEN: Shutter Open
		190	RANDOM PULSE STROBE: Fast
		191–203	RANDOM PULSE STROBE: Fast > Slow
		204	RANDOM PULSE STROBE: Slow
		205–209	STROBE OPEN: Shutter Open
		210	STROBE 0-100-0%: Fast
		211–223	STROBE 0-100-0%: Fast > Slow
		224	STROBE 0-100-0%: Slow
		225–229	STROBE OPEN: Shutter Open

CH	Function	DMX	Description
4	Strobe (continued)	230	RANDOM PULSE STROBE: Fast
		231–243	RANDOM PULSE STROBE: Fast > Slow
		244	RANDOM PULSE STROBE: Slow
		245–255	STROBE OPEN: Shutter Open
5	Color Temperature		Same as CH 5 in the mode “Single Control: 247ch” (p. 13)
6	Effects		Same as CH 8 in the mode “Single Control: 247ch” (p. 13)
7	Color Macro		Same as CH 15 in the mode “Single Control: 247ch” (p. 20)
8	Background Dimmer		Same as CH 16 in the mode “Single Control: 247ch” (p. 20)
9	Effects Adjust 1	0–15	LED BUILT-IN OFF: Off
		16–17	LED Built-In 1 - Macro
		18–19	LED Built-In 2 - Macro
		20–21	LED Built-In 3 - Macro
		22–23	LED Built-In 4 - Macro
		24–25	LED Built-In 5 - Macro
		26–27	LED Built-In 6 - Macro
		28–29	LED Built-In 7 - Macro
		30–31	LED Built-In 8 - Macro
		32–33	LED Built-In 9 - Macro
		34–35	LED Built-In 10 - Macro
		36–37	LED Built-In 11 - Macro
		38–39	LED Built-In 12 - Macro
		40–41	LED Built-In 13 - Macro
		42–43	LED Built-In 14 - Macro
		44–45	LED Built-In 15 - Macro
		46–47	LED Built-In 16 - Macro
		48–49	LED Built-In 17 - Macro
		50–51	LED Built-In 18 - Macro
		52–53	LED Built-In 19 - Macro
		54–55	LED Built-In 20 - Macro
		56–57	LED Built-In 21 - Macro
		58–59	LED Built-In 22 - Macro
		60–61	LED Built-In 23 - Macro
		62–63	LED Built-In 24 - Macro
		64–65	LED Built-In 25 - Macro
		66–67	LED Built-In 26 - Macro
		68–69	LED Built-In 27 - Macro
		70–71	LED Built-In 28 - Macro
		72–73	LED Built-In 29 - Macro
		74–75	LED Built-In 30 - Macro
		76–77	LED Built-In 31 - Macro
		78–79	LED Built-In 32 - Macro

CH	Function	DMX	Description
9	Effects Adjust 1 (continued)	80–81	LED Built-In 33 - Macro
		82–83	LED Built-In 34 - Macro
		84–85	LED Built-In 35 - Macro
		86–87	LED Built-In 36 - Macro
		88–89	LED Built-In 37 - Macro
		90–91	LED Built-In 38 - Macro
		92–93	LED Built-In 39 - Macro
		94–95	LED Built-In 40 - Macro
		96–97	LED Built-In 41 - Macro
		98–99	LED Built-In 42 - Macro
		100–101	LED Built-In 43 - Macro
		102–103	LED Built-In 44 - Macro
		104–105	LED Built-In 45 - Macro
		106–107	LED Built-In 46 - Macro
		108–109	LED Built-In 47 - Macro
		110–111	LED Built-In 48 - Macro
		112–113	LED Built-In 49 - Macro
		114–115	LED Built-In 50 - Macro
		116–117	LED Built-In 51 - Macro
		118–119	LED Built-In 52 - Macro
		120–121	LED Built-In 53 - Macro
		122–123	LED Built-In 54 - Macro
		124–125	LED Built-In 55 - Macro
		126–127	LED Built-In 56 - Macro
		128–129	LED Built-In 57 - Macro
		130–131	LED Built-In 58 - Macro
		132–133	LED Built-In 59 - Macro
		134–135	LED Built-In 60 - Macro
		136–137	LED Built-In 61 - Macro
		138–139	LED Built-In 62 - Macro
		140–141	LED Built-In 63 - Macro
		142–143	LED Built-In 64 - Macro
		144–145	LED Built-In 65 - Macro
		146–147	LED Built-In 66 - Macro
		148–149	LED Built-In 67 - Macro
		150–151	LED Built-In 68 - Macro
		152–153	LED Built-In 69 - Macro
		154–155	LED Built-In 70 - Macro
		156–157	LED Built-In 71 - Macro
		158–159	LED Built-In 72 - Macro
		160–161	LED Built-In 73 - Macro

CH	Function	DMX	Description
9	Effects Adjust 1 (continued)	162–163	LED Built-In 74 - Macro
		164–165	LED Built-In 75 - Macro
		166–167	LED Built-In 76 - Macro
		168–169	LED Built-In 77 - Macro
		170–171	LED Built-In 78 - Macro
		172–173	LED Built-In 79 - Macro
		174–175	LED Built-In 80 - Macro
		176–177	LED Built-In 81 - Macro
		178–179	LED Built-In 82 - Macro
		180–181	LED Built-In 83 - Macro
		182–183	LED Built-In 84 - Macro
		184–185	LED Built-In 85 - Macro
		186–187	LED Built-In 86 - Macro
		188–189	LED Built-In 87 - Macro
		190–191	LED Built-In 88 - Macro
		192–193	LED Built-In 89 - Macro
		194–195	LED Built-In 90 - Macro
		196–197	LED Built-In 91 - Macro
		198–199	LED Built-In 92 - Macro
		200–201	LED Built-In 93 - Macro
		202–203	LED Built-In 94 - Macro
		204–205	LED Built-In 95 - Macro
		206–207	LED Built-In 96 - Macro
		208–209	LED Built-In 97 - Macro
		210–211	LED Built-In 98 - Macro
		212–213	LED Built-In 99 - Macro
		214–215	LED Built-In 100 - Macro
		216–217	LED Built-In 101 - Macro
		218–219	LED Built-In 102 - Macro
		220–221	LED Built-In 103 - Macro
		222–223	LED Built-In 104 - Macro
		224–225	LED Built-In 105 - Macro
		226–227	LED Built-In 106 - Macro
		228–229	LED Built-In 107 - Macro
		230–231	LED Built-In 108 - Macro
		232–233	LED Built-In 109 - Macro
		234–235	LED Built-In 110 - Macro
		236–237	LED Built-In 111 - Macro
		238–239	LED Built-In 112 - Macro
		240–241	LED Built-In 113 - Macro
		242–243	LED Built-In 114 - Macro

CH	Function	DMX	Description
9	Effects Adjust 1 (continued)	244–245	LED Built-In 115 - Macro
		246–247	LED Built-In 116 - Macro
		248–249	LED Built-In 117 - Macro
		250–251	LED Built-In 118 - Macro
		252–253	LED Built-In 119 - Macro
		254–255	LED Built-In 120 - Macro
10	Effects 2 Speed		Same as CH 13 in the mode “Single Control: 247ch” (p. 19)
11	Effects 2 Adjust 1		Same as CH 14 in the mode “Single Control: 247ch” (p. 20)
12	Control		Same as CH 17 in the mode “Single Control: 247ch” (p. 20)
13	Tilt 1		Same as CH 18 in the mode “Single Control: 247ch” (p. 21)
14	Tilt 1 Fine	0–255	Fine adjustment of CH 13
15	Zoom 1		Same as CH 20 in the mode “Single Control: 247ch” (p. 21)
16	Red 1	0	Min
		1–254	Min > Max
		255	Max
17	Red 1 Fine	0–255	Fine adjustment of CH 16
18	Green 1	0	Min
		1–254	Min > Max
		255	Max
19	Green 1 Fine	0–255	Fine adjustment of CH 18
20	Blue 1	0–255	
21	Blue 1 Fine	0–255	Fine adjustment of CH 20
22	White 1	0–255	
23	White 1 Fine	0–255	Fine adjustment of CH 22
24	Cool White 1	0–255	
25	Warm White 1	0–255	
26	Tilt 2		Same as CH 41 in the mode “Single Control: 247ch” (p. 22)
27	Tilt 2 Fine	0–255	Fine adjustment of CH 26
28	Zoom 2		Same as CH 43 in the mode “Single Control: 247ch” (p. 22)
29	Red 2	0	Min
		1–254	Min > Max
		255	Max
30	Red 2 Fine	0–255	Fine adjustment of CH 29
31	Green 2	0	Min
		1–254	Min > Max
		255	Max
32	Green 2 Fine	0–255	Fine adjustment of CH 31
33	Blue 2	0–255	
34	Blue 2 Fine	0–255	Fine adjustment of CH 33
35	White 2	0–255	
36	White 2 Fine	0–255	Fine adjustment of CH 35

CH	Function	DMX	Description
37	Cool White 2	0–255	
38	Warm White 2	0–255	
39	Tilt 3		Same as CH 64 in the mode “Single Control: 247ch” (p. 23)
40	Tilt 3 Fine	0–255	Fine adjustment of CH 39
41	Zoom 3		Same as CH 66 in the mode “Single Control: 247ch” (p. 23)
42	Red 3	0	Min
		1–254	Min > Max
		255	Max
43	Red 3 Fine	0–255	Fine adjustment of CH 42
44	Green 3	0	Min
		1–254	Min > Max
		255	Max
45	Green 3 Fine	0–255	Fine adjustment of CH 44
46	Blue 3	0–255	
47	Blue 3 Fine	0–255	Fine adjustment of CH 46
48	White 3	0–255	
49	White 3 Fine	0–255	Fine adjustment of CH 48
50	Cool White 3	0–255	
51	Warm White 3	0–255	
52	Tilt 4		Same as CH 87 in the mode “Single Control: 247ch” (p. 23)
53	Tilt 4 Fine	0–255	Fine adjustment of CH 52
54	Zoom 4		Same as CH 89 in the mode “Single Control: 247ch” (p. 23)
55	Red 4	0	Min
		1–254	Min > Max
		255	Max
56	Red 4 Fine	0–255	Fine adjustment of CH 55
57	Green 4	0	Min
		1–254	Min > Max
		255	Max
58	Green 4 Fine	0–255	Fine adjustment of CH 57
59	Blue 4	0–255	
60	Blue 4 Fine	0–255	Fine adjustment of CH 59
61	White 4	0–255	
62	White 4 Fine	0–255	Fine adjustment of CH 61
63	Cool White 4	0–255	
64	Warm White 4	0–255	
65	Tilt 5		Same as CH 110 in the mode “Single Control: 247ch” (p. 24)
66	Tilt 5 Fine	0–255	Fine adjustment of CH 65
67	Zoom 5		Same as CH 112 in the mode “Single Control: 247ch” (p. 24)
68	Red 5	0	Min
		1–254	Min > Max

CH	Function	DMX	Description
68	Red 5 (continued)	255	Max
69	Red 5 Fine	0–255	Fine adjustment of CH 68
70	Green 5	0	Min
		1–254	Min > Max
		255	Max
71	Green 5 Fine	0–255	Fine adjustment of CH 70
72	Blue 5	0–255	
73	Blue 5 Fine	0–255	Fine adjustment of CH 72
74	White 5	0–255	
75	White 5 Fine	0–255	Fine adjustment of CH 74
76	Cool White 5	0–255	
77	Warm White 5	0–255	
78	Tilt 6		Same as CH 133 in the mode “Single Control: 247ch” (p. 25)
79	Tilt 6 Fine	0–255	Fine adjustment of CH 78
80	Zoom 6		Same as CH 135 in the mode “Single Control: 247ch” (p. 25)
81	Red 6	0	Min
		1–254	Min > Max
		255	Max
82	Red 6 Fine	0–255	Fine adjustment of CH 81
83	Green 6	0	Min
		1–254	Min > Max
		255	Max
84	Green 6 Fine	0–255	Fine adjustment of CH 83
85	Blue 6	0–255	
86	Blue 6 Fine	0–255	Fine adjustment of CH 85
87	White 6	0–255	
88	White 6 Fine	0–255	Fine adjustment of CH 87
89	Cool White 6	0–255	
90	Warm White 6	0–255	
91	Tilt 7		Same as CH 156 in the mode “Single Control: 247ch” (p. 25)
92	Tilt 7 Fine	0–255	Fine adjustment of CH 91
93	Zoom 7		Same as CH 158 in the mode “Single Control: 247ch” (p. 25)
94	Red 7	0	Min
		1–254	Min > Max
		255	Max
95	Red 7 Fine	0–255	Fine adjustment of CH 94
96	Green 7	0	Min
		1–254	Min > Max
		255	Max
97	Green 7 Fine	0–255	Fine adjustment of CH 96
98	Blue 7	0–255	
99	Blue 7 Fine	0–255	Fine adjustment of CH 98

CH	Function	DMX	Description
100	White 7	0–255	
101	White 7 Fine	0–255	Fine adjustment of CH 100
102	Cool White 7	0–255	
103	Warm White 7	0–255	
104	Tilt 8		Same as CH 179 in the mode “Single Control: 247ch” (p. 26)
105	Tilt 8 Fine	0–255	Fine adjustment of CH 104
106	Zoom 8		Same as CH 181 in the mode “Single Control: 247ch” (p. 26)
107	Red 8	0	Min
		1–254	Min > Max
		255	Max
108	Red 8 Fine	0–255	Fine adjustment of CH 107
109	Green 8	0	Min
		1–254	Min > Max
		255	Max
110	Green 8 Fine	0–255	Fine adjustment of CH 109
111	Blue 8	0–255	
112	Blue 8 Fine	0–255	Fine adjustment of CH 111
113	White 8	0–255	
114	White 8 Fine	0–255	Fine adjustment of CH 113
115	Cool White 8	0–255	
116	Warm White 8	0–255	
117	Tilt 9		Same as CH 202 in the mode “Single Control: 247ch” (p. 27)
118	Tilt 9 Fine	0–255	Fine adjustment of CH 117
119	Zoom 9		Same as CH 204 in the mode “Single Control: 247ch” (p. 27)
120	Red 9	0	Min
		1–254	Min > Max
		255	Max
121	Red 9 Fine	0–255	Fine adjustment of CH 120
122	Green 9	0	Min
		1–254	Min > Max
		255	Max
123	Green 9 Fine	0–255	Fine adjustment of CH 122
124	Blue 9	0–255	
125	Blue 9 Fine	0–255	Fine adjustment of CH 124
126	White 9	0–255	
127	White 9 Fine	0–255	Fine adjustment of CH 126
128	Cool White 9	0–255	
129	Warm White 9	0–255	
130	Tilt 10		Same as CH 225 in the mode “Single Control: 247ch” (p. 27)
131	Tilt 10 Fine	0–255	Fine adjustment of CH 130
132	Zoom 10		Same as CH 227 in the mode “Single Control: 247ch” (p. 27)
133	Red 10	0	Min

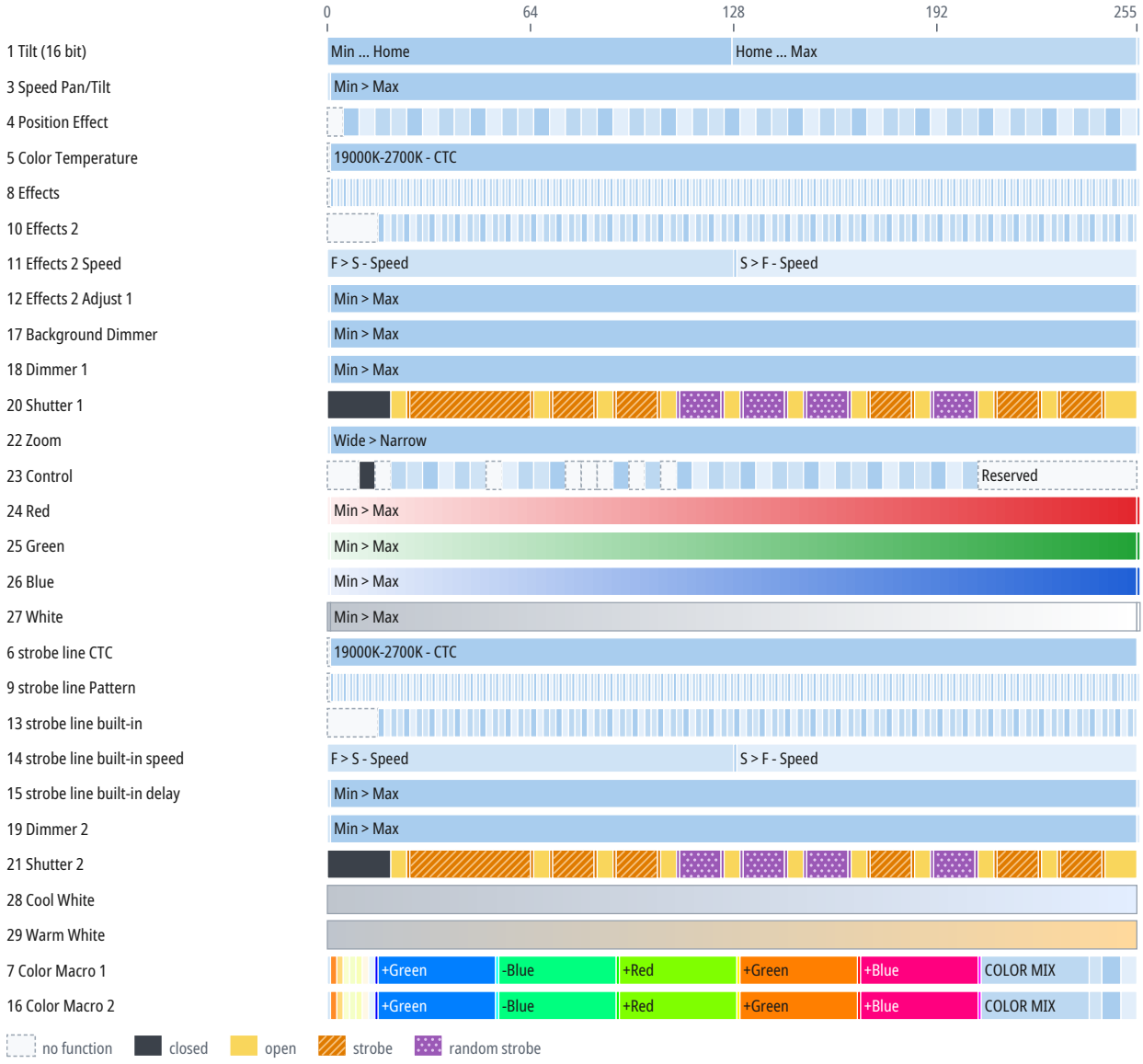
CH	Function	DMX	Description
133	Red 10 (continued)	1–254	Min > Max
		255	Max
134	Red 10 Fine	0–255	Fine adjustment of CH 133
135	Green 10	0	Min
		1–254	Min > Max
		255	Max
136	Green 10 Fine	0–255	Fine adjustment of CH 135
137	Blue 10	0–255	
138	Blue 10 Fine	0–255	Fine adjustment of CH 137
139	White 10	0–255	
140	White 10 Fine	0–255	Fine adjustment of CH 139
141	Cool White 10	0–255	
142	Warm White 10	0–255	

Mode Single Control: 29CH

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 6 strobe line CTC at 0 “Off”; CH 9 strobe line Pattern at 0 “Off”; CH 13 strobe line built-in at 0–15 “Off”; CH 20 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 21 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Color Temperature 0, CH 6 strobe line CTC 0, CH 7 Color Macro 1 0, CH 9 strobe line Pattern 0, CH 13 strobe line built-in 0, CH 14 strobe line built-in speed 0, CH 15 strobe line built-in delay 0, CH 16 Color Macro 2 0, CH 18 Dimmer 1 255, CH 19 Dimmer 2 255, CH 24 Red 255, CH 25 Green 255, CH 26 Blue 255, CH 27 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–127	Min … Home
		127	Home
		128–255	Home … Max
		255	Max
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Speed Pan/Tilt		P/T SPEED
		0	Min
		1–254	Min > Max
		255	Max
4	Position Effect	0–4	TILT MACRO: Off
		5–9	Tilt Macro 1
		10–14	Tilt Macro 2
		15–19	Tilt Macro 3
		20–24	Tilt Macro 4
		25–29	Tilt Macro 5
		30–34	Tilt Macro 6
		35–39	Tilt Macro 7
		40–44	Tilt Macro 8
		45–49	Tilt Macro 9
		50–54	Tilt Macro 10
		55–59	Tilt Macro 11
		60–64	Tilt Macro 12
		65–69	Tilt Macro 13
		70–74	Tilt Macro 14
		75–79	Tilt Macro 15
		80–84	Tilt Macro 16
		85–89	Tilt Macro 17
		90–94	Tilt Macro 18
		95–99	Tilt Macro 19
		100–104	Tilt Macro 20
		105–109	Tilt Macro 21
		110–114	Tilt Macro 22
		115–119	Tilt Macro 23
		120–124	Tilt Macro 24
		125–129	Tilt Macro 25
		130–134	Tilt Macro 26
		135–139	Tilt Macro 27
		140–144	Tilt Macro 28
		145–149	Tilt Macro 29
		150–154	Tilt Macro 30

CH	Function	DMX	Description
4	Position Effect (continued)	155–159	Tilt Macro 31
		160–164	Tilt Macro 32
		165–169	Tilt Macro 33
		170–174	Tilt Macro 34
		175–179	Tilt Macro 35
		180–184	Tilt Macro 36
		185–189	Tilt Macro 37
		190–194	Tilt Macro 38
		195–199	Tilt Macro 39
		200–204	Tilt Macro 40
		205–209	Tilt Macro 41
		210–214	Tilt Macro 42
		215–219	Tilt Macro 43
		220–224	Tilt Macro 44
		225–229	Tilt Macro 45
		230–234	Tilt Macro 46
		235–239	Tilt Macro 47
		240–244	Tilt Macro 48
		245–249	Tilt Macro 49
		250–254	Tilt Macro 50
		255	Tilt Macro 51
5	Color Temperature		Same as CH 5 in the mode “Single Control: 247ch” (p. 13)
6	strobe line CTC	0	CTC OFF: Off
		1–255	19000K-2700K - CTC (19000–2700 K)
7	Color Macro 1	0	COLOR MACRO: Open
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15	Blue
		16–52	+Green
		53	Cyan
		54–90	-Blue
		91	Green
		92–128	+Red
		129	Yellow
		130–166	+Green
		167	Red

CH	Function	DMX	Description
7	Color Macro 1 (continued)	168–204	+Blue
		205	Magenta
		206–239	COLOR MIX
		240–243	COLOR EFFECT MACRO
		244–249	Color Fade F > S
		250–255	Color Snap F > S
8	Effects		Same as CH 8 in the mode “Single Control: 247ch” (p. 13)
9	strobe line Pattern	0	PATTERNS OFF: Off
		1–246	Pattern 1...246 - Macro
		247–248	Pattern 247 - Macro
		249–255	Pattern 249...255 - Macro
10	Effects 2	0–15	LED BUILT-IN OFF: Off
		16–17	LED Built-In 1 - Macro
		18–19	LED Built-In 2 - Macro
		20–21	LED Built-In 3 - Macro
		22–23	LED Built-In 4 - Macro
		24–25	LED Built-In 5 - Macro
		26–27	LED Built-In 6 - Macro
		28–29	LED Built-In 7 - Macro
		30–31	LED Built-In 8 - Macro
		32–33	LED Built-In 9 - Macro
		34–35	LED Built-In 10 - Macro
		36–37	LED Built-In 11 - Macro
		38–39	LED Built-In 12 - Macro
		40–41	LED Built-In 13 - Macro
		42–43	LED Built-In 14 - Macro
		44–45	LED Built-In 15 - Macro
		46–47	LED Built-In 16 - Macro
		48–49	LED Built-In 17 - Macro
		50–51	LED Built-In 18 - Macro
		52–53	LED Built-In 19 - Macro
		54–55	LED Built-In 20 - Macro
		56–57	LED Built-In 21 - Macro
		58–59	LED Built-In 22 - Macro
		60–61	LED Built-In 23 - Macro
		62–63	LED Built-In 24 - Macro
		64–65	LED Built-In 25 - Macro
		66–67	LED Built-In 26 - Macro
		68–69	LED Built-In 27 - Macro
		70–71	LED Built-In 28 - Macro
		72–73	LED Built-In 29 - Macro

CH	Function	DMX	Description
10	Effects 2 (continued)	74–75	LED Built-In 30 - Macro
		76–77	LED Built-In 31 - Macro
		78–79	LED Built-In 32 - Macro
		80–81	LED Built-In 33 - Macro
		82–83	LED Built-In 34 - Macro
		84–85	LED Built-In 35 - Macro
		86–87	LED Built-In 36 - Macro
		88–89	LED Built-In 37 - Macro
		90–91	LED Built-In 38 - Macro
		92–93	LED Built-In 39 - Macro
		94–95	LED Built-In 40 - Macro
		96–97	LED Built-In 41 - Macro
		98–99	LED Built-In 42 - Macro
		100–101	LED Built-In 43 - Macro
		102–103	LED Built-In 44 - Macro
		104–105	LED Built-In 45 - Macro
		106–107	LED Built-In 46 - Macro
		108–109	LED Built-In 47 - Macro
		110–111	LED Built-In 48 - Macro
		112–113	LED Built-In 49 - Macro
		114–115	LED Built-In 50 - Macro
		116–117	LED Built-In 51 - Macro
		118–119	LED Built-In 52 - Macro
		120–121	LED Built-In 53 - Macro
		122–123	LED Built-In 54 - Macro
		124–125	LED Built-In 55 - Macro
		126–127	LED Built-In 56 - Macro
		128–129	LED Built-In 57 - Macro
		130–131	LED Built-In 58 - Macro
		132–133	LED Built-In 59 - Macro
		134–135	LED Built-In 60 - Macro
		136–137	LED Built-In 61 - Macro
		138–139	LED Built-In 62 - Macro
		140–141	LED Built-In 63 - Macro
		142–143	LED Built-In 64 - Macro
		144–145	LED Built-In 65 - Macro
		146–147	LED Built-In 66 - Macro
		148–149	LED Built-In 67 - Macro
		150–151	LED Built-In 68 - Macro
		152–153	LED Built-In 69 - Macro
		154–155	LED Built-In 70 - Macro

CH	Function	DMX	Description
10	Effects 2 (continued)	156–157	LED Built-In 71 - Macro
		158–159	LED Built-In 72 - Macro
		160–161	LED Built-In 73 - Macro
		162–163	LED Built-In 74 - Macro
		164–165	LED Built-In 75 - Macro
		166–167	LED Built-In 76 - Macro
		168–169	LED Built-In 77 - Macro
		170–171	LED Built-In 78 - Macro
		172–173	LED Built-In 79 - Macro
		174–175	LED Built-In 80 - Macro
		176–177	LED Built-In 81 - Macro
		178–179	LED Built-In 82 - Macro
		180–181	LED Built-In 83 - Macro
		182–183	LED Built-In 84 - Macro
		184–185	LED Built-In 85 - Macro
		186–187	LED Built-In 86 - Macro
		188–189	LED Built-In 87 - Macro
		190–191	LED Built-In 88 - Macro
		192–193	LED Built-In 89 - Macro
		194–195	LED Built-In 90 - Macro
		196–197	LED Built-In 91 - Macro
		198–199	LED Built-In 92 - Macro
		200–201	LED Built-In 93 - Macro
		202–203	LED Built-In 94 - Macro
		204–205	LED Built-In 95 - Macro
		206–207	LED Built-In 96 - Macro
		208–209	LED Built-In 97 - Macro
		210–211	LED Built-In 98 - Macro
		212–213	LED Built-In 99 - Macro
		214–215	LED Built-In 100 - Macro
		216–217	LED Built-In 101 - Macro
		218–219	LED Built-In 102 - Macro
		220–221	LED Built-In 103 - Macro
		222–223	LED Built-In 104 - Macro
		224–225	LED Built-In 105 - Macro
		226–227	LED Built-In 106 - Macro
		228–229	LED Built-In 107 - Macro
		230–231	LED Built-In 108 - Macro
		232–233	LED Built-In 109 - Macro
		234–235	LED Built-In 110 - Macro
		236–237	LED Built-In 111 - Macro

CH	Function	DMX	Description
10	Effects 2 (continued)	238–239	LED Built-In 112 - Macro
		240–241	LED Built-In 113 - Macro
		242–243	LED Built-In 114 - Macro
		244–245	LED Built-In 115 - Macro
		246–247	LED Built-In 116 - Macro
		248–249	LED Built-In 117 - Macro
		250–251	LED Built-In 118 - Macro
		252–253	LED Built-In 119 - Macro
		254–255	LED Built-In 120 - Macro
11	Effects 2 Speed		Same as CH 13 in the mode “Single Control: 247ch” (p. 19)
12	Effects 2 Adjust 1		Same as CH 14 in the mode “Single Control: 247ch” (p. 20)
13	strobe line built-in	0–15	LED BUILT-IN OFF: Off
		16–17	LED Built-In 1 - Macro
		18–19	LED Built-In 2 - Macro
		20–21	LED Built-In 3 - Macro
		22–23	LED Built-In 4 - Macro
		24–25	LED Built-In 5 - Macro
		26–27	LED Built-In 6 - Macro
		28–29	LED Built-In 7 - Macro
		30–31	LED Built-In 8 - Macro
		32–33	LED Built-In 9 - Macro
		34–35	LED Built-In 10 - Macro
		36–37	LED Built-In 11 - Macro
		38–39	LED Built-In 12 - Macro
		40–41	LED Built-In 13 - Macro
		42–43	LED Built-In 14 - Macro
		44–45	LED Built-In 15 - Macro
		46–47	LED Built-In 16 - Macro
		48–49	LED Built-In 17 - Macro
		50–51	LED Built-In 18 - Macro
		52–53	LED Built-In 19 - Macro
		54–55	LED Built-In 20 - Macro
		56–57	LED Built-In 21 - Macro
		58–59	LED Built-In 22 - Macro
		60–61	LED Built-In 23 - Macro
		62–63	LED Built-In 24 - Macro
		64–65	LED Built-In 25 - Macro
		66–67	LED Built-In 26 - Macro
		68–69	LED Built-In 27 - Macro
		70–71	LED Built-In 28 - Macro
		72–73	LED Built-In 29 - Macro

CH	Function	DMX	Description
13	strobe line built-in (continued)	74–75	LED Built-In 30 - Macro
		76–77	LED Built-In 31 - Macro
		78–79	LED Built-In 32 - Macro
		80–81	LED Built-In 33 - Macro
		82–83	LED Built-In 34 - Macro
		84–85	LED Built-In 35 - Macro
		86–87	LED Built-In 36 - Macro
		88–89	LED Built-In 37 - Macro
		90–91	LED Built-In 38 - Macro
		92–93	LED Built-In 39 - Macro
		94–95	LED Built-In 40 - Macro
		96–97	LED Built-In 41 - Macro
		98–99	LED Built-In 42 - Macro
		100–101	LED Built-In 43 - Macro
		102–103	LED Built-In 44 - Macro
		104–105	LED Built-In 45 - Macro
		106–107	LED Built-In 46 - Macro
		108–109	LED Built-In 47 - Macro
		110–111	LED Built-In 48 - Macro
		112–113	LED Built-In 49 - Macro
		114–115	LED Built-In 50 - Macro
		116–117	LED Built-In 51 - Macro
		118–119	LED Built-In 52 - Macro
		120–121	LED Built-In 53 - Macro
		122–123	LED Built-In 54 - Macro
		124–125	LED Built-In 55 - Macro
		126–127	LED Built-In 56 - Macro
		128–129	LED Built-In 57 - Macro
		130–131	LED Built-In 58 - Macro
		132–133	LED Built-In 59 - Macro
		134–135	LED Built-In 60 - Macro
		136–137	LED Built-In 61 - Macro
		138–139	LED Built-In 62 - Macro
		140–141	LED Built-In 63 - Macro
		142–143	LED Built-In 64 - Macro
		144–145	LED Built-In 65 - Macro
		146–147	LED Built-In 66 - Macro
		148–149	LED Built-In 67 - Macro
		150–151	LED Built-In 68 - Macro
		152–153	LED Built-In 69 - Macro
		154–155	LED Built-In 70 - Macro

CH	Function	DMX	Description
13	strobe line built-in (continued)	156–157	LED Built-In 71 - Macro
		158–159	LED Built-In 72 - Macro
		160–161	LED Built-In 73 - Macro
		162–163	LED Built-In 74 - Macro
		164–165	LED Built-In 75 - Macro
		166–167	LED Built-In 76 - Macro
		168–169	LED Built-In 77 - Macro
		170–171	LED Built-In 78 - Macro
		172–173	LED Built-In 79 - Macro
		174–175	LED Built-In 80 - Macro
		176–177	LED Built-In 81 - Macro
		178–179	LED Built-In 82 - Macro
		180–181	LED Built-In 83 - Macro
		182–183	LED Built-In 84 - Macro
		184–185	LED Built-In 85 - Macro
		186–187	LED Built-In 86 - Macro
		188–189	LED Built-In 87 - Macro
		190–191	LED Built-In 88 - Macro
		192–193	LED Built-In 89 - Macro
		194–195	LED Built-In 90 - Macro
		196–197	LED Built-In 91 - Macro
		198–199	LED Built-In 92 - Macro
		200–201	LED Built-In 93 - Macro
		202–203	LED Built-In 94 - Macro
		204–205	LED Built-In 95 - Macro
		206–207	LED Built-In 96 - Macro
		208–209	LED Built-In 97 - Macro
		210–211	LED Built-In 98 - Macro
		212–213	LED Built-In 99 - Macro
		214–215	LED Built-In 100 - Macro
		216–217	LED Built-In 101 - Macro
		218–219	LED Built-In 102 - Macro
		220–221	LED Built-In 103 - Macro
		222–223	LED Built-In 104 - Macro
		224–225	LED Built-In 105 - Macro
		226–227	LED Built-In 106 - Macro
		228–229	LED Built-In 107 - Macro
		230–231	LED Built-In 108 - Macro
		232–233	LED Built-In 109 - Macro
		234–235	LED Built-In 110 - Macro
		236–237	LED Built-In 111 - Macro

CH	Function	DMX	Description
13	strobe line built-in (continued)	238–239	LED Built-In 112 - Macro
		240–241	LED Built-In 113 - Macro
		242–243	LED Built-In 114 - Macro
		244–245	LED Built-In 115 - Macro
		246–247	LED Built-In 116 - Macro
		248–249	LED Built-In 117 - Macro
		250–251	LED Built-In 118 - Macro
		252–253	LED Built-In 119 - Macro
		254–255	LED Built-In 120 - Macro
14	strobe line built-in speed		LED MACRO SPEED
		0–127	F > S - Speed
		128	Stop Loop
		129–255	S > F - Speed
15	strobe line built-in delay		LED MACRO DELAY
		0	Min
		1–254	Min > Max
		255	Max
16	Color Macro 2	0	COLOR MACRO: Open
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15	Blue
		16–52	+Green
		53	Cyan
		54–90	-Blue
		91	Green
		92–128	+Red
		129	Yellow
		130–166	+Green
		167	Red
		168–204	+Blue
		205	Magenta
		206–239	COLOR MIX
		240–243	COLOR EFFECT MACRO
		244–249	Color Fade F > S
		250–255	Color Snap F > S
17	Background Dimmer		Same as CH 16 in the mode “Single Control: 247ch” (p. 20)

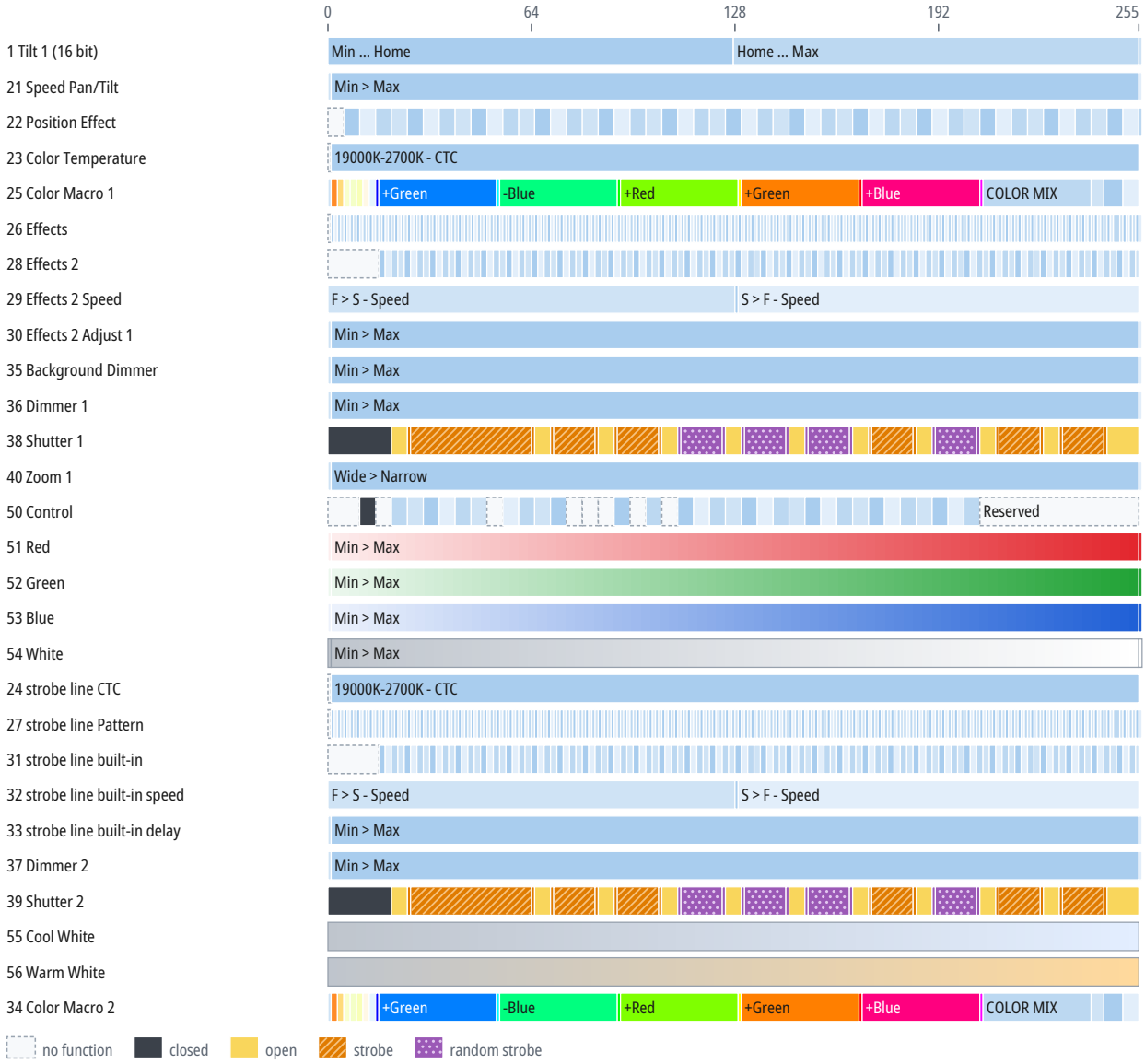
CH	Function	DMX	Description
18	Dimmer 1	0	Min
		1–254	Min > Max
		255	Max
19	Dimmer 2	0	Min
		1–254	Min > Max
		255	Max
20	Shutter 1		Same as CH 3 in the mode “Single Control: 247ch” (p. 11)
21	Shutter 2		Same as CH 4 in the mode “Single Control: 247ch” (p. 12)
22	Zoom	0	Wide
		1–254	Wide > Narrow
		255	Narrow
23	Control		Same as CH 17 in the mode “Single Control: 247ch” (p. 20)
24	Red	0	Min
		1–254	Min > Max
		255	Max
25	Green	0	Min
		1–254	Min > Max
		255	Max
26	Blue	0	Min
		1–254	Min > Max
		255	Max
27	White	0	Min
		1–254	Min > Max
		255	Max
28	Cool White	0–255	
29	Warm White	0–255	

Mode Single Control: 56CH

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 24 strobe line CTC at 0 “Off”; CH 27 strobe line Pattern at 0 “Off”; CH 31 strobe line built-in at 0–15 “Off”; CH 38 Shutter 1 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 39 Shutter 2 at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 23 Color Temperature 0, CH 24 strobe line CTC 0, CH 25 Color Macro 1 0, CH 27 strobe line Pattern 0, CH 31 strobe line built-in 0, CH 32 strobe line built-in speed 0, CH 33 strobe line built-in delay 0, CH 34 Color Macro 2 0, CH 36 Dimmer 1 255, CH 37 Dimmer 2 255, CH 51 Red 255, CH 52 Green 255, CH 53 Blue 255, CH 54 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt 1	0–127	Min ... Home
		127	Home
		128–255	Home ... Max
		255	Max
2	Tilt 1 Fine	0–255	Fine adjustment of CH 1
21	Speed Pan/Tilt		Same as CH 3 in the mode “Single Control: 29CH” (p. 41)
22	Position Effect		Same as CH 4 in the mode “Single Control: 29CH” (p. 41)
23	Color Temperature		Same as CH 5 in the mode “Single Control: 247ch” (p. 13)
24	strobe line CTC		Same as CH 6 in the mode “Single Control: 29CH” (p. 42)
25	Color Macro 1		Same as CH 7 in the mode “Single Control: 29CH” (p. 42)
26	Effects		Same as CH 8 in the mode “Single Control: 247ch” (p. 13)
27	strobe line Pattern		Same as CH 9 in the mode “Single Control: 29CH” (p. 43)
28	Effects 2		Same as CH 10 in the mode “Single Control: 29CH” (p. 43)
29	Effects 2 Speed		Same as CH 13 in the mode “Single Control: 247ch” (p. 19)
30	Effects 2 Adjust 1		Same as CH 14 in the mode “Single Control: 247ch” (p. 20)
31	strobe line built-in		Same as CH 13 in the mode “Single Control: 29CH” (p. 46)
32	strobe line built-in speed		Same as CH 14 in the mode “Single Control: 29CH” (p. 49)
33	strobe line built-in delay		Same as CH 15 in the mode “Single Control: 29CH” (p. 49)
34	Color Macro 2		Same as CH 16 in the mode “Single Control: 29CH” (p. 49)
35	Background Dimmer		Same as CH 16 in the mode “Single Control: 247ch” (p. 20)
36	Dimmer 1		Same as CH 18 in the mode “Single Control: 29CH” (p. 50)
37	Dimmer 2		Same as CH 19 in the mode “Single Control: 29CH” (p. 50)
38	Shutter 1		Same as CH 3 in the mode “Single Control: 247ch” (p. 11)
39	Shutter 2		Same as CH 4 in the mode “Single Control: 247ch” (p. 12)
40	Zoom 1	0	Wide
		1–254	Wide > Narrow
		255	Narrow
50	Control		Same as CH 17 in the mode “Single Control: 247ch” (p. 20)
51	Red		Same as CH 24 in the mode “Single Control: 29CH” (p. 50)
52	Green		Same as CH 25 in the mode “Single Control: 29CH” (p. 50)
53	Blue		Same as CH 26 in the mode “Single Control: 29CH” (p. 50)
54	White		Same as CH 27 in the mode “Single Control: 29CH” (p. 50)
55	Cool White	0–255	
56	Warm White	0–255	

CH 1–20: 10 cells of 2 channels each. Every cell works as cell 1 in the table above (CH 1–2); the table below gives each cell's channel numbers.

Cell	Tilt	Tilt Fine	Cell	Tilt	Tilt Fine	Cell	Tilt	Tilt Fine	Cell	Tilt	Tilt Fine
1	1	2	2	3	4	3	5	6	4	7	8
5	9	10	6	11	12	7	13	14	8	15	16
9	17	18	10	19	20						

CH 40–49: 10 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 40); the table

below gives each cell's channel numbers.

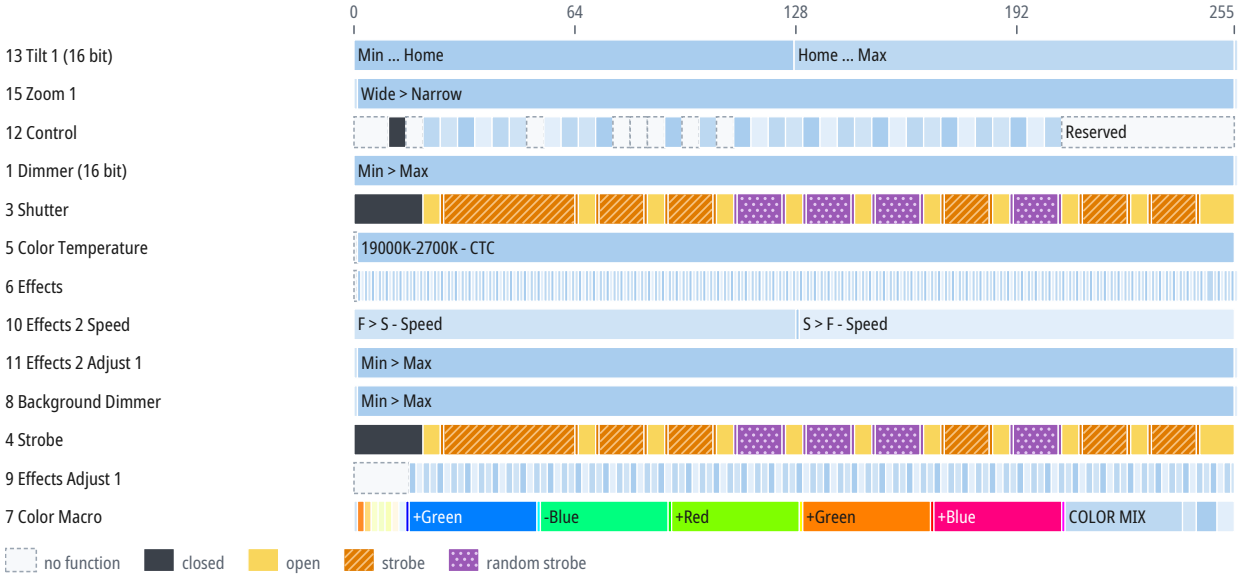
Cell	Zoom	Cell	Zoom	Cell	Zoom	Cell	Zoom	Cell	Zoom	Cell	Zoom
1	40	2	41	3	42	4	43	5	44	6	45
7	46	8	47	9	48	10	49				

Mode Single Control:102ch

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 3 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”; CH 4 Strobe at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Shutter Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 5 Color Temperature 0, CH 7 Color Macro 0, CH 16 Red 255 (the same in each of the 10 cells), CH 17 Green 255 (the same in each of the 10 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “Single Control: 247ch” (p. 11)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 3 in the mode “Single Control: 142ch” (p. 30)
4	Strobe		Same as CH 4 in the mode “Single Control: 142ch” (p. 31)
5	Color Temperature		Same as CH 5 in the mode “Single Control: 247ch” (p. 13)
6	Effects		Same as CH 8 in the mode “Single Control: 247ch” (p. 13)
7	Color Macro		Same as CH 15 in the mode “Single Control: 247ch” (p. 20)
8	Background Dimmer		Same as CH 16 in the mode “Single Control: 247ch” (p. 20)
9	Effects Adjust 1		Same as CH 9 in the mode “Single Control: 142ch” (p. 32)
10	Effects 2 Speed		Same as CH 13 in the mode “Single Control: 247ch” (p. 19)
11	Effects 2 Adjust 1		Same as CH 14 in the mode “Single Control: 247ch” (p. 20)
12	Control		Same as CH 17 in the mode “Single Control: 247ch” (p. 20)
13	Tilt 1	0–127	Min ... Home

CH	Function	DMX	Description
13	Tilt 1 (continued)	127	Home
		128–255	Home … Max
		255	Max
14	Tilt 1 Fine	0–255	Fine adjustment of CH 13
15	Zoom 1	0	Wide
		1–254	Wide > Narrow
		255	Narrow
16	Red 1	0	Min
		1–254	Min > Max
		255	Max
17	Green 1	0	Min
		1–254	Min > Max
		255	Max
18	Blue 1	0–255	
19	White 1	0–255	
20	Cool White 1	0–255	
21	Warm White 1	0–255	

CH 13–102: 10 cells of 9 channels each. Every cell works as cell 1 in the table above (CH 13–21); the table below gives each cell's channel numbers.

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

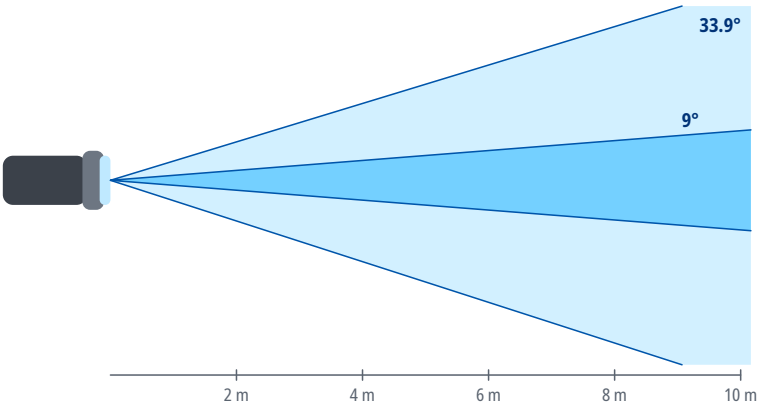
10 Technical specifications

Parameter	Value
Light source	LED
Zoom	9–33.9°
Tilt	200°
RDM	yes (manufacturer ID 0x01DF, device model ID 0x01DF)
Weight	30.5 kg
Operating temperature	-20 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–19000 K
Strobe frequency	0.1–20 Hz

Spot diameter



Distance	Ø 9°	Ø 33.9°
2 m	0.31 m	1.2 m
4 m	0.63 m	2.4 m
6 m	0.94 m	3.7 m
8 m	1.3 m	4.9 m
10 m	1.6 m	6.1 m
15 m	2.4 m	9.1 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.