DMX REFERENCE

# Nando 502

Ayrton Nando 502

Ayrton




| | |
|---|---|
| **Manufacturer** | Ayrton |
| **GDTF file** | Ayrton_Nando_502_161673.gdtf |
| **GDTF revision** | V2.31 · 2026-09-23 |
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# 1 About this manual

This document describes the Ayrton Nando 502 by Ayrton. It was compiled from the GDTF file Ayrton_Nando_502_161673.gdtf from the GDTF-Share library.

File revision: “V2.31”.

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 Ayrton; 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 |
|---|---|
| Power consumption | 550 W |
| Weight | 14.5 kg |

### DMX modes

| Mode | Channels | Units in one universe | First start addresses |
|---|---|---|---|
| Extended Pixel 1U | 86 | 5 | 1, 87, 173, 259, ... |
| Extended Ring 1U | 46 | 11 | 1, 47, 93, 139, ... |
| Standard | 37 | 13 | 1, 38, 75, 112, ... |
| Basic | 26 | 19 | 1, 27, 53, 79, ... |
| Extended Pixel 2U | 86 | 5 | 1, 87, 173, 259, ... |
| Extended Ring 2U | 46 | 11 | 1, 47, 93, 139, ... |

### No light? Check these channels

- Extended Pixel 1U: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0
- Extended Ring 1U: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0
- Standard: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0
- Basic: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer above 0
- Extended Pixel 2U: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0
- Extended Ring 2U: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

# 3 Safety instructions


Read the manual before use


Risk of electric shock


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**

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

**⚠ 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.

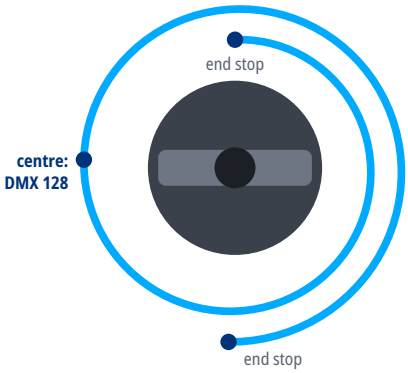
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

**Pan 542°**

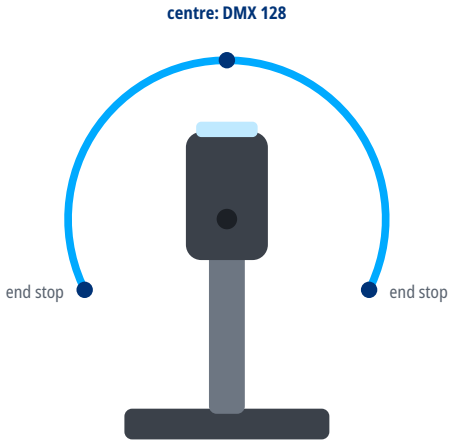
top view




**full travel in 2.7 s**

**Tilt 233°**

side view




**full travel in 1.3 s**

Full-travel times as stated in the GDTF file.

# 5 Installation

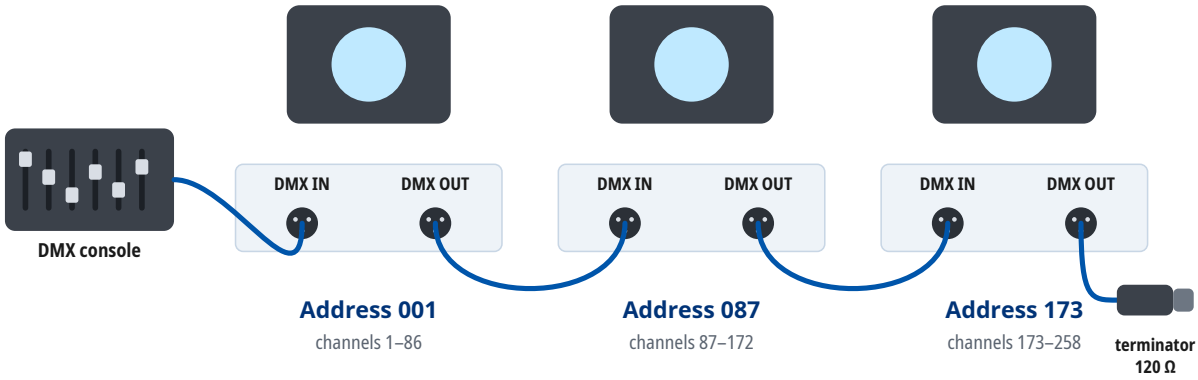
**⚠ WARNING**

- 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: 14.5 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 Extended Pixel 1U: every unit occupies 86 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 “Extended Pixel 1U”: 86.
- 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 “Extended Pixel 1U”, you can use, for example, the start addresses 1, 87, 173, 259.
- 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

| | Extended Pixel 1U<br>86 channels | Extended Ring 1U<br>46 channels | Standard<br>37 channels | Basic<br>26 channels | Extended Pixel 2U<br>86 channels | Extended Ring 2U<br>46 channels |
|---|---|---|---|---|---|---|
| Pan / Tilt | 1, 3 | 1, 3 | 1, 3 | 1, 3 | 1, 3 | 1, 3 |
| Dimmer | 17, 35 | 17, 35 | 17, 35 | 17 | 17, 35 | 17, 35 |
| Shutter / strobe | 16, 37 | 16, 37 | 16, 37 | 16 | 16, 37 | 16, 37 |
| Color mixing | 56 channels (8–86) | 16 channels (8–46) | 8 channels (8–34) | 4× (8–14) | 1–86 | 15 channels (1–34) |
| Color temperature | 19 | 19 | 19 | 19 | 19 | 19 |
| Color wheel | 20 | 20 | 20 | 20 | 20 | 20 |
| Zoom | 23 | 23 | 23 | 23 | 23 | 23 |
| Pixel control | 12 cells | ✓ | ✓ | | 12 cells | ✓ |

## Color wheel

1 Open DMX 0
2 LAVENDER TINT DMX 3
3 MEDIUM BASTARD AMBER DMX 4
4 PALE YELLOW DMX 7
5 DARK SALMON DMX 8
6 PALE AMBER GOLD DMX 9
7 MEDIUM YELLOW DMX 10
8 STRAW TINT DMX 13
9 DEEP STRAW DMX 15
10 SURPRISE PEACH DMX 17
11 MEDIUM AMBER DMX 20
12 GOLD AMBER DMX 21
13 DARK AMBER DMX 22
14 SCARLET DMX 24
15 SUNSET RED DMX 25
16 BRIGHT RED DMX 26
17 PALSA RED DMX 29
18 LIGHT PINK DMX 35
19 MEDIUM PINK DMX 36
20 DARK MAGENTA DMX 46
21 DARK PURPLE DMX 48
22 LIGHT LAVENDER DMX 52
23 PALE LAVENDER DMX 53
24 LAVENDER DMX 58
25 PALE BLUE DMX 63
26 SKY BLUE DMX 68
27 TOKIO BLUE DMX 71
28 EVENING BLUE DMX 75
29 JUST BLUE DMX 79
30 DEEPER BLUE DMX 85
31 LIME GREEN DMX 88
32 MOSS GREEN DMX 89
33 DARKYELLOW GREEN DMX 90
34 SPRING YELLOW DMX 100
35 YELLOW DMX 101
36 LIGHT AMBER DMX 102
37 STRAW DMX 103
38 DEEP AMBER DMX 104
39 ORANGE DMX 105
40 PRIMAY RED DMX 106
41 LIGHT ROSE DMX 107
42 ENGLISH ROSE DMX 108
43 LIGHT SALMON DMX 109
44 MIDDLE ROSE DMX 110
45 DARK PINK DMX 111
46 MAGENTA DMX 113
47 MEDIUM BLUE GREEN DMX 116
48 LIGHT BLUE DMX 118

49 DARK BLUE **DMX 119**

50 DEEP BLUE **DMX 120**

51 DARK GREEN **DMX 124**

52 MAUVE **DMX 126**

53 SMOKEY PINK **DMX 127**

54 BRIGHT PINK **DMX 128**

55 MEDIUM BLUE **DMX 132**

56 GOLDEN AMBER **DMX 134**

57 PALE LAVENDER 1 **DMX 136**

58 SPECIAL LAVENDER **DMX 137**

59 PALE GREEN **DMX 138**

60 PRIMARY GREEN **DMX 139**

61 SUMMER BLUE **DMX 140**

62 BRIGHT BLUE **DMX 141**

63 PALE VIOLET **DMX 142**

64 PALE NAVY BLUE **DMX 143**

65 APRICOT **DMX 147**

66 BRIGHT ROSE **DMX 148**

67 GOLD TINT **DMX 151**

68 PALE GOLD **DMX 152**

69 PALE SALMON **DMX 153**

70 PALE ROSE **DMX 154**

71 CHOCOLATE **DMX 156**

72 DEEP ORANGE **DMX 158**

73 NO COLOR STRAW **DMX 159**

74 SLATE BLUE **DMX 161**

75 BASTARD AMBER **DMX 162**

76 FLAME RED **DMX 164**

77 DAYLIGHT BLUE **DMX 165**

78 LILAC TINT **DMX 169**

79 DEEP LAVENDER **DMX 170**

80 LAGOON BLUE **DMX 172**

81 DARK STEEL BLUE **DMX 174**

82 LOVING AMBER **DMX 176**

83 CHROME ORANGE **DMX 179**

84 DARK LAVENDER **DMX 180**

85 CONGO BLUE **DMX 181**

86 LIGHT RED **DMX 182**

87 MOONLIGHT BLUE **DMX 183**

88 FLESH PINK **DMX 192**

89 ROSY AMBER **DMX 193**

90 SURPRISE PINK **DMX 194**

91 ZENITH BLUE **DMX 195**

92 TRUE BLUE **DMX 196**

93 ALICE BLUE **DMX 197**

94 PALACE BLUE **DMX 198**

95 FULL CT BLUE **DMX 201**

96 1/2 CT BLUE **DMX 202**

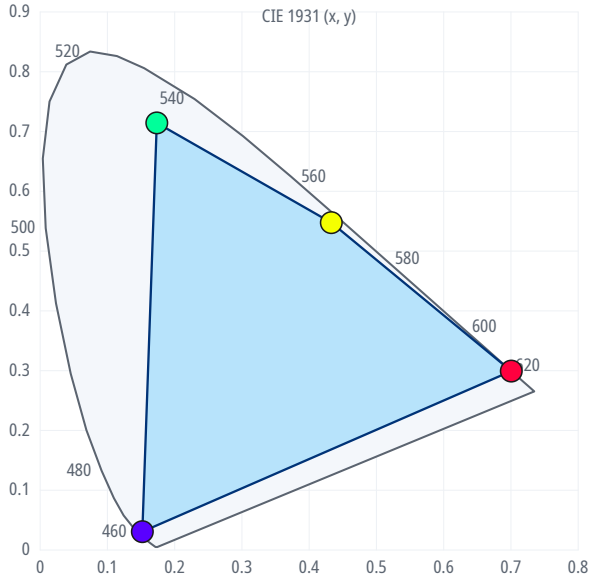
97 1/4 CT BLUE
DMX 203

98 FULL CT ORANGE
DMX 204

99 1/2 CT ORANGE
DMX 205

100 1/4 CT ORANGE
DMX 206

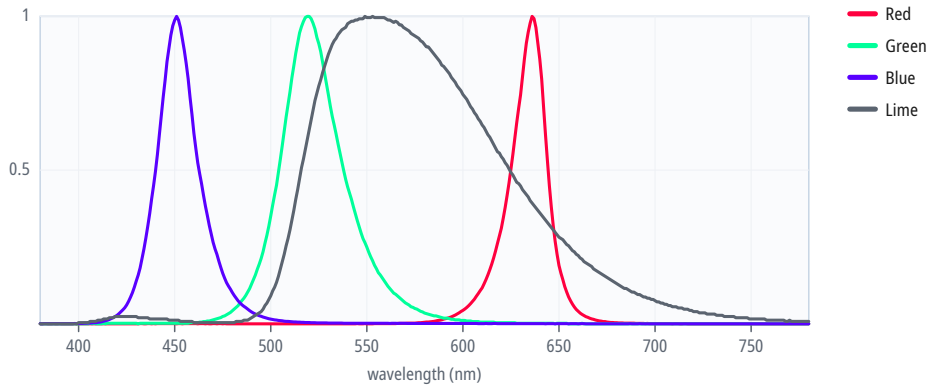
## LED colors and the colors they mix




| LED | x | y | nm |
|---|---|---|---|
| Red | 0.701 | 0.299 | 636 |
| Green | 0.173 | 0.714 | 519 |
| Blue | 0.152 | 0.031 | 451 |
| Lime | 0.433 | 0.548 | 546 |

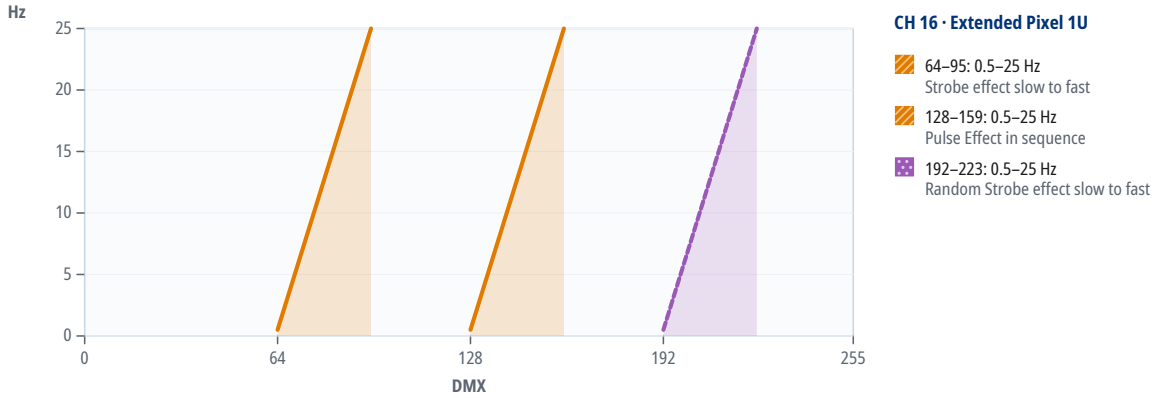
The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

## Spectra of the light sources

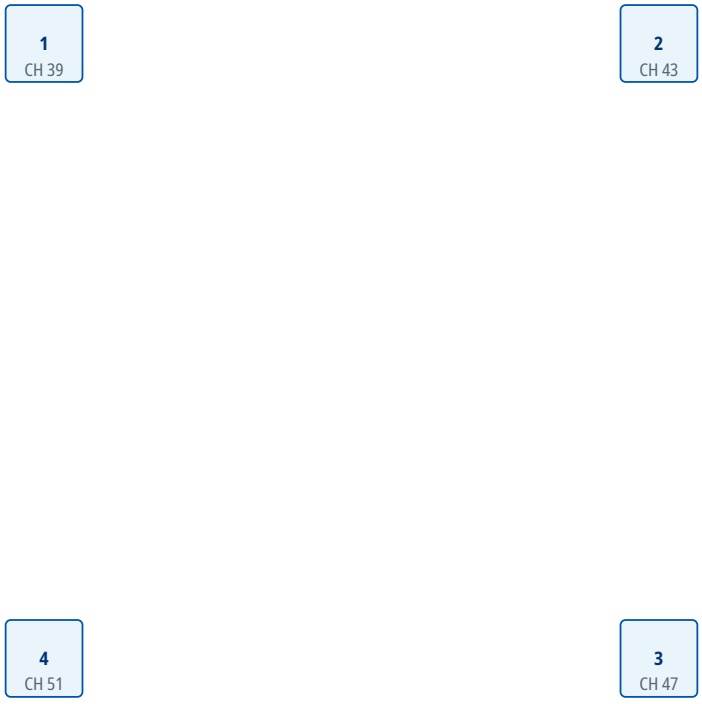



Relative spectrum of each light source as the GDTF file states it; each curve is scaled to its own maximum.

## Strobe rate




## Cells (pixels)




4 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Extended Pixel 1U”.

# 9 DMX channels

### Units in one DMX universe




### Start addresses of 20 units in the mode “Extended Pixel 1U”

| Unit | Start address | Unit | Start address | Unit | Start address | Unit | Start address |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | U2 · 1 | 11 | U3 · 1 | 16 | U4 · 1 |
| 2 | 87 | 7 | U2 · 87 | 12 | U3 · 87 | 17 | U4 · 87 |
| 3 | 173 | 8 | U2 · 173 | 13 | U3 · 173 | 18 | U4 · 173 |
| 4 | 259 | 9 | U2 · 259 | 14 | U3 · 259 | 19 | U4 · 259 |
| 5 | 345 | 10 | U2 · 345 | 15 | U3 · 345 | 20 | U4 · 345 |

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

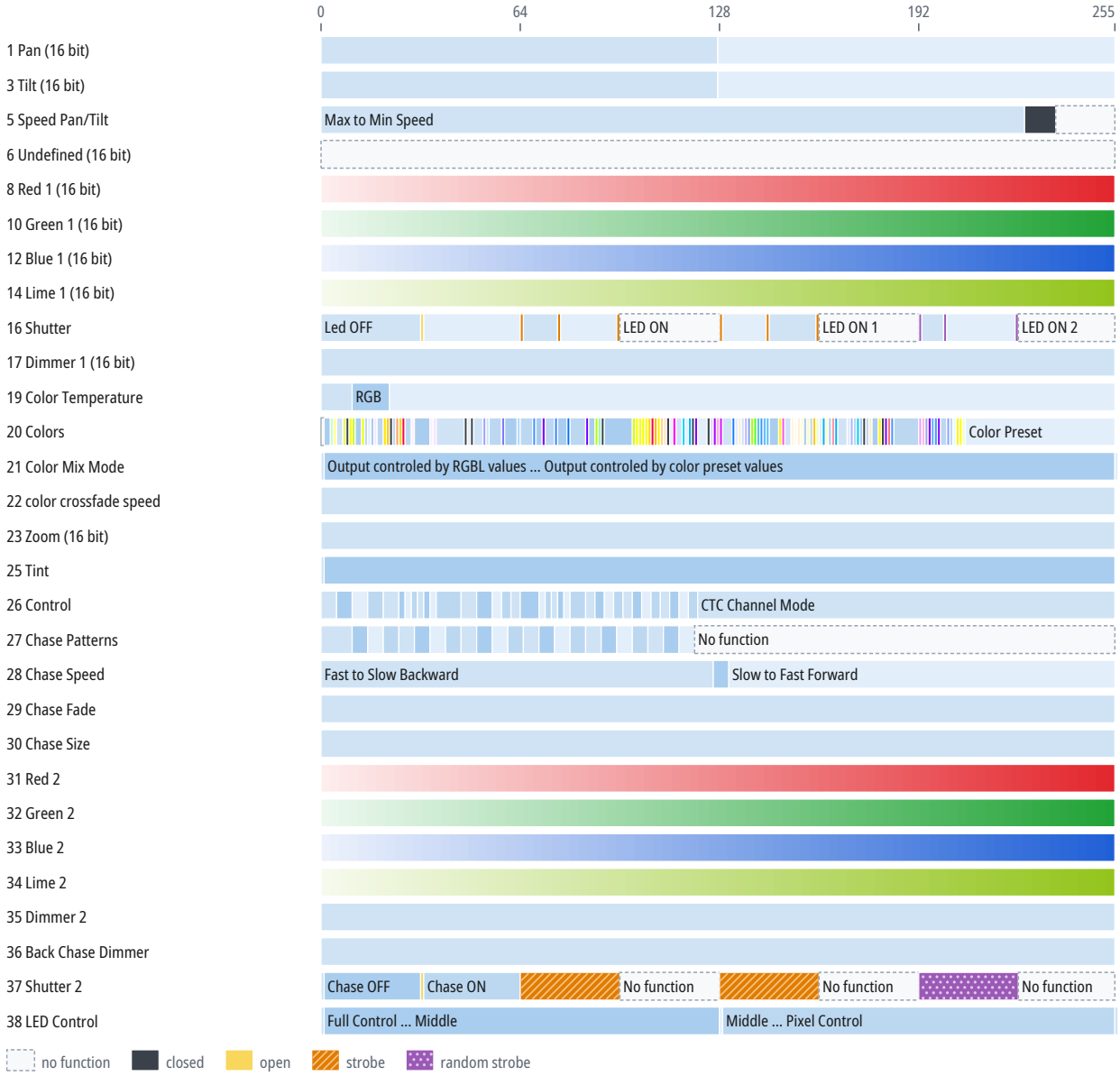
| Mode | Channels | RDM personality |
|---|---|---|
| Extended Pixel 1U | 86 | 4 |
| Extended Ring 1U | 46 | 3 |
| Standard | 37 | 1 |
| Basic | 26 | 2 |
| Extended Pixel 2U | 86 | 4 |
| Extended Ring 2U | 46 | 3 |

## Mode Extended Pixel 1U

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 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 255, CH 10 Green 1 255, CH 12 Blue 1 255, CH 14 Lime 1 255, CH 16 Shutter 32, CH 17 Dimmer 1 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0, CH 37 Shutter 2 32, CH 39 Red 255 (the same in each of the 12 cells), CH 40 Green 255 (the same in each of the 12 cells), CH 41 Blue 255 (the same in each of the 12 cells), CH 42 Lime 255 (the same in each of the 12 cells).

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | 0–127 | Pan 1 |
| | | 128 | Home |
| | | 128–255 | Pan 1 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | 0–127 | Tilt 1 |
| | | 128 | Home |
| | | 128–255 | Tilt 1 |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | 0–225 | Max to Min Speed |
| | | 226–235 | Blackout by movement |
| | | 236–255 | No Fonction |
| **6** | Undefined | 0–255 | |
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red 1 | 0–255 | |
| **9** | Red 1 Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green 1 | 0–255 | |
| **11** | Green 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue 1 | 0–255 | |
| **13** | Blue 1 Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime 1 | 0–255 | |
| **15** | Lime 1 Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | 0–31 | Led OFF |
| | | 32–63 | Led ON |
| | | 64 | Strobe slow |
| | | 65–75 | Strobe slow ... Strobe Mid |
| | | 76 | Strobe Mid |
| | | 77–94 | Strobe Mid ... Strobe Fast |
| | | 95 | Strobe Fast |
| | | 96–127 | LED ON |
| | | 128 | Pulse Slow |
| | | 129–142 | Pulse Slow ... Pulse Mid |
| | | 143 | Pulse Mid |
| | | 144–158 | Pulse Mid ... Pulse Fast |
| | | 159 | Pulse Fast |
| | | 160–191 | LED ON 1 |
| | | 192 | Random Slow |
| | | 193–199 | Random Slow ... Random Mid |
| | | 200 | Random Mid |
| | | 201–222 | Random Mid ... Random Fast |
| | | 223 | Random Fast |
| | | 224–255 | LED ON 2 |
| **17** | Dimmer 1 | 0–255 | |
| **18** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | 0–9 | RGBL |
| | | 10–21 | RGB |

| CH | Function | DMX | Description |
|---|---|---|---|
| **19** | Color Temperature (continued) | 22–255 | CTC (8000–2500 K) |
| **20** | Colors | 0 | Open |
| | | 1–2 | Open … LAVENDER TINT |
| | | 3 | LAVENDER TINT |
| | | 4 | MEDIUM BASTARD AMBER |
| | | 5–6 | MEDIUM BASTARD AMBER … PALE YELLOW |
| | | 7 | PALE YELLOW |
| | | 8 | DARK SALMON |
| | | 9 | PALE AMBER GOLD |
| | | 10 | MEDIUM YELLOW |
| | | 11–12 | MEDIUM YELLOW … STRAW TINT |
| | | 13 | STRAW TINT |
| | | 14 | STRAW TINT … DEEP STRAW |
| | | 15 | DEEP STRAW |
| | | 16 | DEEP STRAW … SURPRISE PEACH |
| | | 17 | SURPRISE PEACH |
| | | 18–19 | SURPRISE PEACH … MEDIUM AMBER |
| | | 20 | MEDIUM AMBER |
| | | 21 | GOLD AMBER |
| | | 22 | DARK AMBER |
| | | 23 | DARK AMBER … SCARLET |
| | | 24 | SCARLET |
| | | 25 | SUNSET RED |
| | | 26 | BRIGHT RED |
| | | 27–28 | BRIGHT RED … PALSA RED |
| | | 29 | PALSA RED |
| | | 30–34 | PALSA RED … LIGHT PINK |
| | | 35 | LIGHT PINK |
| | | 36 | MEDIUM PINK |
| | | 37–45 | MEDIUM PINK … DARK MAGENTA |
| | | 46 | DARK MAGENTA |
| | | 47 | DARK MAGENTA … DARK PURPLE |
| | | 48 | DARK PURPLE |
| | | 49–51 | DARK PURPLE … LIGHT LAVENDER |
| | | 52 | LIGHT LAVENDER |
| | | 53 | PALE LAVENDER |
| | | 54–57 | PALE LAVENDER … LAVENDER |
| | | 58 | LAVENDER |
| | | 59–62 | LAVENDER … PALE BLUE |
| | | 63 | PALE BLUE |
| | | 64–67 | PALE BLUE … SKY BLUE |
| | | 68 | SKY BLUE |

| CH | Function | DMX | Description |
|---|---|---|---|
| **20** | Colors (continued) | 69–70 | SKY BLUE ... TOKIO BLUE |
| | | 71 | TOKIO BLUE |
| | | 72–74 | TOKIO BLUE ... EVENING BLUE |
| | | 75 | EVENING BLUE |
| | | 76–78 | EVENING BLUE ... JUST BLUE |
| | | 79 | JUST BLUE |
| | | 80–84 | JUST BLUE ... DEEPER BLUE |
| | | 85 | DEEPER BLUE |
| | | 86–87 | DEEPER BLUE ... LIME GREEN |
| | | 88 | LIME GREEN |
| | | 89 | MOSS GREEN |
| | | 90 | DARKYELLOW GREEN |
| | | 91–99 | DARKYELLOW GREEN ... SPRING YELLOW |
| | | 100 | SPRING YELLOW |
| | | 101 | YELLOW |
| | | 102 | LIGHT AMBER |
| | | 103 | STRAW |
| | | 104 | DEEP AMBER |
| | | 105 | ORANGE |
| | | 106 | PRIMAY RED |
| | | 107 | LIGHT ROSE |
| | | 108 | ENGLISH ROSE |
| | | 109 | LIGHT SALMON |
| | | 110 | MIDDLE ROSE |
| | | 111 | DARK PINK |
| | | 112 | DARK PINK ... MAGENTA |
| | | 113 | MAGENTA |
| | | 114–115 | MAGENTA ... MEDIUM BLUE GREEN |
| | | 116 | MEDIUM BLUE GREEN |
| | | 117 | MEDIUM BLUE GREEN ... LIGHT BLUE |
| | | 118 | LIGHT BLUE |
| | | 119 | DARK BLUE |
| | | 120 | DEEP BLUE |
| | | 121–123 | DEEP BLUE ... DARK GREEN |
| | | 124 | DARK GREEN |
| | | 125 | DARK GREEN ... MAUVE |
| | | 126 | MAUVE |
| | | 127 | SMOKEY PINK |
| | | 128 | BRIGHT PINK |
| | | 129–131 | BRIGHT PINK ... MEDIUM BLUE |
| | | 132 | MEDIUM BLUE |
| | | 133 | MEDIUM BLUE ... GOLDEN AMBER |

| CH | Function | DMX | Description |
|---|---|---|---|
| **20** | Colors (continued) | 134 | GOLDEN AMBER |
| | | 135 | GOLDEN AMBER ... PALE LAVENDER 1 |
| | | 136 | PALE LAVENDER 1 |
| | | 137 | SPECIAL LAVENDER |
| | | 138 | PALE GREEN |
| | | 139 | PRIMARY GREEN |
| | | 140 | SUMMER BLUE |
| | | 141 | BRIGHT BLUE |
| | | 142 | PALE VIOLET |
| | | 143 | PALE NAVY BLUE |
| | | 144–146 | PALE NAVY BLUE ... APRICOT |
| | | 147 | APRICOT |
| | | 148 | BRIGHT ROSE |
| | | 149–150 | BRIGHT ROSE ... GOLD TINT |
| | | 151 | GOLD TINT |
| | | 152 | PALE GOLD |
| | | 153 | PALE SALMON |
| | | 154 | PALE ROSE |
| | | 155 | PALE ROSE ... CHOCOLATE |
| | | 156 | CHOCOLATE |
| | | 157 | CHOCOLATE ... DEEP ORANGE |
| | | 158 | DEEP ORANGE |
| | | 159 | NO COLOR STRAW |
| | | 160 | NO COLOR STRAW ... SLATE BLUE |
| | | 161 | SLATE BLUE |
| | | 162 | BASTARD AMBER |
| | | 163 | BASTARD AMBER ... FLAME RED |
| | | 164 | FLAME RED |
| | | 165 | DAYLIGHT BLUE |
| | | 166–168 | DAYLIGHT BLUE ... LILAC TINT |
| | | 169 | LILAC TINT |
| | | 170 | DEEP LAVENDER |
| | | 171 | DEEP LAVENDER ... LAGOON BLUE |
| | | 172 | LAGOON BLUE |
| | | 173 | LAGOON BLUE ... DARK STEEL BLUE |
| | | 174 | DARK STEEL BLUE |
| | | 175 | DARK STEEL BLUE ... LOVING AMBER |
| | | 176 | LOVING AMBER |
| | | 177–178 | LOVING AMBER ... CHROME ORANGE |
| | | 179 | CHROME ORANGE |
| | | 180 | DARK LAVENDER |
| | | 181 | CONGO BLUE |

| CH | Function | DMX | Description |
|---|---|---|---|
| **20** | Colors (continued) | 182 | LIGHT RED |
| | | 183 | MOONLIGHT BLUE |
| | | 184–191 | MOONLIGHT BLUE ... FLESH PINK |
| | | 192 | FLESH PINK |
| | | 193 | ROSY AMBER |
| | | 194 | SURPRISE PINK |
| | | 195 | ZENITH BLUE |
| | | 196 | TRUE BLUE |
| | | 197 | ALICE BLUE |
| | | 198 | PALACE BLUE |
| | | 199–200 | PALACE BLUE ... FULL CT BLUE |
| | | 201 | FULL CT BLUE |
| | | 202 | 1/2 CT BLUE |
| | | 203 | 1/4 CT BLUE |
| | | 204 | FULL CT ORANGE |
| | | 205 | 1/2 CT ORANGE |
| | | 206 | 1/4 CT ORANGE |
| | | 207–255 | Color Preset |
| **21** | Color Mix Mode | 0 | Output controled by RGBL values |
| | | 1–254 | Output controled by RGBL values ... Output controled by color preset values |
| | | 255 | Output controled by color preset values |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | 0 | Tint Off |
| | | 1–255 | Tint |
| **26** | Control | 0–4 | Display |
| | | 5–9 | Display Off |
| | | 10–14 | Display On |
| | | 15–19 | Display Inv Off |
| | | 20–24 | Display Inv On |
| | | 25–26 | Auto Fan |
| | | 27–28 | Stage Fan |
| | | 29–30 | Silence Fan |
| | | 31–32 | Super Silence Fan |
| | | 33–34 | Constant Fan OFF |
| | | 35–36 | Constant Fan ON |
| | | 37–44 | Fan Control Mode |
| | | 45–49 | Square Law |
| | | 50–54 | Linear |
| | | 55–57 | 1200 Hz |

| CH | Function | DMX | Description |
|---|---|---|---|
| **26** | Control (continued) | 58–60 | 2400 Hz |
| | | 61–63 | 16000 Hz |
| | | 64–69 | 25000 Hz |
| | | 70–71 | Lamp 500W |
| | | 72–73 | Lamp 1000W |
| | | 74–75 | Lamp 2500W |
| | | 76–77 | Lamp 5000W |
| | | 78–79 | Lamp OFF |
| | | 80–84 | All Motor Reset |
| | | 85–87 | P/T Motor Reset |
| | | 88–90 | ZoomMotor Reset |
| | | 91–93 | Pixel Rotation 0 |
| | | 94–96 | Pixel Rotation 90 |
| | | 97–99 | Pixel Rotation 180 |
| | | 100–102 | Pixel Rotation 270 |
| | | 103–105 | Pixel Rotation |
| | | 106–108 | Fog fan off |
| | | 109–111 | Fog fan auto |
| | | 112–114 | Fog fan on |
| | | 115–117 | CTC Channel RGB |
| | | 118–120 | CTC Channel RGBL |
| | | 121–255 | CTC Channel Mode |
| **27** | Chase Patterns | 0–9 | Chse OFF |
| | | 10–14 | Chase 1 |
| | | 15–19 | Chase 2 |
| | | 20–24 | Chase 3 |
| | | 25–29 | Chase 4 |
| | | 30–34 | Chase 5 |
| | | 35–39 | Chase 6 |
| | | 40–44 | Chase 7 |
| | | 45–49 | Chase 8 |
| | | 50–54 | Chase 9 |
| | | 55–59 | Chase 10 |
| | | 60–64 | Chase 11 |
| | | 65–69 | Chase 12 |
| | | 70–74 | Chase 13 |
| | | 75–79 | Chase 14 |
| | | 80–84 | Chase 15 |
| | | 85–89 | Chase 16 |
| | | 90–94 | Chase 17 |
| | | 95–99 | Chase 18 |
| | | 100–104 | Chase 19 |

| CH | Function | DMX | Description |
|---|---|---|---|
| **27** | Chase Patterns (continued) | 105–109 | Chase 20 |
| | | 110–114 | Chase 21 |
| | | 115–119 | Chase 22 |
| | | 120–255 | No function |
| **28** | Chase Speed | 0–125 | Fast to Slow Backward |
| | | 126–130 | Empty Channel Set |
| | | 131–255 | Slow to Fast Forward |
| **29** | Chase Fade | 0–255 | |
| **30** | Chase Size | 0–255 | |
| **31** | Red 2 | 0–255 | |
| **32** | Green 2 | 0–255 | |
| **33** | Blue 2 | 0–255 | |
| **34** | Lime 2 | 0–255 | |
| **35** | Dimmer 2 | 0–255 | |
| **36** | Back Chase Dimmer | 0–255 | |
| **37** | Shutter 2 | 0 | Chase dimmer OFF |
| | | 1–31 | Chase OFF |
| | | 32 | Chase Dimmer ON |
| | | 33–63 | Chase ON |
| | | 64–95 | Shutter 1 Strobe 3 |
| | | 96–127 | No function |
| | | 128–159 | Shutter 1 Strobe Pulse 5 |
| | | 160–191 | No function |
| | | 192–223 | Shutter 1 Strobe Random 7 |
| | | 224–255 | No function |
| **38** | LED Control | | Pixel mode |
| | | 0 | Full Control |
| | | 1–127 | Full Control ... Middle |
| | | 128 | Middle |
| | | 129–254 | Middle ... Pixel Control |
| | | 255 | Pixel Control |
| **39** | Red 3 | 0–255 | |
| **40** | Green 3 | 0–255 | |
| **41** | Blue 3 | 0–255 | |
| **42** | Lime 3 | 0–255 | |

CH 39–86: 12 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 39–42); the table below gives each cell's channel numbers.

| Cell | Red | Green | Blue | Lime | Cell | Red | Green | Blue | Lime |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 39 | 40 | 41 | 42 | 2 | 43 | 44 | 45 | 46 |
| 3 | 47 | 48 | 49 | 50 | 4 | 51 | 52 | 53 | 54 |
| 5 | 55 | 56 | 57 | 58 | 6 | 59 | 60 | 61 | 62 |
| 7 | 63 | 64 | 65 | 66 | 8 | 67 | 68 | 69 | 70 |
| 9 | 71 | 72 | 73 | 74 | 10 | 75 | 76 | 77 | 78 |
| 11 | 79 | 80 | 81 | 82 | 12 | 83 | 84 | 85 | 86 |

## Mode Extended Ring 1U

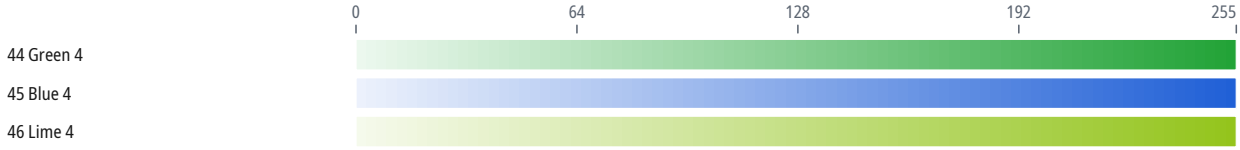
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 255, CH 10 Green 1 255, CH 12 Blue 1 255, CH 14 Lime 1 255, CH 16 Shutter 32, CH 17 Dimmer 1 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0, CH 37 Shutter 2 32, CH 39 Red 3 255, CH 40 Green 3 255, CH 41 Blue 3 255, CH 42 Lime 3 255, CH 43 Red 4 255, CH 44 Green 4 255, CH 45 Blue 4 255, CH 46 Lime 4 255.

### Channel functions at a glance



## Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Extended Pixel 1U” (p. 13) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Extended Pixel 1U” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Extended Pixel 1U” (p. 14) |
| **6** | Undefined | 0–255 | |
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red 1 | 0–255 | |
| **9** | Red 1 Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green 1 | 0–255 | |
| **11** | Green 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue 1 | 0–255 | |
| **13** | Blue 1 Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime 1 | 0–255 | |
| **15** | Lime 1 Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | | Same as CH 16 in the mode “Extended Pixel 1U” (p. 14) |
| **17** | Dimmer 1 | 0–255 | |
| **18** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | | Same as CH 19 in the mode “Extended Pixel 1U” (p. 14) |
| **20** | Colors | | Same as CH 20 in the mode “Extended Pixel 1U” (p. 15) |
| **21** | Color Mix Mode | | Same as CH 21 in the mode “Extended Pixel 1U” (p. 18) |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | | Same as CH 25 in the mode “Extended Pixel 1U” (p. 18) |
| **26** | Control | | Same as CH 26 in the mode “Extended Pixel 1U” (p. 18) |
| **27** | Chase Patterns | | Same as CH 27 in the mode “Extended Pixel 1U” (p. 19) |
| **28** | Chase Speed | | Same as CH 28 in the mode “Extended Pixel 1U” (p. 20) |
| **29** | Chase Fade | 0–255 | |
| **30** | Chase Size | 0–255 | |
| **31** | Red 2 | 0–255 | |
| **32** | Green 2 | 0–255 | |
| **33** | Blue 2 | 0–255 | |
| **34** | Lime 2 | 0–255 | |
| **35** | Dimmer 2 | 0–255 | |
| **36** | Back Chase Dimmer | 0–255 | |

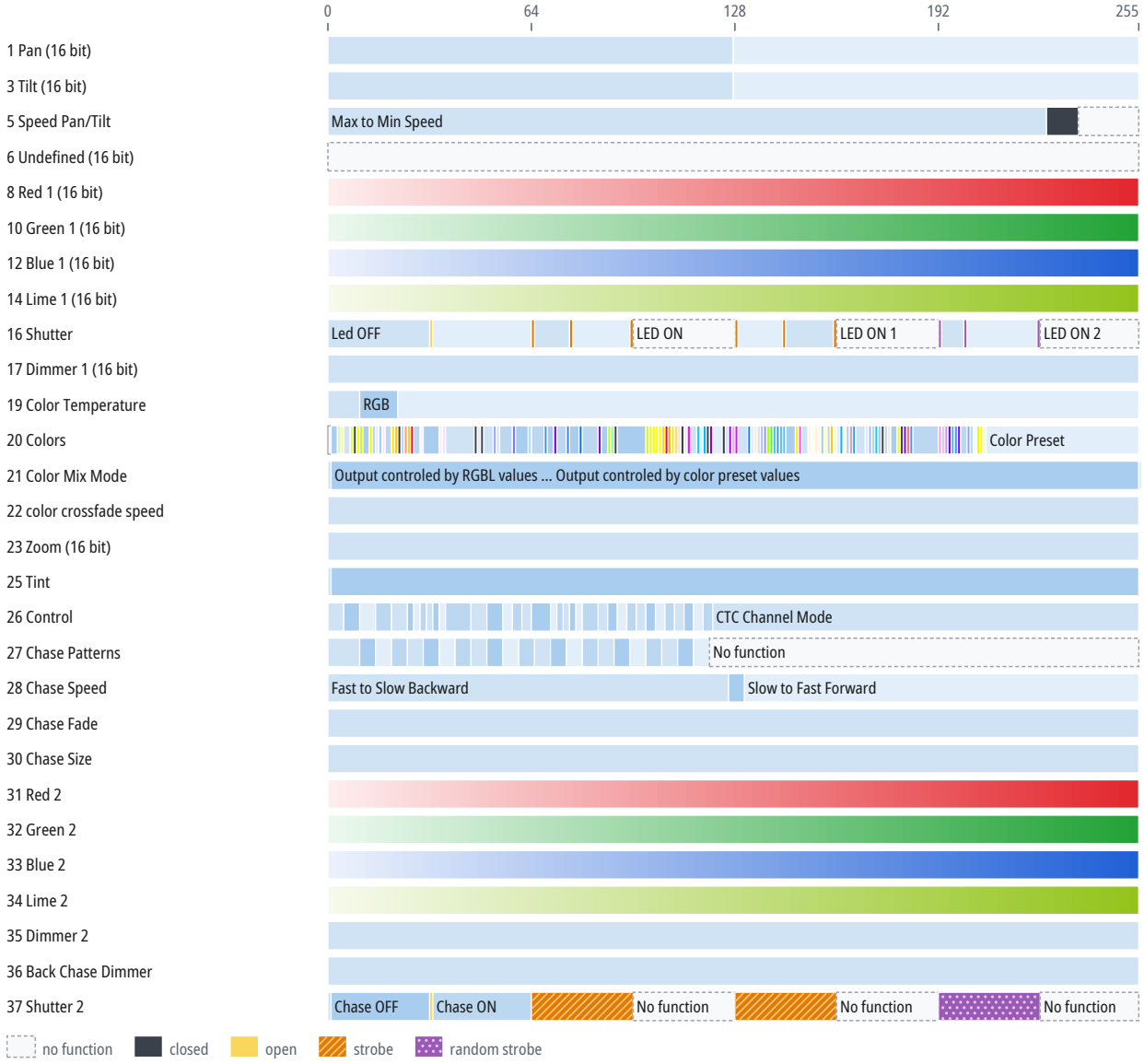
| CH | Function | DMX | Description |
|---|---|---|---|
| **37** | Shutter 2 | | Same as CH 37 in the mode “Extended Pixel 1U” (p. 20) |
| **38** | LED Control | | Same as CH 38 in the mode “Extended Pixel 1U” (p. 20) |
| **39** | Red 3 | 0–255 | |
| **40** | Green 3 | 0–255 | |
| **41** | Blue 3 | 0–255 | |
| **42** | Lime 3 | 0–255 | |
| **43** | Red 4 | 0–255 | |
| **44** | Green 4 | 0–255 | |
| **45** | Blue 4 | 0–255 | |
| **46** | Lime 4 | 0–255 | |

## 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 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 255, CH 10 Green 1 255, CH 12 Blue 1 255, CH 14 Lime 1 255, CH 16 Shutter 32, CH 17 Dimmer 1 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0, CH 37 Shutter 2 32.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Extended Pixel 1U” (p. 13) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Extended Pixel 1U” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Extended Pixel 1U” (p. 14) |
| **6** | Undefined | 0–255 | |

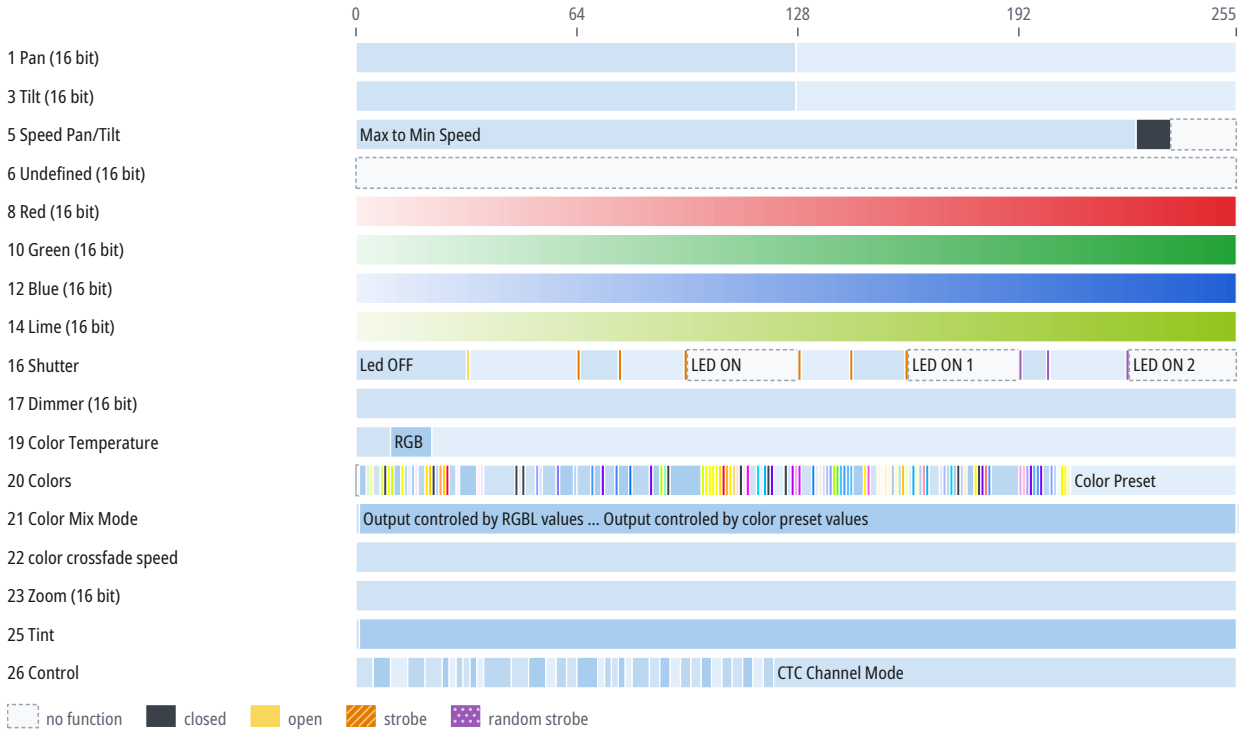
| CH | Function | DMX | Description |
|---|---|---|---|
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red 1 | 0–255 | |
| **9** | Red 1 Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green 1 | 0–255 | |
| **11** | Green 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue 1 | 0–255 | |
| **13** | Blue 1 Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime 1 | 0–255 | |
| **15** | Lime 1 Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | | Same as CH 16 in the mode “Extended Pixel 1U” (p. 14) |
| **17** | Dimmer 1 | 0–255 | |
| **18** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | | Same as CH 19 in the mode “Extended Pixel 1U” (p. 14) |
| **20** | Colors | | Same as CH 20 in the mode “Extended Pixel 1U” (p. 15) |
| **21** | Color Mix Mode | | Same as CH 21 in the mode “Extended Pixel 1U” (p. 18) |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | | Same as CH 25 in the mode “Extended Pixel 1U” (p. 18) |
| **26** | Control | | Same as CH 26 in the mode “Extended Pixel 1U” (p. 18) |
| **27** | Chase Patterns | | Same as CH 27 in the mode “Extended Pixel 1U” (p. 19) |
| **28** | Chase Speed | | Same as CH 28 in the mode “Extended Pixel 1U” (p. 20) |
| **29** | Chase Fade | 0–255 | |
| **30** | Chase Size | 0–255 | |
| **31** | Red 2 | 0–255 | |
| **32** | Green 2 | 0–255 | |
| **33** | Blue 2 | 0–255 | |
| **34** | Lime 2 | 0–255 | |
| **35** | Dimmer 2 | 0–255 | |
| **36** | Back Chase Dimmer | 0–255 | |
| **37** | Shutter 2 | | Same as CH 37 in the mode “Extended Pixel 1U” (p. 20) |

## Mode Basic

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 16 Shutter at 32–63 or 96–127; CH 17 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 255, CH 10 Green 255, CH 12 Blue 255, CH 14 Lime 255, CH 16 Shutter 32, CH 17 Dimmer 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0.

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Extended Pixel 1U” (p. 13) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Extended Pixel 1U” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Extended Pixel 1U” (p. 14) |
| **6** | Undefined | 0–255 | |
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red | 0–255 | |
| **9** | Red Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green | 0–255 | |
| **11** | Green Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue | 0–255 | |
| **13** | Blue Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime | 0–255 | |
| **15** | Lime Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | | Same as CH 16 in the mode “Extended Pixel 1U” (p. 14) |

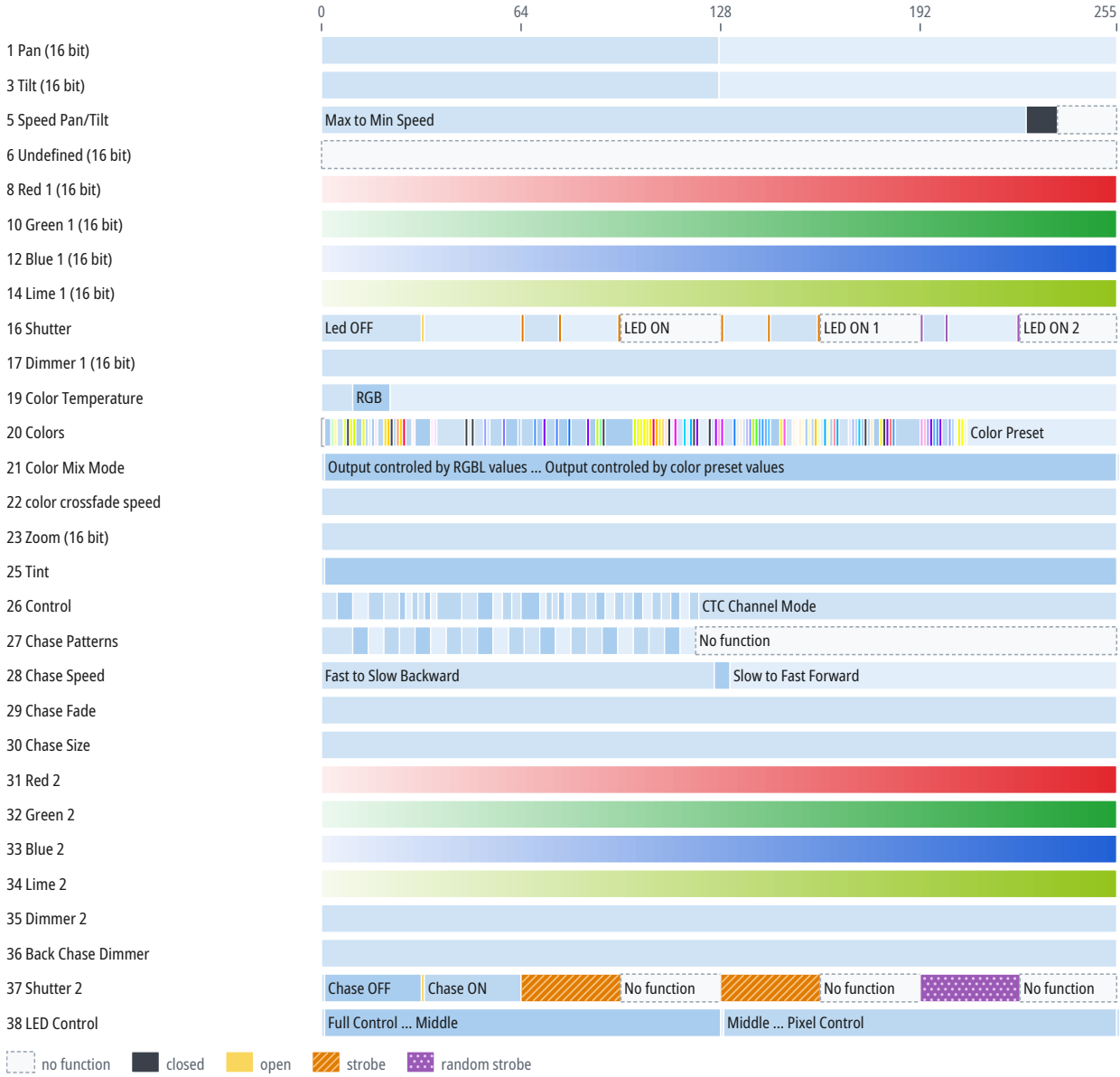
| CH | Function | DMX | Description |
|---|---|---|---|
| **17** | Dimmer | 0–255 | |
| **18** | Dimmer Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | | Same as CH 19 in the mode “Extended Pixel 1U” (p. 14) |
| **20** | Colors | | Same as CH 20 in the mode “Extended Pixel 1U” (p. 15) |
| **21** | Color Mix Mode | | Same as CH 21 in the mode “Extended Pixel 1U” (p. 18) |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | | Same as CH 25 in the mode “Extended Pixel 1U” (p. 18) |
| **26** | Control | | Same as CH 26 in the mode “Extended Pixel 1U” (p. 18) |

## Mode Extended Pixel 2U

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 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 255, CH 10 Green 1 255, CH 12 Blue 1 255, CH 14 Lime 1 255, CH 16 Shutter 32, CH 17 Dimmer 1 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0, CH 37 Shutter 2 32, CH 39 Red 255 (the same in each of the 12 cells), CH 40 Green 255 (the same in each of the 12 cells), CH 41 Blue 255 (the same in each of the 12 cells), CH 42 Lime 255 (the same in each of the 12 cells).

### Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Extended Pixel 1U” (p. 13) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Extended Pixel 1U” (p. 14) |

| CH | Function | DMX | Description |
|---|---|---|---|
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Extended Pixel 1U” (p. 14) |
| **6** | Undefined | 0–255 | |
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red 1 | 0–255 | |
| **9** | Red 1 Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green 1 | 0–255 | |
| **11** | Green 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue 1 | 0–255 | |
| **13** | Blue 1 Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime 1 | 0–255 | |
| **15** | Lime 1 Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | | Same as CH 16 in the mode “Extended Pixel 1U” (p. 14) |
| **17** | Dimmer 1 | 0–255 | |
| **18** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | | Same as CH 19 in the mode “Extended Pixel 1U” (p. 14) |
| **20** | Colors | | Same as CH 20 in the mode “Extended Pixel 1U” (p. 15) |
| **21** | Color Mix Mode | | Same as CH 21 in the mode “Extended Pixel 1U” (p. 18) |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | | Same as CH 25 in the mode “Extended Pixel 1U” (p. 18) |
| **26** | Control | | Same as CH 26 in the mode “Extended Pixel 1U” (p. 18) |
| **27** | Chase Patterns | | Same as CH 27 in the mode “Extended Pixel 1U” (p. 19) |
| **28** | Chase Speed | | Same as CH 28 in the mode “Extended Pixel 1U” (p. 20) |
| **29** | Chase Fade | 0–255 | |
| **30** | Chase Size | 0–255 | |
| **31** | Red 2 | 0–255 | |
| **32** | Green 2 | 0–255 | |
| **33** | Blue 2 | 0–255 | |
| **34** | Lime 2 | 0–255 | |
| **35** | Dimmer 2 | 0–255 | |
| **36** | Back Chase Dimmer | 0–255 | |
| **37** | Shutter 2 | | Same as CH 37 in the mode “Extended Pixel 1U” (p. 20) |
| **38** | LED Control | | Same as CH 38 in the mode “Extended Pixel 1U” (p. 20) |
| **39** | Red 3 | 0–255 | |
| **40** | Green 3 | 0–255 | |
| **41** | Blue 3 | 0–255 | |
| **42** | Lime 3 | 0–255 | |

CH 39–86: 12 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 39–42); the table below gives each cell's channel numbers.

| Cell | Red | Green | Blue | Lime | Cell | Red | Green | Blue | Lime |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 39 | 40 | 41 | 42 | 2 | 43 | 44 | 45 | 46 |
| 3 | 47 | 48 | 49 | 50 | 4 | 51 | 52 | 53 | 54 |
| 5 | 55 | 56 | 57 | 58 | 6 | 59 | 60 | 61 | 62 |
| 7 | 63 | 64 | 65 | 66 | 8 | 67 | 68 | 69 | 70 |
| 9 | 71 | 72 | 73 | 74 | 10 | 75 | 76 | 77 | 78 |
| 11 | 79 | 80 | 81 | 82 | 12 | 83 | 84 | 85 | 86 |

## Mode Extended Ring 2U

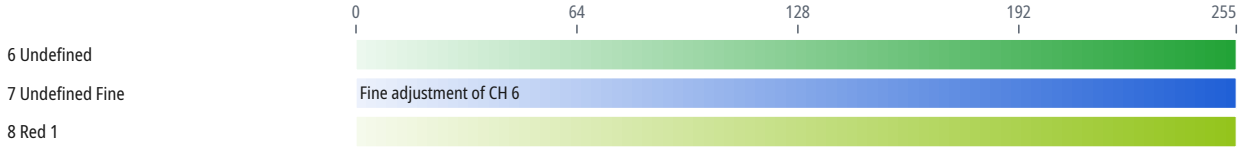
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 16 Shutter at 32–63 or 96–127; CH 17 Dimmer 1 above 0; CH 35 Dimmer 2 above 0; CH 36 Back Chase Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 8 Red 1 255, CH 10 Green 1 255, CH 12 Blue 1 255, CH 14 Lime 1 255, CH 16 Shutter 32, CH 17 Dimmer 1 255, CH 19 Color Temperature 0, CH 20 Colors 0, CH 21 Color Mix Mode 0, CH 37 Shutter 2 32, CH 39 Red 3 255, CH 40 Green 3 255, CH 41 Blue 3 255, CH 42 Lime 3 255, CH 43 Red 4 255, CH 44 Green 4 255, CH 45 Blue 4 255, CH 46 Lime 4 255.

### Channel functions at a glance



## Channel functions at a glance




| CH | Function | DMX | Description |
|---|---|---|---|
| **1** | Pan | | Same as CH 1 in the mode “Extended Pixel 1U” (p. 13) |
| **2** | Pan Fine | 0–255 | Fine adjustment of CH 1 |
| **3** | Tilt | | Same as CH 3 in the mode “Extended Pixel 1U” (p. 14) |
| **4** | Tilt Fine | 0–255 | Fine adjustment of CH 3 |
| **5** | Speed Pan/Tilt | | Same as CH 5 in the mode “Extended Pixel 1U” (p. 14) |
| **6** | Undefined | 0–255 | |
| **7** | Undefined Fine | 0–255 | Fine adjustment of CH 6 |
| **8** | Red 1 | 0–255 | |
| **9** | Red 1 Fine | 0–255 | Fine adjustment of CH 8 |
| **10** | Green 1 | 0–255 | |
| **11** | Green 1 Fine | 0–255 | Fine adjustment of CH 10 |
| **12** | Blue 1 | 0–255 | |
| **13** | Blue 1 Fine | 0–255 | Fine adjustment of CH 12 |
| **14** | Lime 1 | 0–255 | |
| **15** | Lime 1 Fine | 0–255 | Fine adjustment of CH 14 |
| **16** | Shutter | | Same as CH 16 in the mode “Extended Pixel 1U” (p. 14) |
| **17** | Dimmer 1 | 0–255 | |
| **18** | Dimmer 1 Fine | 0–255 | Fine adjustment of CH 17 |
| **19** | Color Temperature | | Same as CH 19 in the mode “Extended Pixel 1U” (p. 14) |
| **20** | Colors | | Same as CH 20 in the mode “Extended Pixel 1U” (p. 15) |
| **21** | Color Mix Mode | | Same as CH 21 in the mode “Extended Pixel 1U” (p. 18) |
| **22** | color crossfade speed | 0–255 | 0.01–5 s |
| **23** | Zoom | 0–255 | 65–3.5° |
| **24** | Zoom Fine | 0–255 | Fine adjustment of CH 23 |
| **25** | Tint | | Same as CH 25 in the mode “Extended Pixel 1U” (p. 18) |
| **26** | Control | | Same as CH 26 in the mode “Extended Pixel 1U” (p. 18) |
| **27** | Chase Patterns | | Same as CH 27 in the mode “Extended Pixel 1U” (p. 19) |
| **28** | Chase Speed | | Same as CH 28 in the mode “Extended Pixel 1U” (p. 20) |
| **29** | Chase Fade | 0–255 | |
| **30** | Chase Size | 0–255 | |
| **31** | Red 2 | 0–255 | |
| **32** | Green 2 | 0–255 | |
| **33** | Blue 2 | 0–255 | |
| **34** | Lime 2 | 0–255 | |
| **35** | Dimmer 2 | 0–255 | |
| **36** | Back Chase Dimmer | 0–255 | |

| CH | Function | DMX | Description |
|---|---|---|---|
| **37** | Shutter 2 | | Same as CH 37 in the mode “Extended Pixel 1U” (p. 20) |
| **38** | LED Control | | Same as CH 38 in the mode “Extended Pixel 1U” (p. 20) |
| **39** | Red 3 | 0–255 | |
| **40** | Green 3 | 0–255 | |
| **41** | Blue 3 | 0–255 | |
| **42** | Lime 3 | 0–255 | |
| **43** | Red 4 | 0–255 | |
| **44** | Green 4 | 0–255 | |
| **45** | Blue 4 | 0–255 | |
| **46** | Lime 4 | 0–255 | |

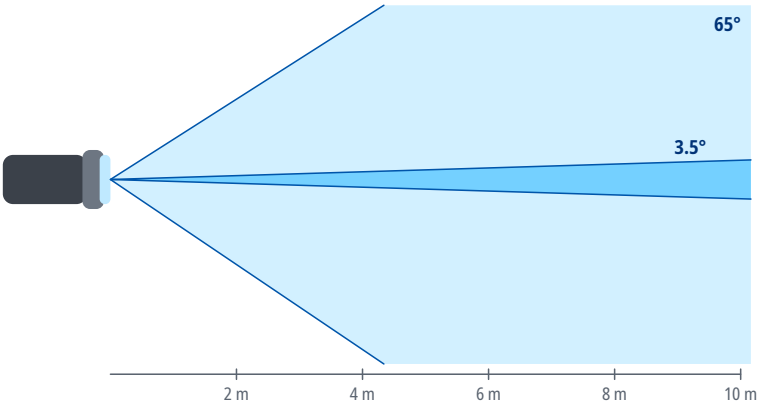
# 10 Technical specifications

| Parameter | Value |
|---|---|
| **Optics** | |
| Zoom | 3.5–65° |
| **Movement** | |
| Pan | 542.1° |
| Tilt | 232.9° |
| **Control** | |
| DMX connection | 5-pin XLR IN/OUT |
| RJ45 connectors | RJ45 IN/OUT |
| RDM | yes (manufacturer ID 0x4179, device model ID 0x0B23) |
| **Electrical** | |
| Power supply | 100–240 V, 50/60 Hz |
| Power consumption | 550 W |
| Power connectors | powerCONTRUE1TOP IN/OUT |
| **Dimensions and construction** | |
| Weight | 14.5 kg |
| **Operating environment** | |
| Operating temperature | -10 to 45 °C |

### Speeds and ranges

| Parameter | Value |
|---|---|
| Color temperature range | 2500–8000 K |
| Strobe frequency | 0.5–25 Hz |
| LED frequency | 1200–16000 Hz |

### Spot diameter




| Distance | Ø 3.5° | Ø 65° |
|---|---|---|
| 2 m | 0.12 m | 2.5 m |
| 4 m | 0.24 m | 5.1 m |
| 6 m | 0.37 m | 7.6 m |
| 8 m | 0.49 m | 10.2 m |
| 10 m | 0.61 m | 12.7 m |
| 15 m | 0.92 m | 19.1 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.