GDTF Fixture Reference · by SOH

DMX REFERENCE

K2

Rasha Professional



Manufacturer	Rasha Professional
GDTF file	Rasha_Professional_K2_92087.gdtf
GDTF revision	GDTF · 2025-04-03
Generated	2026-11-24

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1 About this manual

This document describes the k2 by Rasha Professional. It was compiled from the GDTF file Rasha_Professional_K2_92087.gdtf from the GDTF-Share library.

File revision: “GDTF”.

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 Rasha Professional; 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	425 W
Weight	9.3 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
37Ch Pixel	37	13	1, 38, 75, 112, ...
39Ch Pixel Macros	39	13	1, 40, 79, 118, ...
21Ch Basic 16-Bit	21	24	1, 22, 43, 64, ...
15Ch Basic 8-Bit	15	34	1, 16, 31, 46, ...
10Ch Virtual Colors	10	51	1, 11, 21, 31, ...

No light? Check these channels

- 37Ch Pixel: CH 9 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 10 Dimmer above 0
- 39Ch Pixel Macros: CH 35 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 36 Dimmer above 0
- 21Ch Basic 16-Bit: CH 19 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 20 Dimmer above 0
- 15Ch Basic 8-Bit: CH 14 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 15 Dimmer above 0
- 10Ch Virtual Colors: CH 9 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 10 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: 110–240 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.

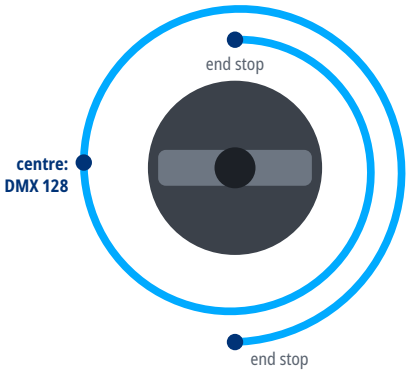
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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 540°

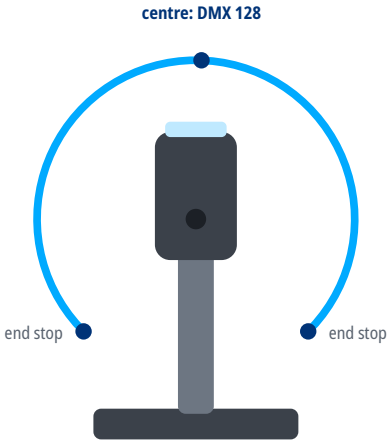
top view



full travel in 1.7 s

Tilt 270°

side view



full travel in 1 s

Full-travel times as stated in the GDTF file.

5 Installation

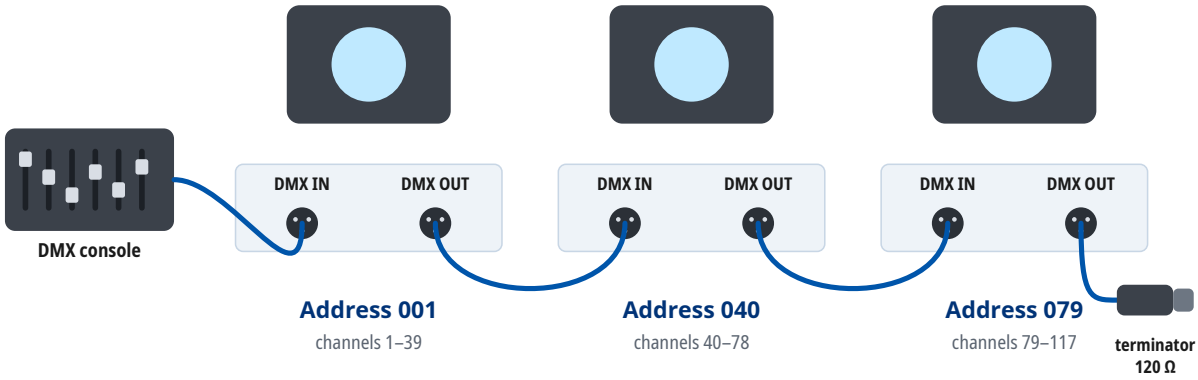
⚠ **WARNING**

- 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: 9.3 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 39Ch Pixel Macros: every unit occupies 39 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 “39Ch Pixel Macros”: 39.
- 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 “39Ch Pixel Macros”, you can use, for example, the start addresses 1, 40, 79, 118.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

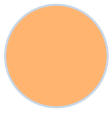
8 Functions at a glance

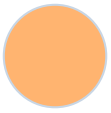
Functions in each DMX mode

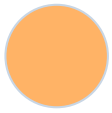
	37Ch Pixel 37 channels	39Ch Pixel Macros 39 channels	21Ch Basic 16-Bit 21 channels	15Ch Basic 8-Bit 15 channels	10Ch Virtual Colors 10 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3	1, 3
Dimmer	10	36	20	15	10
Dimmer resolution	16 bit	16 bit	16 bit	8 bit	8 bit
Shutter / strobe	9	35	19	14	9
Color mixing	12× (14–36)	12× (7–29)	4× (7–13) *	7–10	
Color temperature	12	31	15	11	
Color wheel	13	32	16	12	7
Zoom	7	33	17	13	8
Effects / macros		38, 39			
Pixel control	✓	✓	✓	✓	✓

* The function works only when another channel switches it on; see the DMX table.

Color wheel

1 
White 2700 K
DMX 1

2 
White 2700 K
DMX 2

3 
White 2700 K (Halogen lamp mode)
DMX 3

4
White 3200 K
DMX 4

5
White 2700 K
DMX 5

6
White 3200 K (Halogen lamp mode)
DMX 6

7
White 4200 K
DMX 7

8
White 4200 K
DMX 8

9
White 4200 K
DMX 9

10
White 5600 K
DMX 10

11
White 4200 K
DMX 11

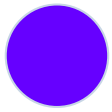
12
White 4200 K
DMX 12

13
White 8000 K
DMX 13

14
White 8000 K
DMX 14

15
White 8000 K
DMX 15

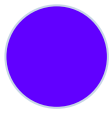
16 
Blue
DMX 16

17 
Blue + Green >> 0...38
DMX 17

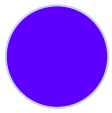
18 
Blue + Green >> 01
DMX 18

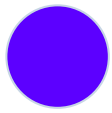
19 
Blue + Green >> 02
DMX 19

20 
Blue + Green >> 03
DMX 20

21 
Blue + Green >> 04
DMX 21

22 
Blue + Green >> 05
DMX 22

23 
Blue + Green >> 06
DMX 23

24 
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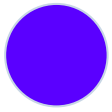
DMX 24

25 
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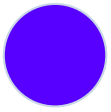
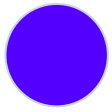
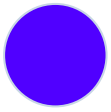
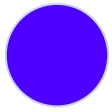
DMX 25

26 
Blue + Green >> 09
DMX 26

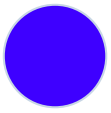
27 
Blue + Green >> 10
DMX 27

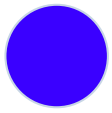
28 
Blue + Green >> 11
DMX 28

29 
Blue + Green >> 12
DMX 29

30 
Blue + Green >> 13
DMX 30

31 
Blue + Green >> 14
DMX 31

32 
Blue + Green >> 15
DMX 32

33 
Blue + Green >> 16
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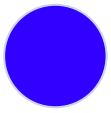
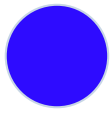
34 
Blue + Green >> 17
DMX 34

35 
Blue + Green >> 18
DMX 35

36 
Blue + Green >> 19
DMX 36

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Blue + Green >> 20
DMX 37

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Blue + Green >> 21
DMX 38

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Blue + Green >> 22
DMX 39

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Blue + Green >> 37
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Blue + Green >> 38
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LightBlue
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Green + Blue << 0...38
DMX 57
58
Green + Blue << 01
DMX 58
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Green + Blue << 02
DMX 59
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Green + Blue << 03
DMX 60
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Green + Blue << 04
DMX 61
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Green + Blue << 05
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Green + Blue << 06
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DMX 93
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DMX 94
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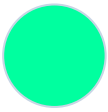
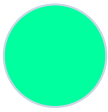
Green + Blue << 38
DMX 95
96
Green
DMX 96

97 
Green + Red >> 0...20
DMX 97

98 
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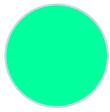
DMX 98

99 
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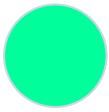
DMX 99

100 
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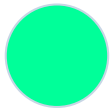
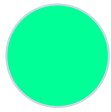
DMX 100

101 
Green + Red >> 04
DMX 101

102 
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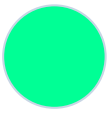
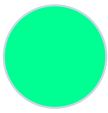
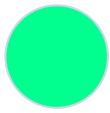
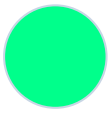
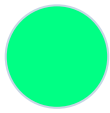
DMX 102

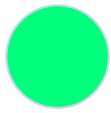
103 
Green + Red >> 06
DMX 103

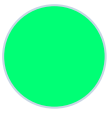
104 
Green + Red >> 07
DMX 104

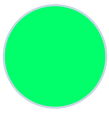
105 
Green + Red >> 08
DMX 105

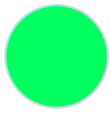
106 
Green + Red >> 09
DMX 106

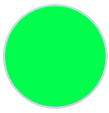
107 
Green + Red >> 10
DMX 107

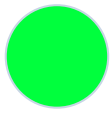
108 
Green + Red >> 11
DMX 108

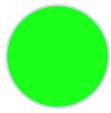
109 
Green + Red >> 12
DMX 109

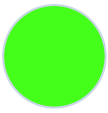
110 
Green + Red >> 13
DMX 110

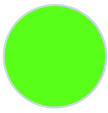
111 
Green + Red >> 14
DMX 111

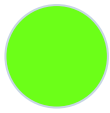
112 
Green + Red >> 15
DMX 112

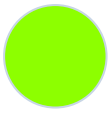
113 
Green + Red >> 16
DMX 113

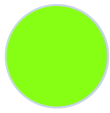
114 
Green + Red >> 17
DMX 114

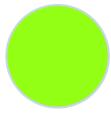
115 
Green + Red >> 18
DMX 115

116 
Green + Red >> 19
DMX 116

117 
Green + Red >> 20
DMX 117

118 
Green + Red >> 22
DMX 118

119 
Green + Red >> 21
DMX 119

120 
Green + Red >> 23...37
DMX 120

121
Green + Red >> 24
DMX 121

122
Green + Red >> 25
DMX 122

123
Green + Red >> 26
DMX 123

124
Green + Red >> 27
DMX 124

125
Green + Red >> 28
DMX 125

126
Green + Red >> 29
DMX 126

127
Green + Red >> 30
DMX 127

128
Green + Red >> 31
DMX 128

129
Green + Red >> 32
DMX 129

130
Green + Red >> 33
DMX 130

131
Green + Red >> 34
DMX 131

132
Green + Red >> 35
DMX 132

133
Green + Red >> 36
DMX 133

134
Green + Red >> 37
DMX 134

135
Yellow
DMX 135

136
Red + Green << 0...38
DMX 136

137
Red + Green << 01
DMX 137

138
Red + Green << 02
DMX 138

139
Red + Green << 03
DMX 139

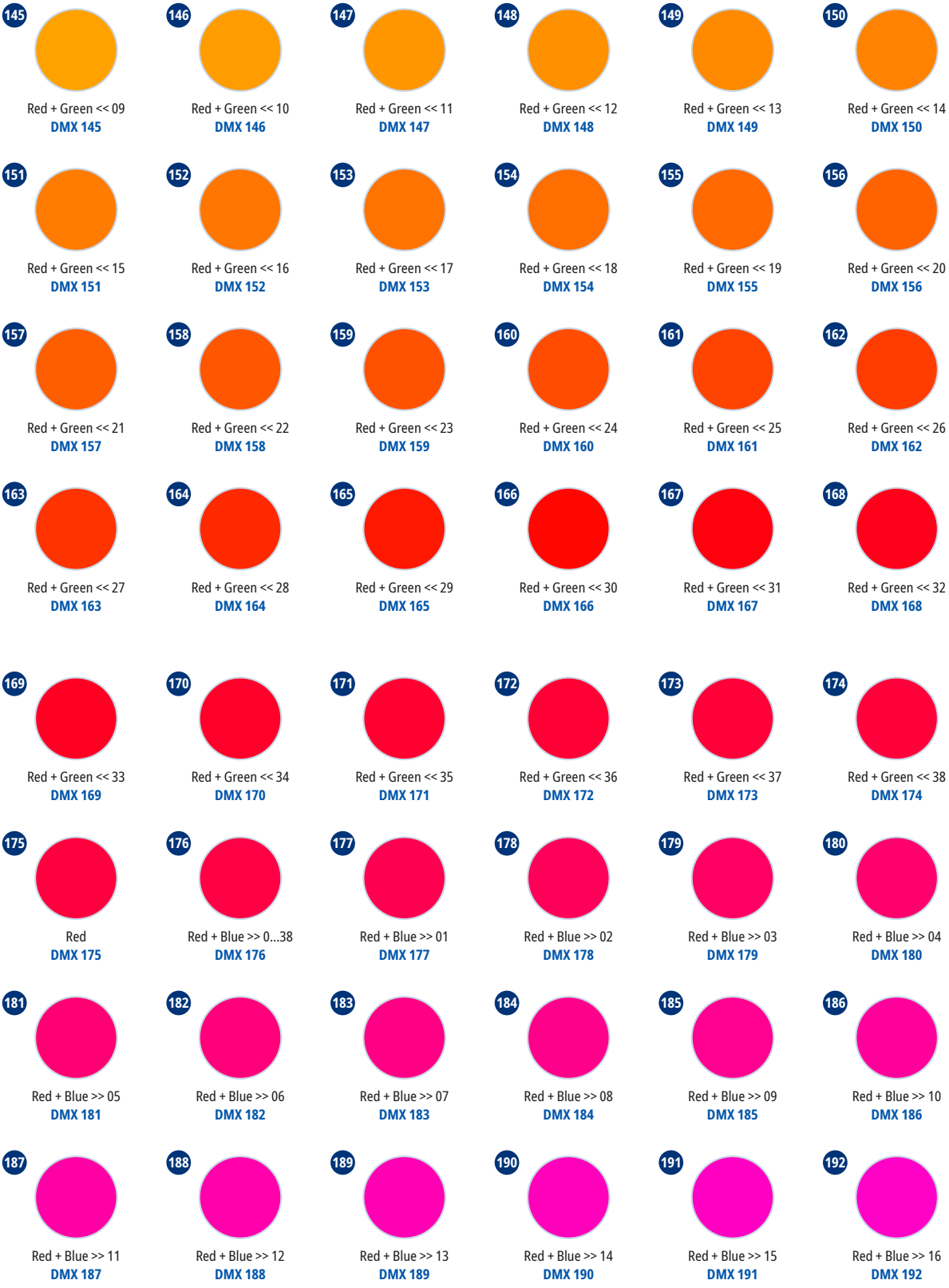
140
Red + Green << 04
DMX 140

141
Red + Green << 05
DMX 141

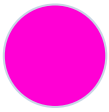
142
Red + Green << 06
DMX 142

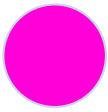
143
Red + Green << 07
DMX 143

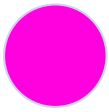
144
Red + Green << 08
DMX 144

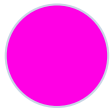

145
Red + Green << 09
DMX 145
146
Red + Green << 10
DMX 146
147
Red + Green << 11
DMX 147
148
Red + Green << 12
DMX 148
149
Red + Green << 13
DMX 149
150
Red + Green << 14
DMX 150
151
Red + Green << 15
DMX 151
152
Red + Green << 16
DMX 152
153
Red + Green << 17
DMX 153
154
Red + Green << 18
DMX 154
155
Red + Green << 19
DMX 155
156
Red + Green << 20
DMX 156
157
Red + Green << 21
DMX 157
158
Red + Green << 22
DMX 158
159
Red + Green << 23
DMX 159
160
Red + Green << 24
DMX 160
161
Red + Green << 25
DMX 161
162
Red + Green << 26
DMX 162
163
Red + Green << 27
DMX 163
164
Red + Green << 28
DMX 164
165
Red + Green << 29
DMX 165
166
Red + Green << 30
DMX 166
167
Red + Green << 31
DMX 167
168
Red + Green << 32
DMX 168
169
Red + Green << 33
DMX 169
170
Red + Green << 34
DMX 170
171
Red + Green << 35
DMX 171
172
Red + Green << 36
DMX 172
173
Red + Green << 37
DMX 173
174
Red + Green << 38
DMX 174
175
Red
DMX 175
176
Red + Blue >> 0...38
DMX 176
177
Red + Blue >> 01
DMX 177
178
Red + Blue >> 02
DMX 178
179
Red + Blue >> 03
DMX 179
180
Red + Blue >> 04
DMX 180
181
Red + Blue >> 05
DMX 181
182
Red + Blue >> 06
DMX 182
183
Red + Blue >> 07
DMX 183
184
Red + Blue >> 08
DMX 184
185
Red + Blue >> 09
DMX 185
186
Red + Blue >> 10
DMX 186
187
Red + Blue >> 11
DMX 187
188
Red + Blue >> 12
DMX 188
189
Red + Blue >> 13
DMX 189
190
Red + Blue >> 14
DMX 190
191
Red + Blue >> 15
DMX 191
192
Red + Blue >> 16
DMX 192

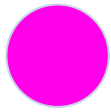
193 
Red + Blue >> 17
DMX 193

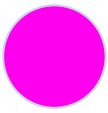
194 
Red + Blue >> 18
DMX 194

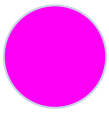
195 
Red + Blue >> 19
DMX 195

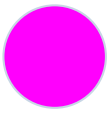
196 
Red + Blue >> 20
DMX 196

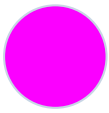
197 
Red + Blue >> 21
DMX 197

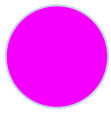
198 
Red + Blue >> 22
DMX 198

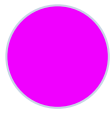
199 
Red + Blue >> 23
DMX 199

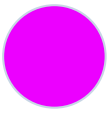
200 
Red + Blue >> 24
DMX 200

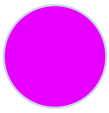
201 
Red + Blue >> 25
DMX 201

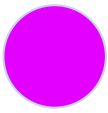
202 
Red + Blue >> 26
DMX 202

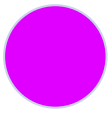
203 
Red + Blue >> 27
DMX 203

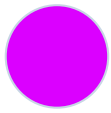
204 
Red + Blue >> 28
DMX 204

205 
Red + Blue >> 29
DMX 205

206 
Red + Blue >> 30
DMX 206

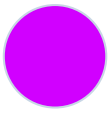
207 
Red + Blue >> 31
DMX 207

208 
Red + Blue >> 32
DMX 208

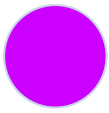
209 
Red + Blue >> 33
DMX 209

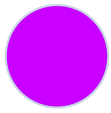
210 
Red + Blue >> 34
DMX 210

211 
Red + Blue >> 35
DMX 211

212 
Red + Blue >> 36
DMX 212

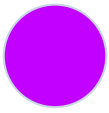
213 
Red + Blue >> 37
DMX 213

214 
Red + Blue >> 38
DMX 214

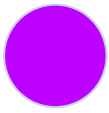
215 
Magenta
DMX 215

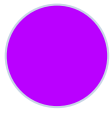
216 
Blue + Red << 0...30
DMX 216

217 
Blue + Red << 01
DMX 217

218 
Blue + Red << 02
DMX 218

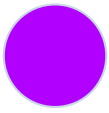
219 
Blue + Red << 03
DMX 219

220 
Blue + Red << 04
DMX 220

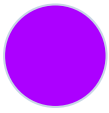
221 
Blue + Red << 05
DMX 221

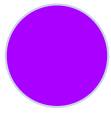
222 
Blue + Red << 06
DMX 222

223 
Blue + Red << 07
DMX 223

224 
Blue + Red << 08
DMX 224

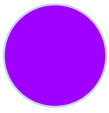
225 
Blue + Red << 09
DMX 225

226 
Blue + Red << 10
DMX 226

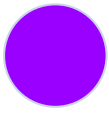
227 
Blue + Red << 11
DMX 227

228 
Blue + Red << 12
DMX 228

229 
Blue + Red << 13
DMX 229

230 
Blue + Red << 14
DMX 230

231 
Blue + Red << 15
DMX 231

232 
Blue + Red << 16
DMX 232

233
Blue + Red << 17
DMX 233

234
Blue + Red << 18
DMX 234

235
Blue + Red << 19
DMX 235

236
Blue + Red << 20
DMX 236

237
Blue + Red << 21
DMX 237

238
Blue + Red << 22
DMX 238

239
Blue + Red << 23
DMX 239

240
Blue + Red << 24
DMX 240

241 Blue + Red << 25
DMX 241

242 Blue + Red << 26
DMX 242

243 Blue + Red << 27
DMX 243

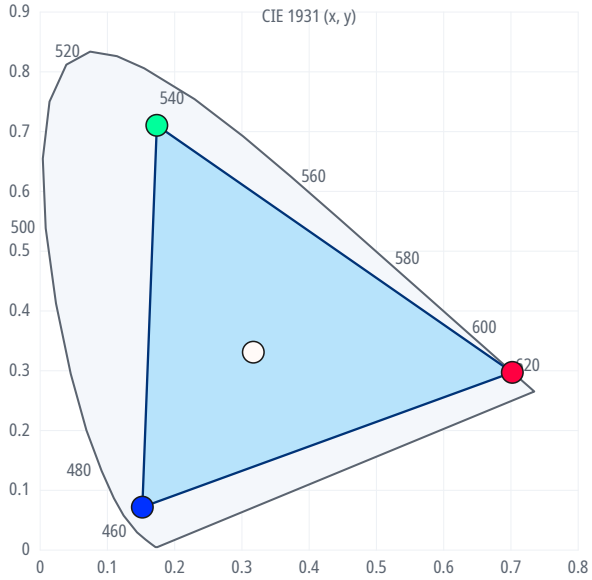
244 Blue + Red << 28
DMX 244

245 Blue + Red << 29
DMX 245

246 Blue + Red << 30
DMX 246

247 Blue
DMX 247

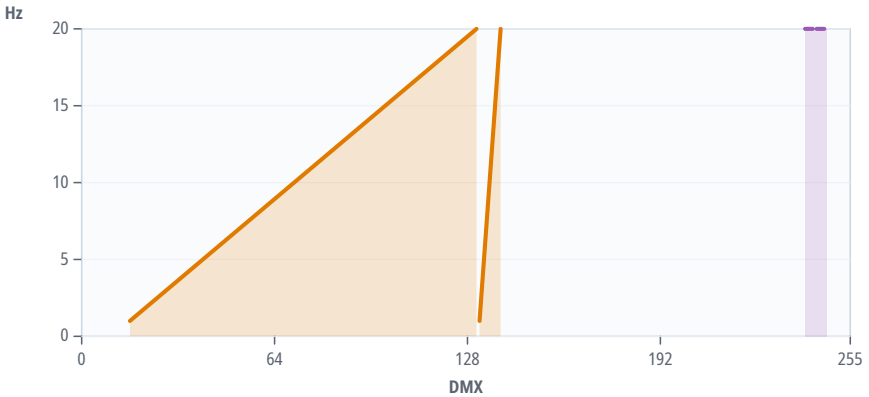
LED colors and the colors they mix



LED	x	y	nm
Red	0.702	0.297	626
Green	0.173	0.711	527
Blue	0.152	0.072	452
White	0.317	0.331	

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

Strobe rate



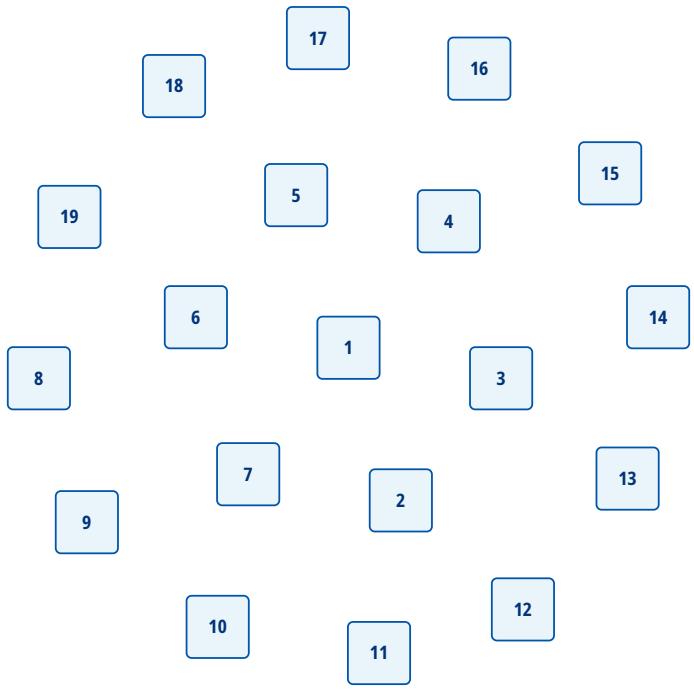
CH 35 · 39Ch Pixel Macros

16–131: 1–20 Hz
Strobe: Slow to fast

132–139: 1–20 Hz
Thunder: Slow to fast

240–247: 20–20 Hz
Random

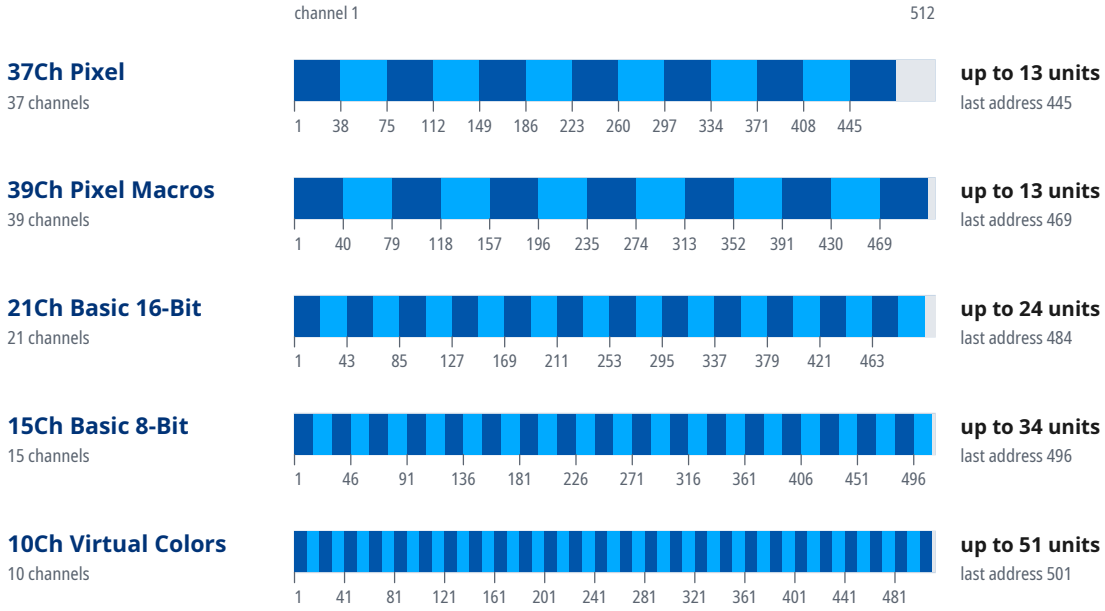
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered in the file's order; the mode “39Ch Pixel Macros” drives them together.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “39Ch Pixel Macros”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	196	11	391	16	U2 · 79
2	40	7	235	12	430	17	U2 · 118
3	79	8	274	13	469	18	U2 · 157
4	118	9	313	14	U2 · 1	19	U2 · 196
5	157	10	352	15	U2 · 40	20	U2 · 235

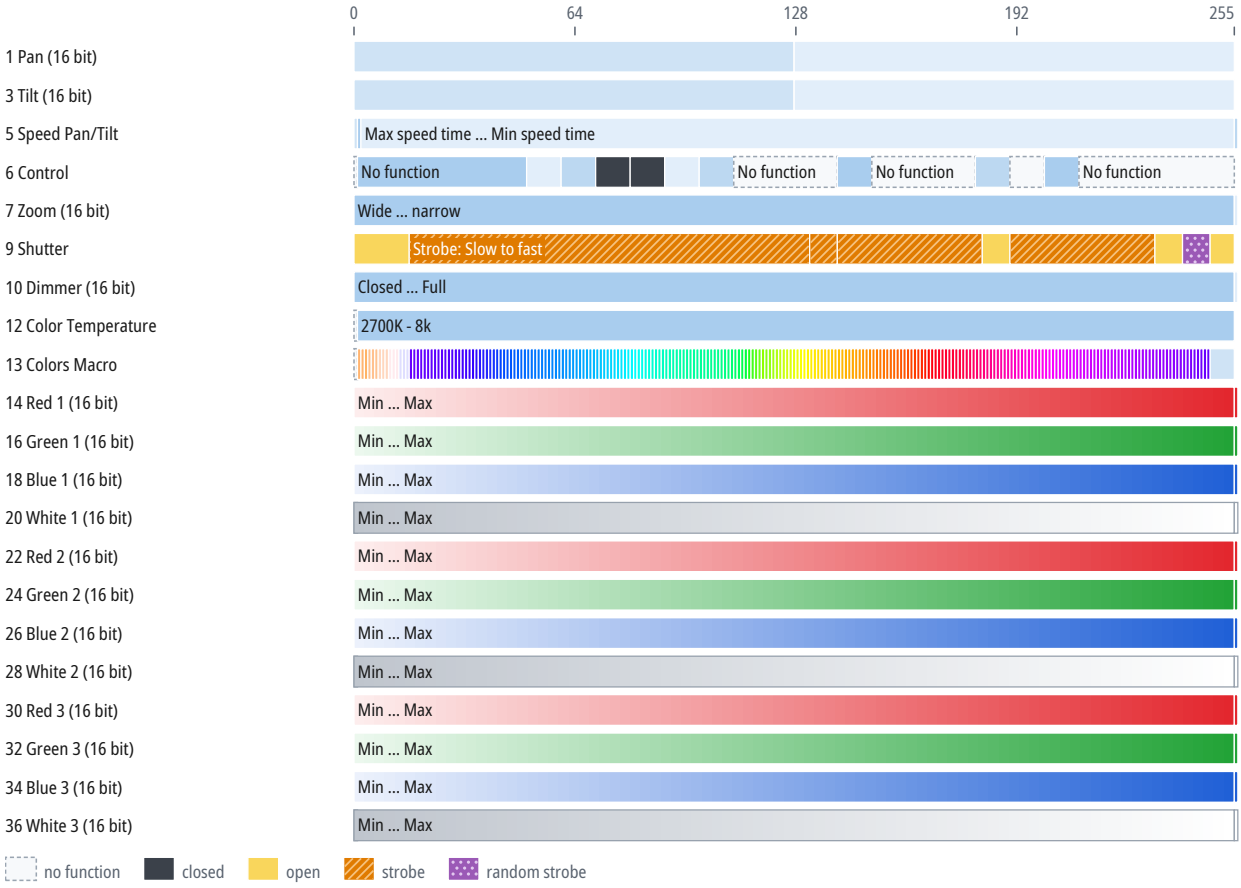
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 37Ch Pixel

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 9 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 10 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 9 Shutter 255, CH 10 Dimmer 255, CH 12 Color Temperature 0, CH 13 Colors Macro 0, CH 14 Red 1 255, CH 16 Green 1 255, CH 18 Blue 1 255, CH 20 White 1 255, CH 22 Red 2 255, CH 24 Green 2 255, CH 26 Blue 2 255, CH 28 White 2 255, CH 30 Red 3 255, CH 32 Green 3 255, CH 34 Blue 3 255, CH 36 White 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Pan
		128	Center
		128–255	Pan
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Tilt
		128	Center
		128–255	Tilt
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0	Standard mode
		1	Max speed time
		2–254	Max speed time ... Min speed time

CH	Function	DMX	Description
5	Speed Pan/Tilt (continued)	255	Min speed time
6	Control	0	No function
		1–49	No function
		50–59	P/T speed mode
		60–69	P/T time mode
		70–79	Blackout while P/T moving: ON
		80–89	Blackout while P/T moving: OFF
		90–99	Theatre mode ON
		100–109	Theatre mode OFF
		110–139	No function
		140–149	P/T reset
		150–179	No function
		180–189	Zoom/Beam shaper reset
		190–199	No function
		200–209	Total reset
		210–255	No function
7	Zoom	0–255	Wide ... narrow
		255	Narrow
8	Zoom Fine	0–255	Fine adjustment of CH 7
9	Shutter	0–15	Closed/Open: Open
		16–131	Strobe: Slow to fast (1–20 Hz)
		132–139	Thunder: Slow to fast (1–20 Hz)
		140–181	Fade Close: Fast To Slow (1–0.25 Hz)
		182–189	Open
		190–231	Fade Open: Fast To Slow (1–0.25 Hz)
		232–239	Open
		240–247	Random
		248–255	Open
10	Dimmer	0–255	Closed ... Full
		255	Full
11	Dimmer Fine	0–255	Fine adjustment of CH 10
12	Color Temperature	0	Off
		1–255	2700K - 8k (2700–8000 K)
13	Colors Macro	0	Off
		1–2	White 2700 K
		3	White 2700 K (Halogen lamp mode)
		4	White 3200 K
		5	White 2700 K
		6	White 3200 K (Halogen lamp mode)
		7–9	White 4200 K
		10	White 5600 K
		11–12	White 4200 K

CH	Function	DMX	Description
13	Colors Macro (continued)	13–15	White 8000 K
		16	Blue
		17–55	Blue + Green >> 0...38
		56	LightBlue
		57–95	Green + Blue << 0...38
		96	Green
		97–117	Green + Red >> 0...20
		118	Green + Red >> 22
		119	Green + Red >> 21
		120–134	Green + Red >> 23...37
		135	Yellow
		136–174	Red + Green << 0...38
		175	Red
		176–214	Red + Blue >> 0...38
		215	Magenta
		216–246	Blue + Red << 0...30
		247	Blue
		248–255	Color Macros
14	Red 1		Red Zone 1
		0–255	Min ... Max
		255	Max
15	Red 1 Fine	0–255	Fine adjustment of CH 14
16	Green 1		Green Zone 1
		0–255	Min ... Max
		255	Max
17	Green 1 Fine	0–255	Fine adjustment of CH 16
18	Blue 1		Blue Zone 1
		0–255	Min ... Max
		255	Max
19	Blue 1 Fine	0–255	Fine adjustment of CH 18
20	White 1		White Zone 1
		0–255	Min ... Max
		255	Max
21	White 1 Fine	0–255	Fine adjustment of CH 20
22	Red 2		Red Zone 2
		0–255	Min ... Max
		255	Max
23	Red 2 Fine	0–255	Fine adjustment of CH 22
24	Green 2		Green Zone 2
		0–255	Min ... Max
		255	Max
25	Green 2 Fine	0–255	Fine adjustment of CH 24

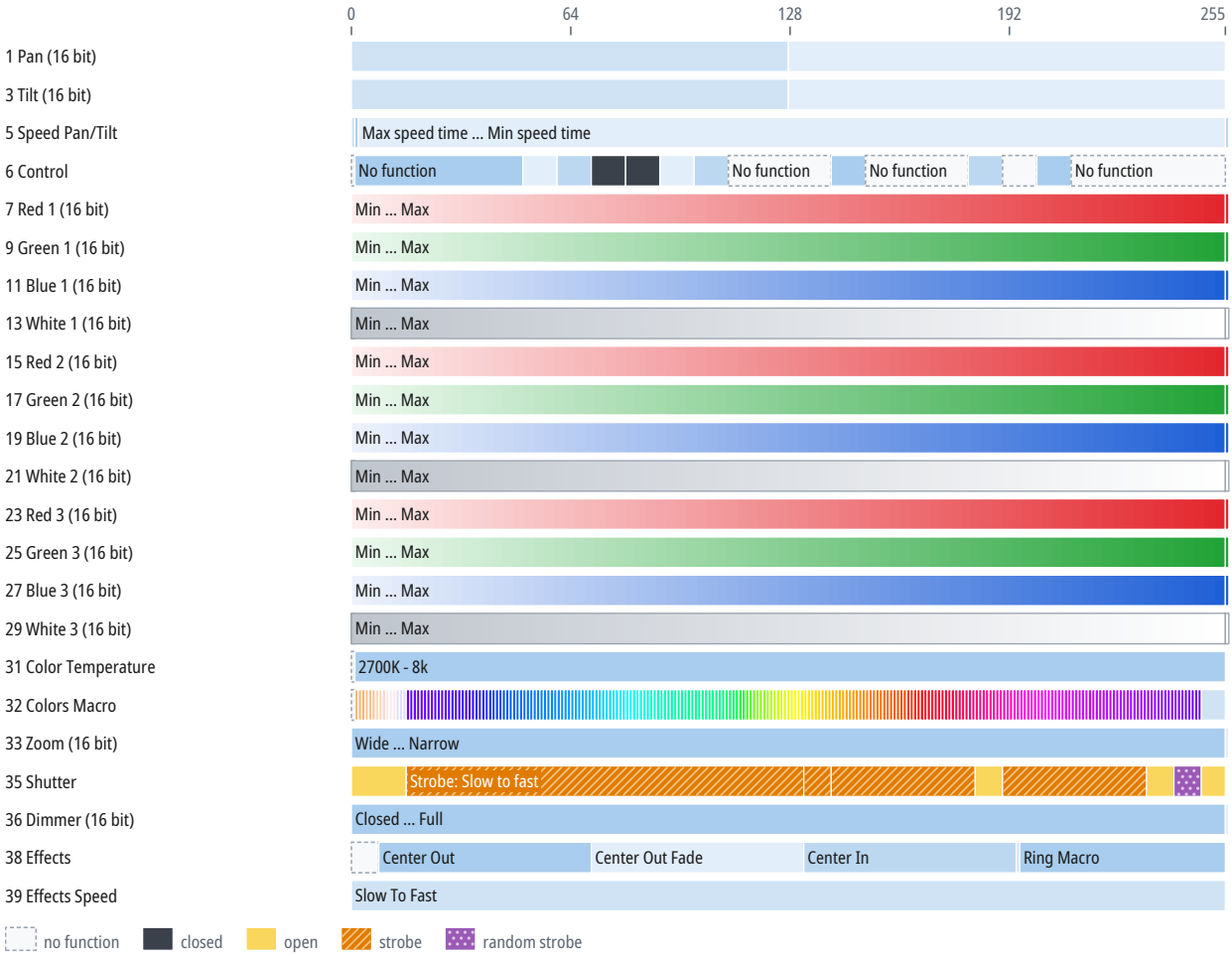
CH	Function	DMX	Description
26	Blue 2		Blue Zone 2
		0–255	Min … Max
		255	Max
27	Blue 2 Fine	0–255	Fine adjustment of CH 26
28	White 2		White Zone 2
		0–255	Min … Max
		255	Max
29	White 2 Fine	0–255	Fine adjustment of CH 28
30	Red 3		Red Zone 3
		0–255	Min … Max
		255	Max
31	Red 3 Fine	0–255	Fine adjustment of CH 30
32	Green 3		Green Zone 3
		0–255	Min … Max
		255	Max
33	Green 3 Fine	0–255	Fine adjustment of CH 32
34	Blue 3		Blue Zone 3
		0–255	Min … Max
		255	Max
35	Blue 3 Fine	0–255	Fine adjustment of CH 34
36	White 3		White Zone 3
		0–255	Min … Max
		255	Max
37	White 3 Fine	0–255	Fine adjustment of CH 36

Mode 39Ch Pixel Macros

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 35 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 36 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 1 255, CH 9 Green 1 255, CH 11 Blue 1 255, CH 13 White 1 255, CH 15 Red 2 255, CH 17 Green 2 255, CH 19 Blue 2 255, CH 21 White 2 255, CH 23 Red 3 255, CH 25 Green 3 255, CH 27 Blue 3 255, CH 29 White 3 255, CH 31 Color Temperature 0, CH 32 Colors Macro 0, CH 35 Shutter 255, CH 36 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “37Ch Pixel” (p. 16)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “37Ch Pixel” (p. 16)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “37Ch Pixel” (p. 16)
6	Control		Same as CH 6 in the mode “37Ch Pixel” (p. 17)
7	Red 1		When CH 32 is 0:
		0–255	Min ... Max
		255	Max

CH	Function	DMX	Description
8	Red 1 Fine	0–255	Fine adjustment of CH 7
9	Green 1		When CH 32 is 0:
		0–255	Min ... Max
		255	Max
10	Green 1 Fine	0–255	Fine adjustment of CH 9
11	Blue 1		When CH 32 is 0:
		0–255	Min ... Max
		255	Max
12	Blue 1 Fine	0–255	Fine adjustment of CH 11
13	White 1		When CH 32 is 0:
		0–255	Min ... Max
		255	Max
14	White 1 Fine	0–255	Fine adjustment of CH 13
15	Red 2		Same as CH 22 in the mode “37Ch Pixel” (p. 18)
16	Red 2 Fine	0–255	Fine adjustment of CH 15
17	Green 2		Same as CH 24 in the mode “37Ch Pixel” (p. 18)
18	Green 2 Fine	0–255	Fine adjustment of CH 17
19	Blue 2		Same as CH 26 in the mode “37Ch Pixel” (p. 19)
20	Blue 2 Fine	0–255	Fine adjustment of CH 19
21	White 2		Same as CH 28 in the mode “37Ch Pixel” (p. 19)
22	White 2 Fine	0–255	Fine adjustment of CH 21
23	Red 3		Same as CH 30 in the mode “37Ch Pixel” (p. 19)
24	Red 3 Fine	0–255	Fine adjustment of CH 23
25	Green 3		Same as CH 32 in the mode “37Ch Pixel” (p. 19)
26	Green 3 Fine	0–255	Fine adjustment of CH 25
27	Blue 3		Same as CH 34 in the mode “37Ch Pixel” (p. 19)
28	Blue 3 Fine	0–255	Fine adjustment of CH 27
29	White 3		Same as CH 36 in the mode “37Ch Pixel” (p. 19)
30	White 3 Fine	0–255	Fine adjustment of CH 29
31	Color Temperature		Same as CH 12 in the mode “37Ch Pixel” (p. 17)
32	Colors Macro		Same as CH 13 in the mode “37Ch Pixel” (p. 17)
33	Zoom	0–255	Wide ... Narrow
		255	Narrow
34	Zoom Fine	0–255	Fine adjustment of CH 33
35	Shutter		Same as CH 9 in the mode “37Ch Pixel” (p. 17)
36	Dimmer		Same as CH 10 in the mode “37Ch Pixel” (p. 17)
37	Dimmer Fine	0–255	Fine adjustment of CH 36
38	Effects		Ring Macro
		0–7	Off
		8–69	Center Out
		70–131	Center Out Fade
		132–193	Center In

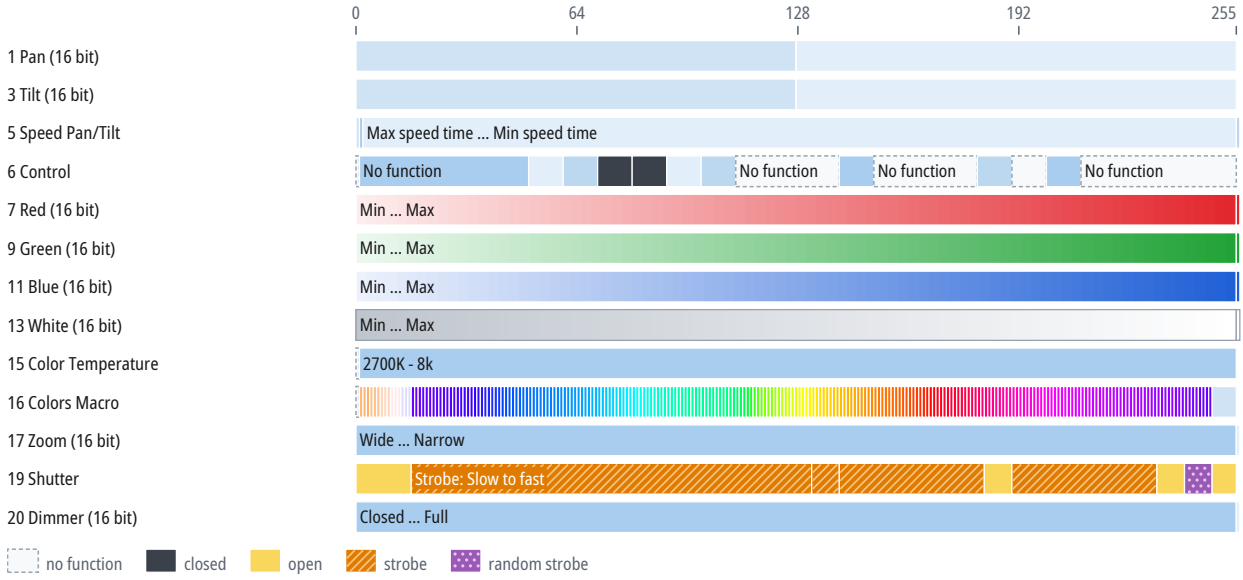
CH	Function	DMX	Description
38	Effects (continued)	194	Center In Fade
		195–255	Ring Macro
39	Effects Speed		Macro Speed
		0–255	Slow To Fast (1–20 Hz)

Mode 21Ch Basic 16-Bit

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 19 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 20 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 255, CH 9 Green 255, CH 11 Blue 255, CH 13 White 255, CH 15 Color Temperature 0, CH 16 Colors Macro 0, CH 19 Shutter 255, CH 20 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “37Ch Pixel” (p. 16)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “37Ch Pixel” (p. 16)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “37Ch Pixel” (p. 16)
6	Control		Same as CH 6 in the mode “37Ch Pixel” (p. 17)
7	Red		When CH 16 is 0:
		0–255	Min ... Max
		255	Max
8	Red Fine	0–255	Fine adjustment of CH 7
9	Green		When CH 16 is 0:
		0–255	Min ... Max
		255	Max
10	Green Fine	0–255	Fine adjustment of CH 9
11	Blue		When CH 16 is 0:

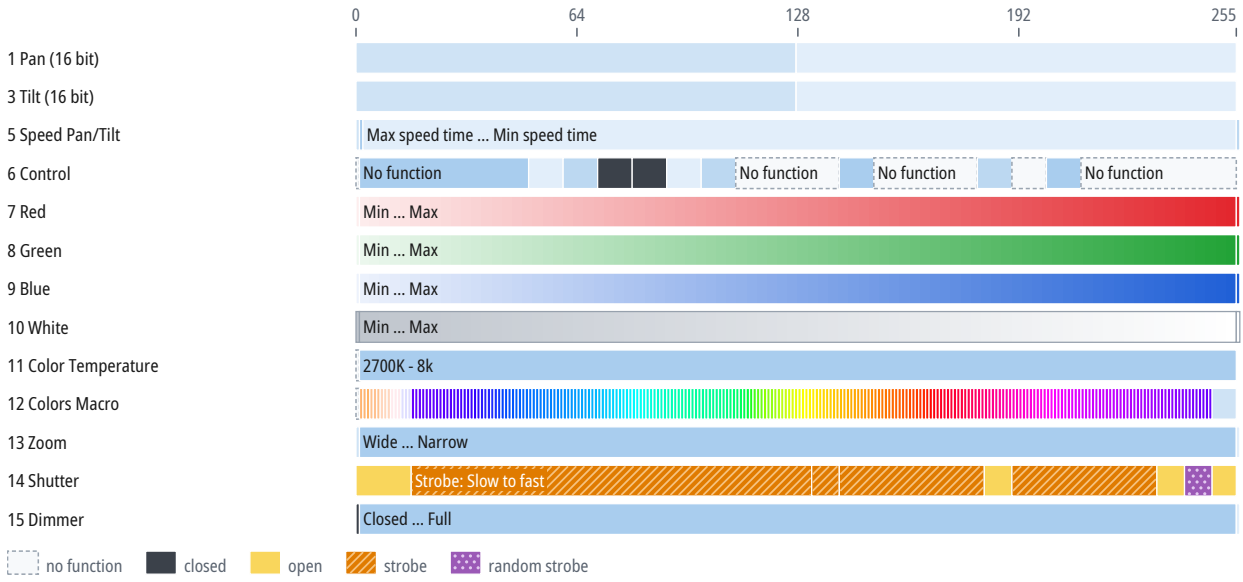
CH	Function	DMX	Description
11	Blue (continued)	0–255	Min ... Max
		255	Max
12	Blue Fine	0–255	Fine adjustment of CH 11
13	White		When CH 16 is 0:
		0–255	Min ... Max
		255	Max
14	White Fine	0–255	Fine adjustment of CH 13
15	Color Temperature		Same as CH 12 in the mode “37Ch Pixel” (p. 17)
16	Colors Macro		Same as CH 13 in the mode “37Ch Pixel” (p. 17)
17	Zoom		Same as CH 33 in the mode “39Ch Pixel Macros” (p. 21)
18	Zoom Fine	0–255	Fine adjustment of CH 17
19	Shutter		Same as CH 9 in the mode “37Ch Pixel” (p. 17)
20	Dimmer		Same as CH 10 in the mode “37Ch Pixel” (p. 17)
21	Dimmer Fine	0–255	Fine adjustment of CH 20

Mode 15Ch Basic 8-Bit

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 14 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 15 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Red 255, CH 8 Green 255, CH 9 Blue 255, CH 10 White 255, CH 11 Color Temperature 0, CH 12 Colors Macro 0, CH 14 Shutter 255, CH 15 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “37Ch Pixel” (p. 16)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “37Ch Pixel” (p. 16)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “37Ch Pixel” (p. 16)

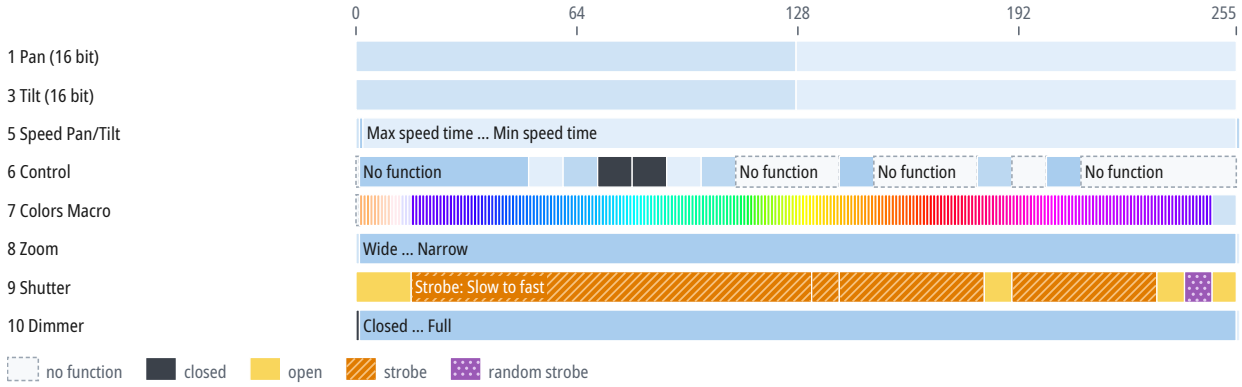
CH	Function	DMX	Description
6	Control		Same as CH 6 in the mode “37Ch Pixel” (p. 17)
7	Red		Red Zone 1
		0	Min
		1–254	Min ... Max
		255	Max
8	Green		When CH 12 is 0:
		0	Min
		1–254	Min ... Max
		255	Max
9	Blue		When CH 12 is 0:
		0	Min
		1–254	Min ... Max
		255	Max
10	White		When CH 12 is 0:
		0	Min
		1–254	Min ... Max
		255	Max
11	Color Temperature		Same as CH 12 in the mode “37Ch Pixel” (p. 17)
12	Colors Macro		Same as CH 13 in the mode “37Ch Pixel” (p. 17)
13	Zoom	0	Wide
		1–254	Wide ... Narrow
		255	Narrow
14	Shutter		Same as CH 9 in the mode “37Ch Pixel” (p. 17)
15	Dimmer	0	Closed
		1–254	Closed ... Full
		255	Full

Mode 10Ch Virtual Colors

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 9 Shutter at 0–15, 182–189, 232–239 or 248–255 “Open”; CH 10 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 7 Colors Macro 0, CH 9 Shutter 255, CH 10 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “37Ch Pixel” (p. 16)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “37Ch Pixel” (p. 16)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “37Ch Pixel” (p. 16)
6	Control		Same as CH 6 in the mode “37Ch Pixel” (p. 17)
7	Colors Macro		Same as CH 13 in the mode “37Ch Pixel” (p. 17)
8	Zoom		Same as CH 13 in the mode “15Ch Basic 8-Bit” (p. 24)
9	Shutter		Same as CH 9 in the mode “37Ch Pixel” (p. 17)
10	Dimmer		Same as CH 15 in the mode “15Ch Basic 8-Bit” (p. 24)

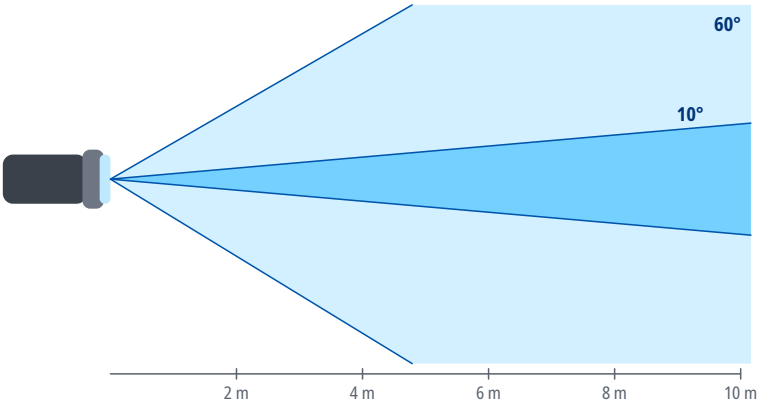
10 Technical specifications

Parameter	Value
Light	
Light source	LED
Optics	
Zoom	10–60°
Movement	
Pan	540°
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
Electrical	
Power supply	110–240 V, 50/60 Hz
Power consumption	425 W
Power connectors	powerCON TRUE1 IN
Dimensions and construction	
Weight	9.3 kg
Operating environment	
Operating temperature	5 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–8000 K
Strobe frequency	1–20 Hz

Spot diameter



Distance	Ø 10°	Ø 60°
2 m	0.35 m	2.3 m
4 m	0.7 m	4.6 m
6 m	1 m	6.9 m
8 m	1.4 m	9.2 m
10 m	1.7 m	11.5 m
15 m	2.6 m	17.3 m

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or

pressure washers, and make sure no liquid gets into the device.

- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.