DMX REFERENCE

Proteus Lucius

Light Action Fixtures



Manufacturer	Light Action Fixtures
GDTF file	Light_Action_Fixtures_Proteus_Lucius_168531.gdtf
GDTF revision	LA V1 · 2026-11-09
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1 About this manual

This document describes the Proteus Lucius by Light Action Fixtures. It was compiled from the GDTF file Light_Action_Fixtures_Proteus_Lucius_168531.gdtf from the GDTF-Share library.

File revision: “LA V1”.

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 Light Action Fixtures; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Weight	41 kg
Ingress protection	IP65

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extended Pan540	68	7	1, 69, 137, 205, ...
Extended Pan630	68	7	1, 69, 137, 205, ...
Standard Pan540	43	11	1, 44, 87, 130, ...
Standard Pan630	43	11	1, 44, 87, 130, ...



Read the manual before use



Do not stare into the light

3 Safety instructions



Read the manual before use



Do not stare into the light

⚠ 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.

⚠ CAUTION

- The device is rated IP65 and may be used outdoors within the limits of this rating.
- This protection is effective only when all connectors are mated or closed with their protective caps and all seals are intact. Use cables and connectors with the same or a higher protection rating.
- Do not open the housing; opening it breaks the seals and the protection rating can no longer be guaranteed.
- Install the device so that water cannot collect around connectors and cable glands, and inspect seals and cables regularly.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

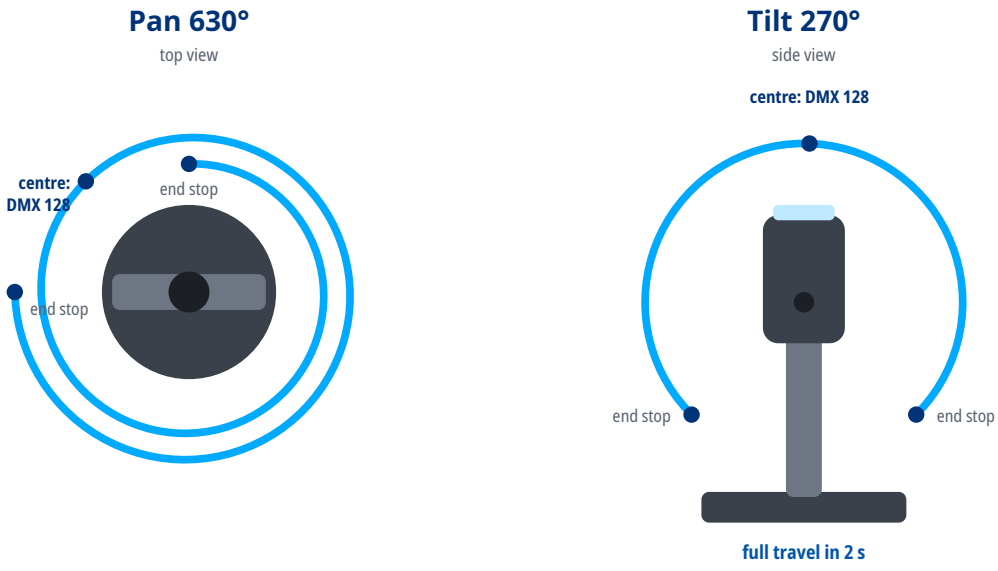
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

4 Product description

Description in the GDTF file

“The PROTEUS LUCIUS™ is a powerful yet compact IP65-rated LED profile fixture offering outstanding projection and beam qualities in any environment. Providing up to 33,500 lumens output from its custom-designed Peak Field 580W 6,500K LED engine, the PROTEUS LUCIUS is the ideal fixture for any outdoor or indoor application requiring superior output, bright and powerful beams, and quiet operation, as well as stunningly precise gobos and colors. PROTEUS LUCIUS provides the designer a comprehensive FX package with 13 rotating and 7 fixed glass gobos, full animation wheel, overlapping dual prisms, dual frost and a high-speed iris. Its indexable framing system allows full-blackout shutter cuts for precise beam shape control.”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

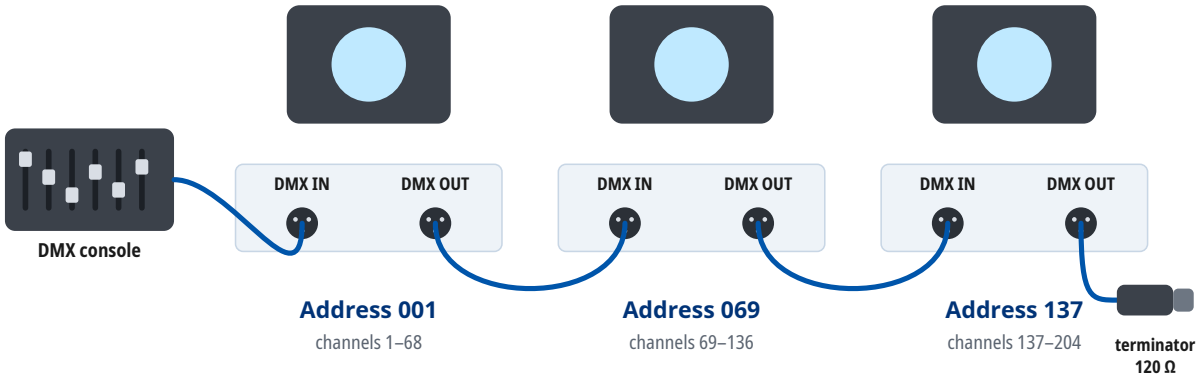
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 41 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 Pan540: every unit occupies 68 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 Pan540”: 68.
- 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 Pan540”, you can use, for example, the start addresses 1, 69, 137, 205.
- 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 Pan540 68 channels	Extended Pan630 68 channels	Standard Pan540 43 channels	Standard Pan630 43 channels
Pan / Tilt	1, 3	1, 3	1, 3	1, 3
Dimmer	36	36	26	26
Shutter / strobe	35	35	25	25
Color mixing	5, 7, 9	5, 7, 9	5–7	5–7
Color temperature	11	11	8	8
Color wheel	13	13	9	9
Gobo wheel	15, 18, 21	15, 18, 21	10, 13, 16	10, 13, 16
Gobo rotation	15, 16, 19	15, 16, 19	10, 11, 14	10, 11, 14
Prism	23, 24, 26, 27	23, 24, 26, 27	17–20	17–20
Frost	41, 42	41, 42	30, 31	30, 31
Zoom	31	31	23	23
Focus	29, 33	29, 33	21	21
Iris	39	39	29	29
Animation wheel	43, 44	43, 44	32, 33	32, 33
Effects / macros	23, 46, 66	23, 46, 66	17	17

Color wheel



1. Color Wheel: Open — DMX 0–7
2. Red — DMX 8–31
3. Green — DMX 32–55
4. High CRI — DMX 56–79
5. Orange — DMX 80–103
6. Medium Blue — DMX 104–126

Gobo wheel 1



1. Gobo Wheel: Open — DMX 0–9
2. Gobo Wheel: Gobo 1 — DMX 10–19
3. Gobo Wheel: Gobo 2 — DMX 20–29
4. Gobo Wheel: Gobo 3 — DMX 30–39
5. Gobo Wheel: Gobo 4 — DMX 40–49
6. Gobo Wheel: Gobo 5 — DMX 50–59



7. Gobo 6 — DMX 60–70

Gobo wheel 2

1
Gobo Wheel: Open
DMX 0–9

2 
Gobo Wheel: Gobo 1
DMX 10–19

3 
Gobo Wheel: Gobo 2
DMX 20–29

4 
Gobo Wheel: Gobo 3
DMX 30–39

5 
Gobo Wheel: Gobo 4
DMX 40–49

6 
Gobo Wheel: Gobo 5
DMX 50–59

7 
Gobo Wheel: Gobo 6
DMX 60–69

8 
Gobo 7
DMX 70–78

Gobo wheel 3

1
Gobo Wheel: Open
DMX 0–9

2 
Gobo Wheel: Gobo 1
DMX 10–19

3 
Gobo Wheel: Gobo 2
DMX 20–29

4 
Gobo Wheel: Gobo 3
DMX 30–39

5 
Gobo Wheel: Gobo 4
DMX 40–49

6 
Gobo Wheel: Gobo 5
DMX 50–59

7 
Gobo Wheel: Gobo 6
DMX 60–69

8 
Gobo Wheel: Gobo 7
DMX 70–76

Prism 1

1
Prism 1 4 Facet: Open
DMX 0–63

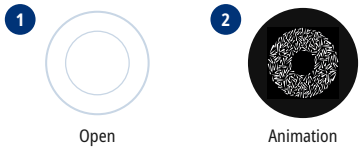
2 
4 facets
4 Facet Circular
DMX 64–128

Prism 2

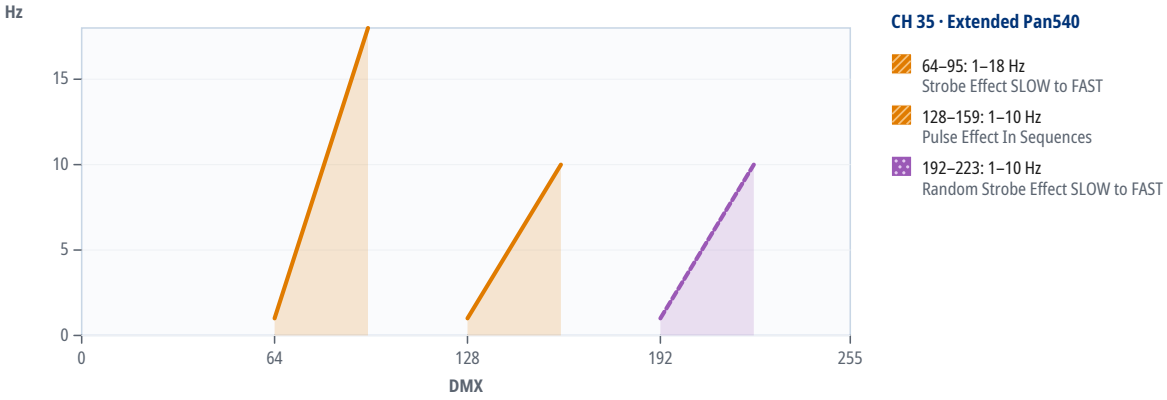
1
Open
DMX 0–63

2 
4 facets
Linear Prism
DMX 64–255

Animation wheel

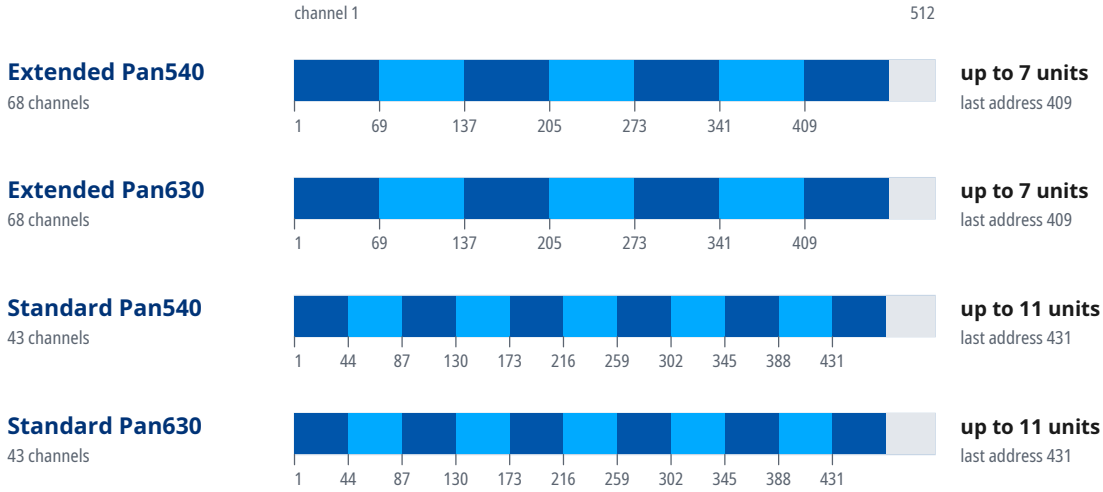


Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended Pan540”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	341	11	U2 · 205	16	U3 · 69
2	69	7	409	12	U2 · 273	17	U3 · 137
3	137	8	U2 · 1	13	U2 · 341	18	U3 · 205
4	205	9	U2 · 69	14	U2 · 409	19	U3 · 273
5	273	10	U2 · 137	15	U3 · 1	20	U3 · 341

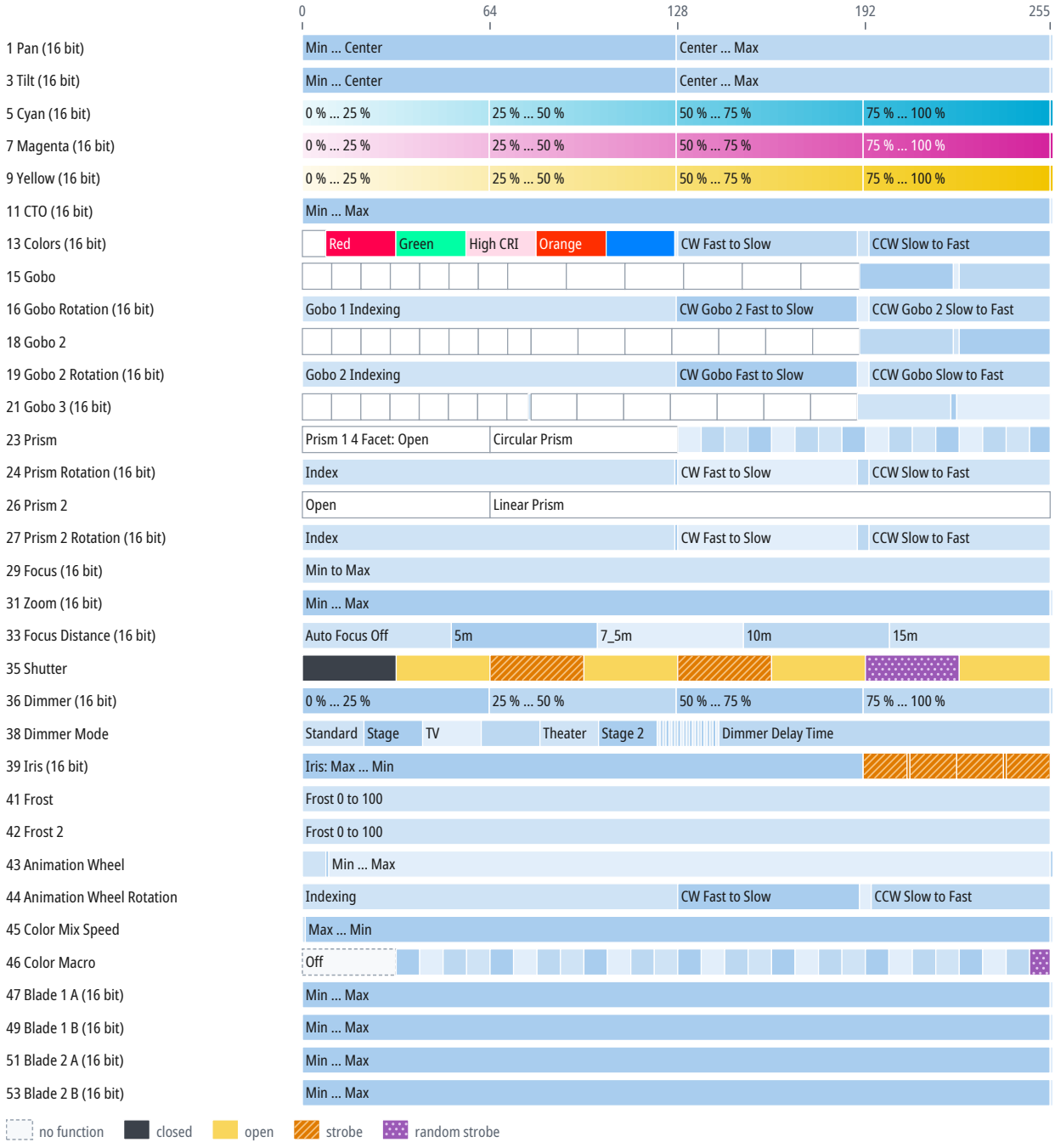
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode Extended Pan540

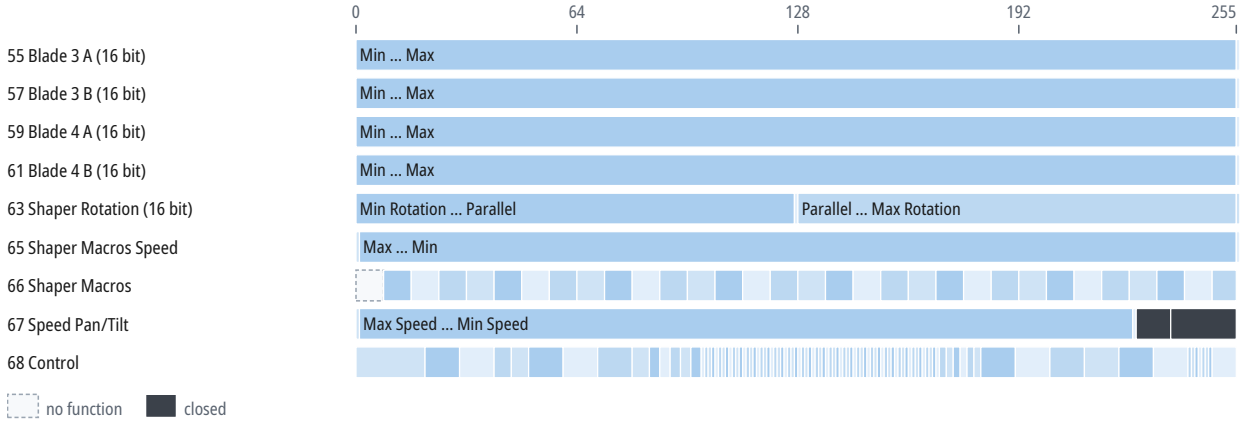
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 11 CTO 0, CH 35 Shutter 47, CH 36 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		128–255	Center ... Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–63	0 % ... 25 %
		63	25 %
		64–127	25 % ... 50 %
		127	50 %
		128–191	50 % ... 75 %
		191	75 %
		192–255	75 % ... 100 %
		255	100 %
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–63	0 % ... 25 %
		63	25 %
		64–127	25 % ... 50 %
		127	50 %
		128–191	50 % ... 75 %
		191	75 %
		192–255	75 % ... 100 %
		255	100 %
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow	0–63	0 % ... 25 %
		63	25 %
		64–127	25 % ... 50 %

CH	Function	DMX	Description
9	Yellow (continued)	127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO	0–255	Min … Max
		255	Max
12	CTO Fine	0–255	Fine adjustment of CH 11
13	Colors	0–7	Color Wheel: Open
		8–31	Red
		32–55	Green
		56–79	High CRI
		80–103	Orange
		104–127	Medium Blue
		127–128	Color Wheel 1
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
14	Colors Fine	0–255	Fine adjustment of CH 13
15	Gobo	0–9	Gobo Wheel: Open
		10–19	Gobo Wheel: Gobo 1
		20–29	Gobo Wheel: Gobo 2
		30–39	Gobo Wheel: Gobo 3
		40–49	Gobo Wheel: Gobo 4
		50–59	Gobo Wheel: Gobo 5
		60–69	Gobo Wheel: Gobo 6
		70–89	Gobo Wheel 1 Shake: Gobo 1 (1–5 Hz)
		90–109	Gobo Wheel 1 Shake: Gobo 2 (1–5 Hz)
		110–129	Gobo Wheel 1 Shake: Gobo 3 (1–5 Hz)
		130–149	Gobo Wheel 1 Shake: Gobo 4 (1–5 Hz)
		150–169	Gobo Wheel 1 Shake: Gobo 5 (1–5 Hz)
		170–189	Gobo Wheel 1 Shake: Gobo 6 (1–5 Hz)
		190–221	CW Fast to Slow (360–10 °/s)
		222–223	Rot Stop
		224–255	CCW Slow to Fast (10–360 °/s)
16	Gobo Rotation	0–127	Gobo 1 Indexing (360°)
		128–189	CW Gobo 2 Fast to Slow (360–10 °/s)
		190–193	Rot Stop 2
		194–255	CCW Gobo 2 Slow to Fast (10–360 °/s)
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2	0–9	Gobo Wheel: Open

CH	Function	DMX	Description
18	Gobo 2 (continued)	10–19	Gobo Wheel: Gobo 1
		20–29	Gobo Wheel: Gobo 2
		30–39	Gobo Wheel: Gobo 3
		40–49	Gobo Wheel: Gobo 4
		50–59	Gobo Wheel: Gobo 5
		60–69	Gobo Wheel: Gobo 6
		70–77	Gobo Wheel: Gobo 7
		78–93	Gobo Wheel 2 Shake: Gobo 1 (1–5 Hz)
		94–109	Gobo Wheel 2 Shake: Gobo 2 (1–5 Hz)
		110–125	Gobo Wheel 2 Shake: Gobo 3 (1–5 Hz)
		126–141	Gobo Wheel 2 Shake: Gobo 4 (1–5 Hz)
		142–157	Gobo Wheel 2 Shake: Gobo 5 (1–5 Hz)
		158–173	Gobo Wheel 2 Shake: Gobo 6 (1–5 Hz)
		174–189	Gobo Wheel 2 Shake: Gobo 7 (1–5 Hz)
		190–221	CW Fast to Slow (360–10 °/s)
		222–223	Rot Stop
		224–255	CCW Slow to Fast
19	Gobo 2 Rotation	0–127	Gobo 2 Indexing (360°)
		128–189	CW Gobo Fast to Slow (360–10 °/s)
		190–193	Not Rot
		194–255	CCW Gobo Slow to Fast (360–10 °/s)
20	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 19
21	Gobo 3	0–9	Gobo Wheel: Open
		10–19	Gobo Wheel: Gobo 1
		20–29	Gobo Wheel: Gobo 2
		30–39	Gobo Wheel: Gobo 3
		40–49	Gobo Wheel: Gobo 4
		50–59	Gobo Wheel: Gobo 5
		60–69	Gobo Wheel: Gobo 6
		70–77	Gobo Wheel: Gobo 7
		77–78	Gobo Wheel 3
		78–93	Gobo 3 Select Shake: Gobo 1 (1–5 Hz)
		94–109	Gobo 3 Select Shake: Gobo 2 (1–5 Hz)
		110–125	Gobo 3 Select Shake: Gobo 3 (1–5 Hz)
		126–141	Gobo 3 Select Shake: Gobo 4 (1–5 Hz)
		142–157	Gobo 3 Select Shake: Gobo 5 (1–5 Hz)
		158–173	Gobo 3 Select Shake: Gobo 6 (1–5 Hz)
		174–189	Gobo 3 Select Shake: Gobo 7 (1–5 Hz)
		190–221	CW Fast to Slow (360–10 °/s)
		222–223	Rot Stop
		224–255	CCW Slow to Fast (10–360 °/s)
22	Gobo 3 Fine	0–255	Fine adjustment of CH 21

CH	Function	DMX	Description
23	Prism	0–63	Prism 1 4 Facet: Open
		64–127	Circular Prism
		128–135	Prism Macro 1
		136–143	Prism Macro 2
		144–151	Prism Macro 3
		152–159	Prism Macro 4
		160–167	Prism Macro 5
		168–175	Prism Macro 6
		176–183	Prism Macro 7
		184–191	Prism Macro 8
		192–199	Prism Macro 9
		200–207	Prism Macro 10
		208–215	Prism Macro 11
		216–223	Prism Macro 12
		224–231	Prism Macro 13
		232–239	Prism Macro 14
		240–247	Prism Macro 15
		248–255	Prism Macro 16
24	Prism Rotation	0–127	Index
		127–128	Prism 1 Index
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
25	Prism Rotation Fine	0–255	Fine adjustment of CH 24
26	Prism 2	0–63	Open
		64–255	Linear Prism
27	Prism 2 Rotation	0–127	Index
		127–128	Prism 2 Index
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
28	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 27
29	Focus	0–255	Min to Max
30	Focus Fine	0–255	Fine adjustment of CH 29
31	Zoom		Zoom Beam
		0–255	Min ... Max
		255	Max
32	Zoom Fine	0–255	Fine adjustment of CH 31
33	Focus Distance		Auto Focus
		0–50	Auto Focus Off
		51–100	5m
		101–150	7_5m

CH	Function	DMX	Description
33	Focus Distance (continued)	151–200	10m
		201–255	15m
34	Focus Distance Fine	0–255	Fine adjustment of CH 33
35	Shutter	0–31	Shutter CLOSED
		32–63	NO Function (Shutter OPEN)
		64–95	Strobe Effect SLOW to FAST (1–18 Hz)
		96–127	NO Function (Shutter OPEN)
		128–159	Pulse Effect In Sequences (1–10 Hz)
		160–191	NO Function (Shutter OPEN)
		192–223	Random Strobe Effect SLOW to FAST (1–10 Hz)
		224–255	NO Function (Shutter OPEN)
36	Dimmer	0–63	0 % … 25 %
		63	25 %
		64–127	25 % … 50 %
		127	50 %
		128–191	50 % … 75 %
		191	75 %
		192–255	75 % … 100 %
		255	100 %
37	Dimmer Fine	0–255	Fine adjustment of CH 36
38	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theater
		101–120	Stage 2
		121	0s
		122	0_1s
		123	0_2s
		124	0_3s
		125	0_4s
		126	0_5s
		127	0_6s
		128	0_7s
		129	0_8s
		130	0_9s
		131	1s
		132	1_5s
		133–141	2…10s
		142–255	Dimmer Delay Time
39	Iris	0–191	Iris: Max … Min
		191	Iris: Min

CH	Function	DMX	Description
39	Iris (continued)	192–206	Pulse Close Fast
		207	Pulse Close Med
		208–223	Pulse Close Slow
		224–239	Pulse Open Slow
		240	Pulse Open Med
		241–255	Pulse Open Fast
40	Iris Fine	0–255	Fine adjustment of CH 39
41	Frost		Frost Linear Light
		0–255	Frost 0 to 100
42	Frost 2		Frost Linear Wash
		0–255	Frost 0 to 100
43	Animation Wheel		Animation Wheel 1 1
		0–7	No Animation
		8	Min
		9–254	Min ... Max
		255	Max
44	Animation Wheel Rotation	0–127	Indexing (360°)
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
45	Color Mix Speed		Color Speed
		0	Max
		1–254	Max ... Min
		255	Min
46	Color Macro		Color Macros
		0–31	Off
		32–39	Macro 1
		40–47	Macro 2
		48–55	Macro 3
		56–63	Macro 4
		64–71	Macro 5
		72–79	Macro 6
		80–87	Macro 7
		88–95	Macro 8
		96–103	Macro 9
		104–111	Macro 10
		112–119	Macro 11
		120–127	Macro 12
		128–135	Macro 13
		136–143	Macro 14
		144–151	Macro 15
		152–159	Macro 16

CH	Function	DMX	Description
46	Color Macro (continued)	160–167	Macro 17
		168–175	Macro 18
		176–183	Macro 19
		184–191	Macro 20
		192–199	Macro 21
		200–207	Macro 22
		208–215	Macro 23
		216–223	Macro 24
		224–231	Macro 25
		232–239	Macro 26
		240–247	Macro 27
		248–255	Random CMY
47	Blade 1 A	0–255	Min ... Max
		255	Max
48	Blade 1 A Fine	0–255	Fine adjustment of CH 47
49	Blade 1 B	0–255	Min ... Max
		255	Max
50	Blade 1 B Fine	0–255	Fine adjustment of CH 49
51	Blade 2 A	0–255	Min ... Max
		255	Max
52	Blade 2 A Fine	0–255	Fine adjustment of CH 51
53	Blade 2 B	0–255	Min ... Max
		255	Max
54	Blade 2 B Fine	0–255	Fine adjustment of CH 53
55	Blade 3 A	0–255	Min ... Max
		255	Max
56	Blade 3 A Fine	0–255	Fine adjustment of CH 55
57	Blade 3 B	0–255	Min ... Max
		255	Max
58	Blade 3 B Fine	0–255	Fine adjustment of CH 57
59	Blade 4 A	0–255	Min ... Max
		255	Max
60	Blade 4 A Fine	0–255	Fine adjustment of CH 59
61	Blade 4 B	0–255	Min ... Max
		255	Max
62	Blade 4 B Fine	0–255	Fine adjustment of CH 61
63	Shaper Rotation	0–127	Min Rotation ... Parallel
		127–128	Parallel
		128–255	Parallel ... Max Rotation
		255	Max Rotation
64	Shaper Rotation Fine	0–255	Fine adjustment of CH 63
65	Shaper Macros Speed		Frame Speed

CH	Function	DMX	Description
65	Shaper Macros Speed (continued)	0	Max
		1–254	Max ... Min
		255	Min
66	Shaper Macros	0–7	Off
		8–15	Macro 1
		16–23	Macro 2
		24–31	Macro 3
		32–39	Macro 4
		40–47	Macro 5
		48–55	Macro 6
		56–63	Macro 7
		64–71	Macro 8
		72–79	Macro 9
		80–87	Macro 10
		88–95	Macro 11
		96–103	Macro 12
		104–111	Macro 13
		112–119	Macro 14
		120–127	Macro 15
		128–135	Macro 16
		136–143	Macro 17
		144–151	Macro 18
		152–159	Macro 19
		160–167	Macro 20
		168–175	Macro 21
		176–183	Macro 22
		184–191	Macro 23
		192–199	Macro 24
		200–207	Macro 25
		208–215	Macro 26
		216–223	Macro 27
		224–231	Macro 28
		232–239	Macro 29
		240–247	Macro 30
		248–255	Macro 31
67	Speed Pan/Tilt	0	Max Speed
		1–224	Max Speed ... Min Speed
		225	Min Speed
		226–235	Blackout By Movement
		236–255	Blackout By All Wheel Changing
68	Control	0–19	Color Change Normal
		20–29	Color Change To Any Position

CH	Function	DMX	Description
68	Control (continued)	30–39	Color_Gobo Change To Any Position
		40–44	Low Noise - Mute
		45–49	Low Noise - Studio
		50–59	Fan Control - Low
		60–69	Fan Control - High
		70–79	Fan Control - Auto
		80–84	All Motor Reset
		85–87	Pan / Tilt Reset
		88–90	Color Reset
		91–93	Gobo Reset
		94–96	Focus / Zoom Reset
		97–99	Other Motor Reset
		100	900Hz
		101	910Hz
		102	920Hz
		103	930Hz
		104	940Hz
		105	950Hz
		106	960Hz
		107	970Hz
		108	980Hz
		109	990Hz
		110	1000Hz
		111	1010Hz
		112	1020Hz
		113	1030Hz
		114	1040Hz
		115	1050Hz
		116	1060Hz
		117	1070Hz
		118	1080Hz
		119	1090Hz
		120	1100Hz
		121	1110Hz
		122	1120Hz
		123	1130Hz
		124	1140Hz
		125	1150Hz
		126	1160Hz
		127	1170Hz
		128	1180Hz
		129	1190Hz

CH	Function	DMX	Description
68	Control (continued)	130	1200Hz
		131	1210Hz
		132	1220Hz
		133	1230Hz
		134	1240Hz
		135	1250Hz
		136	1260Hz
		137	1270Hz
		138	1280Hz
		139	1290Hz
		140	1300Hz
		141	1310Hz
		142	1320Hz
		143	1330Hz
		144	1340Hz
		145	1350Hz
		146	1360Hz
		147	1370Hz
		148	1380Hz
		149	1390Hz
		150	1400Hz
		151	1410Hz
		152	1420Hz
		153	1430Hz
		154	1440Hz
		155	1450Hz
		156	1460Hz
		157	1470Hz
		158	1480Hz
		159	1490Hz
		160	1500Hz
		161	2500Hz
		162	4000Hz
		163	5000Hz
		164	6000Hz
		165	10000Hz
		166	15000Hz
		167	20000Hz
		168	25000Hz
		169–170	Gobo Color Correction Disable
		171–172	Gobo Color Correction Enable
		173–174	Hibernation Off

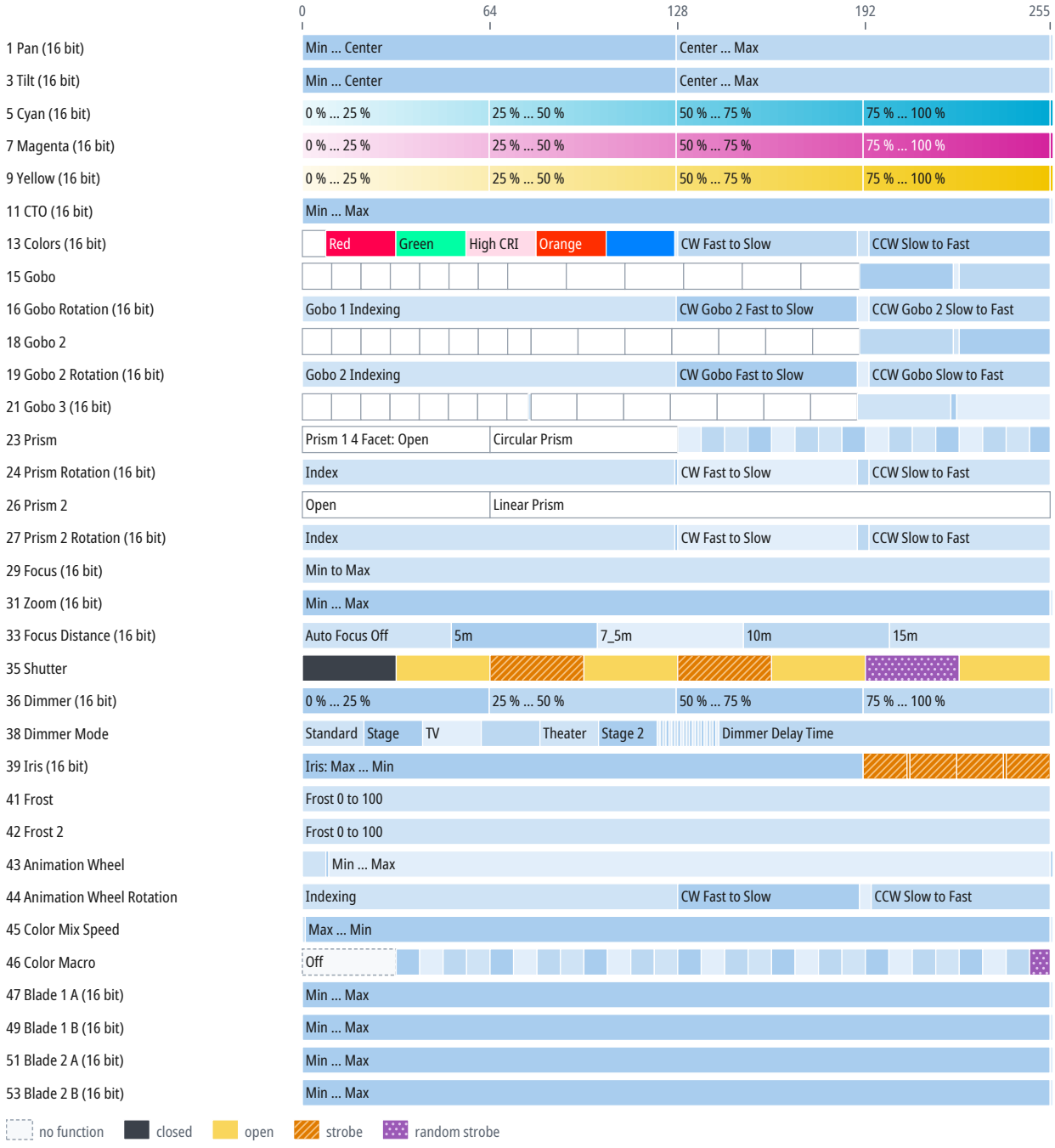
CH	Function	DMX	Description
68	Control (continued)	175–176	Hibernation
		177–178	Home Position Before Power Off
		179–180	Home Position Off
		181–190	PanTilt Smooth
		191–200	PanTilt Fast
		201–210	Dimmer Curve Linear
		211–220	Dimmer Curve Square
		221–230	Dimmer Curve Inverse Square
		231–240	Dimmer Curve S-Curve
		241–247	Internal Program 1...7
		248–255	Internal Programs

Mode Extended Pan630

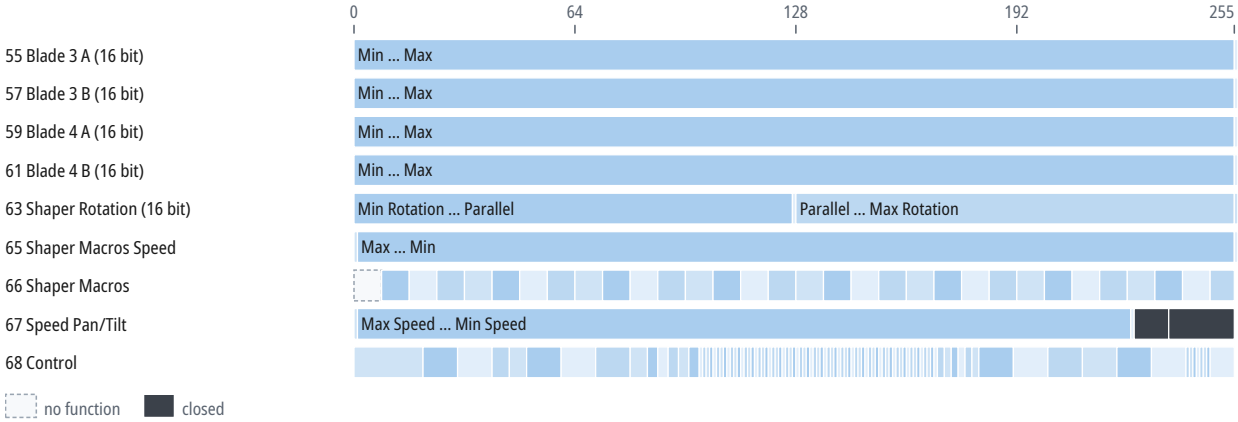
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 11 CTO 0, CH 35 Shutter 47, CH 36 Dimmer 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 Pan540” (p. 13)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended Pan540” (p. 13)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Extended Pan540” (p. 13)
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta		Same as CH 7 in the mode “Extended Pan540” (p. 13)
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow		Same as CH 9 in the mode “Extended Pan540” (p. 13)
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	CTO		Same as CH 11 in the mode “Extended Pan540” (p. 14)
12	CTO Fine	0–255	Fine adjustment of CH 11
13	Colors		Same as CH 13 in the mode “Extended Pan540” (p. 14)
14	Colors Fine	0–255	Fine adjustment of CH 13
15	Gobo		Same as CH 15 in the mode “Extended Pan540” (p. 14)
16	Gobo Rotation		Same as CH 16 in the mode “Extended Pan540” (p. 14)
17	Gobo Rotation Fine	0–255	Fine adjustment of CH 16
18	Gobo 2		Same as CH 18 in the mode “Extended Pan540” (p. 14)
19	Gobo 2 Rotation		Same as CH 19 in the mode “Extended Pan540” (p. 15)
20	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 19
21	Gobo 3		Same as CH 21 in the mode “Extended Pan540” (p. 15)
22	Gobo 3 Fine	0–255	Fine adjustment of CH 21
23	Prism		Same as CH 23 in the mode “Extended Pan540” (p. 16)
24	Prism Rotation		Same as CH 24 in the mode “Extended Pan540” (p. 16)
25	Prism Rotation Fine	0–255	Fine adjustment of CH 24
26	Prism 2		Same as CH 26 in the mode “Extended Pan540” (p. 16)
27	Prism 2 Rotation		Same as CH 27 in the mode “Extended Pan540” (p. 16)
28	Prism 2 Rotation Fine	0–255	Fine adjustment of CH 27
29	Focus	0–255	Min to Max

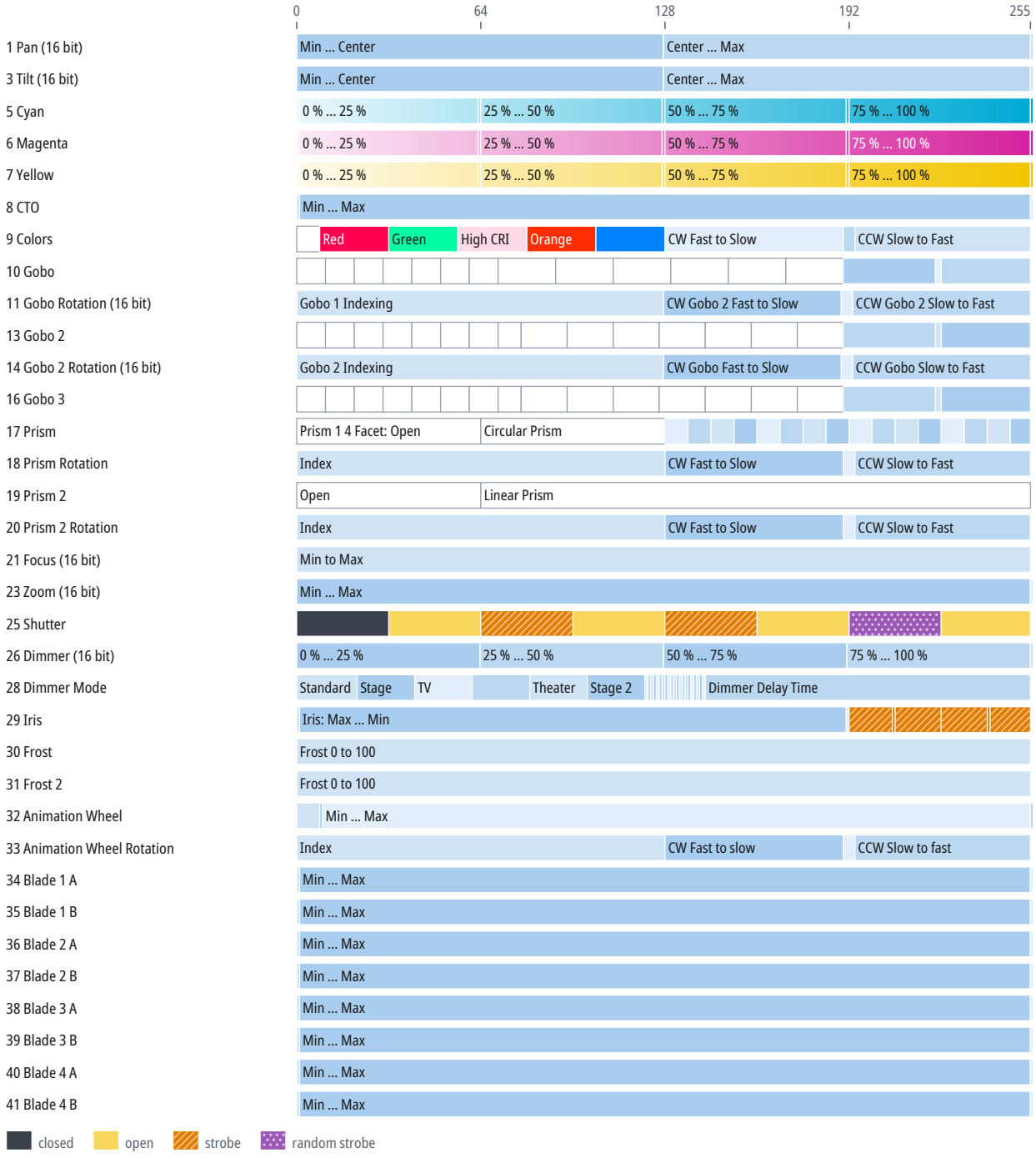
CH	Function	DMX	Description
30	Focus Fine	0–255	Fine adjustment of CH 29
31	Zoom		Same as CH 31 in the mode “Extended Pan540” (p. 16)
32	Zoom Fine	0–255	Fine adjustment of CH 31
33	Focus Distance		Same as CH 33 in the mode “Extended Pan540” (p. 16)
34	Focus Distance Fine	0–255	Fine adjustment of CH 33
35	Shutter		Same as CH 35 in the mode “Extended Pan540” (p. 17)
36	Dimmer		Same as CH 36 in the mode “Extended Pan540” (p. 17)
37	Dimmer Fine	0–255	Fine adjustment of CH 36
38	Dimmer Mode		Same as CH 38 in the mode “Extended Pan540” (p. 17)
39	Iris		Same as CH 39 in the mode “Extended Pan540” (p. 17)
40	Iris Fine	0–255	Fine adjustment of CH 39
41	Frost		Same as CH 41 in the mode “Extended Pan540” (p. 18)
42	Frost 2		Same as CH 42 in the mode “Extended Pan540” (p. 18)
43	Animation Wheel		Same as CH 43 in the mode “Extended Pan540” (p. 18)
44	Animation Wheel Rotation		Same as CH 44 in the mode “Extended Pan540” (p. 18)
45	Color Mix Speed		Same as CH 45 in the mode “Extended Pan540” (p. 18)
46	Color Macro		Same as CH 46 in the mode “Extended Pan540” (p. 18)
47	Blade 1 A		Same as CH 47 in the mode “Extended Pan540” (p. 19)
48	Blade 1 A Fine	0–255	Fine adjustment of CH 47
49	Blade 1 B		Same as CH 49 in the mode “Extended Pan540” (p. 19)
50	Blade 1 B Fine	0–255	Fine adjustment of CH 49
51	Blade 2 A		Same as CH 51 in the mode “Extended Pan540” (p. 19)
52	Blade 2 A Fine	0–255	Fine adjustment of CH 51
53	Blade 2 B		Same as CH 53 in the mode “Extended Pan540” (p. 19)
54	Blade 2 B Fine	0–255	Fine adjustment of CH 53
55	Blade 3 A		Same as CH 55 in the mode “Extended Pan540” (p. 19)
56	Blade 3 A Fine	0–255	Fine adjustment of CH 55
57	Blade 3 B		Same as CH 57 in the mode “Extended Pan540” (p. 19)
58	Blade 3 B Fine	0–255	Fine adjustment of CH 57
59	Blade 4 A		Same as CH 59 in the mode “Extended Pan540” (p. 19)
60	Blade 4 A Fine	0–255	Fine adjustment of CH 59
61	Blade 4 B		Same as CH 61 in the mode “Extended Pan540” (p. 19)
62	Blade 4 B Fine	0–255	Fine adjustment of CH 61
63	Shaper Rotation		Same as CH 63 in the mode “Extended Pan540” (p. 19)
64	Shaper Rotation Fine	0–255	Fine adjustment of CH 63
65	Shaper Macros Speed		Same as CH 65 in the mode “Extended Pan540” (p. 19)
66	Shaper Macros		Same as CH 66 in the mode “Extended Pan540” (p. 20)
67	Speed Pan/Tilt		Same as CH 67 in the mode “Extended Pan540” (p. 20)
68	Control		Same as CH 68 in the mode “Extended Pan540” (p. 20)

Mode Standard Pan540

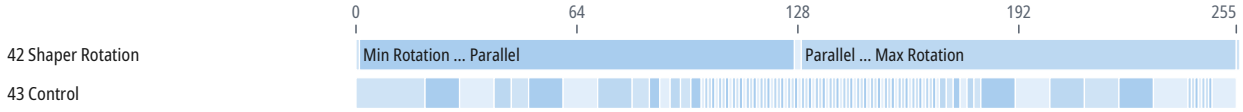
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 8 CTO 0, CH 25 Shutter 47, CH 26 Dimmer 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 Pan540” (p. 13)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended Pan540” (p. 13)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
6	Magenta	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
7	Yellow	0	0 %
		1–62	0 % ... 25 %
		63	25 %
		64–126	25 % ... 50 %
		127	50 %
		128–190	50 % ... 75 %
		191	75 %
		192–254	75 % ... 100 %
		255	100 %
8	CTO	0	Min
		1–254	Min ... Max
		255	Max
9	Colors	0–7	Color Wheel: Open
		8–31	Red
		32–55	Green

CH	Function	DMX	Description
9	Colors (continued)	56–79	High CRI
		80–103	Orange
		104–127	Medium Blue
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
10	Gobo		Same as CH 15 in the mode “Extended Pan540” (p. 14)
11	Gobo Rotation		Same as CH 16 in the mode “Extended Pan540” (p. 14)
12	Gobo Rotation Fine	0–255	Fine adjustment of CH 11
13	Gobo 2		Same as CH 18 in the mode “Extended Pan540” (p. 14)
14	Gobo 2 Rotation		Same as CH 19 in the mode “Extended Pan540” (p. 15)
15	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 14
16	Gobo 3	0–9	Gobo Wheel: Open
		10–19	Gobo Wheel: Gobo 1
		20–29	Gobo Wheel: Gobo 2
		30–39	Gobo Wheel: Gobo 3
		40–49	Gobo Wheel: Gobo 4
		50–59	Gobo Wheel: Gobo 5
		60–69	Gobo Wheel: Gobo 6
		70–77	Gobo Wheel: Gobo 7
		78–93	Gobo 3 Select Shake: Gobo 1 (1–5 Hz)
		94–109	Gobo 3 Select Shake: Gobo 2 (1–5 Hz)
		110–125	Gobo 3 Select Shake: Gobo 3 (1–5 Hz)
		126–141	Gobo 3 Select Shake: Gobo 4 (1–5 Hz)
		142–157	Gobo 3 Select Shake: Gobo 5 (1–5 Hz)
		158–173	Gobo 3 Select Shake: Gobo 6 (1–5 Hz)
		174–189	Gobo 3 Select Shake: Gobo 7 (1–5 Hz)
		190–221	CW Fast to Slow (360–10 °/s)
		222–223	Rot Stop
		224–255	CCW Slow to Fast (10–360 °/s)
17	Prism		Same as CH 23 in the mode “Extended Pan540” (p. 16)
18	Prism Rotation	0–127	Index (360°)
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
19	Prism 2		Same as CH 26 in the mode “Extended Pan540” (p. 16)
20	Prism 2 Rotation	0–127	Index (360°)
		128–189	CW Fast to Slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to Fast (10–360 °/s)
21	Focus	0–255	Min to Max
22	Focus Fine	0–255	Fine adjustment of CH 21

CH	Function	DMX	Description
23	Zoom		Same as CH 31 in the mode “Extended Pan540” (p. 16)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Shutter		Same as CH 35 in the mode “Extended Pan540” (p. 17)
26	Dimmer		Same as CH 36 in the mode “Extended Pan540” (p. 17)
27	Dimmer Fine	0–255	Fine adjustment of CH 26
28	Dimmer Mode		Same as CH 38 in the mode “Extended Pan540” (p. 17)
29	Iris	0	Iris: Max
		1–190	Iris: Max ... Min
		191	Iris: Min
		192–206	Pulse Close Fast
		207	Pulse Close Med
		208–223	Pulse Close Slow
		224–239	Pulse Open Slow
		240	Pulse Open Med
		241–255	Pulse Open Fast
30	Frost		Same as CH 41 in the mode “Extended Pan540” (p. 18)
31	Frost 2		Same as CH 42 in the mode “Extended Pan540” (p. 18)
32	Animation Wheel		Same as CH 43 in the mode “Extended Pan540” (p. 18)
33	Animation Wheel Rotation	0–127	Index (360°)
		128–189	CW Fast to slow (360–10 °/s)
		190–193	Rot Stop
		194–255	CCW Slow to fast (up to 360 °/s (60 rpm))
34	Blade 1 A	0	Min
		1–254	Min ... Max
		255	Max
35	Blade 1 B	0	Min
		1–254	Min ... Max
		255	Max
36	Blade 2 A	0	Min
		1–254	Min ... Max
		255	Max
37	Blade 2 B	0	Min
		1–254	Min ... Max
		255	Max
38	Blade 3 A	0	Min
		1–254	Min ... Max
		255	Max
39	Blade 3 B	0	Min
		1–254	Min ... Max
		255	Max
40	Blade 4 A	0	Min
		1–254	Min ... Max

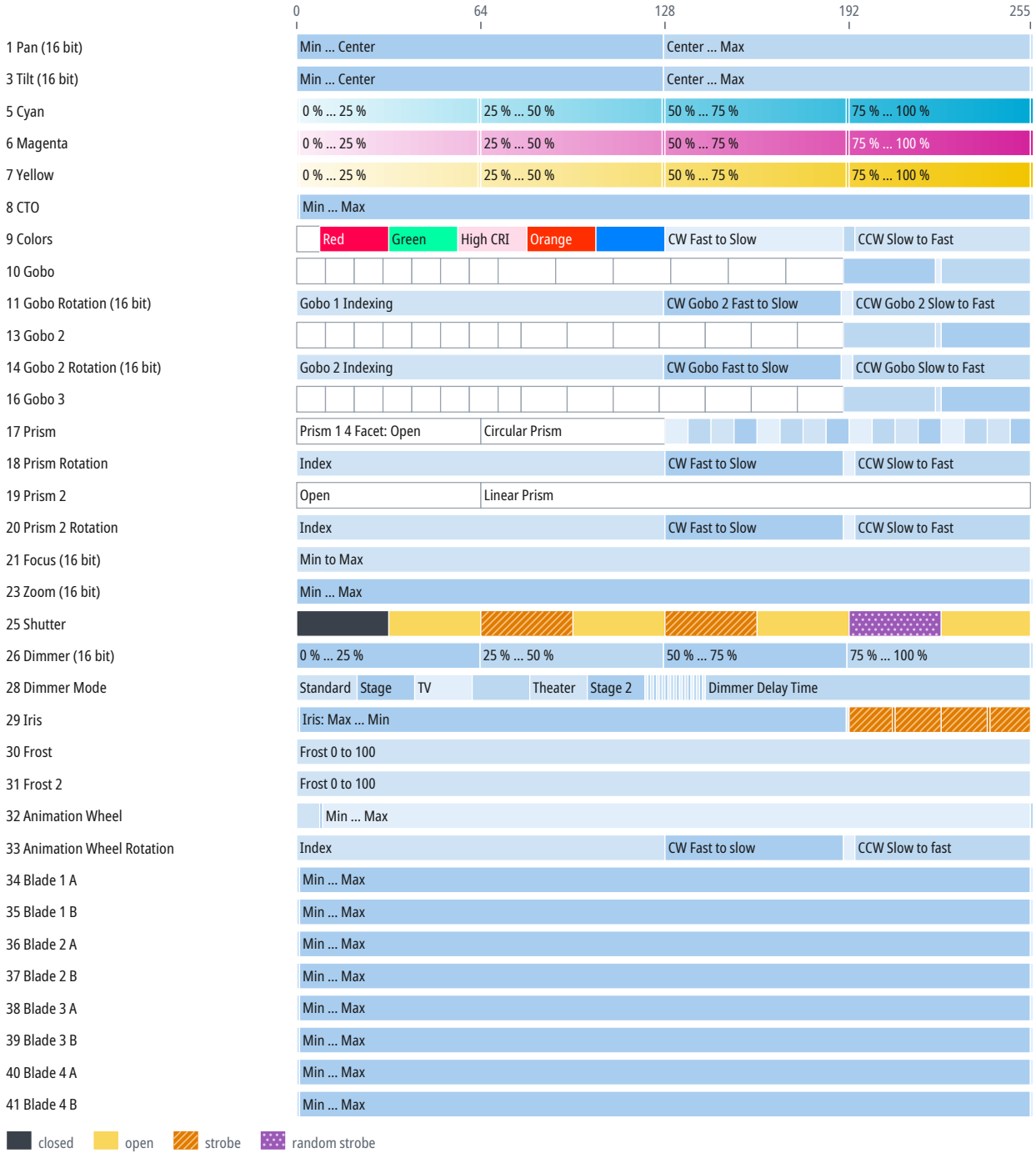
CH	Function	DMX	Description
40	Blade 4 A (continued)	255	Max
41	Blade 4 B	0	Min
		1–254	Min ... Max
		255	Max
42	Shaper Rotation	0	Min Rotation
		1–126	Min Rotation ... Parallel
		127–128	Parallel
		129–254	Parallel ... Max Rotation
		255	Max Rotation
43	Control		Same as CH 68 in the mode “Extended Pan540” (p. 20)

Mode Standard Pan630

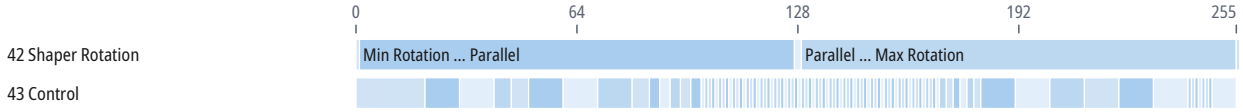
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 8 CTO 0, CH 25 Shutter 47, CH 26 Dimmer 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 Pan540” (p. 13)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended Pan540” (p. 13)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Standard Pan540” (p. 28)
6	Magenta		Same as CH 6 in the mode “Standard Pan540” (p. 28)
7	Yellow		Same as CH 7 in the mode “Standard Pan540” (p. 28)
8	CTO		Same as CH 8 in the mode “Standard Pan540” (p. 28)
9	Colors		Same as CH 9 in the mode “Standard Pan540” (p. 28)
10	Gobo		Same as CH 15 in the mode “Extended Pan540” (p. 14)
11	Gobo Rotation		Same as CH 16 in the mode “Extended Pan540” (p. 14)
12	Gobo Rotation Fine	0–255	Fine adjustment of CH 11
13	Gobo 2		Same as CH 18 in the mode “Extended Pan540” (p. 14)
14	Gobo 2 Rotation		Same as CH 19 in the mode “Extended Pan540” (p. 15)
15	Gobo 2 Rotation Fine	0–255	Fine adjustment of CH 14
16	Gobo 3		Same as CH 16 in the mode “Standard Pan540” (p. 29)
17	Prism		Same as CH 23 in the mode “Extended Pan540” (p. 16)
18	Prism Rotation		Same as CH 18 in the mode “Standard Pan540” (p. 29)
19	Prism 2		Same as CH 26 in the mode “Extended Pan540” (p. 16)
20	Prism 2 Rotation		Same as CH 20 in the mode “Standard Pan540” (p. 29)
21	Focus	0–255	Min to Max
22	Focus Fine	0–255	Fine adjustment of CH 21
23	Zoom		Same as CH 31 in the mode “Extended Pan540” (p. 16)
24	Zoom Fine	0–255	Fine adjustment of CH 23
25	Shutter		Same as CH 35 in the mode “Extended Pan540” (p. 17)
26	Dimmer		Same as CH 36 in the mode “Extended Pan540” (p. 17)
27	Dimmer Fine	0–255	Fine adjustment of CH 26
28	Dimmer Mode		Same as CH 38 in the mode “Extended Pan540” (p. 17)
29	Iris		Same as CH 29 in the mode “Standard Pan540” (p. 30)
30	Frost		Same as CH 41 in the mode “Extended Pan540” (p. 18)
31	Frost 2		Same as CH 42 in the mode “Extended Pan540” (p. 18)
32	Animation Wheel		Same as CH 43 in the mode “Extended Pan540” (p. 18)
33	Animation Wheel Rotation		Same as CH 33 in the mode “Standard Pan540” (p. 30)
34	Blade 1 A		Same as CH 34 in the mode “Standard Pan540” (p. 30)
35	Blade 1 B		Same as CH 35 in the mode “Standard Pan540” (p. 30)
36	Blade 2 A		Same as CH 36 in the mode “Standard Pan540” (p. 30)
37	Blade 2 B		Same as CH 37 in the mode “Standard Pan540” (p. 30)

CH	Function	DMX	Description
38	Blade 3 A		Same as CH 38 in the mode “Standard Pan540” (p. 30)
39	Blade 3 B		Same as CH 39 in the mode “Standard Pan540” (p. 30)
40	Blade 4 A		Same as CH 40 in the mode “Standard Pan540” (p. 30)
41	Blade 4 B		Same as CH 41 in the mode “Standard Pan540” (p. 31)
42	Shaper Rotation		Same as CH 42 in the mode “Standard Pan540” (p. 31)
43	Control		Same as CH 68 in the mode “Extended Pan540” (p. 20)

10 Technical specifications

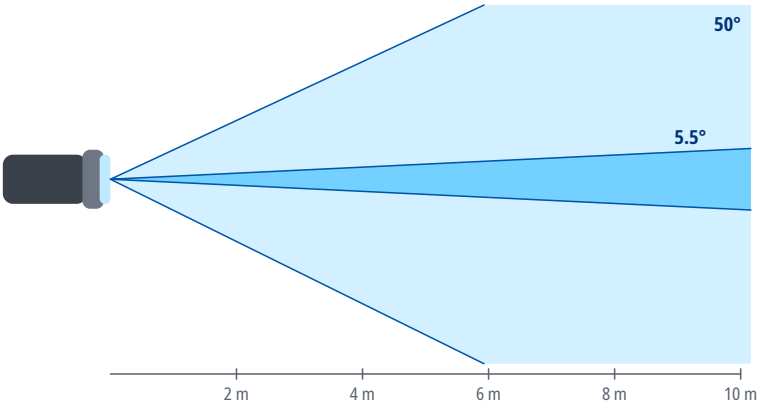
Parameter	Value
Light	
Light source	LED
LED power	580 W
Luminous flux	43,000 lm
Color temperature	6,500 K
Color rendering index (CRI)	72
Optics	
Zoom	5.5–50°
Movement	
Pan	630°
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x22A6, device model ID 0x1639)
Electrical	
Power connectors	powerCON TRUE1
Dimensions and construction	
Weight	41 kg
Operating environment	
Ingress protection	IP65
Meaning of the IP code (IEC 60529)	Dust-tight; protected against water jets
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Strobe frequency	1–18 Hz
Color wheel rotation	up to 281 °/s (47 rpm)
Gobo wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo wheel 2 rotation	up to 360 °/s (60 rpm)
Gobo wheel 3 rotation	up to 360 °/s (60 rpm)

Parameter	Value
Gobo 1 rotation	up to 360 °/s (60 rpm)
Gobo 2 rotation	up to 360 °/s (60 rpm)
Prism 1 rotation	up to 726 °/s (121 rpm)
Prism 2 rotation	up to 726 °/s (121 rpm)
Animation wheel rotation	up to 420 °/s (70 rpm)

Spot diameter



Distance	Ø 5.5°	Ø 50°
2 m	0.19 m	1.9 m
4 m	0.38 m	3.7 m
6 m	0.58 m	5.6 m
8 m	0.77 m	7.5 m
10 m	0.96 m	9.3 m
15 m	1.4 m	14 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.

Problem	Remedy
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.