DMX REFERENCE

JDC2 IP V2

GLP JDC 2 IP V2

GLP



Manufacturer	GLP
GDTF file	GLP_JDC2_IP_V2_150958.gdtf
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1 About this manual

This document describes the GLP JDC 2 IP V2 by GLP. It was compiled from the GDTF file GLP_JDC2_IP_V2_150958.gdtf from the GDTF-Share library.

File revision: “20260714_JDC2V2_byGLP_sw2-0_prelim05”.

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 GLP; 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	23.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
M1 Minimal (18ch)	18	28	1, 19, 37, 55, ...
M2 Basic (30ch)	30	17	1, 31, 61, 91, ...
M4 Segment 12-24 (141ch)	141	3	1, 142, 283
M3 Segment 12-12 (105ch)	105	4	1, 106, 211, 316
M5 Pixel (85ch)	85	6	1, 86, 171, 256, ...

No light? Check these channels

- M1 Minimal (18ch): CH 8 Strobe Speed 1 at 251–255 “Open”; CH 13 Strobe Speed 2 at 251–255 “Open”
- M2 Basic (30ch): CH 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”
- M4 Segment 12-24 (141ch): CH 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”; CH 56 Dimmer 4 above 0
- M3 Segment 12-12 (105ch): CH 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”; CH 56 Dimmer 4 above 0



Read the manual before use



Do not stare into the light



Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

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

⚠ CAUTION

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

⚠ WARNING

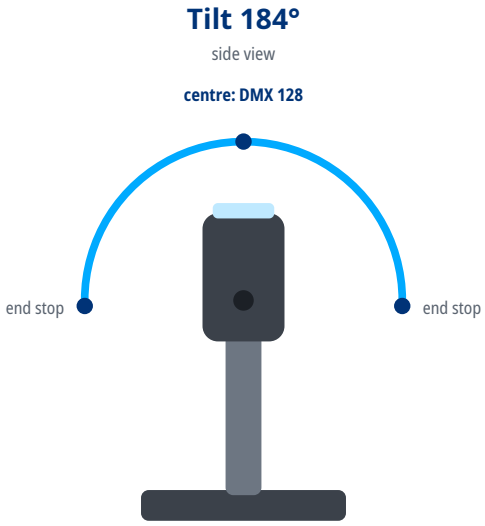
- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts,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

4 Product description

Description in the GDTF file

“Canvas Device Position System on Mode 3 - 4- 8”

Range of movement



5 Installation

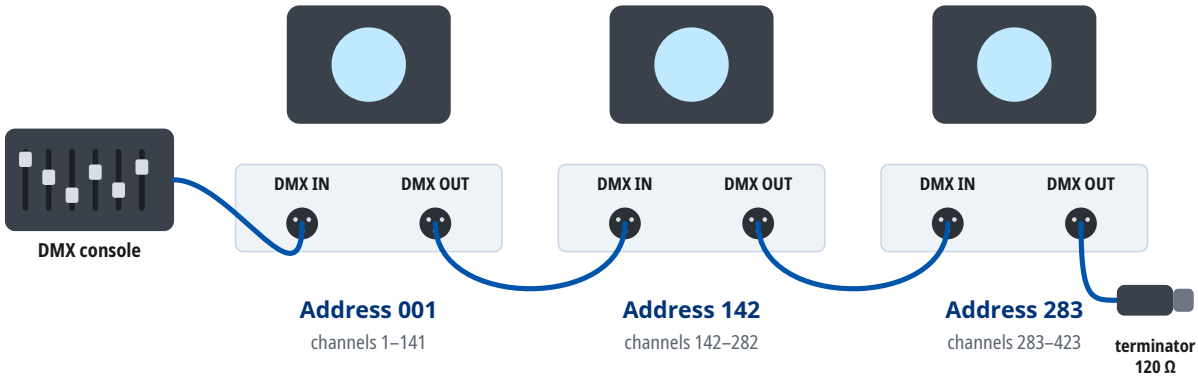
⚠ WARNING

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 23.5 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode M4 Segment 12-24 (141ch): every unit occupies 141 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

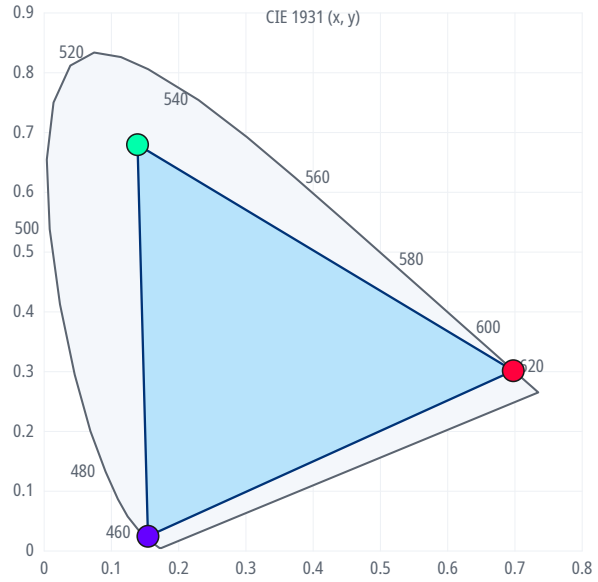
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “M4 Segment 12-24 (141ch)”: 141.
- Choose start addresses so that the channels of individual devices do not overlap and 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 “M4 Segment 12-24 (141ch)”, you can use, for example, the start addresses 1, 142, 283.
- 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

	M1 Minimal (18ch) 18 channels	M2 Basic (30ch) 30 channels	M4 Segment 12-24 (141ch) 141 channels	M3 Segment 12-12 (105ch) 105 channels	M5 Pixel (85ch) 85 channels
Pan / Tilt	**1**	**1**	**1**	**1**	**1**
Pan / Tilt resolution	16 bit	16 bit	16 bit	16 bit	8 bit
Dimmer	**5, 10**	**5, 14**	**16 channels (5–69)**	**16 channels (5–69)**	**2–13**
Dimmer resolution	16 bit	16 bit	16 bit	16 bit	8 bit
Shutter / strobe	**7, 8, 12, 13**	**7, 8, 16, 17**	**7, 8, 16, 17**	**7, 8, 16, 17**	
Color mixing	**16–18**	**20–25**	**20–25, 70–141**	**20–25, 70–141**	**14–85**
Color temperature	**15**	**19**	**19**	**19**	
Zoom		**29**	**33**	**33**	
Pixel control			**12 + 24 cells**	**12 + 12 cells**	

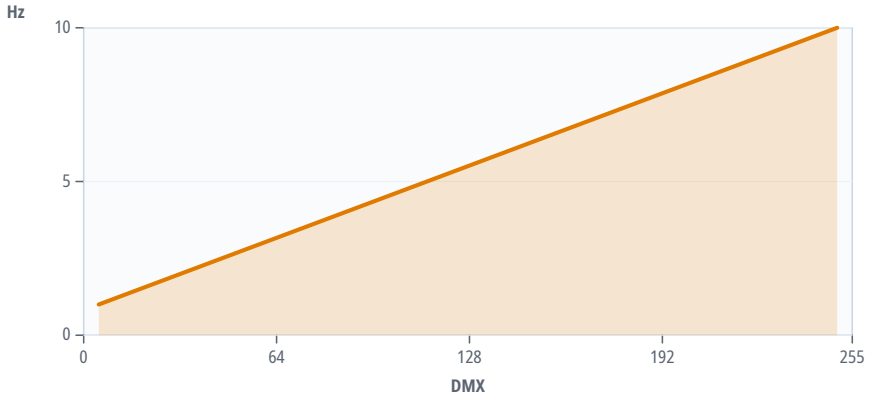
LED colors and the colors they mix



LED	x	y
Red	0.698	0.302
Green	0.139	0.680
Blue	0.154	0.025

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

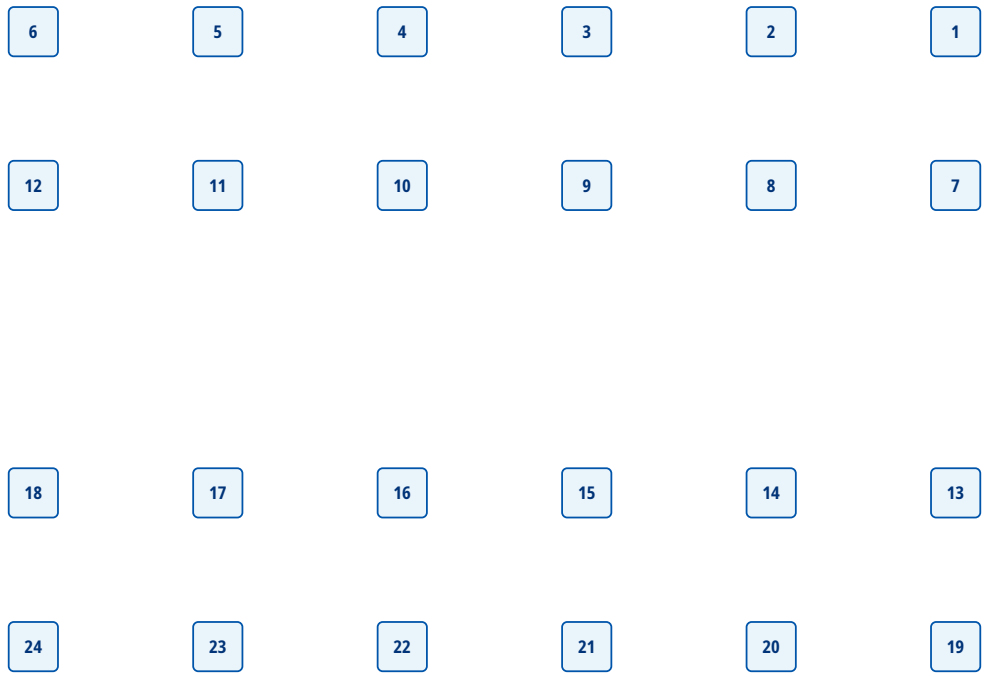
Strobe rate



CH 8 · M4 Segment 12-24 (141ch)

5–250: 1–10 Hz
Strobe 1 - 10 Hz: slow -> fast

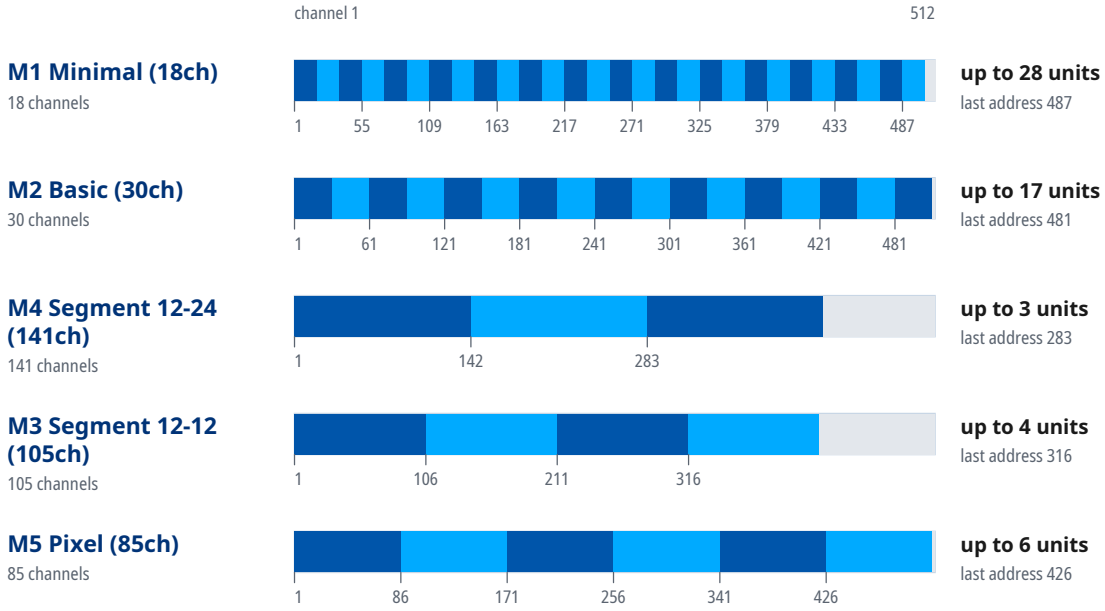
Cells (pixels)



Cells where the GDTF file places them (seen from above), 24 in all; numbered in the order of their first DMX channel in the mode “M4 Segment 12-24 (141ch)”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “M4 Segment 12-24 (141ch)”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U2 · 283	11	U4 · 142	16	U6 · 1
2	142	7	U3 · 1	12	U4 · 283	17	U6 · 142
3	283	8	U3 · 142	13	U5 · 1	18	U6 · 283
4	U2 · 1	9	U3 · 283	14	U5 · 142	19	U7 · 1
5	U2 · 142	10	U4 · 1	15	U5 · 283	20	U7 · 142

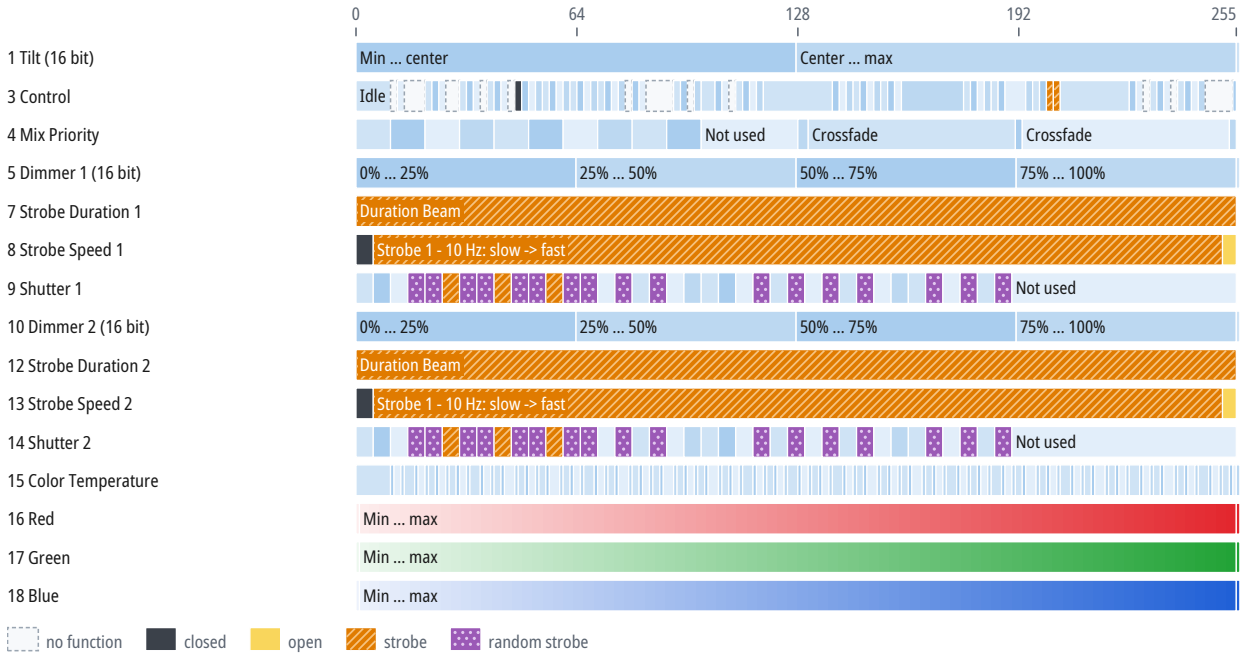
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode M1 Minimal (18ch)

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 8 Strobe Speed 1 at 251–255 “Open”; CH 13 Strobe Speed 2 at 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 1 63, CH 7 Strobe Duration 1 0, CH 8 Strobe Speed 1 255, CH 10 Dimmer 2 255, CH 12 Strobe Duration 2 0, CH 13 Strobe Speed 2 255, CH 15 Color Temperature 0, CH 16 Red 255, CH 17 Green 255, CH 18 Blue 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0–127	Min ... center
		128–255	Center ... max
		255	Max
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Control	0–9	Idle
		10–11	No function
		12–13	iQ Service Connect
		14–19	No function
		20–21	Dimmer Curve SOFT
		22–23	Dimmer Curve LINEAR
		24–25	Dimmer Curve S-CURVE
		26–29	No function
		30–31	Display Mode OFF
		32–33	Display Mode AUTO
		34–35	Display Mode ON
		36–37	No function
		38–39	Display Orientation AUTO

CH	Function	DMX	Description
3	Control (continued)	40–41	Display Orientation NORMAL
		42–43	Display Orientation FLIP
		44–45	No function
		46–47	No Signal BLACKOUT
		48–49	No Signal HOLD
		50–51	No Signal HOUSELIGHT
		52–53	No Signal SCENE
		54–55	Capture Scene
		56–57	Fan Mode MINIMUM
		58–59	Fan Mode REGULATED
		60–61	Fan Mode HIGH
		62–63	Fan Mode MEDIUM
		64–65	Fan Mode LOW
		66–67	Flash Style Normal
		68–69	Flash Style Spark
		70–71	Pixel Mirror OFF
		72–73	Pixel Mirror X-MIRROR
		74–75	Pixel Mirror Y-MIRROR
		76–77	Pixel Mirror XY-MIRROR
		78–79	No Function
		80–81	Duration Control NORMAL
		82–83	Duration Control PERCENTAGE
		84–91	No function
		92–93	Position Feedback OFF
		94–95	Position Feedback ON
		96–97	No function
		98–99	Tilt invert OFF
		100–103	Tilt invert ON
		104–105	Tilt Disable OFF
		106–107	Tilt Disable ON
		108–109	No function
		110–111	NDI Mirror Off
		112–113	NDI Mirror X Mirror
		114–115	NDI Mirror Y Mirror
		116–117	NDI Mirror XY Mirror
		118–137	NDI Mirror XY Mirror … White Point 8000K
		138–139	White Point 8000K
		140–141	White Point 6500K
		142–143	White Point 5600K
		144–145	White Point OFF
		146–147	White Beam Normal
		148–149	White Beam Expanded White

CH	Function	DMX	Description
3	Control (continued)	150–151	Brightnes Limit Normal
		152–153	Brightnes Limit 1
		154–155	Brightnes Limit 2
		156–157	Brightnes Limit 3 Filter Protection
		158–175	Brightnes Limit 3 Filter Protection ... Set Absolut Fix Position
		176–177	Set Absolut Fix Position
		178–179	Set Segmented Fix Position
		180–181	Set Relative Fix Position
		182–183	PWM Frequency High
		184–185	PWM Frequency Medium
		186–187	PWM Frequency Low
		188–193	No Funktion
		194–195	Rate/Duration Cyc Smart
		196–197	Rate/Duration Cyc Finish
		198–199	Rate/Duration Cyc Restart
		200–201	Strobe Cyc at Zero Reset
		202–203	Strobe Cyc at Zero Continue
		204–223	No Funktion
		224–225	Experimental Digi-FX-DISABLED
		226–227	Experimental Digi-FX - ENABLED
		228–229	No function
		230–231	Save as User Setting Preset 1
		232–233	Save as User Setting Preset 2
		234–235	Save as User Setting Preset 3
		236–237	No function
		238–239	Load User Setting Preset 1
		240–241	Load User Setting Preset 2
		242–243	Load User Setting Preset 3
		244–245	Load Setting Default
		246–253	No function
		254–255	Reset ALL
4	Mix Priority	0–9	Main / Sub (HTP)
		10–19	Main only
		20–29	Sub only
		30–39	Main + Sub additive
		40–49	Main - Sub subtractive
		50–59	Sub - Main subtractive
		60–69	TrueColor Main over Sub Snap
		70–79	TrueColor Sub over Main Snap
		80–89	TrueColor Main over Sub Crossfade
		90–99	TrueColor Sub over Main Crossfade
		100–127	Not used

CH	Function	DMX	Description
4	Mix Priority (continued)	128–130	Main only
		131–190	Crossfade
		191–192	Main / Sub (HTP)
		193–252	Crossfade
		253–255	Sub only
5	Dimmer 1		Dimmer Beam
		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	Dimmer 1 Fine	0–255	Fine adjustment of CH 5
7	Strobe Duration 1		Duration Beam
		0–255	Duration Beam
8	Strobe Speed 1	0–4	Close
		5–250	Strobe 1 - 10 Hz: slow -> fast (1–10 Hz)
		251–255	Open
9	Shutter 1	0–4	Off - Normal sync Flashes
		5–9	Single Flash (at Rate Change)
		10–14	Spread (Offset) FX
		15–19	Random (All)
		20–24	Random (Segments)
		25–29	Pulse (All) (Ramp Up / Ramp Down)
		30–34	Pulse Random (All) (Ramp Up / Ramp Down)
		35–39	Pulse Random (Segments) (Ramp Up / Ramp Down)
		40–44	Pulse Open (All) (Ramp Up / Snap Down)
		45–49	Pulse Open Random (All) (Ramp Up / Snap Down)
		50–54	Pulse Open Random (Segments) (Ramp Up / Snap Down)
		55–59	Pulse Close (All) (Snap open / Ramp Down)
		60–64	Pulse Close Random (All) (Snap open / Ramp Down)
		65–69	Pulse Close Random (Segments) (Snap open / Ramp Down)
		70–74	Double-Flash (All)
		75–79	Double-Flash Random (All)
		80–84	Triple-Flash (All)
		85–89	Triple-Flash Random (All)
		90–94	Lightning
		95–99	Paparazi
		100–104	Spikes (All) (Light over Lowlight)
		105–109	Spikes (Segments) (Light Segments over Lowlight)

CH	Function	DMX	Description
9	Shutter 1 (continued)	110–114	Chaser Flash LR
		115–119	Chaser Flash LR Random
		120–124	Chaser Flash RL
		125–129	Chaser Flash RL Random
		130–134	Bounce Flash LR
		135–139	Bounce Flash LR Random
		140–144	Bounce Flash RL
		145–149	Bounce Flash RL Random
		150–154	Bounce center to out
		155–159	Bounce center to out random
		160–164	Center to Out Flash
		165–169	Center to Out Flash Random
		170–174	Out to Center Flash
		175–179	Out to Center Flash Random
		180–184	Bounce Out to Center Flash
		185–189	Bounce Out to Center Flash Random
		190–255	Not used
10	Dimmer 2		Dimmer Plate
		0–63	0% … 25%
		63	25%
		64–127	25% … 50%
		127	50%
		128–191	50% … 75%
		191	75%
		192–255	75% … 100%
		255	100%
11	Dimmer 2 Fine	0–255	Fine adjustment of CH 10
12	Strobe Duration 2		Duration Beam
		0–255	Duration Beam
13	Strobe Speed 2	0–4	Close
		5–250	Strobe 1 - 10 Hz: slow -> fast (1–10 Hz)
		251–255	Open
14	Shutter 2	0–4	Off - Normal sync Flashes
		5–9	Single Flash (at Rate Change)
		10–14	Spread (Offset) FX
		15–19	Random (All)
		20–24	Random (Segments)
		25–29	Pulse (All) (Ramp Up / Ramp Down)
		30–34	Pulse Random (All) (Ramp Up / Ramp Down)
		35–39	Pulse Random (Segments) (Ramp Up / Ramp Down)
		40–44	Pulse Open (All) (Ramp Up / Snap Down)
		45–49	Pulse Open Random (All) (Ramp Up / Snap Down)

CH	Function	DMX	Description
14	Shutter 2 (continued)	50–54	Pulse Open Random (Segments) (Ramp Up / Snap Down)
		55–59	Pulse Close (All) (Snap open / Ramp Down)
		60–64	Pulse Close Random (All) (Snap open / Ramp Down)
		65–69	Pulse Close Random (Segments) (Snap open / Ramp Down)
		70–74	Double-Flash (All)
		75–79	Double-Flash Random (All)
		80–84	Triple-Flash (All)
		85–89	Triple-Flash Random (All)
		90–94	Lightning
		95–99	Paparazi
		100–104	Spikes (All) (Light over Lowlight)
		105–109	Spikes (Segments) (Light Segments over Lowlight)
		110–114	Chaser Flash LR
		115–119	Chaser Flash LR Random
		120–124	Chaser Flash RL
		125–129	Chaser Flash RL Random
		130–134	Bounce Flash LR
		135–139	Bounce Flash LR Random
		140–144	Bounce Flash RL
		145–149	Bounce Flash RL Random
		150–154	Bounce center to out
		155–159	Bounce center to out random
		160–164	Center to Out Flash
		165–169	Center to Out Flash Random
		170–174	Out to Center Flash
		175–179	Out to Center Flash Random
		180–184	Bounce Out to Center Flash
		185–189	Bounce Out to Center Flash Random
		190–255	Not used
15	Color Temperature	0–9	Open Whitepoint Default
		10	10000K
		11–12	10000K ... 9900K
		13	9900K
		14–16	9900K ... 9800K
		17	9800K
		18–19	9800K ... 9700K
		20	9700K
		21–22	9700K ... 9600K
		23	9600K
		24–25	9600K ... 9500K
		26	9500K
		27–28	9500K ... 9400K

CH	Function	DMX	Description
15	Color Temperature (continued)	29	9400K
		30–31	9400K … 9300K
		32	9300K
		33–35	9300K … 9200K
		36	9200K
		37–38	9200K … 9100K
		39	9100K
		40–41	9100K … 9000K
		42	9000K
		43–45	9000K … 8900K
		46	8900K
		47–48	8900K … 8800K
		49	8800K
		50–51	8800K … 8700K
		52	8700K
		53–54	8700K … 8600K
		55	8600K
		56–58	8600K … 8500K
		59	8500K
		60–61	8500K … 8400K
		62	8400K
		63–64	8400K … 8300K
		65	8300K
		66–68	8300K … 8200K
		69	8200K
		70–71	8200K … 8100K
		72	8100K
		73–74	8100K … 8000K
		75	8000K
		76–78	8000K … 7900K
		79	7900K
		80–81	7900K … 7800K
		82	7800K
		83–84	7800K … 7700K
		85	7700K
		86–87	7700K … 7600K
		88	7600K
		89–91	7600K … 7500K
		92	7500K
		93–94	7500K … 7400K
		95	7400K
		96–97	7400K … 7300K

CH	Function	DMX	Description
15	Color Temperature (continued)	98	7300K
		99–100	7300K … 7200K
		101	7200K
		102–104	7200K … 7100K
		105	7100K
		106–107	7100K … 7000K
		108	7000K
		109–110	7000K … 6900K
		111	6900K
		112–114	6900K … 6800K
		115	6800K
		116–117	6800K … 6700K
		118	6700K
		119–120	6700K … 6600K
		121	6600K
		122–123	6600K … 6500K
		124	6500K
		125–127	6500K … 6400K
		128	6400K
		129–130	6400K … 6300K
		131	6300K
		132–133	6300K … 6200K
		134	6200K
		135–136	6200K … 6100K
		137	6100K
		138–140	6100K … 6000K
		141	6000K
		142–143	6000K … 5900K
		144	5900K
		145–146	5900K … 5800K
		147	5800K
		148–150	5800K … 5700K
		151	5700K
		152–153	5700K … 5600K
		154	5600K
		155–156	5600K … 5500K
		157	5500K
		158–159	5500K … 5400K
		160	5400K
		161–163	5400K … 5300K
		164	5300K
		165–166	5300K … 5200K

CH	Function	DMX	Description
15	Color Temperature (continued)	167	5200K
		168–169	5200K … 5100K
		170	5100K
		171–173	5100K … 5000K
		174	5000K
		175–176	5000K … 4900K
		177	4900K
		178–179	4900K … 4800K
		180	4800K
		181–182	4800K … 4700K
		183	4700K
		184–186	4700K … 4600K
		187	4600K
		188–189	4600K … 4500K
		190	4500K
		191–192	4500K … 4400K
		193	4400K
		194–196	4400K … 4300K
		197	4300K
		198–199	4300K … 4200K
		200	4200K
		201–202	4200K … 4100K
		203	4100K
		204–206	4100K … 4000K
		207	4000K
		208–209	4000K … 3900K
		210	3900K
		211–212	3900K … 3800K
		213	3800K
		214–216	3800K … 3700K
		217	3700K
		218–219	3700K … 3600K
		220	3600K
		221–222	3600K … 3500K
		223	3500K
		224–226	3500K … 3400K
		227	3400K
		228–229	3400K … 3300K
		230	3300K
		231–232	3300K … 3200K
		233	3200K
		234–236	3200K … 3100K

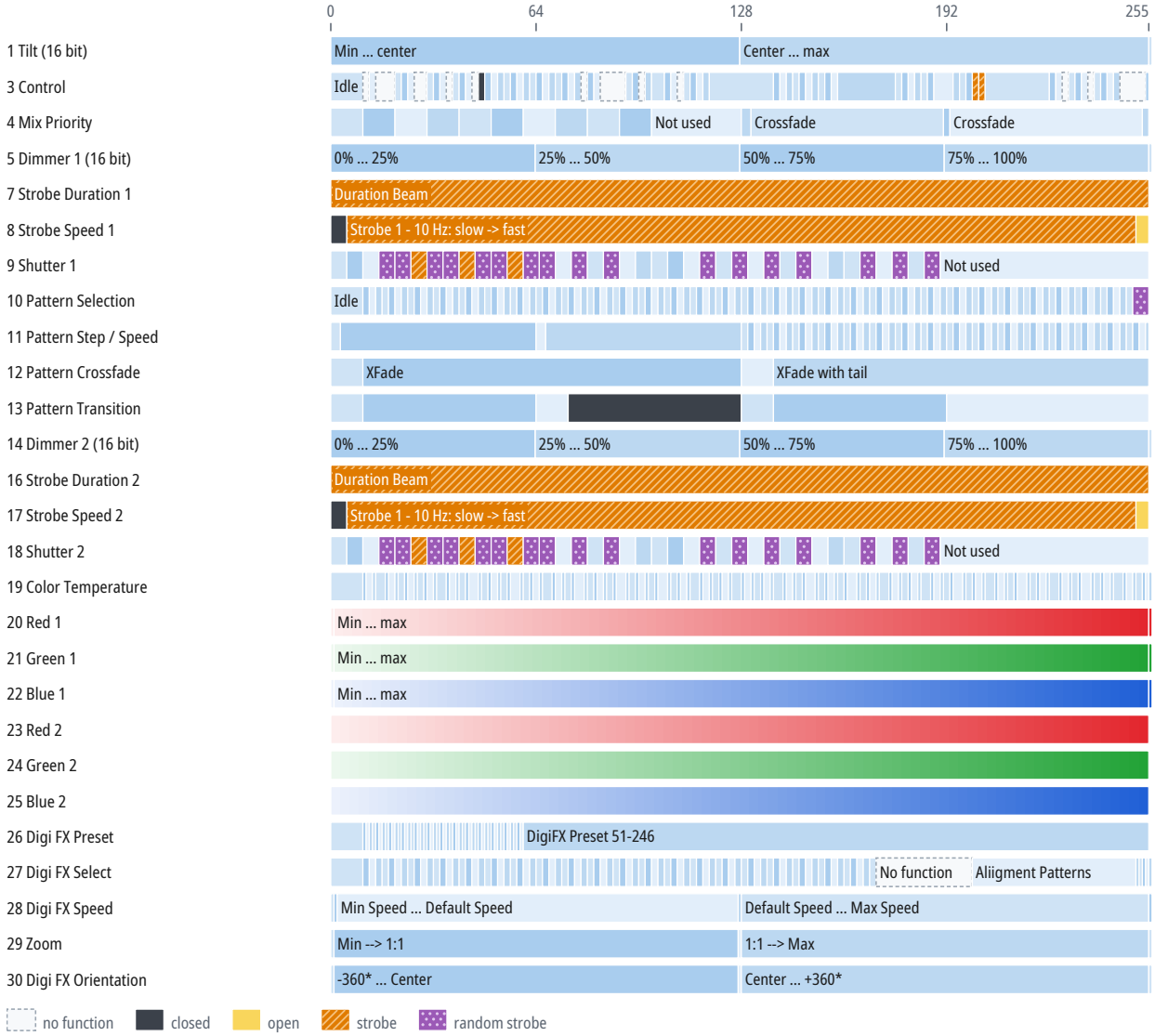
CH	Function	DMX	Description
15	Color Temperature (continued)	237	3100K
		238–239	3100K … 3000K
		240	3000K
		241–242	3000K … 2900K
		243	2900K
		244–246	2900K … 2800K
		247	2800K
		248–249	2800K … 2700K
		250	2700K
		251–252	2700K … 2600K
		253	2600K
		254	2500K
		255	CTC 2
16	Red	0	Min
		1–254	Min … max
		255	Max
17	Green	0	Min
		1–254	Min … max
		255	Max
18	Blue	0	Min
		1–254	Min … max
		255	Max

Mode M2 Basic (30ch)

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 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 1 63, CH 7 Strobe Duration 1 0, CH 8 Strobe Speed 1 255, CH 14 Dimmer 2 255, CH 16 Strobe Duration 2 0, CH 17 Strobe Speed 2 255, CH 19 Color Temperature 0, CH 20 Red 1 255, CH 21 Green 1 255, CH 22 Blue 1 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt		Same as CH 1 in the mode “M1 Minimal (18ch)” (p. 10)
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Control		Same as CH 3 in the mode “M1 Minimal (18ch)” (p. 10)
4	Mix Priority		Same as CH 4 in the mode “M1 Minimal (18ch)” (p. 12)
5	Dimmer 1		Same as CH 5 in the mode “M1 Minimal (18ch)” (p. 13)
6	Dimmer 1 Fine	0–255	Fine adjustment of CH 5

CH	Function	DMX	Description
7	Strobe Duration 1		Same as CH 7 in the mode “M1 Minimal (18ch)” (p. 13)
8	Strobe Speed 1		Same as CH 8 in the mode “M1 Minimal (18ch)” (p. 13)
9	Shutter 1		Same as CH 9 in the mode “M1 Minimal (18ch)” (p. 13)
10	Pattern Selection		Pattern Select
		0–9	Idle
		10–11	Static Pattern 01
		12–13	Static Pattern 02
		14–15	Static Pattern 03
		16–17	Static Pattern 04
		18–19	Static Pattern 05
		20–21	Static Pattern 06
		22–23	Static Pattern 07
		24–25	Static Pattern 08
		26–27	Static Pattern 09
		28–29	Static Pattern 10
		30–31	Static Pattern 11
		32–33	Static Pattern 12
		34–35	Static Pattern 13
		36–37	Static Pattern 14
		38–39	Static Pattern 15
		40–41	Static Pattern 16
		42–43	Static Pattern 17
		44–45	Static Pattern 18
		46–47	Static Pattern 19
		48–49	Static Pattern 20
		50–51	Static Pattern 21
		52–53	Static Pattern 22
		54–55	Static Pattern 23
		56–57	Static Pattern 24
		58–59	Static Pattern 25
		60–61	Static Pattern 26
		62–63	Static Pattern 27
		64–65	Static Pattern 28
		66–67	Static Pattern 29
		68–69	Static Pattern 30
		70–71	Static Pattern 31
		72–73	Static Pattern 32
		74–75	Static Pattern 33
		76–77	Static Pattern 34
		78–79	Static Pattern 35
		80–81	Static Pattern 36
		82–83	Static Pattern 37

CH	Function	DMX	Description
10	Pattern Selection (continued)	84–85	Static Pattern 38
		86–87	Static Pattern 39
		88–89	Static Pattern 40
		90–91	Static Pattern 41
		92–93	Static Pattern 42
		94–95	Static Pattern 43
		96–97	Static Pattern 44
		98–99	Static Pattern 45
		100–101	Static Pattern 46
		102–103	Static Pattern 47
		104–105	Static Pattern 48
		106–107	Static Pattern 49
		108–109	Static Pattern 50
		110–111	Static Pattern 51
		112–113	Static Pattern 52
		114–115	Static Pattern 53
		116–117	Static Pattern 54
		118–119	Static Pattern 55
		120–121	Static Pattern 56
		122–123	Static Pattern 57
		124–125	Static Pattern 58
		126–127	Static Pattern 59
		128–129	Dynamic Pattern 01
		130–131	Dynamic Pattern 02
		132–133	Dynamic Pattern 03
		134–135	Dynamic Pattern 04
		136–137	Dynamic Pattern 05
		138–139	Dynamic Pattern 06
		140–141	Dynamic Pattern 07
		142–143	Dynamic Pattern 08
		144–145	Dynamic Pattern 09
		146–147	Dynamic Pattern 10
		148–149	Dynamic Pattern 11
		150–151	Dynamic Pattern 12
		152–153	Dynamic Pattern 13
		154–155	Dynamic Pattern 14
		156–157	Dynamic Pattern 15
		158–159	Dynamic Pattern 16
		160–161	Dynamic Pattern 17
		162–163	Dynamic Pattern 18
		164–165	Dynamic Pattern 19
		166–167	Dynamic Pattern 20

CH	Function	DMX	Description
10	Pattern Selection (continued)	168–169	Dynamic Pattern 21
		170–171	Dynamic Pattern 22
		172–173	Dynamic Pattern 23
		174–175	Dynamic Pattern 24
		176–177	Dynamic Pattern 25
		178–179	Dynamic Pattern 26
		180–181	Dynamic Pattern 27
		182–183	Dynamic Pattern 28
		184–185	Dynamic Pattern 29
		186–187	Dynamic Pattern 30
		188–189	Dynamic Pattern 31
		190–191	Dynamic Pattern 32
		192–193	Dynamic Pattern 33
		194–195	Dynamic Pattern 34
		196–197	Dynamic Pattern 35
		198–199	Dynamic Pattern 36
		200–201	Dynamic Pattern 37
		202–203	Dynamic Pattern 38
		204–205	Dynamic Pattern 39
		206–207	Dynamic Pattern 40
		208–209	Dynamic Pattern 41
		210–211	Dynamic Pattern 42
		212–213	Dynamic Pattern 43
		214–215	Dynamic Pattern 44
		216–217	Dynamic Pattern 45
		218–219	Dynamic Pattern 46
		220–221	Dynamic Pattern 47
		222–223	Dynamic Pattern 48
		224–225	Dynamic Pattern 49
		226–227	Dynamic Pattern 50
		228–229	Special Pattern 01
		230–231	Special Pattern 02
		232–233	Special Pattern 03
		234–235	Special Pattern 04
		236–237	Special Pattern 05
		238–239	Special Pattern 06
		240–241	Special Pattern 07
		242–243	Special Pattern 08
		244–245	Special Pattern 09
		246–247	Special Pattern 10
		248–249	Special Pattern 11
		250–255	Random Pixel

CH	Function	DMX	Description
11	Pattern Step / Speed	0–2	Stop (First Pattern Step)
		3–63	CW fast - slow (run Pattern Step 1n)
		64–66	Stop at current position
		67–127	CCW slow - fast (run Pattern Step n1)
		128–129	Pattern Step 01
		130–131	Pattern Step 02
		132–133	Pattern Step 03
		134–135	Pattern Step 04
		136–137	Pattern Step 05
		138–139	Pattern Step 06
		140–141	Pattern Step 07
		142–143	Pattern Step 08
		144–145	Pattern Step 09
		146–147	Pattern Step 10
		148–149	Pattern Step 11
		150–151	Pattern Step 12
		152–153	Pattern Step 13
		154–155	Pattern Step 14
		156–157	Pattern Step 15
		158–159	Pattern Step 16
		160–161	Pattern Step 17
		162–163	Pattern Step 18
		164–165	Pattern Step 19
		166–167	Pattern Step 20
		168–169	Pattern Step 21
		170–171	Pattern Step 22
		172–173	Pattern Step 23
		174–175	Pattern Step 24
		176–177	Pattern Step 25
		178–179	Pattern Step 26
		180–181	Pattern Step 27
		182–183	Pattern Step 28
		184–185	Pattern Step 29
		186–187	Pattern Step 30
		188–189	Pattern Step 31
		190–191	Pattern Step 32
		192–193	Pattern Step 33
		194–195	Pattern Step 34
		196–197	Pattern Step 35
		198–199	Pattern Step 36
		200–201	Pattern Step 37
		202–203	Pattern Step 38

CH	Function	DMX	Description
11	Pattern Step / Speed (continued)	204–205	Pattern Step 39
		206–207	Pattern Step 40
		208–209	Pattern Step 41
		210–211	Pattern Step 42
		212–213	Pattern Step 43
		214–215	Pattern Step 44
		216–217	Pattern Step 45
		218–219	Pattern Step 46
		220–221	Pattern Step 47
		222–223	Pattern Step 48
		224–225	Pattern Step 49
		226–227	Pattern Step 50
		228–229	Pattern Step 51
		230–231	Pattern Step 52
		232–233	Pattern Step 53
		234–235	Pattern Step 54
		236–237	Pattern Step 55
		238–239	Pattern Step 56
		240–241	Pattern Step 57
		242–243	Pattern Step 58
		244–245	Pattern Step 59
		246–247	Pattern Step 60
		248–249	Pattern Step 61
		250–251	Pattern Step 62
		252–253	Pattern Step 63
		254–255	Pattern Step 64
12	Pattern Crossfade	0–9	Off (Snap)
		10–127	XFade
		128–137	Off (Snap)
		138–255	XFade with tail
13	Pattern Transition	0–9	Off (Snap)
		10–63	Normal Transition (snap fast 5s)
		64–73	Off (Snap)
		74–127	FOB Transition / Fade over Blackout (snap fast5s)
		128–137	Off (Snap)
		138–191	FOB Transition / Fade over Fullt (snap fast5s)
		192–255	Pattern Transition
14	Dimmer 2		Same as CH 10 in the mode “M1 Minimal (18ch)” (p. 14)
15	Dimmer 2 Fine	0–255	Fine adjustment of CH 14
16	Strobe Duration 2		Same as CH 12 in the mode “M1 Minimal (18ch)” (p. 14)
17	Strobe Speed 2		Same as CH 13 in the mode “M1 Minimal (18ch)” (p. 14)
18	Shutter 2		Same as CH 14 in the mode “M1 Minimal (18ch)” (p. 14)

CH	Function	DMX	Description
19	Color Temperature		Same as CH 15 in the mode “M1 Minimal (18ch)” (p. 15)
20	Red 1	0	Min
		1–254	Min ... max
		255	Max
21	Green 1	0	Min
		1–254	Min ... max
		255	Max
22	Blue 1	0	Min
		1–254	Min ... max
		255	Max
23	Red 2	0–255	
24	Green 2	0–255	
25	Blue 2	0–255	
26	Digi FX Preset	0–9	Off Manual FX Control
		10–59	DigiFX Preset 1...50
		60–255	DigiFX Preset 51-246
27	Digi FX Select	0–9	Open Idle
		10–11	DigiFX 1
		12–13	DigiFX 2
		14–15	DigiFX 3
		16–17	DigiFX 4
		18–19	DigiFX 5
		20–21	DigiFX 6
		22–23	DigiFX 7
		24–25	DigiFX 8
		26–27	DigiFX 9
		28–29	DigiFX 10
		30–31	DigiFX 11
		32–33	DigiFX 12
		34–35	DigiFX 13
		36–37	DigiFX 14
		38–39	DigiFX 15
		40–41	DigiFX 16
		42–43	DigiFX 17
		44–45	DigiFX 18
		46–47	DigiFX 19
		48–49	DigiFX 20
		50–51	DigiFX 21
		52–53	DigiFX 22
		54–55	DigiFX 23
		56–57	DigiFX 24
		58–59	DigiFX 25

CH	Function	DMX	Description
27	Digi FX Select (continued)	60–61	DigiFX 26
		62–63	DigiFX 27
		64–65	DigiFX 28
		66–67	DigiFX 29
		68–69	DigiFX 30
		70–71	DigiFX 31
		72–73	DigiFX 32
		74–75	DigiFX 33
		76–77	DigiFX 34
		78–79	DigiFX 35
		80–81	DigiFX 36
		82–83	DigiFX 37
		84–85	DigiFX 38
		86–87	DigiFX 39
		88–89	DigiFX 40
		90–91	DigiFX 41
		92–93	DigiFX 42
		94–95	DigiFX 43
		96–97	DigiFX 44
		98–99	DigiFX 45
		100–101	DigiFX 46
		102–103	DigiFX 47
		104–105	DigiFX 48
		106–107	DigiFX 49
		108–109	DigiFX 50
		110–111	DigiFX 51
		112–113	DigiFX 52
		114–115	DigiFX 53
		116–117	DigiFX 54
		118–119	DigiFX 55
		120–121	DigiFX 56
		122–123	DigiFX 57
		124–125	DigiFX 58
		126–127	DigiFX 59
		128–129	DigiFX 60
		130–131	DigiFX 61
		132–133	DigiFX 62
		134–135	DigiFX 63
		136–137	DigiFX 64
		138–139	DigiFX 65
		140–141	DigiFX 66
		142–143	DigiFX 67

CH	Function	DMX	Description
27	Digi FX Select (continued)	144–145	DigiFX 68
		146–147	DigiFX 69
		148–149	DigiFX 70
		150–151	DigiFX 71
		152–153	DigiFX 72
		154–155	DigiFX 73
		156–157	DigiFX 74
		158–159	DigiFX 75
		160–161	DigiFX 76
		162–163	DigiFX 77
		164–165	DigiFX 78
		166–167	DigiFX 79
		168–169	DigiFX 80
		170–199	No function
		200–250	Aliigment Patterns
		251	FVP
		252	NDI4 *GLP-JDC2-4*
		253	NDI3 *GLP-JDC2-3*
		254	NDI2 *GLP-JDC2-2*
		255	NDI1 *GLP-JDC2-1*
28	Digi FX Speed	0	Stop at Current Posi 1
		1	Min Speed
		2–126	Min Speed ... Default Speed
		127	Default Speed
		128–254	Default Speed ... Max Speed
		255	Max Speed
29	Zoom	0	Minimum
		1–126	Min --> 1:1
		127	Default 1:1
		128–254	1:1 --> Max
		255	Maximum
30	Digi FX Orientation	0	-360*
		1–126	-360* ... Center
		127	Center
		128–254	Center ... +360*
		255	+360*

Mode M4 Segment 12-24 (141ch)

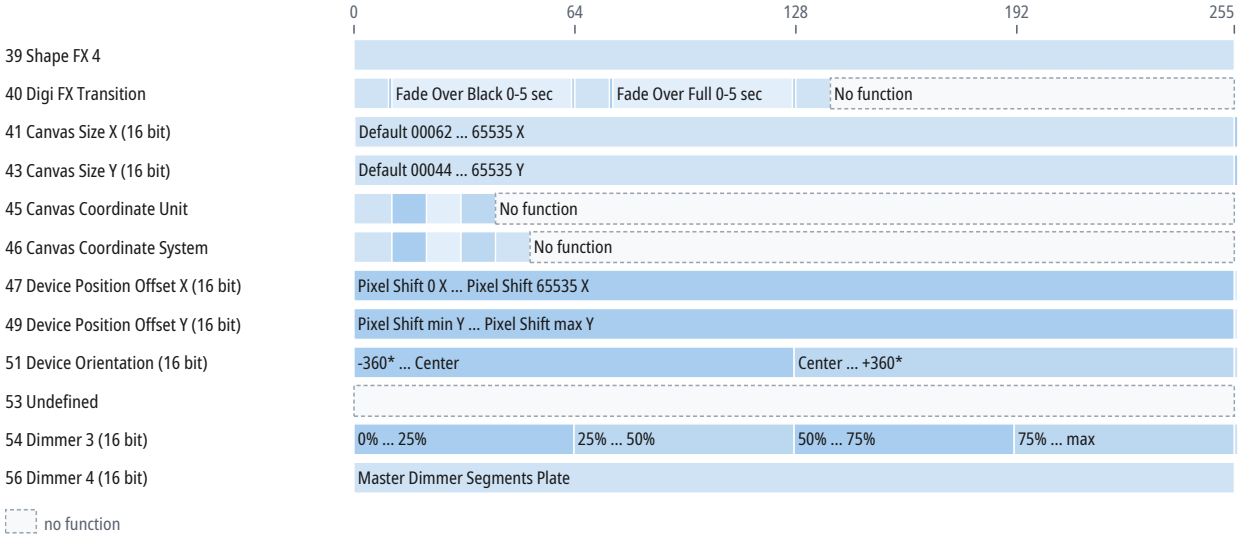
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”; CH 56 Dimmer 4 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 1 63, CH 7 Strobe Duration 1 0, CH 8 Strobe Speed 1 255, CH 14 Dimmer 2 255, CH 16 Strobe Duration 2 0, CH 17 Strobe Speed 2 255, CH 19 Color Temperature 0, CH 20 Red 1 255, CH 21 Green 1 255, CH 22 Blue 1 255, CH 54 Dimmer 3 128, CH 56 Dimmer 4 255, CH 58 Dimmer 255 (the same in each of the 12 cells), CH 70 Red 255 (the same in each of the 24 cells), CH 71 Green 255 (the same in each of the 24 cells), CH 72 Blue 255 (the same in each of the 24 cells).

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Tilt		Same as CH 1 in the mode “M1 Minimal (18ch)” (p. 10)
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Control		Same as CH 3 in the mode “M1 Minimal (18ch)” (p. 10)
4	Mix Priority		Same as CH 4 in the mode “M1 Minimal (18ch)” (p. 12)
5	Dimmer 1		Same as CH 5 in the mode “M1 Minimal (18ch)” (p. 13)
6	Dimmer 1 Fine	0–255	Fine adjustment of CH 5
7	Strobe Duration 1		Same as CH 7 in the mode “M1 Minimal (18ch)” (p. 13)
8	Strobe Speed 1		Same as CH 8 in the mode “M1 Minimal (18ch)” (p. 13)
9	Shutter 1		Same as CH 9 in the mode “M1 Minimal (18ch)” (p. 13)
10	Pattern Selection		Same as CH 10 in the mode “M2 Basic (30ch)” (p. 21)
11	Pattern Step / Speed		Same as CH 11 in the mode “M2 Basic (30ch)” (p. 24)
12	Pattern Crossfade		Same as CH 12 in the mode “M2 Basic (30ch)” (p. 25)
13	Pattern Transition		Same as CH 13 in the mode “M2 Basic (30ch)” (p. 25)
14	Dimmer 2		Same as CH 10 in the mode “M1 Minimal (18ch)” (p. 14)
15	Dimmer 2 Fine	0–255	Fine adjustment of CH 14
16	Strobe Duration 2		Same as CH 12 in the mode “M1 Minimal (18ch)” (p. 14)
17	Strobe Speed 2		Same as CH 13 in the mode “M1 Minimal (18ch)” (p. 14)
18	Shutter 2		Same as CH 14 in the mode “M1 Minimal (18ch)” (p. 14)
19	Color Temperature		Same as CH 15 in the mode “M1 Minimal (18ch)” (p. 15)
20	Red 1		Same as CH 20 in the mode “M2 Basic (30ch)” (p. 26)
21	Green 1		Same as CH 21 in the mode “M2 Basic (30ch)” (p. 26)
22	Blue 1		Same as CH 22 in the mode “M2 Basic (30ch)” (p. 26)
23	Red 2	0	Min
		1–254	Min ... max
		255	Max
24	Green 2	0	Min
		1–254	Min ... max

CH	Function	DMX	Description
24	Green 2 (continued)	255	Max
25	Blue 2	0	Min
		1–254	Min ... max
		255	Max
26	Digi FX Canvas Offset X	0–127	X - 32768 ... X No Offset
		128–255	X No Offset ... x + 32768
		255	x + 32768
27	Digi FX Canvas Offset X Fine	0–255	Fine adjustment of CH 26
28	Digi FX Canvas Offset Y	0–127	Y - 32768 ... Y No Offset
		128–255	Y No Offset ... Y + 32768
		255	Y + 32768
29	Digi FX Canvas Offset Y Fine	0–255	Fine adjustment of CH 28
30	Digi FX Preset		Same as CH 26 in the mode “M2 Basic (30ch)” (p. 26)
31	Digi FX Select	0–9	Open Idle
		10–11	01 Strikes
		12–13	02 Spiral
		14–15	03 Starfield 01
		16–17	04 Matrix
		18–19	05 Hexagon Mash
		20–21	06 Opening Rings
		22–23	07 Plasma Strikes
		24–25	08 Truchet
		26–27	09 DC Clouds
		28–29	10 DC Fire
		30–31	11 Box Zoomer
		32–33	12 Arrows
		34–35	13 Round Truchet
		36–37	14 Sparkle Down
		38–39	15 Inverting Clouds
		40–41	16 BW Fluid
		42–43	17 Mandala
		44–45	18 Lightning
		46–47	19 Gerstner Waves 01
		48–49	20 Acid
		50–51	21 Hypnotic
		52–53	22 Default Rainbow
		54–55	23 Fire
		56–57	24 Crosshairs
		58–59	25 Sonar
		60–61	26 XOR
		62–63	27 DC Plasma
		64–65	28 Spiral

CH	Function	DMX	Description
31	Digi FX Select (continued)	66–67	29 Drops
		68–69	30 Gerstner Waves 02
		70–71	31 Circles
		72–73	32 Clouds
		74–75	33 Magma
		76–77	34 Plasma
		78–79	35 Heart
		80–81	36 Kilt
		82–83	37 Ripple
		84–85	38 Bubbles
		86–87	39 Fan
		88–89	40 Toto07
		90–91	41 Confetti
		92–93	42 Cube
		94–95	43 Sine Wave
		96–97	44 Starfield 03
		98–99	45 Flares
		100–101	46 Fireflies
		102–103	47 Galaxy
		104–105	48 Ellipses
		106–107	49 Liquid Paint
		108–109	50 Twister
		110–111	51 Warp Speed
		112–113	52 Polygone Grower
		114–115	53 Double Spiral
		116–117	54 Magnetic Field
		118–119	55 Screensaver MF
		120–121	56 Debug Positioning
		122–123	57 Calibration Grid
		124–125	58 X Axis Calibration Line
		126–127	DigiFX 59
		128–129	DigiFX 60
		130–131	DigiFX 61
		132–133	DigiFX 62
		134–135	DigiFX 63
		136–137	DigiFX 64
		138–139	DigiFX 65
		140–141	DigiFX 66
		142–143	DigiFX 67
		144–145	DigiFX 68
		146–147	DigiFX 69
		148–149	DigiFX 70

CH	Function	DMX	Description
31	Digi FX Select (continued)	150–151	DigiFX 71
		152–153	DigiFX 72
		154–155	DigiFX 73
		156–157	DigiFX 74
		158–159	DigiFX 75
		160–161	DigiFX 76
		162–163	DigiFX 77
		164–165	DigiFX 78
		166–167	DigiFX 79
		168–169	DigiFX 80
		170–250	No function
		251	FVP
		252	NDI4 *GLP-JDC2-4*
		253	NDI3 *GLP-JDC2-3*
		254	NDI2 *GLP-JDC2-2*
		255	NDI1 *GLP-JDC2-1*
32	Digi FX Speed		Same as CH 28 in the mode “M2 Basic (30ch)” (p. 28)
33	Zoom		Same as CH 29 in the mode “M2 Basic (30ch)” (p. 28)
34	Digi FX Orientation	0–127	-360* ... Center
		128–255	Center ... +360*
		255	+360*
35	Digi FX Orientation Fine	0–255	Fine adjustment of CH 34
36	Shape FX 1	0–255	
37	Shape FX 2	0–255	
38	Shape FX 3	0–255	
39	Shape FX 4	0–255	
40	Digi FX Transition	0–9	Off (Snap)
		10	Fade Over Black Snap
		11–62	Fade Over Black 0-5 sec
		63	Fade Over Black 5 sec
		64–73	Off (Snap) 2
		74	Fade Over Full Snap
		75–126	Fade Over Full 0-5 sec
		127	Fade Over Full 5 sec
		128–137	Off (Snap) 3
		138–255	No function
41	Canvas Size X	0	= NDI Resolution
		0	00001 X ... Default 00062
		0–255	Default 00062 ... 65535 X
		255	65535 X
42	Canvas Size X Fine	0–255	Fine adjustment of CH 41
43	Canvas Size Y	0	= NDI Resolution

CH	Function	DMX	Description
43	Canvas Size Y (continued)	0	00001 Y ... Default 00044
		0–255	Default 00044 ... 65535 Y
		255	65535 Y
44	Canvas Size Y Fine	0–255	Fine adjustment of CH 43
45	Canvas Coordinate Unit		Coordinate Unit
		0–10	Absolute Pixels
		11–20	Relative in %
		21–30	Segmented Grid Units
		31–40	From Fixture
		41–255	No function
46	Canvas Coordinate System		Coordinate System
		0–10	Top Left
		11–20	Bottom Left
		21–30	Top Right
		31–40	Bottom Right
		41–50	From Fixture
		51–255	No function
47	Device Position Offset X		Device Position X
		0–255	Pixel Shift 0 X ... Pixel Shift 65535 X
		255	Pixel Shift 65535 X
48	Device Position Offset X Fine	0–255	Fine adjustment of CH 47
49	Device Position Offset Y		Device Position Y
		0–255	Pixel Shift min Y ... Pixel Shift max Y
		255	Pixel Shift max Y
50	Device Position Offset Y Fine	0–255	Fine adjustment of CH 49
51	Device Orientation	0–127	-360* ... Center
		128–255	Center ... +360*
		255	+360*
52	Device Orientation Fine	0–255	Fine adjustment of CH 51
53	Undefined	0–255	
54	Dimmer 3		Master Dimmer Segments Beam
		0–63	0% ... 25%
		63	25%
		64–127	25% ... 50%
		127	50%
		128–191	50% ... 75%
		191	75%
		192–255	75% ... max
		255	Max
55	Dimmer 3 Fine	0–255	Fine adjustment of CH 54
56	Dimmer 4		Master Dimmer Segments Plate
		0–255	Master Dimmer Segments Plate

CH	Function	DMX	Description
57	Dimmer 4 Fine	0–255	Fine adjustment of CH 56
58	Dimmer 5	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%
70	Red 3	0	Min
		1–254	Min … max
		255	Max
71	Green 3	0	Min
		1–254	Min … max
		255	Max
72	Blue 3	0	Min
		1–254	Min … max
		255	Max

CH 58–69: 12 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 58); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	58	2	59	3	60	4	61	5	62	6	63
7	64	8	65	9	66	10	67	11	68	12	69

CH 70–141: 24 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 70–72); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	70	71	72	2	73	74	75	3	76	77	78
4	79	80	81	5	82	83	84	6	85	86	87
7	88	89	90	8	91	92	93	9	94	95	96
10	97	98	99	11	100	101	102	12	103	104	105
13	106	107	108	14	109	110	111	15	112	113	114
16	115	116	117	17	118	119	120	18	121	122	123
19	124	125	126	20	127	128	129	21	130	131	132
22	133	134	135	23	136	137	138	24	139	140	141

Mode M3 Segment 12-12 (105ch)

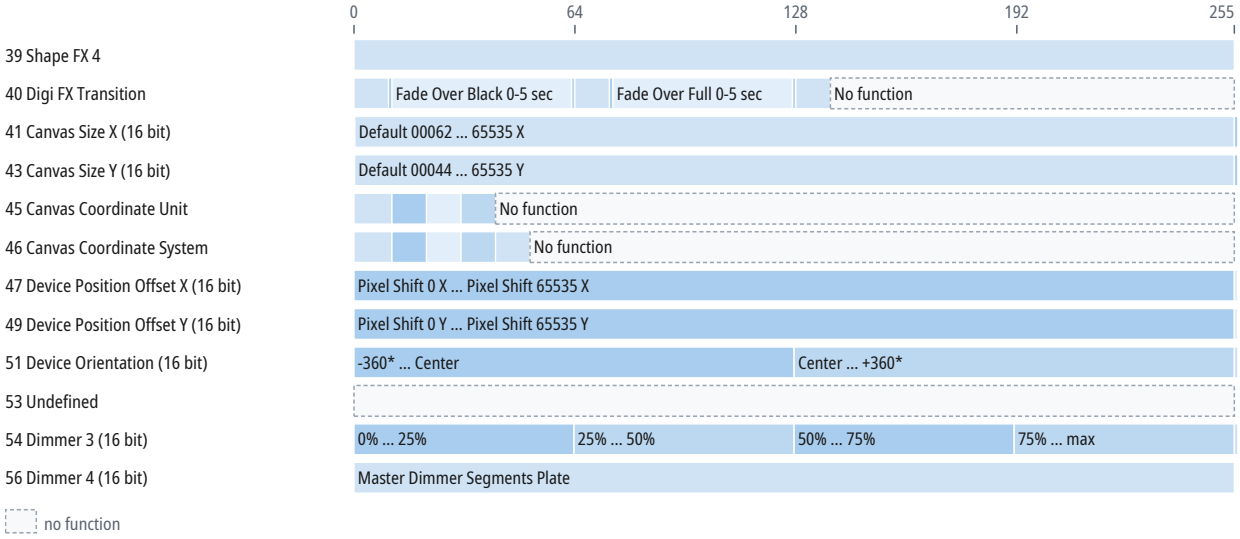
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 8 Strobe Speed 1 at 251–255 “Open”; CH 17 Strobe Speed 2 at 251–255 “Open”; CH 56 Dimmer 4 above 0. The GDTF file gives these values for a console's Highlight function: CH 5 Dimmer 1 63, CH 7 Strobe Duration 1 0, CH 8 Strobe Speed 1 255, CH 14 Dimmer 2 255, CH 16 Strobe Duration 2 0, CH 17 Strobe Speed 2 255, CH 19 Color Temperature 0, CH 20 Red 1 255, CH 21 Green 1 255, CH 22 Blue 1 255, CH 54 Dimmer 3 128, CH 56 Dimmer 4 255, CH 58 Dimmer 255 (the same in each of the 12 cells), CH 70 Red 255 (the same in each of the 12 cells), CH 71 Green 255 (the same in each of the 12 cells), CH 72 Blue 255 (the same in each of the 12 cells).

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Tilt		Same as CH 1 in the mode “M1 Minimal (18ch)” (p. 10)
2	Tilt Fine	0–255	Fine adjustment of CH 1
3	Control	0–9	Idle
		10–11	No function
		12–13	iQ Service Connect
		14–19	No function
		20–21	Dimmer Curve SOFT
		22–23	Dimmer Curve LINEAR
		24–25	Dimmer Curve S-CURVE
		26–29	No function
		30–31	Display Mode OFF
		32–33	Display Mode AUTO
		34–35	Display Mode ON
		36–37	No function
		38–39	Display Orientation AUTO
		40–41	Display Orientation NORMAL
		42–43	Display Orientation FLIP
		44–45	No function
		46–47	No Signal BLACKOUT
		48–49	No Signal HOLD
		50–51	No Signal HOUSELIGHT
		52–53	No Signal SCENE
		54–55	Capture Scene
		56–57	Fan Mode MINIMUM
		58–59	Fan Mode REGULATED
		60–61	Fan Mode HIGH
		62–63	Fan Mode MEDIUM

CH	Function	DMX	Description
3	Control (continued)	64–65	Fan Mode LOW
		66–67	Flash Style Normal
		68–69	Flash Style Spark
		70–71	Pixel Mirror OFF
		72–73	Pixel Mirror X-MIRROR
		74–75	Pixel Mirror Y-MIRROR
		76–77	Pixel Mirror XY-MIRROR
		78–79	No Function
		80–81	Duration Control NORMAL
		82–83	Duration Control PERCENTAGE
		84–91	No function
		92–93	Position Feedback OFF
		94–95	Position Feedback ON
		96–97	No function
		98–99	Tilt invert OFF
		100–103	Tilt invert ON
		104–105	Tilt Disable OFF
		106–107	Tilt Disable ON
		108–109	No function
		110–111	NDI Mirror Off
		112–113	NDI Mirror X Mirror
		114–115	NDI Mirror Y Mirror
		116–117	NDI Mirror XY Mirror
		118–137	NDI Mirror XY Mirror ... White Point 8000K
		138–139	White Point 8000K
		140–141	White Point 6500K
		142–143	White Point 5600K
		144–145	White Point OFF
		146–147	White Beam Normal
		148–149	White Beam Expanded White
		150–151	Brightnes Limit Normal
		152–153	Brightnes Limit 1
		154–155	Brightnes Limit 2
		156–157	Brightnes Limit 3 Filter Protection
		158–175	Brightnes Limit 3 Filter Protection ... Set Absolut Fix Position
		176–177	Set Absolut Fix Position
		178–179	Set Segmented Fix Position
		180–181	Set Relative Fix Position
		182–183	PWM Frequency High
		184–185	PWM Frequency Medium
		186–187	PWM Frequency Low

CH	Function	DMX	Description
3	Control (continued)	188–193	No function
		194–195	Rate/Duration Cyc Smart
		196–197	Rate/Duration Cyc Finish
		198–199	Rate/Duration Cyc Restart
		200–201	Strobe Cyc at Zero Reset
		202–203	Strobe Cyc at Zero Continue
		204–223	No Funktion
		224–225	Experimental Digi-FX-DISABLED
		226–227	Experimental Digi-FX - ENABLED
		228–229	No function
		230–231	Save as User Setting Preset 1
		232–233	Save as User Setting Preset 2
		234–235	Save as User Setting Preset 3
		236–237	No function
		238–239	Load User Setting Preset 1
		240–241	Load User Setting Preset 2
		242–243	Load User Setting Preset 3
		244–245	Load Setting Default
		246–253	No function
		254–255	Reset ALL
4	Mix Priority		Same as CH 4 in the mode “M1 Minimal (18ch)” (p. 12)
5	Dimmer 1		Same as CH 5 in the mode “M1 Minimal (18ch)” (p. 13)
6	Dimmer 1 Fine	0–255	Fine adjustment of CH 5
7	Strobe Duration 1		Same as CH 7 in the mode “M1 Minimal (18ch)” (p. 13)
8	Strobe Speed 1		Same as CH 8 in the mode “M1 Minimal (18ch)” (p. 13)
9	Shutter 1		Same as CH 9 in the mode “M1 Minimal (18ch)” (p. 13)
10	Pattern Selection		Same as CH 10 in the mode “M2 Basic (30ch)” (p. 21)
11	Pattern Step / Speed		Same as CH 11 in the mode “M2 Basic (30ch)” (p. 24)
12	Pattern Crossfade		Same as CH 12 in the mode “M2 Basic (30ch)” (p. 25)
13	Pattern Transition		Same as CH 13 in the mode “M2 Basic (30ch)” (p. 25)
14	Dimmer 2		Same as CH 10 in the mode “M1 Minimal (18ch)” (p. 14)
15	Dimmer 2 Fine	0–255	Fine adjustment of CH 14
16	Strobe Duration 2		Same as CH 12 in the mode “M1 Minimal (18ch)” (p. 14)
17	Strobe Speed 2		Same as CH 13 in the mode “M1 Minimal (18ch)” (p. 14)
18	Shutter 2		Same as CH 14 in the mode “M1 Minimal (18ch)” (p. 14)
19	Color Temperature		Same as CH 15 in the mode “M1 Minimal (18ch)” (p. 15)
20	Red 1		Same as CH 20 in the mode “M2 Basic (30ch)” (p. 26)
21	Green 1		Same as CH 21 in the mode “M2 Basic (30ch)” (p. 26)
22	Blue 1		Same as CH 22 in the mode “M2 Basic (30ch)” (p. 26)
23	Red 2		Same as CH 23 in the mode “M4 Segment 12-24 (141ch)” (p. 30)

CH	Function	DMX	Description
24	Green 2		Same as CH 24 in the mode “M4 Segment 12-24 (141ch)” (p. 30)
25	Blue 2		Same as CH 25 in the mode “M4 Segment 12-24 (141ch)” (p. 31)
26	Digi FX Canvas Offset X		Same as CH 26 in the mode “M4 Segment 12-24 (141ch)” (p. 31)
27	Digi FX Canvas Offset X Fine	0–255	Fine adjustment of CH 26
28	Digi FX Canvas Offset Y		Same as CH 28 in the mode “M4 Segment 12-24 (141ch)” (p. 31)
29	Digi FX Canvas Offset Y Fine	0–255	Fine adjustment of CH 28
30	Digi FX Preset		Same as CH 26 in the mode “M2 Basic (30ch)” (p. 26)
31	Digi FX Select		Same as CH 31 in the mode “M4 Segment 12-24 (141ch)” (p. 31)
32	Digi FX Speed		Same as CH 28 in the mode “M2 Basic (30ch)” (p. 28)
33	Zoom		Same as CH 29 in the mode “M2 Basic (30ch)” (p. 28)
34	Digi FX Orientation	0–127	-360* ... Center
		127–255	Center ... +360*
		255	+360*
35	Digi FX Orientation Fine	0–255	Fine adjustment of CH 34
36	Shape FX 1	0–255	
37	Shape FX 2	0–255	
38	Shape FX 3	0–255	
39	Shape FX 4	0–255	
40	Digi FX Transition		Same as CH 40 in the mode “M4 Segment 12-24 (141ch)” (p. 33)
41	Canvas Size X		Same as CH 41 in the mode “M4 Segment 12-24 (141ch)” (p. 33)
42	Canvas Size X Fine	0–255	Fine adjustment of CH 41
43	Canvas Size Y		Same as CH 43 in the mode “M4 Segment 12-24 (141ch)” (p. 33)
44	Canvas Size Y Fine	0–255	Fine adjustment of CH 43
45	Canvas Coordinate Unit		Same as CH 45 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
46	Canvas Coordinate System		Same as CH 46 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
47	Device Position Offset X		Same as CH 47 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
48	Device Position Offset X Fine	0–255	Fine adjustment of CH 47
49	Device Position Offset Y		Device Position Y
		0–255	Pixel Shift 0 Y ... Pixel Shift 65535 Y
		255	Pixel Shift 65535 Y
50	Device Position Offset Y Fine	0–255	Fine adjustment of CH 49
51	Device Orientation		Same as CH 51 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
52	Device Orientation Fine	0–255	Fine adjustment of CH 51

CH	Function	DMX	Description
53	Undefined	0–255	
54	Dimmer 3		Same as CH 54 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
55	Dimmer 3 Fine	0–255	Fine adjustment of CH 54
56	Dimmer 4		Same as CH 56 in the mode “M4 Segment 12-24 (141ch)” (p. 34)
57	Dimmer 4 Fine	0–255	Fine adjustment of CH 56
58	Dimmer 5	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%
70	Red 3	0	Min
		1–254	Min … max
		255	Max
71	Green 3	0	Min
		1–254	Min … max
		255	Max
72	Blue 3	0	Min
		1–254	Min … max
		255	Max

CH 58–69: 12 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 58); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	58	2	59	3	60	4	61	5	62	6	63
7	64	8	65	9	66	10	67	11	68	12	69

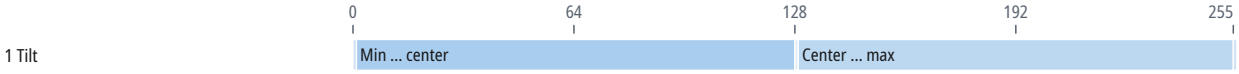
CH 70–105: 12 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 70–72); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	70	71	72	2	73	74	75	3	76	77	78
4	79	80	81	5	82	83	84	6	85	86	87
7	88	89	90	8	91	92	93	9	94	95	96
10	97	98	99	11	100	101	102	12	103	104	105

Mode M5 Pixel (85ch)

The GDTF file gives these values for a console's Highlight function: CH 2 Dimmer 255 (the same in each of the 12 cells), CH 14 Red 255 (the same in each of the 24 cells), CH 15 Green 255 (the same in each of the 24 cells), CH 16 Blue 255 (the same in each of the 24 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Tilt	0	Min
		1–127	Min ... center
		128	Center
		129–254	Center ... max
		255	Max
2	Dimmer 1	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%
14	Red 1	0	Min
		1–254	Min ... max
		255	Max
15	Green 1	0	Min
		1–254	Min ... max
		255	Max
16	Blue 1	0	Min
		1–254	Min ... max
		255	Max

CH 2–13: 12 cells of 1 channel each. Every cell works as cell 1 in the table above (CH 2); the table below gives each cell's channel numbers.

Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer	Cell	Dimmer
1	2	2	3	3	4	4	5	5	6	6	7
7	8	8	9	9	10	10	11	11	12	12	13

CH 14–85: 24 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 14–16); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	14	15	16	2	17	18	19	3	20	21	22
4	23	24	25	5	26	27	28	6	29	30	31
7	32	33	34	8	35	36	37	9	38	39	40
10	41	42	43	11	44	45	46	12	47	48	49
13	50	51	52	14	53	54	55	15	56	57	58
16	59	60	61	17	62	63	64	18	65	66	67
19	68	69	70	20	71	72	73	21	74	75	76
22	77	78	79	23	80	81	82	24	83	84	85

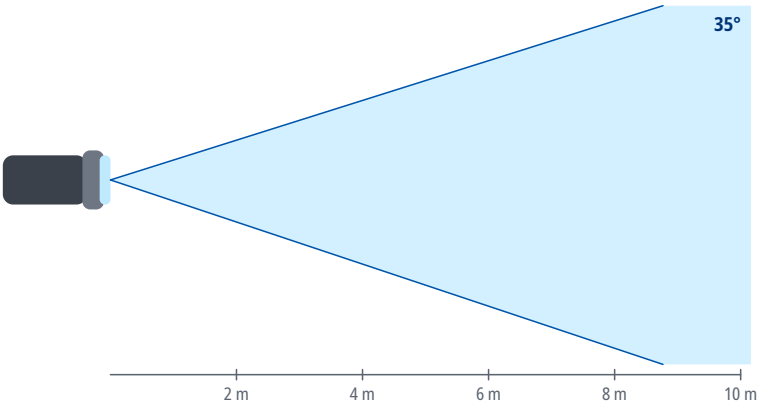
10 Technical specifications

Parameter	Value
Light source	LED
Tilt	184°
RDM	yes (manufacturer ID 0x676C, device model ID 0x0043)
Weight	23.5 kg
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–10000 K
Strobe frequency	1–10 Hz

Spot diameter



Distance	Ø 35°
2 m	1.3 m
4 m	2.5 m
6 m	3.8 m
8 m	5 m
10 m	6.3 m
15 m	9.5 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.