DTS Lighting

Synergy 7 Profile



Manufacturer	**DTS Lighting**
Type	**Profile spot**
DMX modes	**2**
DMX footprint	**52, 61 channels**
Beam angle	**7-52°**
Pan range	**540°**
Tilt range	**260°**
Size (W × H × D)	**389 × 647 × 303 mm**
GDTF fixture type	**AC68ECA3-1FE8-48D7-896F-10…**

Controls

Focus · Frost · Iris · Prism · Prism rotation · Zoom · CMY colour mixing · Colour temperature · Colour wheel · Effect speed · Strobe · Dimmer · Pan and tilt · Movement speed · Gobos · Gobo rotation

Safety-relevant functions

Fixture reset · Strobe

DMX modes

52 Channels	52 ch
61 Channels	61 ch

52 Channels

52 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Position MSpeed	0	0–9 Fast 10–25 Standard 26–127 Vector fast>slow 128–247 DMX react fast>slow 248–250 Silent 251–255 Snap
6	Dummy	0	
7	Dimmer	0	
8	Dimmer Fine	0	Fine byte of Dimmer
9	Shutter / Strobe	0	0–9 Closed 10–19 Open 20–29 Closed 30–118 Min Strobe 119–119 Max Strobe 120–148 Min Pulse Up 149–149 Max Pulse Up 150–178 Min Pulse Down 179–179 Max Pulse Down 180–189 Random Strobe 190–199 Open 200–204 Gobos BO on Rotation 205–209 Colors BO on Insertion 210–219 P/T BO on Movement 220–222 Blades BO on Insertion 223–224 Prisms BO on Insertion 225–226 Zoom BO on Movement 227–229 GLOBAL MIB 230–255 Open
10	Color Wheel 2	0	0–9 Open (wheel slot 1) 10–71 Higher CRI (wheel slot 2) 72–133 UV (wheel slot 3) 134–195 CTB 10 000 K (wheel slot 4) 196–255 1/4 Minus Green (wheel slot 5)
11	Color Wheel	0	0–9 Open (wheel slot 1) 10–50 Deep Red (wheel slot 2) 51–58 Color 1-2 59–91 Deep Blue (wheel slot 3) 92–107 Color 2-3 108–127 Deep Green (wheel slot 4) 128–132 Stop 133–137 Color 3-4 138–156 CCW Rotation min>max 157–173 Amber (wheel slot 5) 174–205 Color 4-5 206–214 Lavender (wheel slot 6) 215–255 Color 5-0
12	Color1Mode	0	0–63 Full Color 64–127 Half Color 128–191 Proportional Color 192–255 Rainbow
13	Cyan	0	
14	Magenta	0	
15	Yellow	0	

52 Channels (continued)

Ch	Function	Default	DMX values
16	C TO	0	0–0 7000 K 1–254 Linear CTO 255–255 3000 K
17	Color Macro1	0	0–9 Open (wheel slot 1) 10–20 L019 Fire (wheel slot 2) 21–25 L020 Medium Amber (wheel slot 3) 26–30 L025 Sunset Red (wheel slot 4) 31–35 L068 Sky Blue (wheel slot 5) 36–40 L101 Yellow (wheel slot 6) 41–45 L104 Deep Amber (wheel slot 7) 46–50 L105 Orange (wheel slot 8) 51–55 L106 Primary Red (wheel slot 9) 56–60 L111 Dark Pink (wheel slot 10) 61–65 L113 Magenta (wheel slot 11) 66–70 L117 Steel Blue (wheel slot 12) 71–75 L118 Light Blue (wheel slot 13) 76–80 L122 Fern Green (wheel slot 14) 81–85 L126 Mauve (wheel slot 15) 86–90 L132 Medium Blue (wheel slot 16) 91–95 L136 Pale Lavender (wheel slot 17) 96–100 L137 Special Lavender (wheel slot 18) 101–105 L138 Pale Green (wheel slot 19) 106–110 L139 Primary Green (wheel slot 20) 111–115 L147 Apricot (wheel slot 21) 116–120 L151 Gold Tint (wheel slot 22) 121–125 L154 Pale Rose (wheel slot 23) 126–130 L156 Chocolate (wheel slot 24) 131–135 L181 Congo Blue (wheel slot 25) 136–140 L200 Double CTB (wheel slot 26) 141–145 L201 Full CTB (wheel slot 27) 146–150 L204 Full CTO (wheel slot 28) 151–255 L341 Plum (wheel slot 29)
18	Gobo	0	0–9 Open (wheel slot 1) 10–42 Gobo 1 (wheel slot 2) 43–75 Gobo 2 (wheel slot 3) 76–108 Gobo 3 (wheel slot 4) 109–141 Gobo 4 (wheel slot 5) 142–174 Gobo 5 (wheel slot 6) 175–207 Gobo 6 (wheel slot 7) 208–231 CCW scrolling 232–255 CW scrolling
19	Gobo Rotation	0	0–127 Index 0-360 128–180 CCW Gobo max>min 181–202 Stop 203–255 CW Gobo min>max
20	Gobo Rotation Fine	0	Fine byte of Gobo Rotation

52 Channels (continued)

Ch	Function	Default	DMX values
21	Gobo1Wheel Shake	0	0–9 Stop 10–19 Shake R-L speed 1 20–29 Shake R-L speed 2 30–39 Shake R-L speed 3 40–49 Shake R-L speed 4 50–59 Shake R-L speed 5 60–69 Shake R-L speed 6 70–79 Shake R-L speed 7 80–89 Shake R-L speed 8 90–99 Shake R-L speed 9 100–109 Shake R-L speed 10 110–126 Shake R-L speed 11 127–138 Stop 139–148 Shake L-R speed 1 149–158 Shake L-R speed 2 159–168 Shake L-R speed 3 169–178 Shake L-R speed 4 179–188 Shake L-R speed 5 189–198 Shake L-R speed 6 199–208 Shake L-R speed 7 209–218 Shake L-R speed 8 219–228 Shake L-R speed 9 229–238 Shake L-R speed 10 239–255 Shake L-R speed 11
22	Gobo 2	0	0–9 Open (wheel slot 1) 10–42 Gobo 1 (wheel slot 2) 43–75 Gobo 2 (wheel slot 3) 76–108 Gobo 3 (wheel slot 4) 109–141 Gobo 4 (wheel slot 5) 142–174 Gobo 5 (wheel slot 6) 175–207 Gobo 6 (wheel slot 7) 208–231 CCW scrolling 232–255 CW scrolling
23	Gobo Rotation 2	0	0–127 Index 0-360 128–180 CCW Gobo max>min 181–202 Stop 203–255 CW Gobo min>max
24	Gobo Rotation 2 Fine	0	Fine byte of Gobo Rotation 2

52 Channels (continued)

Ch	Function	Default	DMX values
25	Gobo2Wheel Shake	0	0–9 Stop 10–19 Shake R-L speed 1 20–29 Shake R-L speed 2 30–39 Shake R-L speed 3 40–49 Shake R-L speed 4 50–59 Shake R-L speed 5 60–69 Shake R-L speed 6 70–79 Shake R-L speed 7 80–89 Shake R-L speed 8 90–99 Shake R-L speed 9 100–109 Shake R-L speed 10 110–126 Shake R-L speed 11 127–138 Stop 139–148 Shake L-R speed 1 149–158 Shake L-R speed 2 159–168 Shake L-R speed 3 169–178 Shake L-R speed 4 179–188 Shake L-R speed 5 189–198 Shake L-R speed 6 199–208 Shake L-R speed 7 209–218 Shake L-R speed 8 219–228 Shake L-R speed 9 229–238 Shake L-R speed 10 239–255 Shake L-R speed 11
26	Iris	0	0–9 Open 10–246 100% > 15% 247–255 Closed
27	Iris Strobe	0	0–9 No Function 10–63 Iris Pulse min>max 64–116 Iris - PulseClose min 117–117 Iris - PulseClose max 118–170 Iris - PulseOpen min 171–171 Iris - PulseOpen max 172–255 Reserved
28	Shaper Rot	127	0–126 -45deg > 0deg 127–128 0deg position 129–255 0deg > 45deg
29	Blade1A	0	
30	Blade1Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
31	Blade2A	0	
32	Blade2Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
33	Blade3A	0	
34	Blade3Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
35	Blade4A	0	
36	Blade4Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
37	Shaper Macros	0	

52 Channels (continued)

Ch	Function	Default	DMX values
38	Animation System1Macro	0	0–9 No Function 10–15 Dynamove 1 16–21 Dynamove 2 22–27 Dynamove 3 28–33 Dynamove 4 34–39 Dynamove 5 40–45 Dynamove 6 46–51 Dynamove 7 52–57 Dynamove 8 58–63 Dynamove 9 64–69 Dynamove 10 70–75 Dynamove 11 76–81 Dynamove 12 82–87 Dynamove 13 88–93 Dynamove 14 94–99 Dynamove 15 100–101 Dynamove 16 102–103 Dynamove 17 104–105 Dynamove 18 106–107 Dynamove 19 108–109 Dynamove 20 110–111 Dynamove 21 112–113 Dynamove 22 114–115 Dynamove 23 116–117 Dynamove 24 118–119 Dynamove 25 120–121 Dynamove 26 122–123 Dynamove 27 124–125 Dynamove 28 126–127 Dynamove 29 128–129 Dynamove 30 130–131 Dynamove 31 132–133 Dynamove 32 134–255 Dynamove 33
39	Effect Speed	0	0–10 Default speed (1x) 11–50 1x > 5x 51–90 5x > 1x 91–159 Default speed (1x) 160–255 1x > 1/10x
40	Prism	0	0–9 Open (wheel slot 1) 10–49 Prism 1 (after lens) (wheel slot 2) 50–89 Prism 2 (after lens) (wheel slot 3) 90–129 Prisms 1+2 (aftern lens) (wheel slot 4) 130–169 Prism 1 (before lens) (wheel slot 2) 170–209 Prism 2 (before lens) (wheel slot 3) 210–255 Prisms 1+2 (before lens) (wheel slot 4)
41	Prism Rotation	0	0–9 Center 10–127 Left > Center 128–137 Center 138–255 Center > Right
42	Prism1Select Spin	0	0–127 Index 0deg > 360deg 128–180 CW Rotation fast>slow 181–202 Stop 203–255 CCW Rotation slow>fast
43	Prism Rotation	0	0–9 Center 10–127 Left > Center 128–137 Center 138–255 Center > Right

52 Channels (continued)

Ch	Function	Default	DMX values
44	Prism2Select Spin	0	0–127 Index 0deg > 360deg 128–180 CW Rotation fast>slow 181–202 Stop 203–255 CCW Rotation slow>fast
45	Frost1	0	0–9 No Function 10–255 Linear Frost
46	Focus1Adjust	0	0–127 Off 128–153 On (Gobo1 priority) 154–179 On (Gobo2 priority) 180–205 On (Shaper priority) 206–231 On (Open priority) 232–255 On (Iris priority)
47	Focus	0	
48	Focus Fine	0	Fine byte of Focus
49	Zoom	0	
50	Control1	31	
51	L EDFrequency	0	0–9 No Function 10–254 Selected Freq x75% 255–255 Selected Freq x125%
52	Fixture Global Reset	0	0–9 No Function 10–75 P/T Reset 76–95 Head Motors Reset 96–115 Gobo Wheel Reset 116–135 Color Wheel Reset 136–155 CMY/CTO Reset 156–175 Blades Reset 176–195 Prisms Reset 196–215 Frost Reset 216–239 Focus/Zoom Reset 240–255 Total Unit Reset

61 Channels

61 channels

Ch	Function	Default	DMX values
1	Pan	128	
2	Pan Fine	0	Fine byte of Pan
3	Tilt	128	
4	Tilt Fine	0	Fine byte of Tilt
5	Position MSpeed	0	0–9 Fast 10–25 Standard 26–127 Vector fast>slow 128–247 DMX react fast>slow 248–250 Silent 251–255 Snap
6	Dummy	0	
7	Dimmer	0	
8	Dimmer Fine	0	Fine byte of Dimmer

61 Channels (continued)

Ch	Function	Default	DMX values
9	Shutter / Strobe	0	0–9 Closed 10–19 Open 20–29 Closed 30–118 Min Strobe 119–119 Max Strobe 120–148 Min Pulse Up 149–149 Max Pulse Up 150–178 Min Pulse Down 179–179 Max Pulse Down 180–189 Random Strobe 190–199 Open 200–204 Gobos BO on Rotation 205–209 Colors BO on Insertion 210–219 P/T BO on Movement 220–222 Blades BO on Insertion 223–224 Prisms BO on Insertion 225–226 Zoom BO on Movement 227–229 GLOBAL MIB 230–255 Open
10	Color Wheel 2	0	0–9 Open (wheel slot 1) 10–71 Higher CRI (wheel slot 2) 72–133 UV (wheel slot 3) 134–195 CTB 10 000 K (wheel slot 4) 196–255 1/4 Minus Green (wheel slot 5)
11	Color Wheel	0	0–9 Open (wheel slot 1) 10–50 Deep Red (wheel slot 2) 51–58 Color 1-2 59–91 Deep Blue (wheel slot 3) 92–107 Color 2-3 108–127 Deep Green (wheel slot 4) 128–132 Stop 133–137 Color 3-4 138–156 CCW Rotation min>max 157–173 Amber (wheel slot 5) 174–205 Color 4-5 206–214 Lavender (wheel slot 6) 215–255 Color 5-0
12	Color1Mode	0	0–63 Full Color 64–127 Half Color 128–191 Proportional Color 192–255 Rainbow
13	Cyan	0	
14	Magenta	0	
15	Yellow	0	
16	C TO	0	0–0 7000 K 1–254 Linear CTO 255–255 3000 K

61 Channels (continued)

Ch	Function	Default	DMX values
17	Color Macro1	0	0–9 Open (wheel slot 1) 10–20 L019 Fire (wheel slot 2) 21–25 L020 Medium Amber (wheel slot 3) 26–30 L025 Sunset Red (wheel slot 4) 31–35 L068 Sky Blue (wheel slot 5) 36–40 L101 Yellow (wheel slot 6) 41–45 L104 Deep Amber (wheel slot 7) 46–50 L105 Orange (wheel slot 8) 51–55 L106 Primary Red (wheel slot 9) 56–60 L111 Dark Pink (wheel slot 10) 61–65 L113 Magenta (wheel slot 11) 66–70 L117 Steel Blue (wheel slot 12) 71–75 L118 Light Blue (wheel slot 13) 76–80 L122 Fern Green (wheel slot 14) 81–85 L126 Mauve (wheel slot 15) 86–90 L132 Medium Blue (wheel slot 16) 91–95 L136 Pale Lavender (wheel slot 17) 96–100 L137 Special Lavender (wheel slot 18) 101–105 L138 Pale Green (wheel slot 19) 106–110 L139 Primary Green (wheel slot 20) 111–115 L147 Apricot (wheel slot 21) 116–120 L151 Gold Tint (wheel slot 22) 121–125 L154 Pale Rose (wheel slot 23) 126–130 L156 Chocolate (wheel slot 24) 131–135 L181 Congo Blue (wheel slot 25) 136–140 L200 Double CTB (wheel slot 26) 141–145 L201 Full CTB (wheel slot 27) 146–150 L204 Full CTO (wheel slot 28) 151–255 L341 Plum (wheel slot 29)
18	Gobo	0	0–9 Open (wheel slot 1) 10–42 Gobo 1 (wheel slot 2) 43–75 Gobo 2 (wheel slot 3) 76–108 Gobo 3 (wheel slot 4) 109–141 Gobo 4 (wheel slot 5) 142–174 Gobo 5 (wheel slot 6) 175–207 Gobo 6 (wheel slot 7) 208–231 CCW scrolling 232–255 CW scrolling
19	Gobo Rotation	0	0–127 Index 0-360 128–180 CCW Gobo max>min 181–202 Stop 203–255 CW Gobo min>max
20	Gobo Rotation Fine	0	Fine byte of Gobo Rotation

61 Channels (continued)

Ch	Function	Default	DMX values
21	Gobo1Wheel Shake	0	0–9 Stop 10–19 Shake R-L speed 1 20–29 Shake R-L speed 2 30–39 Shake R-L speed 3 40–49 Shake R-L speed 4 50–59 Shake R-L speed 5 60–69 Shake R-L speed 6 70–79 Shake R-L speed 7 80–89 Shake R-L speed 8 90–99 Shake R-L speed 9 100–109 Shake R-L speed 10 110–126 Shake R-L speed 11 127–138 Stop 139–148 Shake L-R speed 1 149–158 Shake L-R speed 2 159–168 Shake L-R speed 3 169–178 Shake L-R speed 4 179–188 Shake L-R speed 5 189–198 Shake L-R speed 6 199–208 Shake L-R speed 7 209–218 Shake L-R speed 8 219–228 Shake L-R speed 9 229–238 Shake L-R speed 10 239–255 Shake L-R speed 11
22	Gobo 2	0	0–9 Open (wheel slot 1) 10–42 Gobo 1 (wheel slot 2) 43–75 Gobo 2 (wheel slot 3) 76–108 Gobo 3 (wheel slot 4) 109–141 Gobo 4 (wheel slot 5) 142–174 Gobo 5 (wheel slot 6) 175–207 Gobo 6 (wheel slot 7) 208–231 CCW scrolling 232–255 CW scrolling
23	Gobo Rotation 2	0	0–127 Index 0-360 128–180 CCW Gobo max>min 181–202 Stop 203–255 CW Gobo min>max
24	Gobo Rotation 2 Fine	0	Fine byte of Gobo Rotation 2

61 Channels (continued)

Ch	Function	Default	DMX values
25	Gobo2Wheel Shake	0	0–9 Stop 10–19 Shake R-L speed 1 20–29 Shake R-L speed 2 30–39 Shake R-L speed 3 40–49 Shake R-L speed 4 50–59 Shake R-L speed 5 60–69 Shake R-L speed 6 70–79 Shake R-L speed 7 80–89 Shake R-L speed 8 90–99 Shake R-L speed 9 100–109 Shake R-L speed 10 110–126 Shake R-L speed 11 127–138 Stop 139–148 Shake L-R speed 1 149–158 Shake L-R speed 2 159–168 Shake L-R speed 3 169–178 Shake L-R speed 4 179–188 Shake L-R speed 5 189–198 Shake L-R speed 6 199–208 Shake L-R speed 7 209–218 Shake L-R speed 8 219–228 Shake L-R speed 9 229–238 Shake L-R speed 10 239–255 Shake L-R speed 11
26	Iris	0	0–9 Open 10–246 100% > 15% 247–255 Closed
27	Iris Strobe	0	0–9 No Function 10–63 Iris Pulse min>max 64–116 Iris - PulseClose min 117–117 Iris - PulseClose max 118–170 Iris - PulseOpen min 171–171 Iris - PulseOpen max 172–255 Reserved
28	Shaper Rot	127	0–126 -45deg > 0deg 127–128 0deg position 129–255 0deg > 45deg
29	Shaper Rot Fine	127	Fine byte of Shaper Rot
30	Blade1A	0	
31	Blade1A Fine	0	Fine byte of Blade1A
32	Blade1Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
33	Blade1Rot Fine	128	Fine byte of Blade1Rot
34	Blade2A	0	
35	Blade2A Fine	0	Fine byte of Blade2A
36	Blade2Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
37	Blade2Rot Fine	128	Fine byte of Blade2Rot
38	Blade3A	0	
39	Blade3A Fine	0	Fine byte of Blade3A
40	Blade3Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
41	Blade3Rot Fine	128	Fine byte of Blade3Rot

61 Channels (continued)

Ch	Function	Default	DMX values
42	Blade4A	0	
43	Blade4A Fine	0	Fine byte of Blade4A
44	Blade4Rot	128	0–127 -30deg > 0deg 128–128 0deg position 129–255 0deg > 30deg
45	Blade4Rot Fine	128	Fine byte of Blade4Rot
46	Shaper Macros	0	
47	Animation System1Macro	0	0–9 No Function 10–15 Dynamove 1 16–21 Dynamove 2 22–27 Dynamove 3 28–33 Dynamove 4 34–39 Dynamove 5 40–45 Dynamove 6 46–51 Dynamove 7 52–57 Dynamove 8 58–63 Dynamove 9 64–69 Dynamove 10 70–75 Dynamove 11 76–81 Dynamove 12 82–87 Dynamove 13 88–93 Dynamove 14 94–99 Dynamove 15 100–101 Dynamove 16 102–103 Dynamove 17 104–105 Dynamove 18 106–107 Dynamove 19 108–109 Dynamove 20 110–111 Dynamove 21 112–113 Dynamove 22 114–115 Dynamove 23 116–117 Dynamove 24 118–119 Dynamove 25 120–121 Dynamove 26 122–123 Dynamove 27 124–125 Dynamove 28 126–127 Dynamove 29 128–129 Dynamove 30 130–131 Dynamove 31 132–133 Dynamove 32 134–255 Dynamove 33
48	Effect Speed	0	0–10 Default speed (1x) 11–50 1x > 5x 51–90 5x > 1x 91–159 Default speed (1x) 160–255 1x > 1/10x
49	Prism	0	0–9 Open (wheel slot 1) 10–49 Prism 1 (after lens) (wheel slot 2) 50–89 Prism 2 (after lens) (wheel slot 3) 90–129 Prisms 1+2 (aftern lens) (wheel slot 4) 130–169 Prism 1 (before lens) (wheel slot 2) 170–209 Prism 2 (before lens) (wheel slot 3) 210–255 Prisms 1+2 (before lens) (wheel slot 4)
50	Prism Rotation	0	0–9 Center 10–127 Left > Center 128–137 Center 138–255 Center > Right

61 Channels (continued)

Ch	Function	Default	DMX values
51	Prism1Select Spin	0	0–127 Index 0deg > 360deg 128–180 CW Rotation fast>slow 181–202 Stop 203–255 CCW Rotation slow>fast
52	Prism Rotation	0	0–9 Center 10–127 Left > Center 128–137 Center 138–255 Center > Right
53	Prism2Select Spin	0	0–127 Index 0deg > 360deg 128–180 CW Rotation fast>slow 181–202 Stop 203–255 CCW Rotation slow>fast
54	Frost1	0	0–9 No Function 10–255 Linear Frost
55	Focus1Adjust	0	0–127 Off 128–153 On (Gobo1 priority) 154–179 On (Gobo2 priority) 180–205 On (Shaper priority) 206–231 On (Open priority) 232–255 On (Iris priority)
56	Focus	0	
57	Focus Fine	0	Fine byte of Focus
58	Zoom	0	
59	Control1	31	
60	L EDFrequency	0	0–9 No Function 10–254 Selected Freq x75% 255–255 Selected Freq x125%
61	Fixture Global Reset	0	0–9 No Function 10–75 P/T Reset 76–95 Head Motors Reset 96–115 Gobo Wheel Reset 116–135 Color Wheel Reset 136–155 CMY/CTO Reset 156–175 Blades Reset 176–195 Prisms Reset 196–215 Frost Reset 216–239 Focus/Zoom Reset 240–255 Total Unit Reset