

DMX Protocol

L7-TT (Tungsten Tuneable)

Overview

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse / fine, 2 channels per function
DMX mode 1*	DMX mode 2	DMX mode 3

* = Factory default

GN saturation - average equivalents.

Setting	Rosco#	Setting	Rosco#
Full -Green	3308	Full +Green	3304
1/2 -Green	3313	1/2 +Green	3315
1/4 -Green	3314	1/4 +Green	3316
1/8 -Green	3318	1/8 +Green	3317

Mode 1: 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.600 K → 3.600 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 2: 16 bit resolution per function

Channel	Value	Percent	Function
1	HI	0-100	Dimmer closed → open
2	LO		
3	HI	0-100	Color temperature CCT 2.600 K → 3.600 K
4	LO		
5	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO		

Mode 3: Coarse / fine channel per function

Each of the 256 coarse steps is divided in 256 fine steps. Use this mode when your lighting control desk does not support true 16 bit resolution.

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Color temperature coarse 2.600 K → 3.600 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

L7-DT (Daylight Tuneable)

Overview

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse / fine, 2 channels per function
DMX mode 1*	DMX mode 2	DMX mode 3

* = Factory default

GN saturation - average equivalents.

Setting	Rosco#	Setting	Rosco#
Full -Green	3308	Full +Green	3304
1/2 -Green	3313	1/2 +Green	3315
1/4 -Green	3314	1/4 +Green	3316
1/8 -Green	3318	1/8 +Green	3317

Mode 1: 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 5.000 K → 6.500 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 3: Coarse / fine channel per function

Each of the 256 coarse steps is divided in 256 fine steps. Use this mode when your lighting control desk does not support true 16 bit resolution.

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Color temperature coarse 5.000 K → 6.500 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 2: 16 bit resolution per function

Channel	Value	Percent	Function
1	HI	0-100	Dimmer closed → open
2	LO		
3	HI	0-100	Color temperature CCT 5.000 K → 6.500 K
4	LO		
5	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO		

L7-C

Mode 1: White & RGBW, 8 bit resolution per function

Overview

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse/fine, 1-2 channels per function
DMX mode 1* White & RGBW	DMX mode 6 White & RGBW	DMX mode 11 White & RGBW
DMX mode 2 White	DMX mode 7 White	DMX mode 12 White
DMX mode 3 White & HSI	DMX mode 8 White & HSI	DMX mode 13 White & HSI
DMX mode 4 RGBW	DMX mode 9 RGBW	DMX mode 14 RGBW
DMX mode 5 HSI	DMX mode 10 HSI	DMX mode 15 HSI

* = Factory default

GN saturation - average equivalents.

Setting	Rosco#	Setting	Rosco#
Full -Green	3308	Full +Green	3304
1/2 -Green	3313	1/2 +Green	3315
1/4 -Green	3314	1/4 +Green	3316
1/8 -Green	3318	1/8 +Green	3317

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	Xfade to color White → RGBW color
5	0-255	0-100	Intensity red 0% → 100%
6	0-255	0-100	Intensity green 0% → 100%
7	0-255	0-100	Intensity blue 0% → 100%
8	0-255	0-100	Intensity white 0% → 100%

Mode 2: White, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 3: White & HSI, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	Xfade to color White → RGBW color
5	0-255	0-100	Hue 0° → 360°
6	0-255	0-100	Saturation 0 → full saturated

Mode 4: RGBW, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Intensity red 0% → 100%
3	0-255	0-100	Intensity green 0% → 100%
4	0-255	0-100	Intensity blue 0% → 100%
5	0-255	0-100	Intensity white 0% → 100%

Mode 6: White & RGBW, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	Dimmer closed → open
2	LO			
3	HI	0-65.535	0-100	Color temperature CCT 2.800 K → 10.000 K
4	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO			
7	HI			
8	LO			
9	HI	0-65.535	0-100	Xfade to color White → RGBW color
10	LO			
11	HI	0-65.535	0-100	Intensity red 0% → 100%
12	LO			
13	HI	0-65.535	0-100	Intensity green 0% → 100%
14	LO			
15	HI	0-65.535	0-100	Intensity blue 0% → 100%
16	LO			
15	HI	0-65.535	0-100	Intensity white 0% → 100%
16	LO			

Mode 5: HSI, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Hue 0° → 360°
3	0-255	0-100	Saturation 0 → full saturated

Mode 7: White, 16 bit resolution per function

Channel	Value	Percent	Function
1	0-65535	0-100	Dimmer closed → open
2			
3	0-65.535	0-100	Color temperature CCT 2.800 K → 10.000 K
4			
5	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6			

Mode 8: White & HSI, 16 bit resolution per function

Channel	Value	Percent	Function
1	0-65535	0-100	Dimmer closed → open
2			
3	0-65.535	0-100	Color temperature CCT 2.800 K → 10.000 K
4			
5	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6			
7	0-65.535	0-100	Xfade to color White → RGBW color
8			
9	0-65.535	0-100	Hue 0° → 360°
10			
11	0-65.535	0-100	Saturation 0 → full saturated
12			

Mode 9: RGBW, 16 bit resolution per function

Channel	Value	Percent	Function
1	0-65535	0-100	Dimmer closed → open
2			
3	0-65.535	0-100	Intensity red 0% → 100%
4			
5	0-65.535	0-100	Intensity green 0% → 100%
6			
7	0-65.535	0-100	Intensity blue 0% → 100%
8			
9	0-65.535	0-100	Intensity white 0% → 100%
10			

Mode 10: HSI, 16 bit resolution per function

Channel	Value	Percent	Function
1	0-65535	0-100	Dimmer closed → open
2			
3	0-65.535	0-100	Hue 0° → 360°
4			
5	0-65.535	0-100	Saturation 0 → full saturated
6			

Mode 11: White & RGBW, Coarse/fine per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	Xfade to color White → RGBW color
7	0-255	0-100	Intensity red coarse 0% → 100%
8	0-255	0-100	Red fine
9	0-255	0-100	Intensity green coarse 0% → 100%
10	0-255	0-100	Green fine
11	0-255	0-100	Intensity blue coarse 0% → 100%
12	0-255	0-100	Blue fine
13	0-255	0-100	Intensity white coarse 0% → 100%
14	0-255	0-100	White fine

Mode 12: White, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 13: White & HSI, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	Xfade to color White → RGBW color
7	0-255	0-100	Hue coarse 0 → 360°
8	0-255	0-100	Hue fine
9	0-255	0-100	Saturation coarse 0 → full saturated
10	0-255	0-100	Saturation fine

Mode 14: RGBW, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Intensity red coarse 0% → 100%
4	0-255	0-100	Red fine
5	0-255	0-100	Intensity green coarse 0% → 100%
6	0-255	0-100	Green fine
7	0-255	0-100	Intensity blue coarse 0% → 100%
8	0-255	0-100	Blue fine
9	0-255	0-100	Intensity white coarse 0% → 100%
10	0-255	0-100	White fine

Mode 15: HSI, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Hue coarse 0 → 360°
4	0-255	0-100	Hue fine
5	0-255	0-100	Saturation coarse 0 → full saturated
6	0-255	0-100	Saturation fine