DMX AND PIXEL ADDRESSING

Sixteen full-color pixels arranged in two rows of eight, grouped into eight physical hardware segments NODE1…NODE8). DMX addressing follows a serpentine path: row A left-to-right, row B right-to-left. Per-pixel DMX offsets shown below assume the 80-channel pixel mode (5 ch / pixel).

DMX personalities

Two personalities cover all use cases — **Single channels** for traditional CCT-style control of the whole fixture, and **Pixel** for per-pixel content and chases. DMX input is always 8-bit per channel; the LED driver converts to 16-bit for flicker-free dimming and smooth colour mixing.

Mode 1 — Single channels	Mode 2 — Pixel
12 channels · default personality Master Dimmer · CCT · G/M Shift · Single Colors · Presets	80 channels · 5 ch per pixel · 16 pixels

Mode 1 — Single channels

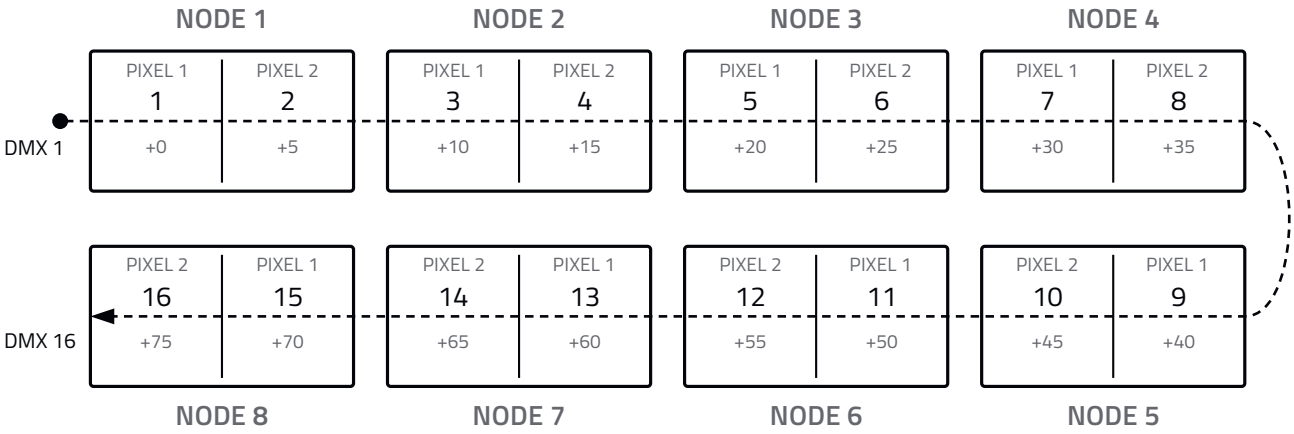
DMX Channel	Function	DMX Value	Description
1	**Master Intensity**	000 … 255	0 … 100% Dimmer[5]
2	**CCT**	000 … 255	1700K to 10000K
3	**Green / Magenta Shift**	000 … 027	Neutral
		028 … 127	Green -100 to -1
		128 … 155	Neutral
		156 … 255	Green +1 to +100
4	**Crossfade CCT and Color**	000 … 255	0 … 100% CCT to Color
5	**Red**	000 … 255	0 … 100%
6	**Green**	000 … 255	0 … 100%
7	**Blue**	000 … 255	0 … 100%
8	**White / CCT**	000 … 255	0 … 100%
9	**Presets User**	000 … 127	Not implemented yet
	Presets Factory[6]	128 … 143	2500K (tbd)
		144 … 159	2900K (tbd)
		160 … 175	3200K (tbd)
		176 … 191	5600K (tbd)
		192 … 207	6500K (tbd)

DMX Channel	Function	DMX Value	Description
9	**Presets Factory**	208 … 223	Reserved
		224 … 239	Reserved
		240 … 255	Reserved
12			Reserved

Mode 2 — PIXEL

80 channels · 5 ch per pixel · 16 pixels

Each pixel consumes 5 consecutive channels: Intensity, Red, Green, Blue, CCT (CW↔WW).



DMX Channel	Function	DMX Value	Description
1	**Master Intensity**	000 … 255	0 … 100% - for all Pixel
2	**Green / Magenta Shift**	000 … 027	Neutral
		028 … 127	Green -100 to -1
		128 … 155	Neutral
		156 … 255	Green +1 to +100
3	**Pixel 1 Intensity**	000 … 255	0 … 100% - for single Pixel 1
4	**Pixel 1 CCT**	000 … 255	0 … 100% - for single Pixel 1
5	**Pixel 1 Crossfade**	000 … 255	0 … 100% CCT to Color Pixel 1
6	**Red**	000 … 255	0 … 100% Pixel 1
7	**Green**	000 … 255	0 … 100% Pixel 1
8	**Blue**	000 … 255	0 … 100% Pixel 1

Pixels are addressed in the serpentine order — Pixel 1 starts at offset +0, ixel 16 at +75. Repeat Layout from channel 3 through 8.

RDM commands

Standard-PIDs and Manufacturer-specific PIDs

The fixture responds to a subset of ANSI E1.20 standard PIDs plus one manufacturer-specific PID. Use any RDM-capable controller on the same DMX universe. Placeholder set below — full list locked once firmware is final.

Standard-PIDs and Manufacturer-specific PIDs

PID	COMMANDS	PID Hex	Description
DEVICE_INFO	GET		
DMX_PERSONALITY	GET / SET		
DMX_START_ADDRESS	GET / SET		
IDENTIFY_DEVICE	GET / SET		
DEVICE_LABEL	GET / SET		