Linear Matrix linkable modules are a highly efficient backlighting solution for display, architectural and custom backlighting purposes, used for indoor and outdoor applications. All products are based on the same energy efficient LEDs and uniform layout, which allows for a perfectly even illumination of any surface.

The CCTW Backlit Linkable Modules use a Correlated Colour Temperature and Circadian Rhythm tunable white-light LED, meaning it can produce and mimic any colour temperature within the 2700k-6500k spectrum, e.g. A backlit wall feature can mimic the Sun’s colour temperature as it rises and sets. The module uses single LED chips that contain one tunable Warm White diode (2700 K), and one tunable Pure White diode (6500K) each. The results show that this LED Chip can produce a luminous efficiency of 16 lm/W (both channels on) at CCTW of 2700 K to 6500K.

**Datasheet**

**Linear Matrix CCTW LED Backlit Linkable Module**

**Model No.** - LM-SL600CCTW & LM-DL270CCTW

**LED Backlit Linkable Module Lights with Circadian Rhythm Colour Temperature**

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**LM-SL600CCTW & LM-DL270CCTW**

Adjustable White of 2700K Warm White to 6500K Pure White

<table>
<thead>
<tr>
<th>Model</th>
<th>LM-SL600CCTW</th>
<th>LM-DL270CCTW</th>
</tr>
</thead>
</table>
| Size             | SL - 600 x 580 x 2.5mm  
                  | SL - 23.6 x 22.8 x 0.19 inches | DL - 270 x 24 x 2.5mm  
                  | DL - 10.6 x 0.94 x 0.19 inches |
| LED quantity     | 480 per module  
                  | 18 per module |
| Material Offset  | 60mm Recommended (Subject to material testing) |
| Lumen output     | 3600 Lumen|
| Wattage (max)    | 53 watts with Both Colours ON  
                  | 27 watts Pure White ON  
                  | 26 watts Warm White ON  
                  | 1.1 watt with Both Colours ON  
                  | 0.6 watt Pure White ON  
                  | 0.5 watt Warm White ON |
| Colour Rendering | Adjustable from 2700K Warm White to 6500K Pure White |
| Dimming          | PWM (Pulse Width Modulation) or Voltage Power Control |
| Warranty         | 5 Years (Return to base) |
| Lifespan         | +100,000 Hrs |
| Certification    | UL8750  
                  | CSA C22.2 No. 250.13 |
SL LED Backlit Module

The SL LED Module is the main unit used for populating an area, as this module can only be cut horizontally. When laying down the modules, these units are used to fill in most of the population area. These Modules can be cut down to size and curved to some extent for ultimate customization and versatility. Single layer (SL) modules can be cut horizontally in ribs of 51mm. For larger surfaces, multiple modules can be joined such that one external driver can power multiple modules at once.

Mounting Materials:

- 4mm – Fire Rated Aluminium Ridgid Board
- 6mm Rigid PVC Panels

Power Information

Power Requirements - 24v DC Regulated
Power Consumption per Module:
- SL Modules – 53 Watts each 600mm x 580mm Module
- DL Modules – 0.6 Watts each 90mm x 24mm Module

Material Offset:

The suggested distance (d) between the transparent material and the Linear Matrix LED Modules is 60mm.

Please Note: Depending on the transparent material being used, the distance (d) to the LED Modules may vary, + or -. We suggest that the user runs a test with samples of the material to find the most effective distance.

DL LED Backlit Module

The DL LED Module is what we refer to as the Gap Filler unit when populating an area. This unit comes in a rib format but can be cut vertically to a 90mm piece (sections of 3 LEDs). Each section is its own circuit and will operate individually or in multiple sections. This versatility allows these Modules to backlight almost any size required in conjunction with the SL Module. The DL Module has the same specifications as the SL Module but simply is used to fill in any gaps of light in the populated area.

Mounting Materials:

- 4mm – Fire Rated Aluminium Ridgid Board
- 6mm Rigid PVC Panels

Power Information

Power Requirements - 24v DC Regulated
Power Consumption per Module:
- SL Modules – 53 Watts each 600mm x 580mm Module
- DL Modules – 0.6 Watts each 90mm x 24mm Module

Material Offset:

The suggested distance (d) between the transparent material and the Linear Matrix LED Modules is 60mm.

Please Note: Depending on the transparent material being used, the distance (d) to the LED Modules may vary, + or -. We suggest that the user runs a test with samples of the material to find the most effective distance.