Flexi LED Overlay

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Smart LED Strip Sheets

Introducing our Flexi LED Overlay—an efficient lighting solution for a variety of applications. These sheets easily conform to curves and contours, thanks to strategically placed cut points, allowing for effortless customization. Plus, you can power multiple sheets from a single source using our connectors, without the need for soldering.

Operated at a reliable 24 volts, our Flex LED Overlays are highly adaptable and suitable for various applications. They are available in a range of colors and feature 3M adhesive backing for easy installation. With an impressive 50,000-hour lifespan and an IP20 rating, they are designed for long-lasting performance. Additionally, their high Color Rendering Index (CRI) of 90+ ensures accurate color representation.

Voltage:	24V
IP Rating:	IP20
CRI:	90+
Operating Temperature:	-20°C to 45°C
Dimensions:	503.5 x 235 mm
Backing:	3M Adhesive
Colours:	Single White; Tuneable White; RGBW options
Lifetime:	50,000 hours

Applications	Yes	No
Sign Lighting	✓	
Exterior Lighting		X
Cove Lighting	✓	
Task Lighting	✓	
Benchtop Back Lighting	✓	
Emergency Lighting		X
Under Cabinet Lighting	✓	
Swimming Pools		X
Accent Lighting	✓	
Panel Lighting	✓	

Flexi LED Overlay

Single White Order Codes

Code	LED Qty	LED Segment	Power	Lumen (lm/Sheet)	Efficacy (lm/w)
ICL-FLEXISHEET-11W-2.7K	420 / Sheet	1 LED / Seg	11W / Sheet	1012	92
ICL-FLEXISHEET-11W-3K				1012	92
ICL-FLEXISHEET-11W-4K				1144	104
ICL-FLEXISHEET-11W-6.5K				1078	98
ICL-FLEXISHEET-22W-2.7K	420 / Sheet	1 LED / Seg	22W / Sheet	2024	92
ICL-FLEXISHEET-22W-3K				2024	92
ICL-FLEXISHEET-22W-4K				2288	104
ICL-FLEXISHEET-22W-6.5K				2156	98
ICL-FLEXISHEET-33W-2.7K	420 / Sheet	1 LED / Seg	33W / Sheet	3036	92
ICL-FLEXISHEET-33W-3K				3036	92
ICL-FLEXISHEET-33W-4K				3432	104
ICL-FLEXISHEET-33W-6.5K				3234	98

Tunable White Order Codes

Code	LED Qty	LED Segment	Power	Lumen (lm/Sheet)	Efficacy (lm/w)
ICL-FLEXISHEET-22W-TW	840 / Sheet	2 LED / Seg	22W / Sheet	2090	95
ICL-FLEXISHEET-44W-TW	840 / Sheet	2 LED / Seg	44W / Sheet	4180	95

Note: Our Tunable white LEDs utilise separate warm and cool white channels for colour mixing.
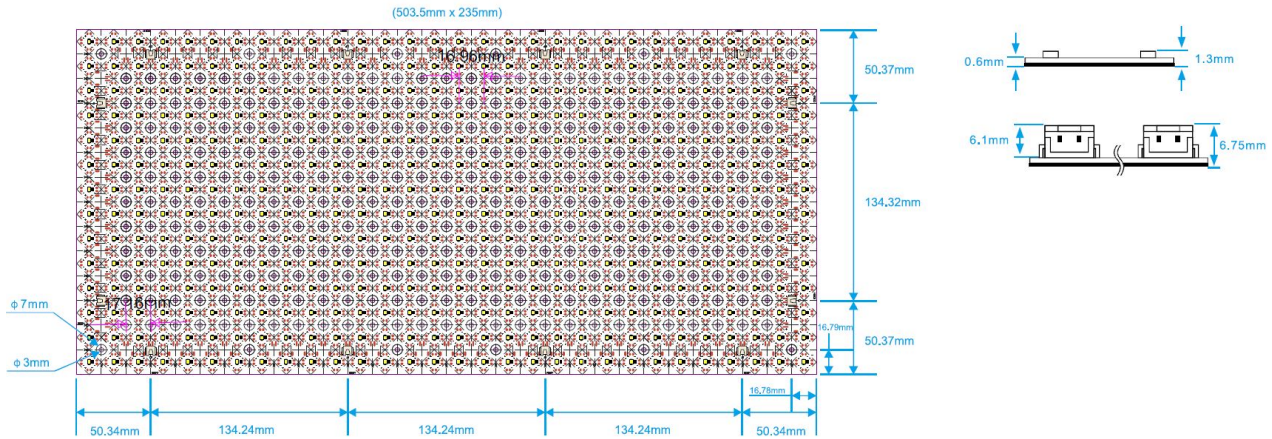
Important: 3rd party controls must account for proportional balancing of the two channels. e.g. If warm white = 100% ON, then Cool white = OFF. If Warm White = 25% ON, then Cool White = 75% ON.
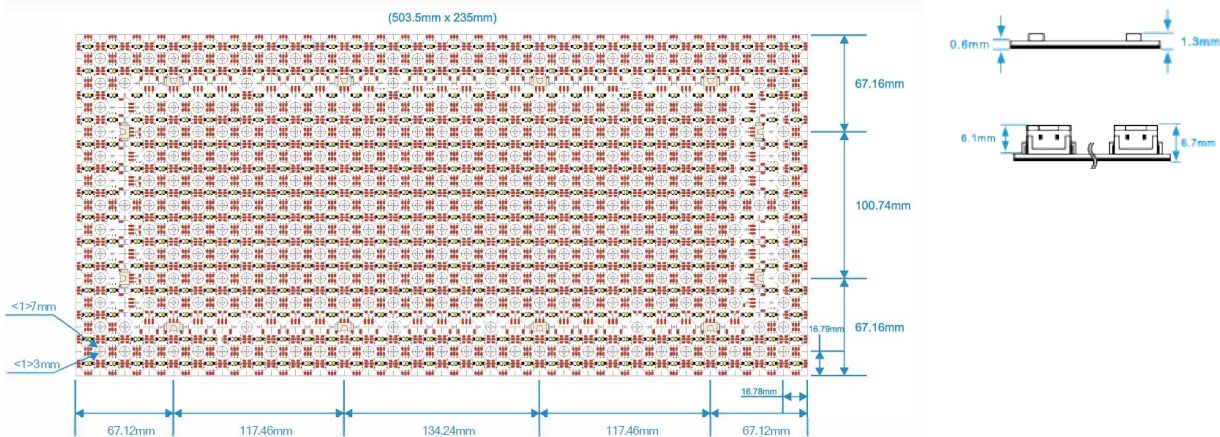
RGBW Order Codes

Code	LED Qty	LED Segment	Power	Lumen (lm/Sheet)	Efficacy (lm/w)	CCT
ICL-FLEXISHEET-11W-RGBW	800 / Sheet	4 LED / Seg	11W / Sheet	55	20	Red ONLY
ICL-FLEXISHEET-11W-RGBW				217	79	Green ONLY
ICL-FLEXISHEET-11W-RGBW				91	33	Blue ONLY
ICL-FLEXISHEET-11W-RGBW				248	90	White ONLY
ICL-FLEXISHEET-11W-RGBW				605	55	RGBW
ICL-FLEXISHEET-22W-RGBW	800 / Sheet	4 LED / Seg	22W / Sheet	110	20	Red ONLY
ICL-FLEXISHEET-22W-RGBW				435	79	Green ONLY
ICL-FLEXISHEET-22W-RGBW				182	33	Blue ONLY
ICL-FLEXISHEET-22W-RGBW				495	90	White ONLY
ICL-FLEXISHEET-22W-RGBW				1210	55	RGBW
ICL-FLEXISHEET-33W-RGBW	800 / Sheet	4 LED / Seg	33W / Sheet	168	20	Red ONLY
ICL-FLEXISHEET-33W-RGBW				652	79	Green ONLY
ICL-FLEXISHEET-33W-RGBW				272	33	Blue ONLY
ICL-FLEXISHEET-33W-RGBW				743	90	White ONLY
ICL-FLEXISHEET-33W-RGBW				1815	55	RGBW

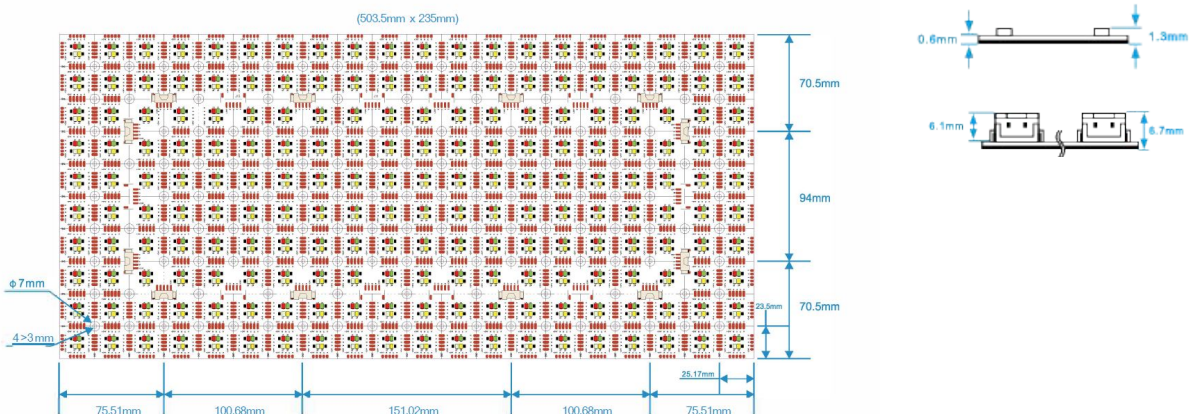## Flexi LED Overlay

Single White Dimensional Drawings

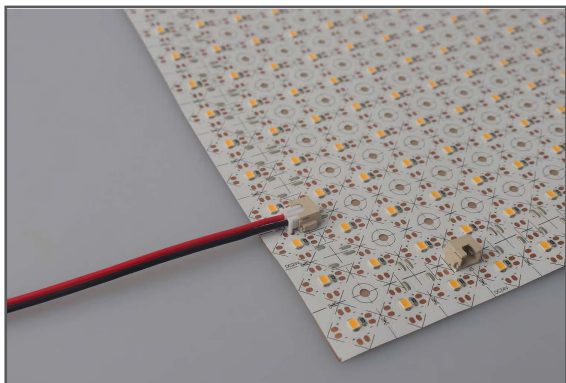### Tunable White Dimensional Drawings

RGBW Dimensional Drawings
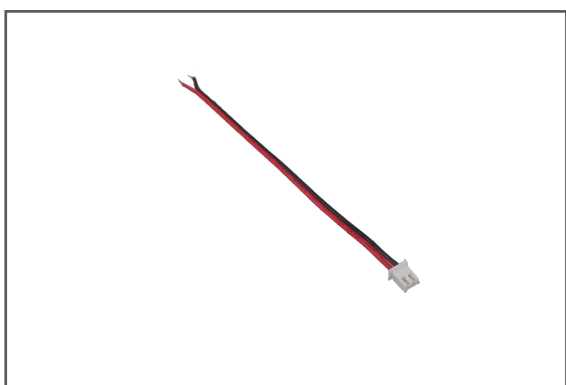
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Accessories

Sheet-to-sheet Tail Single White

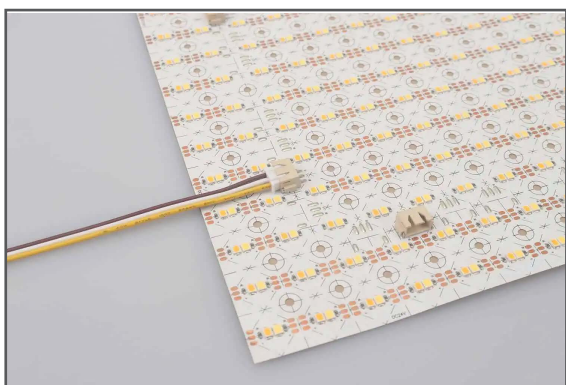Part Number: ICL-CW-2P-50MM, ICL-CW-2P-150MM

Details: Sheet-to-sheet connection 50mm or 150mm in length. For Single White Flex Sheet

Power Tail Single White

Part Number: ICL-PC-2P-300MM

Details: Power input cable 300mm length, can be made longer up to 1M, refer to us about this option. For Single White Flex Sheet.

Sheet-to-sheet Tail Tunable White

Part Number: ICL-CW-3P-60MM, ICL-CW-2P-150MM

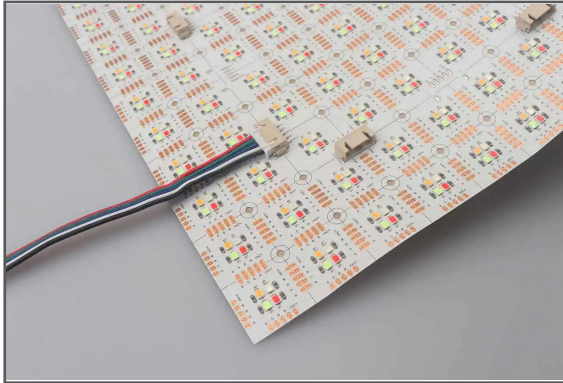Details: Sheet-to-sheet connection 60mm or 150mm in length. For Tunable White Flex Sheet

Power Tail Tunable White

Part Number: ICL-PC-3P-300MM

Details: Power input cable 300mm length, can be made longer up to 1M, refer to us about this option. For Tunable White Flex Sheet.

Accessories

Sheet-to-sheet Tail RGBW

Part Number: ICL-CW-5P-90MM, ICL-CW-5P-150MM

Details: Sheet-to-sheet connection 50mm or 150mm in length. For RGBW Flex Sheet
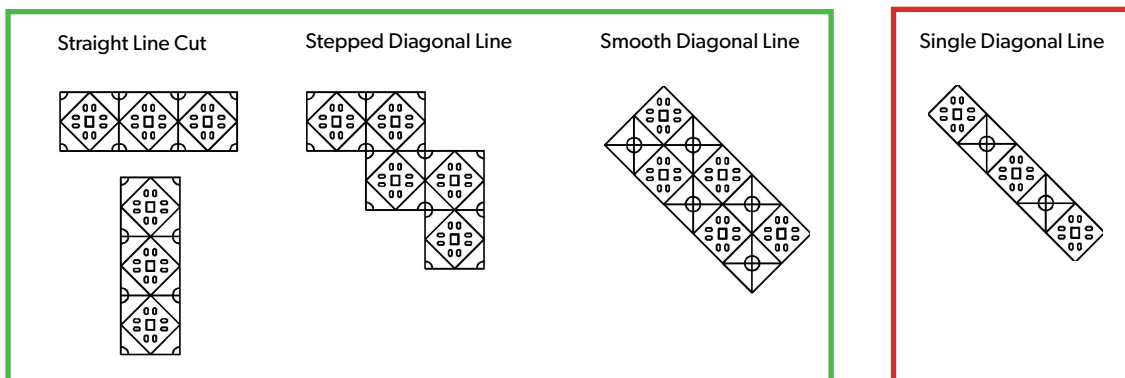

Power Tail RGBW

Part Number: ICL-PC-5P-300MM

Details: Power input cable 300mm length, can be made longer up to 1M, refer to us about this option. For RGBW Flex Sheet.
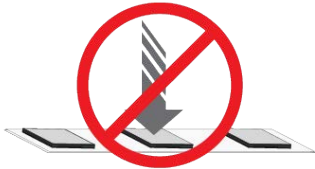
Cutting Segments

You can easily create custom shapes by cutting strip sheets. To ensure uninterrupted electrical contact, it's crucial to follow the pre-marked cut lines on the sheet. In the images below, you'll find examples of the smallest linear routing types. The green box indicates routing types that maintain electrical connection integrity, while the red one represents routing types that may disrupt electrical continuity and cause issues.
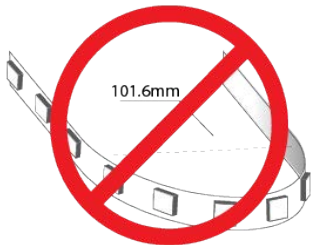

Straight Line Cut

Stepped Diagonal Line

Smooth Diagonal Line

Single Diagonal Line

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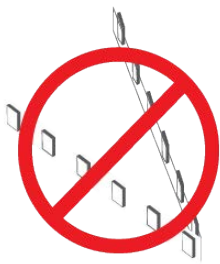
Strip Flexibility

Excessive Pressure

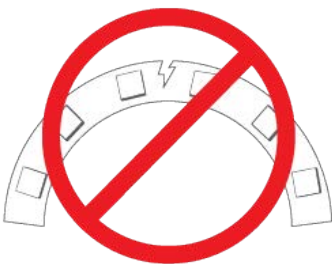**Do Not** put excessive pressure on the surface of the overlay such as glass or acrylic planes

Soft Bends

LEDs facing out only

Soft bends less than 38 mm MAY damage circuit traces and void warranty. It is recommend to bend no less than 101.6 mm

101.6mm

Sharp Angles

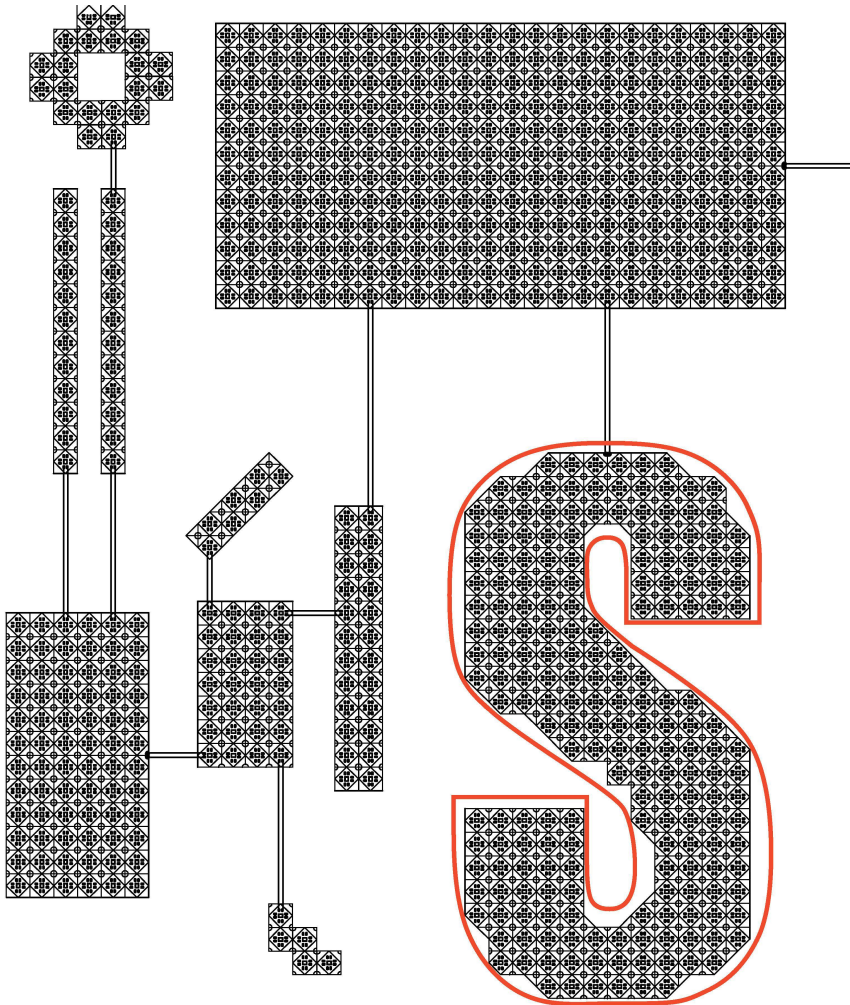Sharp angled bends WILL damage circuit traces and void warranty

Horizontal Plane

horizontal bends WILL damage circuit traces and void warranty

Application

Here are some examples of shapes and patterns that can be created and interconnected to suit a wide range of applications. The only limitation to consider is the maximum run length, which can be extended effortlessly by adding extra power supplies. These additional power supplies can be connected to any individual square LED segment within the run, providing maximum flexibility in your setup.

Industrial Commercial Lighting is a New Zealand owned and operated lighting solutions company based in the South Island

We provide industrial, commercial, architectural, sports, design and consulting lighting services.

Contact us for more information, or to discuss how we can assist you with a tailored lighting solution.

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