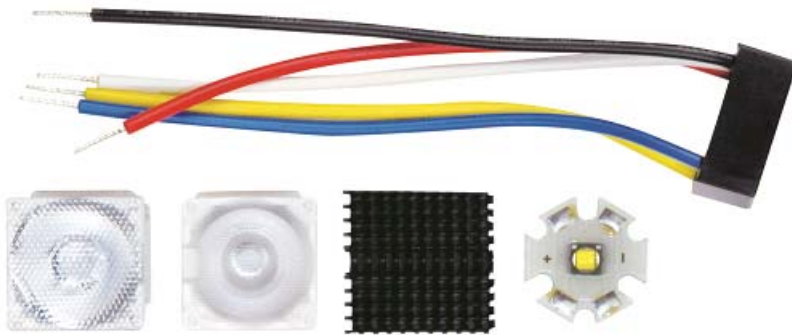


Cree XLamp XM-L LED Kit

element14



Newark element14 has created an XM-L LED kit.

The Cree XLamp XM-L LED is the industry's highest performing single-die white LED. The lighting-class XM-L LED can deliver 1000 lumens with 100 lumens per watt efficacy.

The XM-L LED is available in the full spectrum of white. With breakthrough light output and efficacy, the XM-L is designed for very high lumen applications.

Typical lighting applications would include the following: street and roadway, high-bay and industrial, outdoor area, LED replacement lamps, and indoor commercial.

The kit consists of:

- Cree XM-L LED mounted on a star MCPCB
- XP Power LED DRIVER
- Ledil lenses: spot and wide
- Aavid thermalloy heat sink

Note: You will need a DC power supply (see XP Power LED driver specifications below) and some soldering will be required in order to operate this kit.

Part Number Table

Description	SKU	Part Number
Cree X-Lamp XM-L LED Kit	67T1879	XM-L STAR EVAL KIT

Instructions

- Solder the driver wires per the diagram below to the power supply and to the star MCPCB (the white wire for the control function is not needed unless dimming is required)

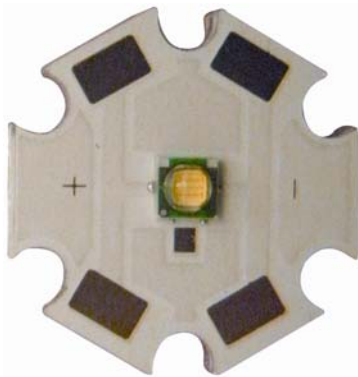


LDU Connections	
LDU24-WD	Function
1 (Black)	-Vin: -DC supply
2 (White)	Control
8 (Blue)	-Vout: LED cathode connection
9 (Yellow)	+Vout: LED anode connection
16 (Red)	+Vin: +DC supply

Note for LDU2430S700-WD LED Driver: Do not connect pin 1 (-Vin) to pin 8 (-Vout).

- Peel back the thermal adhesive pad of the heat sink and attach the LED star board
- Attach appropriate LED lens if applicable
- Turn on power supply

Cree: XLamp XM-L LEDs



The XLamp XM-L LED is the industry's highest performing, single die white lighting-class LED. The XLamp XM-L is 20% more efficient than the XLamp XP-G at the same current and can deliver 1000 lumens with 100 lumens per Watt efficacy.

Key Features

- Maximum drive current: 3,000 mA
- CCT: 8300 K
- Luminous Flux: 280 lm at 700 mA Test I_f
- Low thermal resistance: 2.5°C/W
- Maximum junction temperature: 150°C
- Viewing angle: 125°
- Available in warm, neutral and cool white
- ANSI-compatible chromaticity bins
- Unlimited floor life at $\leq 30^\circ\text{C}$ / 85% RH
- Reflow solderable - JEDEC J-STD-020C
- Electrically neutral thermal path

Applications

- LED light bulbs
- Outdoor lighting and indoor lighting
- Solar-powered lighting

Part Number Table

Description	Part Number
LED Module, Star, Cool White, 280LM	XMLAWT-00-0000-0000T6053-STAR

XP Power: LED Driver



The LED driver comes with 7 V - 30 V input voltage, 2 V - 28 V output voltage, 700 mA output current, 95% efficiency and 20W output power.

Key Features

- Constant current output
- LED drive current up to 700 mA
- LED strings from 2 V to 57 V
- PWM and analogue dimming control
- High efficiency - up to 95%
- Open or short circuit LED protection

Part Number Table

Description	Part Number
LED Driver, 28V DC, 20W	LDU2430S700-WD

LEDIL: LED Lenses



The FA11908_CXM_SS LED lens is designed for the XM-L LED. It is a spot lens - 21.6 mm diameter, 13 mm height and square style.

The FA11942_CXM_W LED lens is also designed for the XM-L LED. It is a wide angle lens - 21.6 mm diameter, 13 mm height and square style.

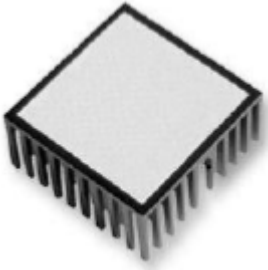
Key Features

- Tape mounting saves board space by eliminating mounting holes
- Convenient peel and stick assembly is quick and clean

Part Number Table

Description	Part Number
Cree XML, 21mm Optic, Spot, Taped	FA11908_CXM_SS
Cree XML, 21mm Optic, Wide, Taped	FA11942_CXM_W

AAVID THERMALLOY: Heat Sink



The heat sink comes with 0.5 thermal resistance, acrylic adhesive, white colour, aluminium carrier and meets RoHS 9,000.

Key Features

- Tape mounting saves board space by eliminating mounting holes
- Convenient peel and stick assembly is quick and clean
- Pin fin array allows omni-directional airflow to maximize heat dissipation

Part Number Table

Description	Part Number
Heat Sink BGA 23 × 23 × 10 with Pad	374024B00032G

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