IceLED Xtra Ultra Modular Active Star LED Cooler ø99mm

Features & Benefits

- For high bays, flood lights and industrial lighting designs from 5,000 to 20,000 lumen
- Thermal resistance range Rth 0.25°C/W
- Modular design with mounting holes foreseen for a wide range of LED modules and COB's:
  - Zhaga Book 3 Spot Light Modules Edison Edilex SLM, Sharp INTERMO, Tridonic Talexx Stark SLE G3 / G4, Vossloh Schwabe Luga Shop, ...
  - Bridgelux ESR, Vero & Décor Vero 29 LED arrays
  - Cree XLamp CXA18, CXB18, CXA25, CXB25, CXA30, CXB30
  - Edison EdiPower II HM / HR / SD series
  - GE Infusion M series, DLM series, NPM series
  - Lumileds Luxeon COB's 1208, 1211, 1216
  - Lustrous LUSTRON 6 series LL620F, LL660D
  - Prolight Opto PACG, PACD
  - Sharp Mega Zenigata
- Diameter 99mm - Height 75mm
  Other heights on request
- High lifetime design > 60Khrs (L 10 life time @40°C)
- Warranty 5 years

Order Information

Zhaga | GE Lighting | BJB | LUMILEDS The Brighter Choice | IDEAL | LUSTROUS Green Technology of Lighting | TE connectivity | ProLight Opto Technology Corporation | bridgelux | SHARP | CREE | LIGHTING SOLUTIONS | EDISON

Example : IceLED Xtra Ultra

IceLED Xtra	1

1	Ultra

IceLED Xtra Ultra is designed in this way that you can mount LED modules from various manufacturers on the same LED cooler

Simple mounting with self tapping screws

Recommened screw force 6lb/in

Screws are avaliable from MechaTronix

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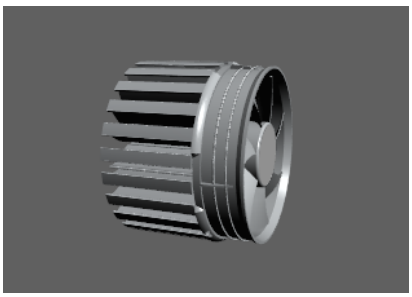
MechaTronix

Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Product Details



Model n°	Ice LED Xtra Ultra
Dimension (mm)*1	ø99 x h75
Fan Voltage (Vdc)*2	12
Fan Speed (RPM)	3000
Noise @ 1m (dBA)	<39
Weight (gr)	425
Thermal Resistance (°C/W)*3	0.25
Power Pd (W)*4	200
Heat Sink Material	AL6063-T5

*1 3D files are avaliable in ParaSolid, STP and IGS on request

*2 The fan requires a constant voltage power source of 12Vdc, 230mA, 2.76W

*3 The thermal resistance Rth is determined with a calibrated heat source of 30mm x 30mm central placed on the heat sink, Tamb 40° and an open environment. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The thermal resistance of a LED cooler is not a fix value and will vary with the applied dissipated power Pd

*4 Dissipated power Pd. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The maximal dissipated power needs to be verified in function of required case temperature Tc or junction temperature Tj and related to the estimated ambient temperature where the light fixture will be placed
Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module

To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL)
Pd - Dissipated power
Pe - Electrical power
ηL = Light effciency of the LED module

Notes:

- MechaTronix reserves the right to change products or specifications without prior notice.
- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MechaTronix.

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IceLED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

The IceLED Xtra Ultra modular active LED cooler is standard foreseen from a variety of mounting holes which allow direct mounting of LED engines, COB's and secondary optics on the LED heat sink.

In this way mechanical afterwork and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED coolers.

Below you find an overview of LED modules and COB's which standard fit on the IceLED Xtra Ultra LED cooler.

The IceLED Xtra Ultra is probably the most complete standard LED cooler with regards to mounting possibilities of Zhaga and the latest generation of COB LED modules.

For more details about the required mounting holes and thermal results for your specific LED brand and model, please refer to the brand LED cooler datasheets under "Brand Products" and the brand LED cooler overview under the "Download" menu.

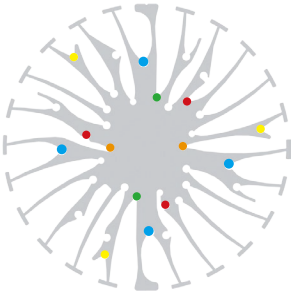
Zhaga

Zhaga

The Zhaga Consortium is developing specifications that enable the interchangeability of LED light sources made by multiple different manufactures. The Zhaga specifications, known as Books, describe the interfaces between LED luminaires and LED light engines. Zhaga's members include hundreds of companies from throughout the global lighting industry. The cooperation is governed by a consortium agreement that defines rules regarding confidentiality, intellectual property and decision making.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.



Zhaga Book 2 socketable LED engines

Zhaga Interface Specification Book 2 defines the interfaces of a socketable, circular LED light engine (LLE) with an integrated LED driver (electronic control gear).

The LLE has a round drum shape with maximum dimensions of 70.2 mm diameter and 45 mm height. It has a circular light-emitting surface with a typical diameter of 59 mm, and a PHJ65d type base. Zhaga Book 2 LED modules are mounted by 3 M3 screws evenly located on diameter of 79.5mm on the LED cooler.

Book 2 is similar to Book 8, except that the LLEs described in Book 2 have smaller dimensions.

Book 2 LLEs are intended primarily (but not exclusively) for use in LED luminaires for downlighting applications.

Zhaga Book 2 compliant LED engines *1

- Megaman Teco
- Philips Fortimo TDLM
- Tridonic Talexx Stark DLE twist

Mounting

- Direct mounting of the LED holder PHJ65d with 3 M3 self tapping screws

Mounting of the LED engine by twist and lock operation

Yellow indicator marks

*1 This is a non-binding overview of available Zhaga Book 2 LED modules at press

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Zhaga Book 3 Spot Light Modules

Zhaga Interface Specification Book 3 defines the interfaces of a type-D LED light engine (non-socketable LED module with separate electronic control gear). The LED light engine LLE has a round disc shape with a maxium height of 7.2 mm and a typical diameter of 50 mm. It is suitable for spot-lighting and other applications that benefit from a small, circular source. Book 3 specifies a circular light-emitting surface (LES) that can have a range of diameters, namely 9 mm, 13.5 mm, 19 mm and 23 mm.

Zhaga book 3 compliant LED Spot Light modules *1

- Edison Edilex SLM
- Osram PrevaLED CORE
- Philips Fortimo SLM
- Sharp INTERMO
- Tridonic Talexx Stark SLE
- Vexica Lumaera
- Vossloh Schwabe Luga Shop

*1 This is a non-binding overview of available Zhaga book 3 LED modules at press

Zhaga Book 3 mounting through the use of LED holders and connectors

With the use of Zhaga Book 3 mechanical compatible LED holders, a wide variety of LED COB's can be mounted in the same way on these LED coolers.
Zhaga Book 3 compatiable LED holders can be found from BJB, TE Connectivity (Tyco), Molex and Ideal Industries.

LED COB's for which Zhaga book 3 LED holders are available

- Bridgelux V15, V18, ES rectangular LED array
- Citizen CitiLED CLL032, CLU034, CLL042, CLU044
- Cree XLamp CXA18xx, CXA25xx, CXA30xx
- Edison Opto HM16, HM30, HM40
- Lextar Nimbus 2000, 3000
- LG Innotek LEMWM18 (10W, 13W, 17W, 24W), LEMWM28 (40W)
- Lustrous Lustron LL613F, LL620F, LL630F, LL630D, LL660D
- Nichia J216, J360, L110, L121, L204
- Osram Soleriq P13, S13, S19, E30
- Lumileds Luxeon 1203, 1204, 1205, 1208, 1211 and 1216
  Luxeon K12 and K16
- Prolight Opto PABA, PACC, PACD, PACF, PACG
- Samsung LC026, LC040
- Seoul Semiconductor ZC12, ZC18, ZC25, ZC40, ZC60
- Sharp Mega Zenigata and Tiger Zenigata
- Tridonic Talexx Stark SLE Gen3 Mini LES 17

Mounting

- Direct mounting with 2 M3 self tapping screws
  Green indicator marks

Reflector ring Mounting

- This optional ring can be mounted on top of the Edison Opto EdiLex spot light module and provides in this way an easy plug-and-play attachment of various reflectors.
- Mounting with 3 self tapping screws M3 x 10mm
  Red indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Zhaga Book 5 socketable LED engines

Zhaga Interface Specification Book 5 defines the interfaces of LED light engines (LLEs) comprising a socketable, circular LED module with a separate LED driver (electronic control gear).
The circular LED modules in Book 5 have maximum dimensions of 70 mm diameter and 21 mm height. Zhaga Book 5 LED modules are mounted by 4 M4 screws on diameter of 58.42mm on the LED cooler (NOT evenly located). Book 5 allows optical accessories with defined widths of up to 180 mm and heights up to 180 mm.
Book 5 LED modules have typical light-emitting surface (LES) diameters ranging from 13.5 mm to 26 mm.
Book 5 LLEs are primarily intended for use in down-lighting or spot-lighting luminaires.

Zhaga Book 5 compliant LED engines *1

- GE Infusion LED M-series Spot Light Modules
- GE Infusion LED DLM-series Down Light Modules
- GE Infusion LED NPM-series Narrow Punch Modules

*1 This is a non-binding overview of avaliable Zhaga Book 5 LED modules at press.

Mounting

- Direct mounting of the LED collar with 4 M4 self tapping screws
- Mounting of the LED engine by twist and lock operation
- Blue indicator marks

Zhaga Book 6 socketable LED engines

Zhaga Interface Specification Book 6 defines the interfaces of a socketable, circular LED light engine (LLE) with an integrated LED driver (electronic control gear).
The LLE has nominal dimensions of 90 mm diameter and 42 mm height, and has a GH76p base. Zhaga Book 6 LED modules are mounted by 3 M3 screws evenly located on diameter of 79.5mm on the LED cooler.
The socketable Book 6 LLE fits into a holder, which has a diameter that does not exceed the diameter of the LLE itself. This enables compact luminaire designs.
Book 6 LLEs are applicable for downlights, pendant luminaires, and wall-mounted and recessed luminaries.

Zhaga Book 6 compliant LED engines *1

- Toshiba E-Core LED Light Engine LED LEV11 and LEV16

*1 This is a non-binding overview of avaliable Zhaga Book 6 LED modules at press.

Mounting

- Direct mounting of the LED holder GH76p with 3 M3 self tapping screws
- Mounting of the LED engine by twist and lock operation
- Yellow indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Zhaga Book 11 Spot Light Modules

Zhaga Interface Specification Book 11 defines the interfaces of LED light engines (LLEs) comprising a circular, non-socketable LED module with a separate LED driver (electronic control gear).
The LED modules in Book 11 have an overall diameter of 35 mm and a height of 3.5 mm. Zhaga Book 11 LED modules are mounted by 2 M3 screws evenly located on diameter of 25mm on the LED cooler.
There are three LLE categories in Book 11, which are defined by the maximum diameter of the circular light-emitting surface (LES): 6.3 mm, 9.0 mm, 13.5 mm
Book 11 LLEs are suitable for spot-lighting and other applications that benefit from a small, circular source.

LED COB's for which Zhaga book 11 LED holders are available

- Bridgelux V10 / V13
- Citizen CitiLED CLL022, CLU024
- Cree XLamp CXA13xx, CXA15xx
- Edison Opto HM05, HM09
- Lextar Nimbus 1500
- Osram Soleriq P6, P9, P13, S13
- Prolight Opto PACB, PACE
- Seoul Semiconductor ZC6
- Sharp Mini Zenigata
- Tridonic Talexx Stark SLE Gen3 Mini LES 10

Mounting

- Direct mounting with 2 M3 self tapping screws
  Orange indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

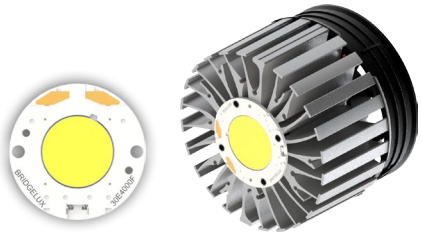
Bridgelux LED Arrays

bridgelux

Bridgelux is a leading provider of high power, cost effective and energy efficient light emitting diode (LED) solutions. Leveraging patented light source technology, Bridgelux LED Arrays replace traditional technologies (such as incandescent, halogen, fluorescent and high intensity discharge lighting) with integrated solid state light sources enabling high performance and energy-efficient products for the general lighting market.

Mounting indicator marks overview

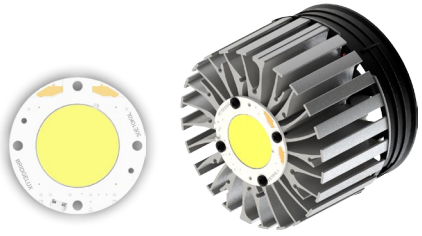
MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.



Bridgelux Vero 29 LED Array

Model names
- Vero 29 BXRC-27x10K0
- Vero 29 BXRC-30x10K0
- Vero 29 BXRC-35E10K0
- Vero 29 BXRC-40E10K0
- Vero 29 BXRC-50C10K0

Mounting
- Direct mounting with 4 self tapping screws M3 x 6mm
  Blue indicator marks



Bridgelux Décor Vero 29 LED Array

Model names
- BXRC-xxA10K1-L-23
- BXRC-56G10K0-L-04

Mounting
- Direct mounting with 4 self tapping screws M3 x 6mm
  Blue indicator marks

Bridgelux ES Rectangle LED Array

Model names
- BXRA-xxx0800
- BXRA-xxx1200
- BXRA-xxx2000
- BXRA-40E0950
- BXRA-40E1350
- BXRA-40E2200
- BXRA-xxC1100
- BXRA-xxC1600
- BXRA-xxC2600

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2040
  Mounting with 2 self tapping screws M3 x 6mm
  Green indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Cree XLamp LED Array

Cree XLamp® LEDs deliver the industry's best lighting-class performance and are application-optimized to enable the lowest system cost.

Cree's new CXA LED Arrays deliver high lumen output and efficacy in a family of single, easy-to-use components. Optimized to simplify designs and lower system cost, Cree's CXA LED arrays are available in system level performance from 300 to over 16,000 lumens and can enable applications ranging from GU10s and commercial downlights to outdoor area lighting and high-bay lighting.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Cree XLamp CXA18 / CXB18 LED Array

Model names
- CXA1830-xxxx
- CXB1830-xxxx
- CXA1850-xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2131 (CXA1830 excluded)
  Ideal Industries Chip-Lok™ holder 50-2101CR
  TE Connectivity Lumawise type Z50 2213401-1
  TE Connectivity Lumawise type Z50 2213401-2
  Mounting with 2 self tapping screws M3 x 10mm
  Green indicator marks

Cree XLamp CXA25 / CXB25 LED Array

Model names
- CXA2520-xxxx
- CXA2530-xxxx
- CXB2530-xxxx
- CXA2540-xxxx
- CXB2540-xxxx
- CXA2590-xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2141
  Ideal Industries Chip-Lok™ holder 50-2102CR
  TE Connectivity Lumawise type Z50 2213407-1
  TE Connectivity Lumawise type Z50 2213407-2
  Mounting with 2 self tapping screws M3 x 10mm
  Green indicator marks

Cree XLamp CXA30 / CXB30 LED Array

Model names
- CXA3050-xxxx
- CXB3050-xxxx
- CXA3070-xxxx
- CXB3070-xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2151
  Ideal Industries Chip-Lok™ holder 50-2234C
  Mounting with 2 self tapping screws M3 x 10mm
  Green indicator marks

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Mounting Options

Edison Opto LED Modules and COB's

Edison Opto with headquarters in Chung-Ho Dist, New Taipei City, Taiwan is a professional LED manufacture with specializes in designing and producing High-power LEDs, solid state lighting applications, LED sensors and SPDIFs. In response to rapid growth of capacity demand, Edison Opto has established factories in Dongguan and Yangzhou China and subsidiaries in USA and Germany. Edison Opto COB LED modules outstand in light quality and are available in the broadest lumen and CRI range available on the market.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Edison Opto Edipower II HM

Model Names 30W
- 2PHM30xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2021
  Ideal Industries Chip-Lok™ holder 50-2103CT
  TE Connectivity Lumawise type Z50 2213254-1
  TE Connectivity Lumawise type Z50 2213254-2
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks

Model Names 40W
- 2PHM40xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2030
  Ideal Industries Chip-Lok™ holder 50-2204CT
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks

Edison Opto EdiPower II HR / SD

Model names
- 2PHR35xxxx
- 2PSD40xxxx
- 2PSD50xxxx

Mounting
- Direct mounting with 2 self tapping screws M3 x 6mm side holes
  Green indicator marks
- Direct mounting with 2 self tapping screws M3 x 6mm corner holes
  Blue indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Edison Opto EdiLex Spot Light Module (SLM)

Model names
- 5PHV35xxxx

Mounting
- Direct mounting with 2 self tapping screws M3 x 10mm
  Green indicator marks

GE Lighting LED Modules

GE Lighting

GE Infusion™ is a game-changing technology and one of the most flexible LED lighting solutions on the market. As a designer, OEM or end-users, you can choose from an extensive selection of modules. Plus, there's the assurance of GE reliability and performance.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Infusion M-series Spot Light Modules

Model names
- Infusion M4500 series

Mounting
- Twist and lock LED engine
- Mounting with GE LED collar by 4 self tapping screws M4 x 6mm or 8mm
  Red indicator marks

Infusion DLM-series Down Light Modules

Model names
- Infusion DLM4000 series

Mounting
- Twist and lock LED engine
- Mounting with GE LED collar by 4 self tapping screws M4 x 6mm or 8mm
  Red indicator marks

Infusion NPM-series Narrow Punch Modules

Model names
- MP30/827/W/N
- MP30/830/W/N
- MP30/930/W/N
- MP30/840/W/N

Mounting
- Twist and lock LED engine
- Mounting with GE LED collar by 4 self tapping screws M4 x 6mm or 8mm
  Red indicator marks

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Mounting Options

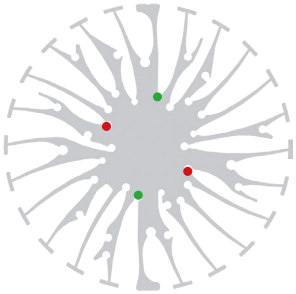
Lumileds LED COB

LUMILEDS
The Brighter Choice

Lumileds LUXEON COB is a new breakthrough in efficacy for arrays. Due to its industry leading small Light Emitting Surfaces (LES), the COB array is very easy work with and will enable easier and less expensive designs. All LUXEON COBs are available in a single 3-step as well as a single 5-step MacAdam Ellipse, ensuring uniform optical performance in the application. Ideal applications include down lights and directional lamps.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.



Luxeon COB 1208

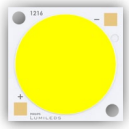
Model names
- Luxeon COB LHC1-xxxx-1208

Mounting
- Direct mounting with 2 self tapping screws M3 x 6mm
  Red indicator marks
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2011
  Ideal Industries Chip-Lok™ holder 50-2100SH
  TE Connectivity Lumawise type Z50 2213130-1
  TE Connectivity Lumawise type Z50 2213130-2
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks

Luxeon COB 1211

Model names
- Luxeon COB LHC1-xxxx-1211

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2030
  Ideal Industries Chip-Lok™ holder 50-2204CT
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks



Luxeon COB 1216

Model names
- Luxeon COB LHC1-xxxx-1216

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2030
  Ideal Industries Chip-Lok™ holder 50-2204CT
  Mounting with 2 screws M3 x 10mm
  Green indicator marks

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MechaTronix

Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Lustrous LED COB

LUSTROUS
Green Technology of Lighting

LUSTROUS unique Chip-on-Board (COB) packaging technology of High Power LED leads the core competence of LUSTROUS. COB packaging technology shows excellent thermal management and high efficiency performance. One of the benefits of COB is bright, uniform light output. The excellent low thermal resistance is achieved through state of the art COB technology on highly conductive substrates. This enables low junction temperatures at chip level for much higher efficiencies.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Lustrous Lustron LL620F LED COB

Model names
- Lustron LL620F1208-xxx

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2021
  Ideal Industries Chip-Lok™ holder 50-2103CT
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks

Lustrous Lustron LL660D LED COB

Model names
- Lustron LL660D1210-xxx

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2030
  Ideal Industries Chip-Lok™ holder 50-2204CT
  Mounting with 2 self tapping screws M3 x 8mm
  Green indicator marks

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MechaTronix

Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

Prolight Opto LED COB's

ProLight Opto Technology Corporation

Founded in October 2004, Prolight Opto Technology Corporation is a professional manufacturer of LED packaging, dedicated to the research, development, and manufacturing of mid-to-high-power, high reliability LED packages.Prolight Opto continually invests over 6% of sales revenue in R&D and patents.With own package patents from the US and Taiwan they insure a wide range of LED emitters in the smallest foot prints and COB LED modules with perfect thermal management and high density lumen output.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Prolight Opto CG series PACG COB

Model names
- PACG-110xxx-xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2030
  Mounting with 2 self tapping screws M3 x 6mm
  Green indicator marks

Prolight Opto CIII series PACD COB

Model names
- PACD-40xxx-xxxx

Mounting
- With Zhaga Book 3 LED holder
  BJB Spotlight connector 47.319.2030
  Mounting with 2 self tapping screws M3 x 6mm
  Green indicator marks

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Mounting Options

Sharp LED Modules & COB

SHARP

Sharp Zenigata Chip on Board (COB) technology leverages 40 years of LED expertise to help your products outshine the competition with some of the highest brightness-per-watt in the industry. Sharp's new Mega Zenigata 50W – 80W modules take traditional, high-power lighting applications head on with power-saving LED alternatives. Sharp Devices Europe has launched an important new portfolio of LED modules dubbed INTERMO. The Standard INTERMO is a Zhaga Book 3 form-factor module, which ensures compatibility with a large eco-system of third-party products.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.

Sharp INTERMO Standard / Slim LED Modules

Model names
- GW7MMExxGZC - 5000 lm

Mounting
- Direct mounting with 2 self tapping screws M3 x 6mm
  Green indicator marks

Sharp Mega Zenigata 50-80W LED COB

Model names
- GW5DxExxMR5
- GW6DxExxNFC

Mounting
- With Zhaga Book 3 LED holder
  BJB spotlight connector 47.319.2011
  Ideal Industries Chip-Lok™ holder 50-2100SH
  Mounting with 2 self tapping screws M3 x 6mm
  Green indicator marks

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Ice LED Xtra Ultra Modular Active Star LED Cooler ø99mm

Mounting Options

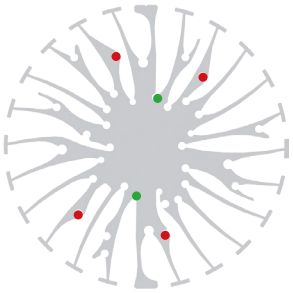
Vossloh Schwabe LED Modules

VS LIGHTING SOLUTIONS

Vossloh-Schwabe is an independent brand within the Panasonic Group responsible for the global development of the business area "Components for light technology". Panasonic employs 367,000 members of staff with an annual turnover of 76.75 billion Euros (8692.7 billion yen) and is represented throughout the world by more than 634 companies or representations in Asia, America and Europe.The Vossloh Schwabe Luga Shop LED modules are ideal solution for high-end luminaire designs where quality stands at the first place.

Mounting indicator marks overview

MechaTronix recommends the use of a high thermal conductive interface between the LED module and the LED cooler. Either thermal grease, a thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended. Thermal pads or phase change thermal pads can be pre-applied from MechaTronix.



Luga Industrial LED modules

Model names
- WU-M-467 / WU-M-443

Mounting
- Direct mounting with 4 self tapping screws M3 x 10mm
  Red indicator marks

Luga Shop 2014 LED modules

Model names
- WU-M-485 / WU-M-462
- WU-M-486 / WU-M-464

Mounting
- Direct mounting with 2 self tapping screws M3 x 10mm
  Green indicator marks

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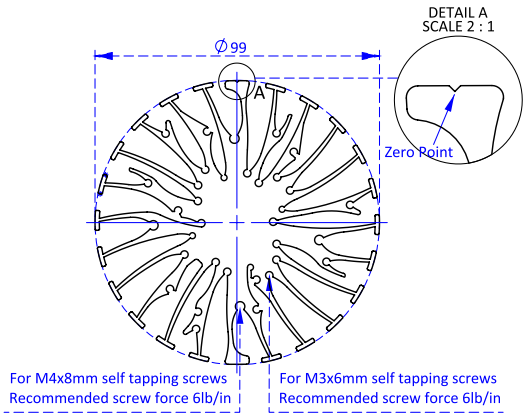
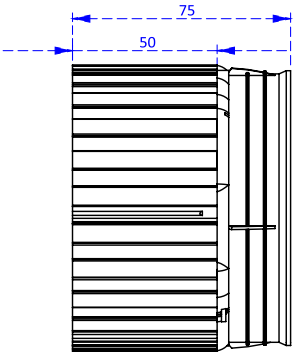
MechaTronix

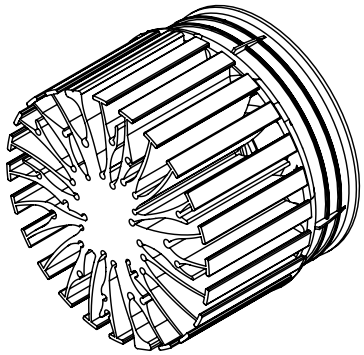
IceLED Xtra Ultra Modular Active Star LED Cooler ø99mm

Drawings & Dimensions

Example: IceLED Xtra Ultra



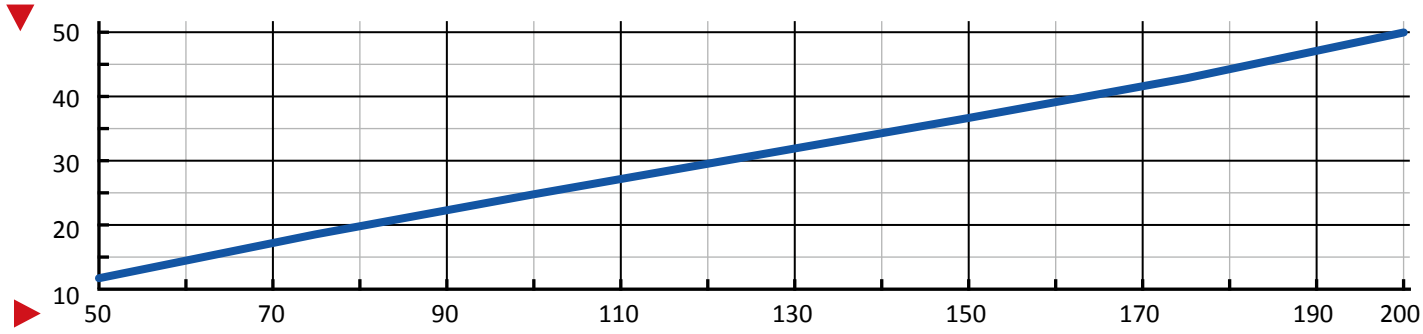




Thermal Data

Pd = Pe x (1-ηL)			LED Light efficiency, ηL (%)			Heat sink to ambient thermal resistance $R_{hs\text{-}amb}$ (°C/W)	Heat sink to ambient temperature rise $T_{hs\text{-}amb}$ (°C)
			17%	20%	25%	IceLED Xtra Ultra	IceLED Xtra Ultra
Dissipated Power Pd(W)	50	Electrical Power Pe(W)	60.2	62.5	66.6	0.25	12.5
	75		90.3	93.7	100.0	0.25	18.8
	100		120.4	125.0	133.3	0.25	25.0
	150		180.7	187.5	200.0	0.25	37.5
	175		210.8	218.7	233.3	0.25	43.8
	200		240.9	250.0	266.6	0.25	50.0

Heat sink to ambient temperature rise $T_{hs\text{-}amb}$ (°C) — IceLED Xtra Ultra



Dissipated Power Pd(W)

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