

# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Features & Benefits

- For spot and downlight designs from 400 to 2,200 lumen
- Thermal resistance range Rth 4.2 - 5.2°C/W
- Modular design with mounting holes foreseen for direct mounting of a wide range of LED modules and COB's:
  - Zhaga book 3 Spot Light Modules Edison Edilex, Philips Fortimo SLM, Tridonic Talexx Stark SLE, Vossloh Schwabe Luga Shop, ...
  - Bridgelux BXRA ESS, ESR, Vero 10, Vero 13, Vero 18, V-series
  - Citizen Citiled CLL022, CLL032, CLU024, CLU034
  - Edison Opto Edipower II HM/HR/HS/HV/SD series
  - LG Innotek LEMW 10, 13, 17, 24
  - Osram PrevaLED Core, Soleriq S13/S19
  - Philips Lumileds Luxeon COB's 1203, 1204, 1205, 1208
  - Prolight Opto PANA, PABA, PABS, PACB, PACC
  - Tridonic Talexx Stark SLE and Mini G3
  - Xicato XSM, XIM, XTM
- Diameter 47mm - Standard height 50mm & 80mm  
Other heights on request
- Extruded from highly conductive aluminum



### Order Information



Example : ModuLED Pico 4750-B

ModuLED Pico 47 **1** - **2**

- 1** Height (mm)
- 2** Anodising Color  
B - Black  
C - Clear

*ModuLED Pico* 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  
Recommended screw force 6lb/in  
Screws are available from MechaTronix

# MechaTronix *in* LED

## ModuLED Pico Modular Passive LED Cooler



### Product Details

Model n°	ModuLED Pico 4750	ModuLED Pico 4780
Dimension (mm) <sup>*1</sup>	ø47 x h50	ø47 x h80
Volume (mm <sup>3</sup> )	48779	78046
Cooling Surface (mm <sup>2</sup> )	35707	55960
Weight (gr)	131	210
Thermal Resistance (°C/W) <sup>*2</sup>	5.2	4.2
Power Pd (W) <sup>*3</sup>	9.6	11.9
Heat Sink Material	AL6063-T5	AL6063-T5

<sup>\*1</sup> 3D files are available in ParaSolid, STP and IGS on request

<sup>\*2</sup> 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

<sup>\*3</sup> 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:  $Pd = Pe \times (1-\eta_L)$

Pd - Dissipated power

Pe - Electrical power

$\eta_L$  = Light efficiency 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.

# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

The ModuLED Pico passive LED coolers are 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 ModuLED Pico cooler.

The ModuLED Pico 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 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 maximum 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
- Tridonic Talexx Stark SLE
- Vexica Lumaera
- Vossloh Schwabe Luga Shop

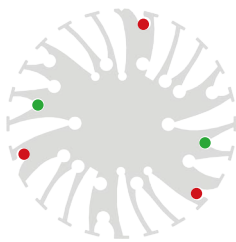
\*1 This is a non-binding overview of available Zhaga book 3 LED modules at press

### 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 compatible LED holders can be found from BJB, Tyco Connectivity, AAG Stucchi and Ideal.

 Zhaga



### Zhaga Book 3 Spot Light Modules

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

- Bridgelux ES rectangular LED array
- Citizen Citiled CLL022, CLU024, CLL032, CLU034
- Cree XLamp CXA13xx, 15xx, 18xx, 25xx, 30xx
- Edison Opto HM05, HM09, HM16, HM30
- Lextar Nimbus 1500, 2000, 3000
- LG Innotek LEMWM 10, 13, 17, 24
- Nichia J216, J360, L110, L121, L204
- Osram Soleriq S13, S19, E30
- Philips Lumileds Luxeon 1203, 1204, 1205 and 1208, Luxeon K12 and K16
- Prolight Opto PABA, PANA, PACB, PACC
- Samsung LC026, LC040
- Seoul Semiconductor ZC12, ZC18, ZC25, ZC40
- Sharp Mega Zenigata and Tiger Zenigata
- Tridonic Talexx Stark LES 10, LES 17

#### Mounting

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

#### Reflector ring

- 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

 Zhaga



# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Bridgelux LED Modules

##### Bridgelux Vero 10 LED Module

###### Model names

- Vero 10 BXRC-27E1000-B-xx
- Vero 10 BXRC-27G1000-B-xx
- Vero 10 BXRC-27H1000-B-xx
- Vero 10 BXRC-30E1000-B-xx
- Vero 10 BXRC-30G1000-B-xx
- Vero 10 BXRC-30H1000-B-xx
- Vero 10 BXRC-35E1000-B-xx
- Vero 10 BXRC-40E1000-B-xx
- Vero 10 BXRC-50C1000-B-xx

###### Mounting

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

##### Bridgelux Vero 13 LED Module

###### Model names

- Vero 13 BXRC-27E2000-C-xx
- Vero 13 BXRC-27G2000-C-xx
- Vero 13 BXRC-27H2000-C-xx
- Vero 13 BXRC-30E2000-C-xx
- Vero 13 BXRC-30G2000-C-xx
- Vero 13 BXRC-30H2000-C-xx
- Vero 13 BXRC-35E2000-C-xx
- Vero 13 BXRC-40E2000-C-xx
- Vero 13 BXRC-50C2000-C-04

###### Mounting

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

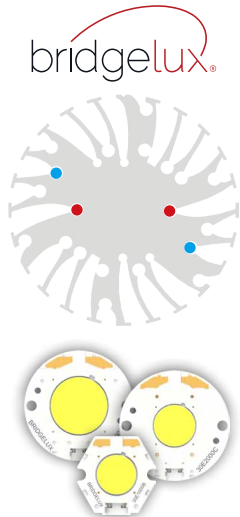
##### Bridgelux Vero 18 LED Module

###### Model names

- Vero 18 BXRC-27E4000-F-xx
- Vero 18 BXRC-27G4000-F-xx
- Vero 18 BXRC-27H4000-F-xx
- Vero 18 BXRC-30E4000-F-xx
- Vero 18 BXRC-30G4000-F-xx
- Vero 18 BXRC-30H4000-F-xx
- Vero 18 BXRC-35E4000-F-xx
- Vero 18 BXRC-40E4000-F-xx
- Vero 18 BXRC-50C4000-F-04

###### Mounting

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



#### Bridgelux LED Modules

##### Bridgelux V series V6/V8 COB

###### Model names

- BXRE-27E0xxx-A-03
- BXRE-27E0xxx-B-03
- BXRE-27G0xxx-A-03
- BXRE-27G0xxx-B-03
- BXRE-30E0xxx-A-03
- BXRE-30E0xxx-B-03
- BXRE-30G0xxx-A-03
- BXRE-30G0xxx-B-03
- BXRE-40E0xxx-A-03
- BXRE-40E0xxx-B-03
- BXRE-50C0xxx-A-04
- BXRE-50C0xxx-B-04

###### Mounting

- With Bridgelux V6/V8 holder BATLAB-0401
- 2 self tapping screws M3 x 6mm.
- Red indicator marks

##### Bridgelux ES Star array COB

###### Model names

- BXRA-27E0540-A-03
- BXRA-27E0740-A-03
- BXRA-27G0540-A-03
- BXRA-27G0740-A-03
- BXRA-30E0540-A-03
- BXRA-30E0740-A-03
- BXRA-30G0540-A-03
- BXRA-30G0740-A-03
- BXRA-40E0600-A-03
- BXRA-40E0810-A-03
- BXRA-50C1000-A-xx
- BXRA-56C0700-A-xx
- BXRA-56C1000-A-xx

###### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm. Red indicator marks

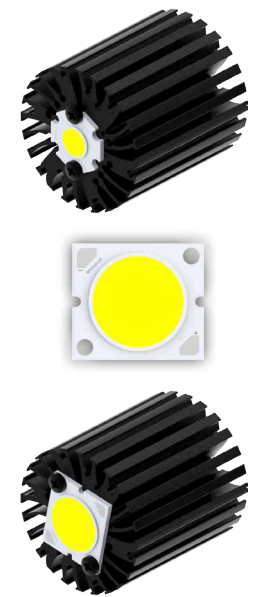
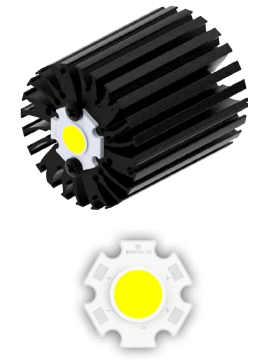
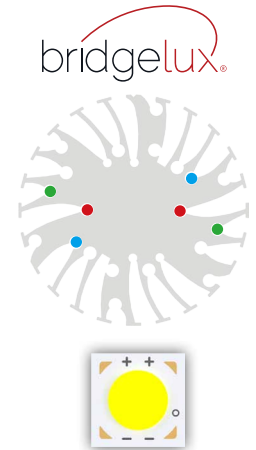
##### Bridgelux ES Rectangle array COB

###### Model names

- BXRA-27E0800-B-03
- BXRA-27E1200-B-03
- BXRA-27E2000-B-03
- BXRA-27G0800-B-03
- BXRA-27G1200-B-03
- BXRA-27G2000-B-03
- BXRA-30E0800-B-03
- BXRA-30E1200-B-03
- BXRA-30E2000-B-03
- BXRA-30G0800-B-03
- BXRA-30G1200-B-03
- BXRA-30G2000-B-03
- BXRA-35E0800-B-03
- BXRA-35E1200-B-03
- BXRA-35E2000-B-03
- BXRA-40E0950-B-03
- BXRA-40E1350-B-03
- BXRA-40E2200-B-03
- BXRA-50C1100-B-xx
- BXRA-50C2600-B-xx
- BXRA-56C1100-B-xx
- BXRA-56C1600-B-xx
- BXRA-56C2600-B-xx

###### Mounting

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



# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Citizen Citeded

##### Citizen Citeded CLL022 - CLU024

###### Model names

- CLL022-xxxx
- CLU024-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Red indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks
- With spotlight connector  
Orange indicator marks  
BJB Spotlight connector 47.319.6060

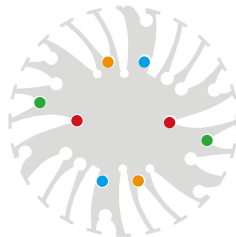
##### Citizen Citeded CLL032 - CLU034

###### Model names

- CLL032-xxxx
- CLU034-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Blue indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB Spotlight connector 47.319.2020  
TE Connectivity Lumawise type Z50 2213254-1  
TE Connectivity Lumawise type Z50 2213254-2



#### Edison Opto LED Modules

##### Edison Opto EdiPower II SD series

###### Model names 15W-24W

- EdiPower II SD 2PSD15WW01P0200
- EdiPower II SD 2PSD24WW01P0200

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm side holes  
Red indicator marks

##### Edison Opto EdiPower II HS-HV series

###### Model names 15W-24W

- EdiPower II HS 2PHV15CW06P02001
- EdiPower II HS 2PHV15NW05P02001
- EdiPower II HS 2PHV15WW03P02001
- EdiPower II HS 2PHV24CW06P02001
- EdiPower II HS 2PHV24NW05P02001
- EdiPower II HS 2PHV24WW03P02001

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm side holes  
Red indicator marks

##### Edison Opto EdiPower II HR

###### Model names 13W

- EdiPower II HR 2PHR13CW11P02001
- EdiPower II HR 2PHR13NW11P02001
- EdiPower II HR 2PHR13WW05P02001

###### Mounting

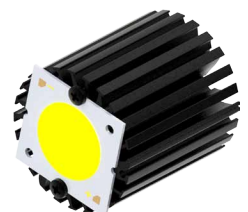
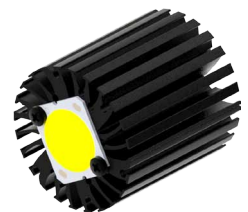
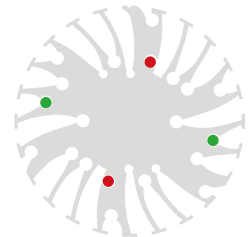
- Direct mounting with 2 self tapping screws  
M3 x 6mm side holes  
Red indicator marks

###### Model names 24W-35W

- EdiPower II HR 2PHR24CW11P03001
- EdiPower II HR 2PHR24NW11P03001
- EdiPower II HR 2PHR24WW05P03001
- EdiPower II HR 2PHR35CW11P03001
- EdiPower II HR 2PHR35NW11P03001
- EdiPower II HR 2PHR35WW05P03001

###### Mounting

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



# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### LG Innotek

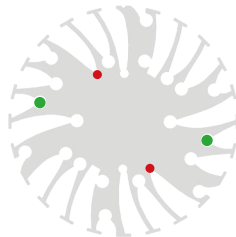
#### LG LEMWM 10/13/17/24 COB

##### Model names

- LEMWM18580HGxxxx
- LEMWM18580JGxxxx
- LEMWM18580LGxxxx
- LEMWM18580MGxxxx
- LEMWM18680HGxxxx
- LEMWM18680JGxxxx
- LEMWM18680LGxxxx
- LEMWM18680MGxxxx
- LEMWM18690LG10A0
- LEMWM18780HGxxxx
- LEMWM18780JGxxxx
- LEMWM18780LGxxxx
- LEMWM18780MGxxxx
- LEMWM18880HGxxxx
- LEMWM18880LGxxxx

##### Mounting

- Direct mounting with 2 self tapping screws  
M2 x 6mm  
Red indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks



#### Edison Opto LED Modules

#### Edison Opto Edipower II HM

##### Model Names 5W - 9W

- 2PHM05WW27P12001
- 2PHM05NW27P12001
- 2PHM05CW27P12001
- 2PHM09WW27P12001
- 2PHM09NW27P12001
- 2PHM09CW27P12001

##### Mounting

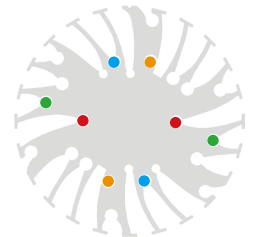
- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Red indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks
- With Spotlight connector  
Blue indicator marks  
BJB Spotlight connector 47.319.6060

##### Model Names 16W - 30W

- 2PHM16WW27P13001
- 2PHM16NW27P13001
- 2PHM16CW27P13001
- 2PHM30WW27P13001
- 2PHM30NW27P13001
- 2PHM30CW27P13001

##### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Orange indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB Spotlight connector 47.319.2020  
TE Connectivity Lumawise type Z50 2213254-1  
TE Connectivity Lumawise type Z50 2213254-2



#### Edison Opto Edilex SLM

##### Model Names

- 5PHR09xxxx
- 5PHR11xxxx
- 5PHR22xxxx
- 5PHR32xxxx

##### Mounting

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



# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Osram

##### Osram Soleriq S13

###### Model names

- GW-KAGHB1-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Red indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB spotlight connector 47.319.6110  
TE Connectivity Lumawise type Z50 2213401-1  
TE Connectivity Lumawise type Z50 2213401-2

##### Osram Soleriq S19

###### Model names

- GW-KAHLB1-xxxx

###### Mounting

- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB spotlight connector 47.319.2170  
TE Connectivity Lumawise type Z50 2213407-1  
TE Connectivity Lumawise type Z50 2213407-2

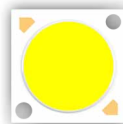
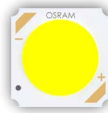
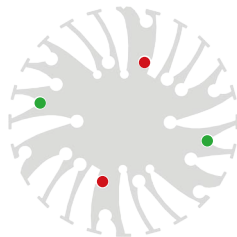
##### Osram PrevaLED Core (AC)

###### Model names

- PL-CORE-AC-800-xx
- PL-CORE-AC-2000xx
- PL-CORE-1100-xx
- PL-CORE-2000-xx
- PL-CORE-3000-xx
- PL-CORE-5000-xx

###### Mounting

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



#### Prolight Opto

##### Prolight Opto PACB COB series

###### Model names

- PACB-5xxx-xxxx
- PACB-7xxx-xxxx
- PACB-9xxx-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Red indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks
- With Spotlight connector  
Blue indicator marks  
BJB Spotlight connector 47.319.6060

##### Prolight Opto PACC COB series

###### Model names

- PACC-18xxx-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm  
Orange indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB Spotlight connector 47.319.2020  
TE Connectivity Lumawise type Z50 2213254-1  
TE Connectivity Lumawise type Z50 2213254-2

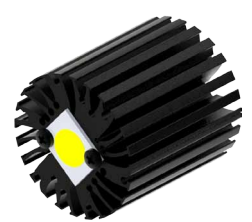
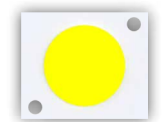
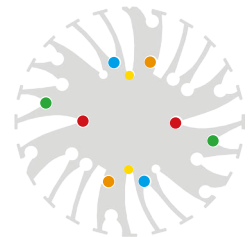
##### Prolight Opto PANA COB series

###### Model names

- PANA-10xxx-xxxx
- PANA-12xxx-xxxx
- PANA-17xxx-xxxx
- PANA-24xxx-xxxx

###### Mounting

- Direct mounting with 2 self tapping screws  
M2 x 6mm  
Yellow indicator marks



# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Philips Lumileds Luxeon COB 1203

##### Model names

- Luxeon COB LHC1-xxxx-1203

##### Mounting

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

#### Luxeon COB 1204 - 1205 - 1208

##### Model names

- Luxeon COB LHC1-xxxx-1204
- Luxeon COB LHC1-xxxx-1205
- Luxeon COB LHC1-xxxx-1208

##### Mounting

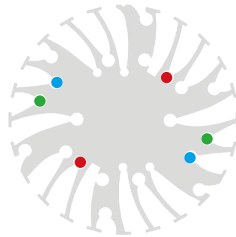
- Direct mounting with 2 self tapping screws  
M3 x 6 mm  
Blue indicator marks
- With Zhaga Book 3 LED holder  
Green indicator marks  
BJB spotlight connector 47.319.2010  
TE Connectivity Lumawise type Z50 2213130-1  
TE Connectivity Lumawise type Z50 2213130-2

#### Luxeon K12 - K16

##### Model names

- Luxeon K12 LXX8-PW27-0012A
- Luxeon K12 LXX8-PW30-0012A
- Luxeon K12 LXX8-PW35-0012
- Luxeon K12 LXX8-PW40-0012A
- Luxeon K12 LXX8-PW50-0012
- Luxeon K12 LXX9-PW27-0012
- Luxeon K12 LXX9-PW30-0012
- Luxeon K12 LXX8-PW27-0012
- Luxeon K12 LXX8-PW30-0012
- Luxeon K12 LXX8-PW40-0012
- Luxeon K16 LXX8-PW27-0016A
- Luxeon K16 LXX8-PW30-0016A
- Luxeon K16 LXX8-PW35-0016A
- Luxeon K16 LXX8-PW40-0016A
- Luxeon K16 LXX8-PW50-0016
- Luxeon K16 LXX9-PW27-0016
- Luxeon K16 LXX9-PW30-0016
- Luxeon K16 LXX8-PW27-0016
- Luxeon K16 LXX8-PW30-0016
- Luxeon K16 LXX8-PW40-0016

#### PHILIPS LUMILEDS



#### Prolight Opto

#### Prolight Opto PABS star COB series

##### Model names

- PABS-6xxx-xxxx
- PABS-9xxx-xxxx

##### Mounting

- Direct mounting with 2 self tapping screws  
M3 x 6mm.  
Red indicator marks

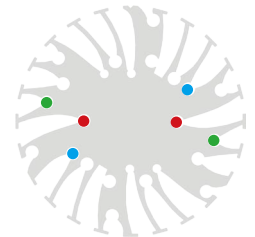
#### Prolight Opto PABA COB series

##### Model names

- PABA-10Fxx-xxxx
- PABA-15Fxx-xxxx
- PABA-22xxx-xxxx
- PABA27xxx-xxxx
- PABA35xxx-xxxx
- PABA50xxx-xxxx

##### Mounting

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





# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Philips Lumileds

#### Luxeon K12 - K16 - Continued

##### Mounting

- With Zhaga Book 3 LED holder
- Green indicator marks
- BJB spotlight connector 47.319.2070

#### Philips Lighting

#### Philips Fortimo SLM

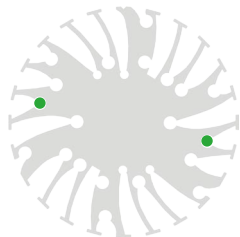
##### Model names

- Fortimo LED SLM 1100 G4
- Fortimo LED SLM 2000 G4
- Fortimo LED SLM 3000 G4
- Fortimo LED SLM 4500 G4
- Fortimo LED SLM 3000 Food & Meat G4

##### Mounting

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

**PHILIPS**  
sense and simplicity



#### Tridonic

#### Tridonic Talexx Stark SLE GEN3

##### Model names

- STARK-SLE-G3-19-xxx
- STARK-SLE-G3-23-xxx

##### Mounting

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

#### Tridonic Talexx Stark SLE Mini Classic GEN3 LES-10

##### Model names

- STARK-SLE-PURE-G3-10-xxx

##### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm
- Red indicator marks
- With Zhaga Book 3 LED holder
- Green indicator marks
- BJB spotlight connector 47.319.2070
- With spotlight connector
- Blue indicator marks
- BJB Spotlight connector 47.319.6060

#### Tridonic Talexx Stark SLE Mini Classic GEN3 LES-17

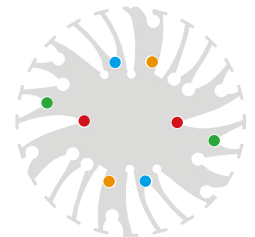
##### Model names

- STARK-SLE-PURE-G3-17-xxx

##### Mounting

- Direct mounting with 2 self tapping screws M3 x 6mm
- Orange indicator marks
- With Zhaga Book 3 LED holder
- Green indicator marks
- BJB Spotlight connector 47.319.2020

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# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### Vossloh Schwabe

##### Luga Shop 2014 LED modules

###### Model names

- WU-M-484
- WU-M-485
- WU-M-486

###### Mounting

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

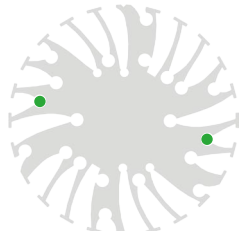
##### Luga Shop 2014 Kit LED COB

###### Model names

- DMS088
- DMS128
- DMS158

###### Mounting

- With Zhaga Book 3 LED holder  
Green indicator marks



#### Xicato

##### Xicato XIM LED modules

###### Model names

- XIM-19-8027-xx
- XIM-19-8030-xx
- XIM-19-8035-xx
- XIM-19-8040-xx
- XIM-19-V830-xx

###### Mounting

- Direct mounting with 3 self tapping screws  
M3 x 20 mm  
Red indicator marks

##### Xicato XTM LED modules

###### Model names

- XTM-19-8027-xx
- XTM-19-8030-xx
- XTM-19-8035-xx
- XTM-19-8040-xx
- XTM-19-V830-xx

###### Mounting

- Direct mounting with 3 self tapping screws  
M3 x 10mm  
Red indicator marks
- Direct mounting with 2 screws Zhaga  
Mounting holes M3 x 10mm  
Green indicator marks

##### Xicato XSM LED modules

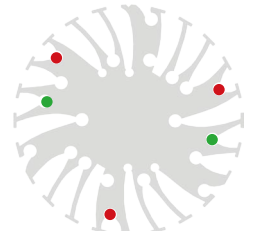
###### Model names

- XSM-8027-xxx
- XSM-8030-xxx
- XSM-8040-xxx
- XSM9527-xxx
- XSM-9530-xxx
- XSM-9540-xxx
- XSM-V830-xxx

###### Mounting

- Direct mounting with 3 self tapping screws •  
M3 x 12mm  
Red indicator marks

#### XICATO



# MechaTronix *in* LED

## ModuLED Pico Modular Passive LED Cooler



### Mounting Options

#### COB's with a small LES area through use of external LED holder BJB

Specifically for COB's with a small LES area, BJB has developed a new range of LED spotlight connectors which standard fit on the MechaTronix LED coolers

#### Model names

- Citizen CitiLED COB CL-L020 - LC-L022  
BJB Spotlight connector 47.319.6060
- Cree COB CXA 13xx series  
BJB Spotlight connector 47.319.6101
- Cree COB CXA 1507 - CXA 1512  
BJB Spotlight connector 47.319.6120
- Edison Opto COB HM05 - HM09  
BJB Spotlight connector 47-319-6060
- Lextar COB Nimbus 1500  
BJB Spotlight connectors 47.319.6110
- Osram COB Soleriq S13 - X13  
BJB Spotlight connectors 47.319.6110
- Tridonic Talexx Stark COB SLE LES 10  
BJB Spotlight connector 47.319.6060

#### Mounting

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



To determine the mounting holes you need, please use the corresponding flip chart on [www.led-heatsink.com/download.php](http://www.led-heatsink.com/download.php) , or request a hard copy flip chart with easy to use transparant overlays.

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.

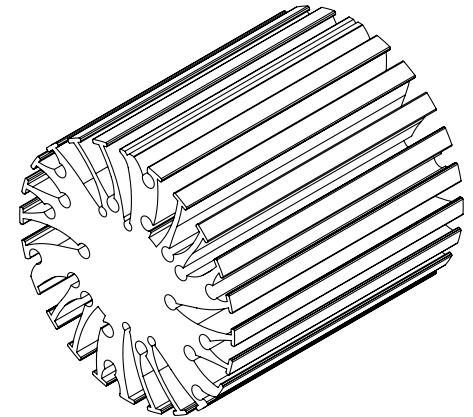
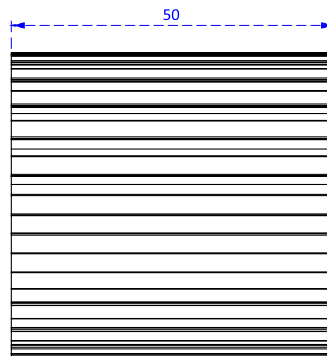
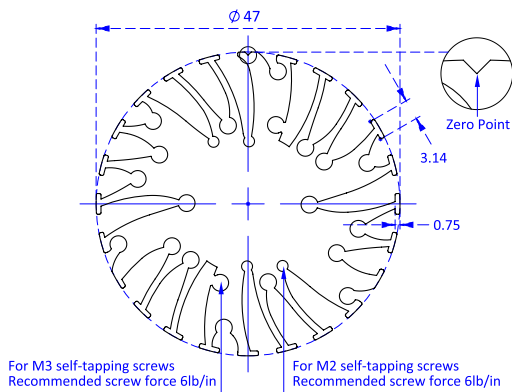
# MechaTronix in LED

## ModuLED Pico Modular Passive LED Cooler



### Drawings & Dimensions

### Example: ModuLED Pico 4750



### Thermal Data

$P_d = P_e \times (1 - \eta_L)$			LED Light efficiency, $\eta_L$ (%)			Heat sink to ambient thermal resistance $R_{hs-amb}$ ( $^{\circ}C/W$ )		Heat sink to ambient temperature rise $T_{hs-amb}$ ( $^{\circ}C$ )	
			17%	20%	25%	ModuLED Pico 4750	ModuLED Pico 4780	ModuLED Pico 4750	ModuLED Pico 4780
Dissipated Power $P_d(W)$	2	Electrical Power $P_e(W)$	2.4	2.5	2.7	6.9	5.3	14	11
	4		4.8	5.0	5.3	6.1	4.9	24	19
	5		6.0	6.3	6.7	5.9	4.7	30	24
	6		7.2	7.50	8.0	5.7	4.6	34	28
	8		9.6	10.0	10.7	5.5	4.4	44	35
	10		12.0	12.5	13.3	5.3	4.3	53	43
	15		18.1	18.8	20.0	-	4.0	-	61

Heat sink to ambient temperature rise  $T_{hs-amb}$  ( $^{\circ}C$ )

ModuLED Pico 4750

ModuLED Pico 4780

