

# **WELCOME**

TO

# Mingfa Tech Manufacturing Limited

LED thermal solution leading provider



# About MingfaTech

### **Overview**

MingfaTech Manufacturing Limited, a LED thermal solution leading provider, headquartered in Dongguan City of China, who is a certified <u>LED heatsink</u> supplier of many branded LED modules. MingfaTech's design and supply on star heat sinks and pin fin heat sinks, especially the breaking-through <u>LED cooler</u> series of <u>EtraLED</u>, <u>SimpoLED</u>, <u>Gooled</u> have been helping the clients improve their designs with the heat dissipation in better efficiency and more aesthetic appearances, substantially making LED in a real sense as well.

### **Focus**

With the professional know-how focused on <u>LED cooling</u>, MingfaTech has been bringing high value to all its customers' esteemed brands. MingfaTech believes that any good LED thermal solution can make solid state lighting works more efficiently with more apparently beautiful looks. Therefore, as a LED thermal solution provider, MingfaTech is not only working on high quality, reasonable price and satisfactory lead time for clients, but also providing the most amazingly optimized designs derived from the early concepts.



### **Capabilities**

MingfaTech is now holding with a 6 share-holder grouping with 10 professional mechanical manufacturers in LED market but different production processes as aluminum extrusion, cold forging, die casting, deep drawing, sheet metal stamping, CNC cutting, laser cutting, milling, turning, welding, anodizing, power coating, silk screening, assembly, etc. At the end of 2014, MingfaTech has stepped into developing the thermal interface material between LED coolers and LED modules, like aluminum spacer assembled with thermal pad.

### Markets

Currently, MingfaTech has gained very good reputation from hundreds of valued customers in America, Europe, Middle East, Asia, Australia and rest of the world, who are mainly LED light manufacturers, LED OEM suppliers, LED design companies, LED consultant firms, LED distributors, and so on. With more than seven years' experiences in LED coolers developing, molding, manufacturing as a trustworthy turnkey solution partner for all clients in LED industry, the company is gradually growing up bigger and bigger, as well as more professional in LED thermal management.



### MingfaTech's LED coolers are compatible with all branded **COBs**







































# MingfaTech's designs on LED coolers have made LED thermal management step into a new era!

**LED Cooler Series** 

**EtraLED Coolers** 

**GooLED Coolers** 

**SimpoLED Coolers** 



( I ) EtraLED coolers are MingfaTech's patented products which are most popular to lighting designers due to the features of high efficiency in heat dissipation, flexible mounting hole options for all branded COBs. MingfaTech recommends to use EtraLED for all spot lights or down lights as an option of product upgrade.

## Why EtraLED Coolers?

### MingfaTech's Patented **LED** coolers

- \*Compatible with all branded LEDs
- \*High efficiency in heat dissipation
- \*Zhaga standard mounting holes
- \*Flexible self-tapping options







#### **EtraLED-48**

- \*Thermal resistance range Rth 3.6~4.2° C/W.
- \*For spotlight and downlight designs from 600 to 2000 lumen.
- \*Diameter 48mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

EtraLED-48 is compatible with the branded LED

module types listed as below:

- 1) Xicato XSM, XIM,XTM.
- 2) Bridgelux ESS, ESR, Vero 10, Vero 13, V-series.
- 3) Citizen CLL022-CLU024, CLL032-CLU034;
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) Lumileds Luxeon COB Series, Luxeon K arrays.
- 6) Osram Soleriq S13, S19, E30
- 7) Seoul Semiconductor ZC6, ZC12;
- 8) Tridonic TALEXXmodule SLE modules.
- 9) LG Innotek LEMWM18 10W, 13W;
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Prolight Opto PABS, PABA, PACB, PANA;
- 12) Luminus Xnova™ CLM-9,CXM-9,CHM-9 COB engines.
- 13) Vossloh-Schwabe LUGA Shop and LUGA C LED engines.
- 14) Samung LC013 COB LED engines.
- 15) SHARP Mini Zenigata LED engines.
- 16) Lustrous Lustrous Series, Lustrous M Series, Lustrous V5 Series Lustrous 6 Series



#### EtraLED-70

- \*Thermal resistance range Rth 1.75~2.1° C/W.
- \*For spotlight and downlight designs from 800 to 3000 lumen.
- \*Diameter 70mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

EtraLED-70 is compatible with the branded

- 1) Xicato XSM, XIM, XTM; (XSA-307, XSA-308).
- 2) Bridgelux ES Rectangle Array Series Vero 13 COB engines.
- 3) Osram Soleriq S13, S19, E30.
- 4) Citizen CLL022-CLU024, CLL032-CLU034.
- 5) Cree XLamp CXA13xx, CXA15xx,CSA18xx.
- 6) Lumileds Luxeon COB Series, Luxeon K arrays.
- 7) Seoul Semiconductor ZC6, ZC12, ZC18, ZC25.
- 8) Tridonic TALEXXmodule SLE nodules engines.
- 9) LG Innotek LEMWM18 10W, 13W, 17W.
- 10) Prolight Opto PABS, PABA, PACB, PANA.
- 11) Vossloh-Schwabe LUGA Shop LED engines.
- 12) Luminus Xnova™ C##9,C##14 LED engines.
- 13) Samung LC013,LC019,LC026 COB LED engines.
- 14) Edison EdiLex SLM and EdiLex II COB LED engines.
- 15) Lustrous LUSTRON 6 series LL604F, LL608D, LL613F, LL620F.
- 16) SHARP Mini Zenigata, Tiger Zenigata and Mega Zenigata LED engines.
- 17) Mini Zenigata, Tiger Zenigata and Mega Zenigata LED engines.





#### EtraLED-85

- \*Thermal resistance range Rth 1.3~1.5° C/W.
- \*For spotlight and downlight designs from 1400 to 4800 lumen.
- \*Diameter 85mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- $\ \ 2\ standard\ colors clear\ anodised black\ anodised.$

EtraLED-85 is compatible with the branded LED module types listed as below:

- 1) Xicato XSM, XIM, XTM;
- 2) Bridgelux ESS, ESR, Vero 10, Vero 13, Vero 18.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx,CXA18.
- 5) Lumileds Luxeon COB Series, Luxeon K arrays.
- 6) Osram PrevaLED Core, SOLERIQ P and SOLERIQ S LED engines.
- 7) Seoul Semiconductor ZC6, ZC12, ZC18,ZC25.
- 8) Tridonic TALEXXmodule SLE modules.
- 9) LG Innotek LEMWM18 10W, 13W, 17W.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Lustrous LUSTRON 6 series LL604F, LL608D, LL613F, LL620F.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) SHARP Mini Zenigata Intermo and Mega Zenigata LED engines.
- 14) Samung LC013,LC019,LC026,LC033 COB LED engines.
- 15) Vossloh-Schwabe LUGA Shop and LUGA C LED engines.
- 16) Luminus Xnova™ C##-9, C##14 COB LED engines.



#### EtraLED-96

- \*Thermal resistance range Rth 0.92~1.2° C/W.
- \*For spotlight and downlight designs from 3000 to 5000 lumen.
- \*Diameter 96mm Standard height 50&80mm, Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

EtraLED-96 is compatible with the branded

- 1) Xicato XSM, XIM, XTM; (XSA-309; XSA-310)
- 2) Bridgelux ESS, ESR, Vero 10, Vero 13, Vero 18, Vero 29.
- 3) CitizenCLL032-CLU034,CLL040-CLU044.
- 4) Cree XLamp CXA13xx, CXA15xx,CXA18,CXA25.
- 5) Lumileds Luxeon COB Series, Luxeon K arrays.
- 6) LG Innotek LEMWM18 27W, 24W, 40W.
- 7) Seoul Semiconductor ZC25, ZC40, ZC60, ZC100 Series.
- 8) Tridonic TALEXXmodule SLE Modules engines.
- 9) Luminus Xnova™ C##14 ,C##22COB LED engines.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) GE lighting Infusion™ LED Modules.
- 12) Prolight Opto PABS, PABA, PACB, PANA;
- 13) SHARP Tiger Zenigataand and Mega Zenigata LED engines.
- 14) Samung COB LC026B,LC033B,LC040BCOB LED engines.
- 15) Vossloh-Schwabe Vossloh-Schwabe LUGA Shop LED engines.
- 16) OSRAM PrevaLED Core, SOLERIQ P, SOLERIQ E and SOLERIQ S LED engines.
- 17) Lustrous M series, LUSTRON series, Coral series, LUSTRON 5 series, LUSTRON 6 series.





#### EtraLED-110

- \*Thermal resistance range Rth 0.9~1.1° C/W.
- \*For spotlight and downlight designs from 2200 to 7400 lumen.
- \*Diameter 110mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

EtraLED-11050 is compatible with the branded LED module types listed as below:

- 1) Xicato XSM, XIM,XTM.
- 2) Bridgelux ESS, ESR, Vero 10, Vero 13, Vero 18 V-series.
- 3) Citizen CLL032-CLU034,CLL042-CLU044.
- 4) Cree XLamp CXA13xx, CXA15xx,CXA18xx,CXA25xx.
- 5) Lumileds Luxeon COB Series, 1205, Luxeon K arrays.
- 6) Osram SOLERIQ S13 and SOLERIQ S19 LED engines.
- 7) Seoul Semiconductor ZC18, ZC25, ZC40.
- 8) Tridonic TALEXXmodule SLE modules.
- 9) LG Innotek LEMWM18 24W, 40W.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Prolight Opto PABS, PABA, PACB, PANA.
- 12) SHARP Intermo and Mega Zenigata LED engines.
- 13) Samung LC026B,LC033B,LC040B COB LED engines
- 14) Vossloh-Schwabe LUGA Shop and LUGA C LED engines.
- 15) Luminus Xnova™ C##-14;C##-22 COB LED engines.
- 16) GE lighting Infusion™ LED Modules.



#### EtraLED-130

- \*Thermal resistance range Rth 0.7~0.9° C/W.
- \*For spotlight and downlight designs from 2500 to 9000 lumen.
- \*Diameter 130mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

EtraLED-130 is compatible with the branded

- 1) Xicato XSM, XIM,XTM.
- 2) Bridgelux ESS, ESR, Vero 10, Vero 13. Vero 18.Vero 29V-series.
- 3) Citizen CLL032-CLU034;CLL042-CLU044. CLL052-CLU054.
- 4) Cree Xlamp CXA15xx;CXA18xx,CXA25xx,CXA35xx.
- 5) Lumileds Luxeon COB Series, Luxeon K arrays Series.
- 6) Osram Solerig S13, S19, E30.
- 7) Seoul Semiconductor ZC18, ZC25, ZC60.
- 8) Lustrous Lustrous 6 Series.
- 9) Luminus Xnova™ CXM-22;CHM-22 COB LED engines.
- 10) Prolight Opto PABS, PABA, PACB, PANA.
- 11) Vossloh-Schwabe LUGA C LED engines.
- 12) SHARP Mega Zenigata LED engines.



( II ) GOOLED coolers are made of pure aluminum which is light. It is easy to be installed and suitable for various mounting options, including Zhaga holes. What's more, its heat dissipation efficiency is the better than the same size of star heat sinks, helping the clients improve their designs with more aesthetic appearances, substantially making LED in a real sense as well.

### **GooLED Coolers' Features**

### **Breaking-through LED pin fin Coolers**

- \*Suitable for various branded LEDs
- \*High efficiency in heat dissipation
- \*Lighter-weight than normal heatsinks
- \*Zhaga hole options for easier assembly







#### **GooleD-48**

- \*Thermal resistance range Rth 4.2~5.7° C/W.
- \*For spotlight and downlight designs from 500 to 1600 lumen.
- \*Diameter 48mm Standard height 30&50mm , Other heights on request.
- \*Forged from highly conductive aluminum.
- 2 standard colors clear anodised black anodised GooLED-48 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM, XTM. (XSA-316; XSA-317);
- 2) Bridelux ES Star, Array V6, V8 and Vero10 Array Series.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) LG Innotek LEMWM18 10W, 13W.
- 6) Seoul Semiconductor ZC4, ZC6.
- 7) Tridonic TALEXXmodule SLE modules.
- 9) Osram SOLERIQ S13 and PrevaLED Core LED engines.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Lustrous LUSTRON 6 series LL604F, LL608D, LL613F.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) Luminus Xnova™ CLM-9;CXM-9;CHM-9 COB engines.
- 14) SHARP Mini Zenigata LED engines.
- 15) Vossloh-Schwabe LUGA Shop, LUGA C LED engines.
- 16) Samung LC013 LED engines.
- 17) Philips Fortimo SLM Modules.



#### **GooLED-58**

- \*Thermal resistance range Rth 3.3~4.5° C/W.
- \*For spotlight and downlight designs from 400 to 1900 lumen.
- \*Diameter 58mm Standard height 30&50mm , Other heights on request.
- \*Forged from highly conductive aluminum.
- 2 standard colors clear anodised black anodised GooLED-58 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM, XTM; (XSA-319; XSA-320).
- 2) Bridelux ES Star, Array V6, V8 and V10 Array Series.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) LG Innotek LEMWM18 10W, 13W.
- 6) Seoul Semiconductor ZC4, ZC6.
- 7) Tridonic TALEXXmodule SLE modules;
- 9) Philips Fortimo SLM Modules.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Lustrous LUSTRON 6 series LL604F, LL608D, LL613F.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) Luminus Xnova™ CLM-9;CXM-9;CHM-9 COB engines.
- 14) SHARP Mini Zenigata LED engines.
- 15) Vossloh-Schwabe LUGA Shop, LUGA C LED engines.
- 16) Samung LC013 LED engines.
- 17) Osram SOLERIQ S13 and PrevaLED Core LED engines





#### **GooLED-68**

- \*Thermal resistance range Rth 2.5~3.5° C/W.
- \*For spotlight and downlight designs from 500 to 2600 lumen.
- \*Diameter 68mm Standard height 30&50&60mm , Other heights on request.
- \*Forged from highly conductive aluminum.
- 2 standard colors clear anodised black anodised GooLED-68 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM, XTM; (XSA-321; XSA-322).
- 2) Bridelux ES Star, Array V6, V8 and V10 Array Series.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) SHARP Mini Zenigata LED engines.
- 6) Seoul Semiconductor ZC4, ZC6.
- 7) Tridonic TALEXXmodule SLE modules.
- 9) LG Innotek LEMWM18 10W, 13W.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Lustrous LUSTRON 6 series LL604F, LL608D, LL613F.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) Luminus Xnova™ CLM-9;CXM-9;CHM-9 COB engines.
- 14) Osram SOLERIQ S13 and PrevaLED Core LED engines.
- 15) Vossloh-Schwabe LUGA Shop, LUGA C LED engines.
- 16) Samung LC013 LED engines.
- 17) Philips Fortimo SLM Modules.



#### **GooLED-78**

- \*Thermal resistance range Rth 2.1~2.7° C/W.
- \*For spotlight and downlight designs from 700 to 3000 lumen.
- \*Diameter 78mm Standard height 30&50mm , Other heights on request.
- \*Forged from highly conductive aluminum.
- 2 standard colors clear anodised black anodised GooLED-78 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM, XTM; (XSA-325; XSA-326).
- 2) Bridelux ES Star, Array V6, V8, V10 and Vero 10 Array.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) LG Innotek LEMWM18 10W, 13W.
- 6) Seoul Semiconductor ZC4, ZC6.
- 7) Tridonic TALEXXmodule SLE modules.
- 8) Edison EdiLex SLM and EdiLex II COB LED engines.
- 9) Lustrous LUSTRON 6 series.
- 10) Prolight Opto PABS, PABA, PACB, PANA.
- 11) Luminus Xnova™ CLM-9;CXM-9;CHM-9 COB engines.
- 12) Osram SOLERIQ S13, PrevaLED Core LED engines.
- 13) SHARP Mini Zenigata LED engines.
- 14) Vossloh-Schwabe LUGA Shop and LUGA C LED engines.
- 15) Samung LC013 LED engines.
- 16) Philips Fortimo SLM Modules.
- 17) GE lighting Infusion™ LED engines.



#### GooLED-110

- \*Thermal resistance range Rth 1.0~1.3° C/W.
- \*For spotlight and downlight designs from 1400 to 6500 lume
- \*Diameter 110mm Standard height 50&80mm , Other heights on request.
- \* Forged from highly conductive aluminum.
- 2 standard colors clear anodised black anodised GooLED-110 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM,XTM; (XSA-327;XSA-328).
- 2) Bridelux ES Star, Array V6, V8 and V10 Array Series.
- 3) Citizen CLL022-CLU024, CLL032-CLU034.
- 4) Cree XLamp CXA13xx, CXA15xx.
- 5) LG Innotek LEMWM18 10W, 13W.
- 6) Seoul Semiconductor ZC4, ZC6.
- 7) Tridonic TALEXXmodule SLE modules.
- 9) Philips Fortimo SLM Modules.
- 10) Edison EdiLex SLM and EdiLex II COB LED engines.
- 11) Lustrous LUSTRON 6 series.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) Luminus Xnova™ CLM-9;CXM-9;CHM-9 COB engines.
- 14) SHARP Mini Zenigata LED engines.
- 15) Vossloh-Schwabe LUGA Shop, LUGA C LED engines.
- 16) Samung LC013 LED engines.
- 17) Osram SOLERIQ S13 and PrevaLED Core LED engines.
- 18) GE lighting Infusion™ LED engines.





(III) <u>SimpoLED coolers</u> are from MingfaTech's creative designers for traditional LED cooling concept which is with simple appearance or shape but makes the lighting as beautiful as using ExtraLED heatsinks and GooLED heatsinks. With such simplicity concept, MingfaTech helps the clients get more confidences in their projects.









#### SimpoLED-58

- \*Thermal resistance range Rth 2.9~3.7° C/W.
- \*For spotlight and downlight designs from 400 to 1800 lumen.
- \*Diameter 58mm Standard height 50&70mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

SimpoLED-58 is compatible with the branded

LED module types listed as below:

- 1) Bridelux ESS, V8 and V6, V-series
- 2) Citizen CLL022-CLU024, CLL032-CLU034.
- 3) Cree XLamp CXA13xx, CXA15xx.
- 4) Osram Soleriq S13, S19.
- 5) Seoul Semiconductor ZC6, ZC12, ZC18.
- 6) Tridonic TALEXXmodule SLE Modules.
- 7) LG Innotek LEMWM18 10W, 13W, 17W.
- 8) Prolight Opto PABS, PABA, PACB, PANA.
- 9) SHARP Mini Zenigata and Mega Zenigata LED engines.
- 10) Vossloh-Schwabe LUGA Shop LED engines.
- 11) Lumileds Luxeon COB's 1203,1204,Luxeon K arrays.
- 12) Edison EdiPower EdiLex SLM and EdiLex II COB engines.
- 13) Lustrous LUSTRON 6 series LL608D, LL613F, LL620F.





#### SimpoLED-81

- \*Thermal resistance range Rth 1.6~1.9° C/W.
- \*For spotlight and downlight designs from 900 to 3700 lume
- \*Diameter 81mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

SimpoLED-81 is compatible with the branded LED module types listed as below:

- 1) Bridelux ESS, V8 and V6, V-series.
- 2) Citizen CLL022-CLU024,CLL032-CLU034.
- 3) Cree XLamp CXA13xx,CXA15xx,CXA25xx.
- 4) Lumileds Luxeon COB's 1203,1204, 1205, Luxeon K arrays K12, K16;
- 5) Osram Soleriq S13, S19, E30.
- 6) Seoul Semiconductor Zc12,ZC18ZC25.
- 7) LG Innotek LEMWM18 10W, 13W, 17W.
- 8) Edison EdiPower II Star/HM/CAC series.
- 9) SamSung LC019,LC026 B LED engines.
- 10) Luminus Xnova™ C##-9,c##14 LED engines.
- 11) Vossloh-Schwabe LUGA Shop LED engines.
- 12) Prolight Opto PABS, PABA, PACB, PANA.
- 13) Tridonic Talexx Stark SLE GEN3 Mini LES-17, Gen4-15.
- 14) Lustrous LUSTRON 6 series LL608D,LL613F, LL620F.
- 15) SHARP Mini Zenigata ,Tiger Zenigata and Mega Zenigata LED engines.





#### SimpoLED-117

- \*Thermal resistance range Rth 0.82~1.02° C/W.
- \*For spotlight and downlight designs from 1700 to 7000 lumen.
- \*Diameter 117mm Standard height 50&80mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

SimpoLED-117 is compatible with the branded

LED module types listed as below:

- 1) Bridgelux Vero 13, Vero18, V-series.
- 2) Citizen CLU024, CLL032-CLU034, CLL042.
- 3) Cree XLamp CXA15xx,CXA18xx,CXA25xx.
- 4) Lumileds Luxeon COB Series, Luxenon K Series.
- 5) Osram SPrevaLED Core, SOLERIQ P/E/S LED engines
- 6) Seoul Semiconductor ZC25,ZC40,ZC60.
- 7) Tridonic TALEXXmodule SLE modules engines.
- 8) LG Innotek COB 24W, 40W, 60W.
- 9) Edison EdiLex SLM and EdiLex II COB LED engines.
- 10) Lustrous COB M series, LUSTRON series, Coral series LUSTRON 5 series, LUSTRON 6 series engines.
- 11)Prolight Opto PABS, PABA, PACB, PANA.
- 12)SamSung LC026,LC033,LC040B LED engines.
- 13)Luminus Xnova™ C##-14,c##22 LED engines.
- 14) Vossloh-Schwabe LUGA Shop LED engines.
- 15)SHARP Tiger Zenigataand and Mega Zenigata LED engines.

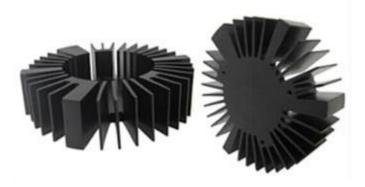


#### SimpoLED-135

- \*Thermal resistance range Rth 0.71~0.83° C/W.
- \*For spotlight and downlight designs from 2100 to 8000 lumen
- \*Diameter 135mm Standard height 50&80&100mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised. SimpoLED-135 is compatible with the branded LED module types listed as below:
- 1) Xicato XSM, XIM, XTM; (XSA-311).
- 2) Bridgelux, Vero10, Vero13, Vero18 and Vero29.
- 3) Citizen CLL032-CLU034,CLL042-CLU044.
- 4) Cree Xlamp CXA15xx,CXA18xx,CXA25xx.
- 5) Lumileds Luxeon COB's Series, Luxeon K Series.
- 6) Osram SOLERIQ P and SOLERIQ S LED engines.
- 7) Seoul Semiconductor ZC25, ZC40, ZC60,XC100.
- 8) Tridonic TALEXXmodule SLE modules engines.
- 9) SamSung LC033,LC040B LED engines.
- 10) Lustrous COB M series, LUSTRON series,

Coral series, LUSTRON 5 series, LUSTRON 6 series engines.





#### SimpoLED-140

- \*Thermal resistance range Rth 1.1° C/W.
- \*For spotlight and downlight designs from 1100 to 3000 lumen.
- \*Diameter 140.5mm Standard height 35mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

SimpoLED-140 is compatible with the branded

LED module types listed as below:

- 1) Philips Fortimo DLM Module.
- 2) Osram PL-CUBE LED LED Module.
- 3) Tridonic Stark DLE LED Module.



#### SimpoLED-160

- \*Thermal resistance range Rth 0.5~0.68° C/W.
- \*For spotlight and downlight designs from 3,600 to 1,2000 lumen.
- \*Diameter 160mm Standard height 50&80&150mm , Other heights on request.
- \*Extruded from highly conductive aluminum.
- 2 standard colors clear anodised black anodised.

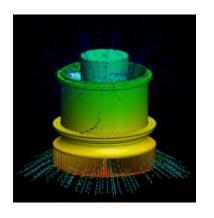
SimpoLED-160 is compatible with the branded

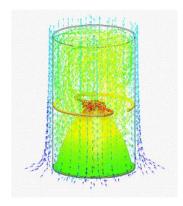
- 1) Bridgelux , Vero10, Vero13, Vero18 and Vero29.
- 2) Lumileds Luxeon COB's Series, Luxeon K Series.
- 3) Seoul Semiconductor ZC40, ZC60,XC100.
- 4) Tridonic TALEXXmodule SLE modules engines.
- 5) Edison EdiLex II COB LED engines.
- 6) Lustrous LUSTRON 6 series LL630F; LL630D, LL660D.
- 7) Prolight N SERIRS CI Series, CII SERIRS, CIII SERIRS. BI SERIRS, BII SERIRS and BS SERIRS engines.
- 8) Luminus Xnova™ c#M22 LED engines.
- 9) SHARP Kaku Zenigata and Mega Zenigata LED engines.
- 10) Vossloh-Schwabe LUGA Shop LED engines.
- 11) Citizen CLL032-CLU034,CLL042-CLU044,CLL052-CLU054.
- 12) Cree XLamp CXA2520,CXA25xx,CXA30xx and CXA3590 COB engin

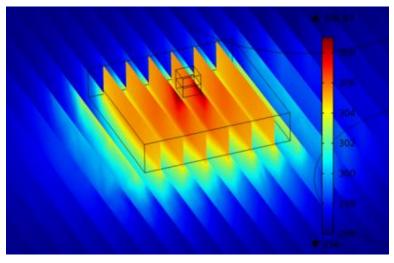


# MingfaTech's Advantages

### ( I ) LED thermal analysis





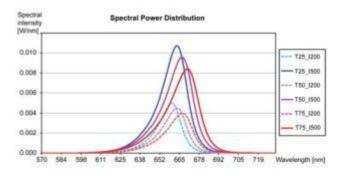


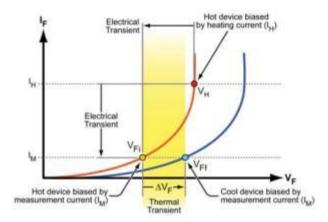
Mingfa Tech as a <u>LED thermal solution</u> leading provider has a deep research of LED thermal analysis. Multiple-chip packaging becomes common in LEDs packaging community. For such type of packaging, thermal spreading resistance is an important factor to affect the total thermal performance of LEDs. The feasibility of the analytical method used in LEDs packaging has been proven by the temperature comparison with existing experimental and numerical results of an 80W LED street light. Mingfa Tech's recent research shows: by changing the chips arrangement on the substrate, temperature field optimization is conducted with maximal temperature difference of the substrate as the target function. The results show that spreading resistance plays a significant role to affect temperature field. When the LED distributions are effectively designed, the highest temperature on the substrate goes lower and the lowest temperature on the board goes higher, the temperature field becomes uniform, its spreading resistance becomes lower.



### ( II ) LED thermal test

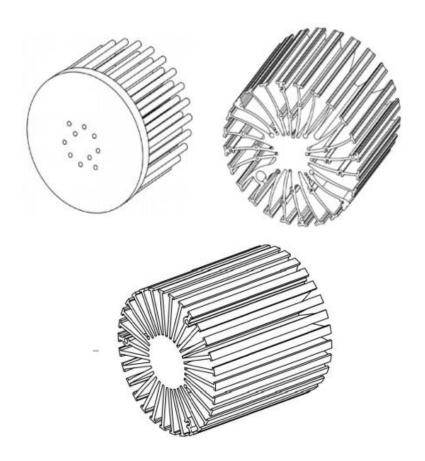
Mingfa Tech would always respect the clients' mission, thermal simulation testing designed for every project by resolving the thermal issues of <u>LEDs</u> are of paramount importance due to two reasons. On one hand, long-term reliability strongly depends on the operating junction temperature of the LEDs as most of the failure mechanisms leading to light output degradation are thermally assisted. Statistically seen this means that the so called "lumen maintenance" (precisely: long term maintenance of the emitted total luminous flux) of <u>LED components</u> is determined by the junction temperature: at higher junction temperature light output degradation happens more quickly. This is nicely illustrated by the so called Bxx-Lyy diagrams such as the B50-L70 plots usual in product data sheets. Such plots (see e.g. Figure 2 in [3]) present the expected life time of a power LED product as function of its junction temperature and forward current in terms of drop of its luminous flux to the 70% of the initial value (L70) in case of 50% of the investigated LED population (B50) – this being defined as failure condition (B50-L70).







# ( III ) <u>LED cooler designs</u>



With the professional know-how focused on LED cooling, MingfaTech has been bringing high value to all its customers' esteemed brands. MingfaTech believes that any good LED thermal solution can make solid state lighting works more efficiently with more apparently beautiful looks. Therefore, as a LED thermal solution provider, MingfaTech is not only working on high quality, reasonable price and satisfactory lead time for clients, but also providing the most amazingly optimized designs derived from the early concepts. "The whole idea of developing this three series coolers were to create a limited number of products which fitted with all the newest LED modules and COB's which came on the market recently" according to Regon Pon, Chief Designer at Mingfa Tech.



# (IV) Full Range of Manufacturability

### (ii) Cold Forging

### ( i ) Aluminum Extrusion & Cutting







(iii) Die casting





(iv) Metal Stamping



# (v) CNC Machining





(vi) Polishing & Deburring





(vii) Powder Coating

(Viii) Anodizing





# (V) Certificates











### **Contact**





### **Mingfa Tech Manufacturing Limited**

**Tel:** +86-769-33252828

+86-769-33251919

**Fax**: +86-(020)28819702 ext:22122 (overseas)

400-6981-163 ext:22122 (China)

Head Office: Suite 901, Block A, Luo Sha Da Sha, Dong Xing Road,

Guan Cheng District, Dong Guan City, Guang Dong Province, 523000 China

E-mail: sales@mingfatech.com

website: www.heatsinkled.com www.mingfatech.com