



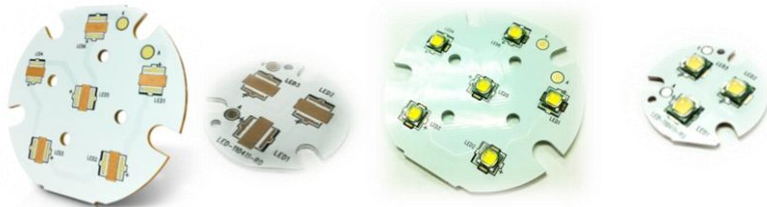
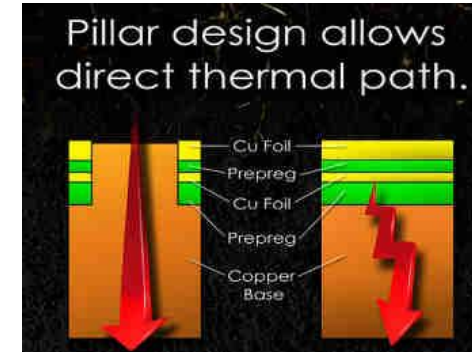
COFAN GROUP

All your quality products supplier.

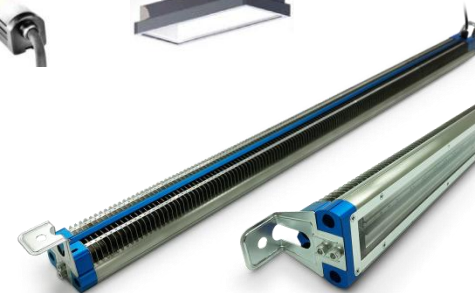
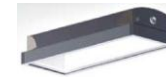
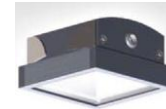
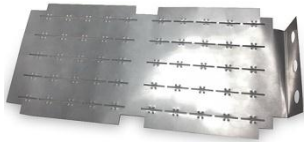
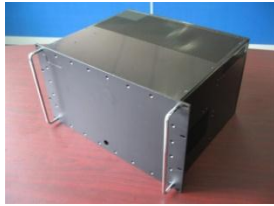
CofanUSA
46177 Warm Springs Blvd. Fremont CA 94539
1-800-766-6097 | www.cofan-usa.com
CofanCanada
2900 Langstaff Rd. #18 Vaughan, ON. L4K 4R9 Canada
1-877-228-3250 | www.cofan-pcb.com



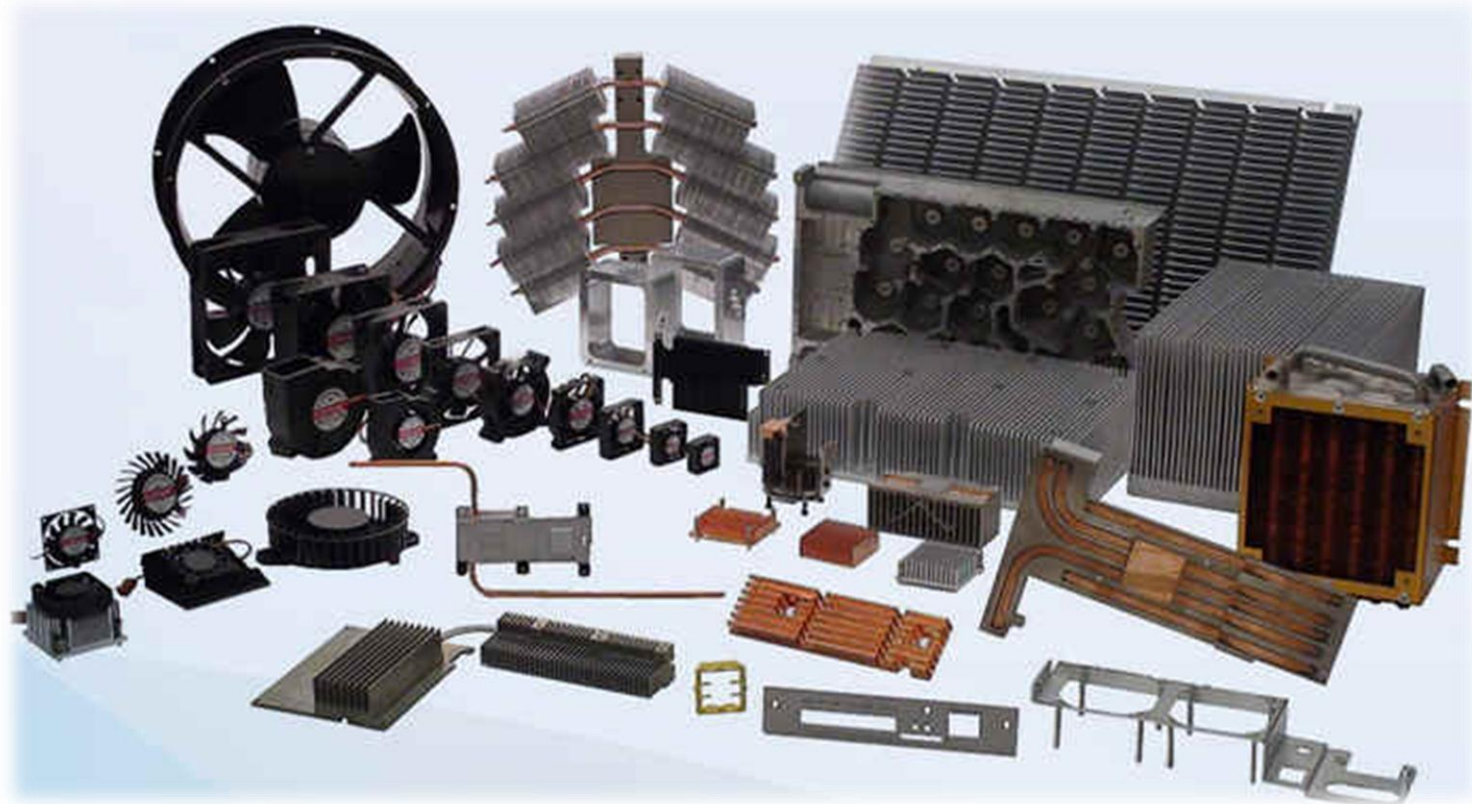
Fan/MCPCB/Super Pillar



LED



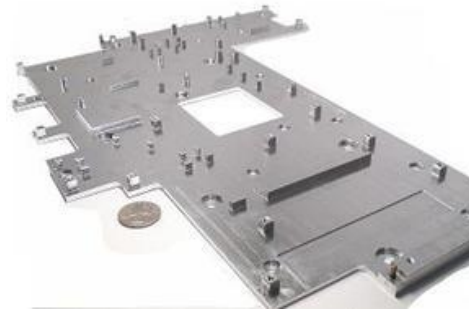
Fan/ Thermal Solution/CNC/Sheet metal



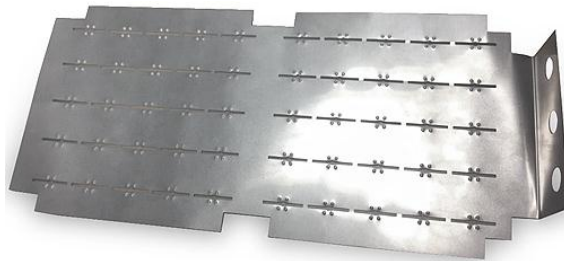
Fan/ Thermal Solution/CNC/Sheet metal



Soldering A'ssy



CNC Machining

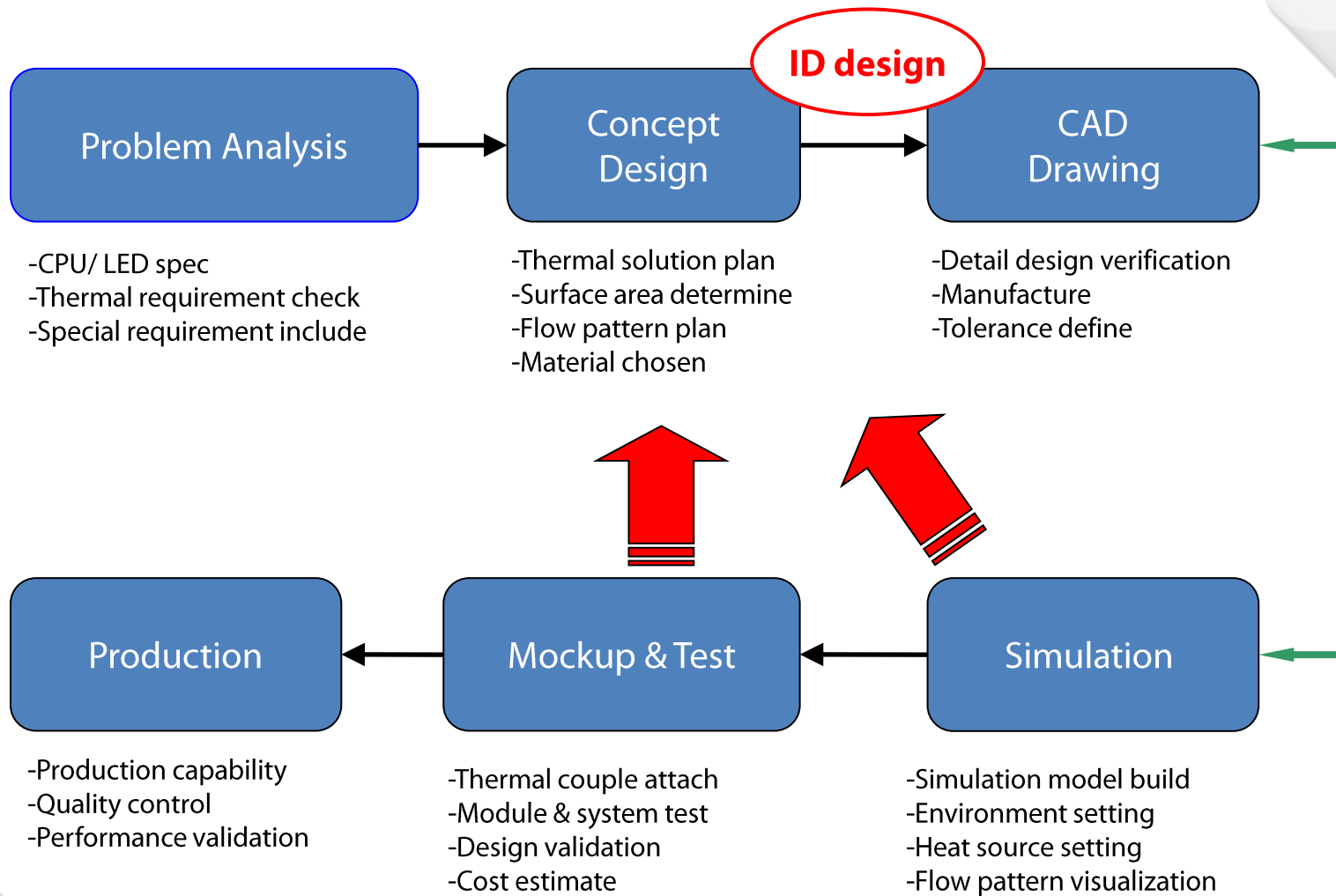


Sheet Metal



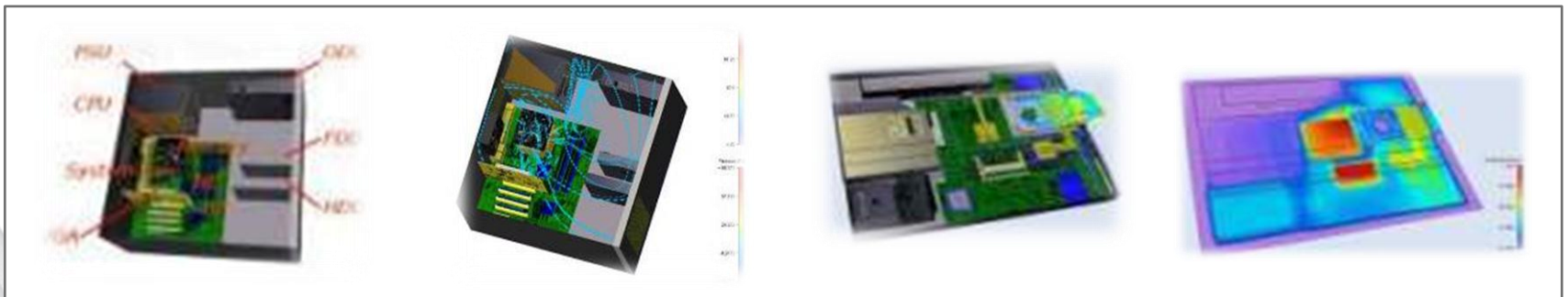
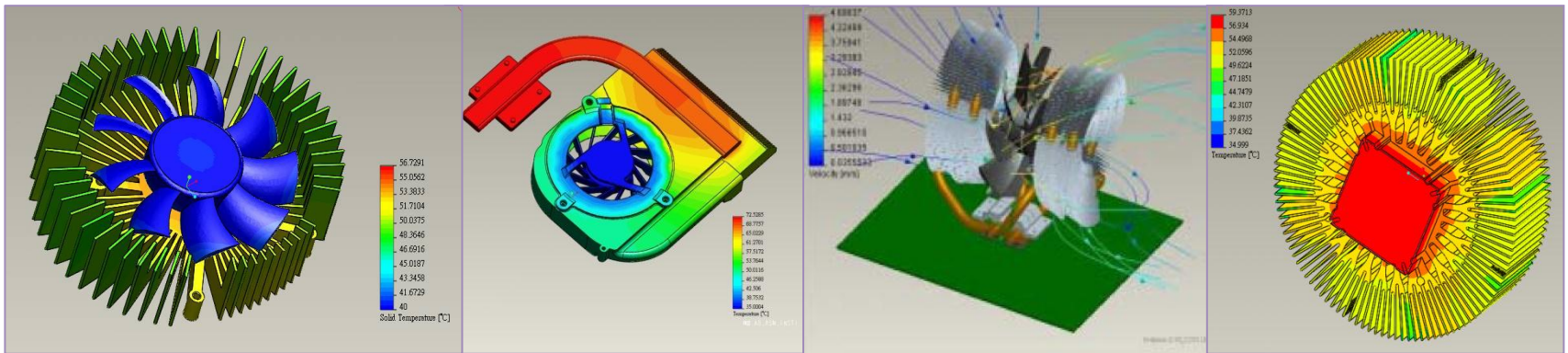
Plastic Injection

RD Design Capability – Design Process

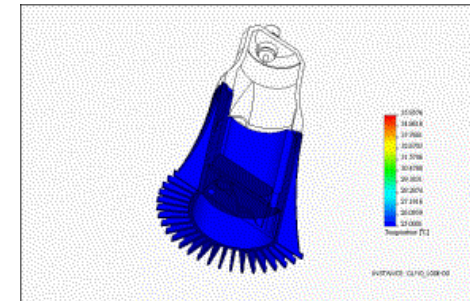
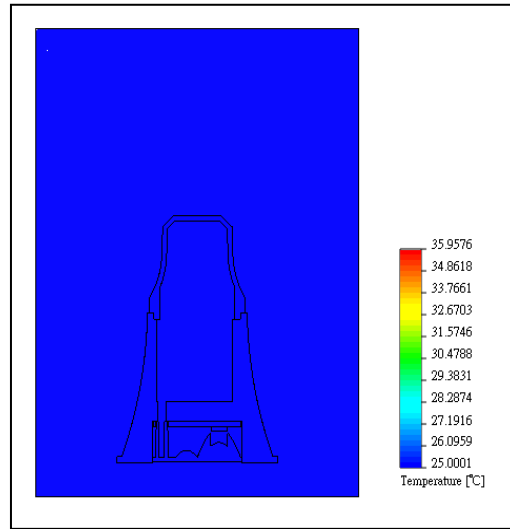
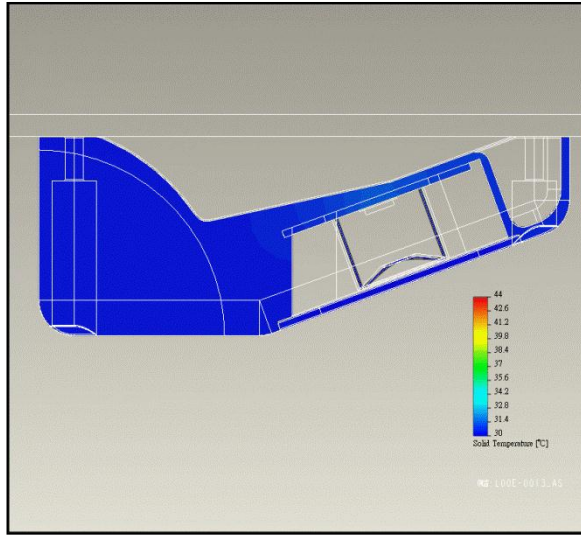


RD Design Capability - Simulation

- Board level thermal analysis
- Component Level thermal analysis
- System Level thermal analysis
- Optimal design

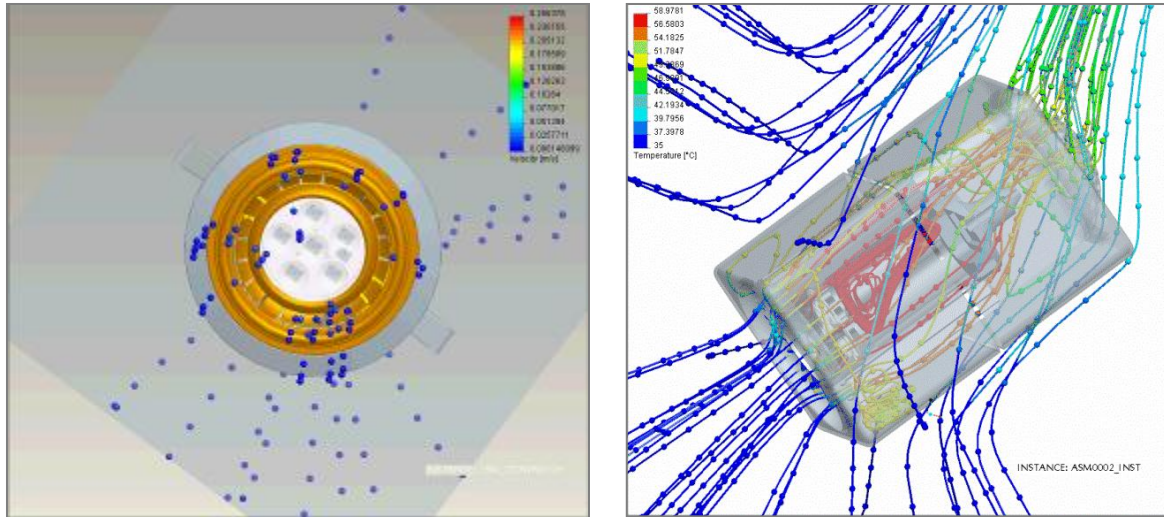


Capability of Thermal Simulation



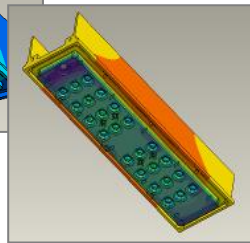
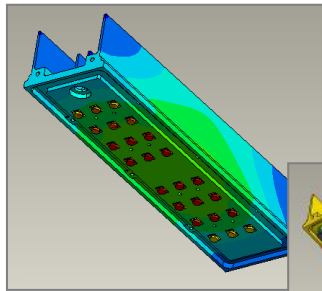
Transient temp. distribution plot

Capability of Thermal Simulation

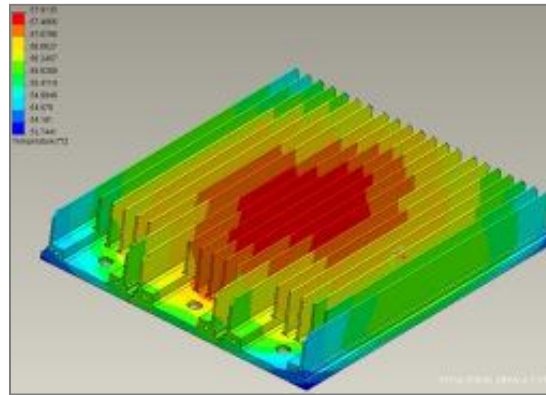


Flow pattern visualization.

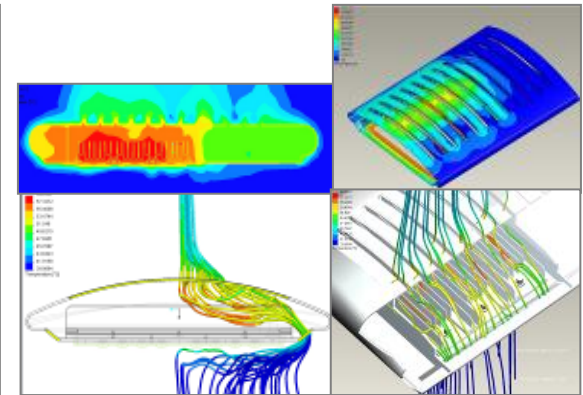
RD Design Capability - Simulation



H/S design

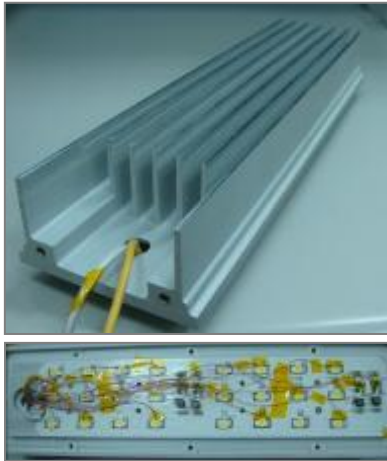


Module Assessment



System Simulation

RD Design Capability - Simulation



Mockup Thermal test



System Emulation @ 40 °C Chamber



Mockup System

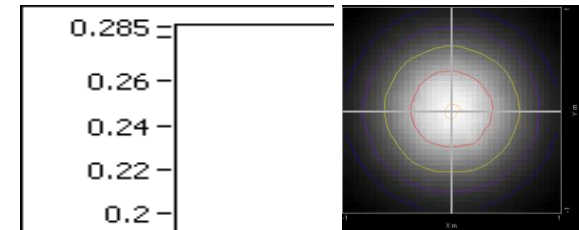
Optical Design Capability

Secondary optics lens design

- Material selection > environment tolerance
- Software simulation > candlepower & Iso-illumination curve

External optics object

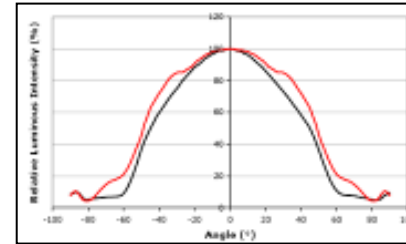
- Output characteristics > transparent /diffuse/ microstructure
- Software simulation > candlepower & Iso-illumination curve
- Spectrum-selective filter > Color performance



Optical Design Capability

Product specification

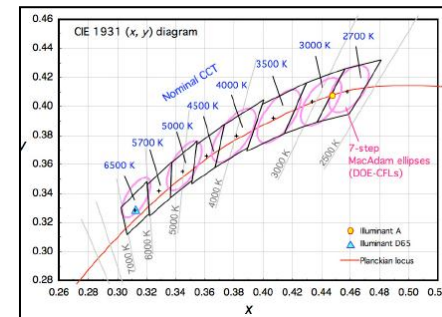
- Luminous flux (lm)
- Beam spread
- Illuminance
- Color requirement
- Life



Optical Design Capability

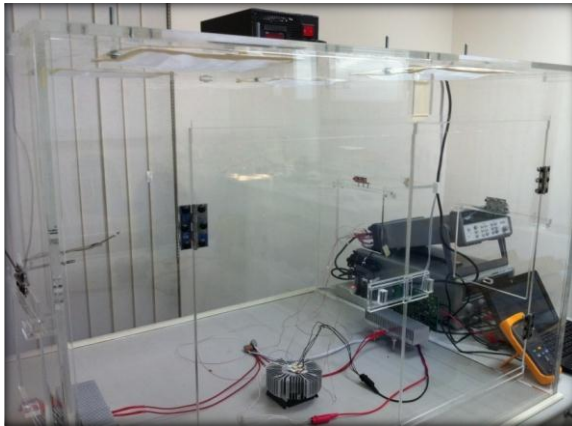
LED light source

- Multichip/single chip > volume limitation
- Flux (current) > output luminous flux
- Color temperature & CRI > color performance
- angle > beam spread
- Life issue > product life



Testing Equipments

- Constant Temperature Chamber
- Data Acquisition/ Switch Unit Agilent 34901A
- 20 Channel Multiplexer Module Agilent 34901A.
- DC Power Source
- Thermocouple_OMEGA T-type 36AWG



Electrical Measurement Instruments

- Electrical Performance Test
- Input and output current/ voltage for driver board
- Inrush current for driver board
- Power factor
- Power consumption
- Efficiency
- Ripple and Noise
- Over Voltage Protection
- De-rating (life span)



Oscilloscope



Digital Multi-meter



Current Probe



AC Source

Optic Measurement Instruments

Optics Performance

- Luminous
 - Luminous flux (20" Integrated Sphere)
 - Luminous intensity/ illuminance (Chroma Meter)
- Candlepower distribution (Goniophotometer)
- Color
 - CRI / color temperature (Spectrometer)
- Glare (Luminance Meter)

Official 3rd Lab



Diameter: 2m



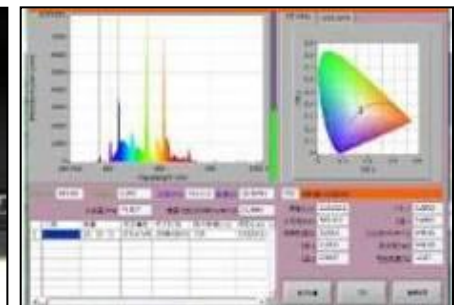
Spectrometer



Chroma meter

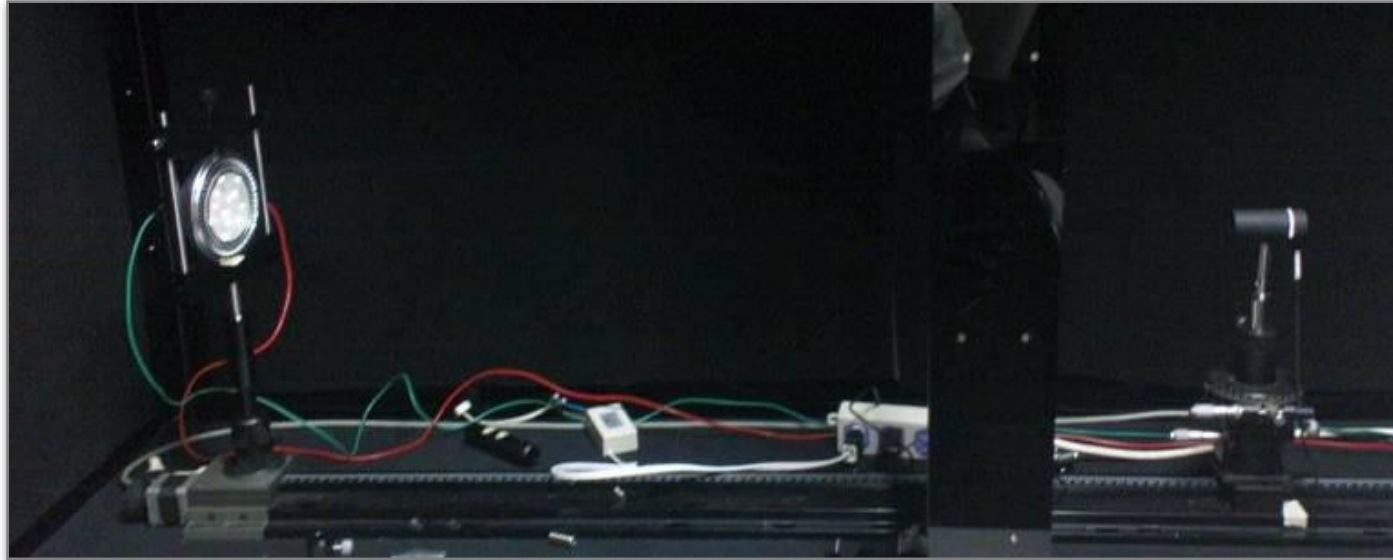


Goniophotometer



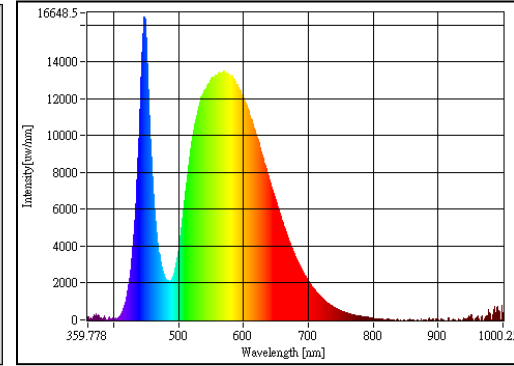
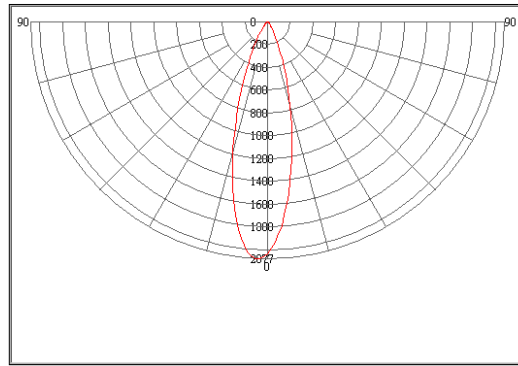
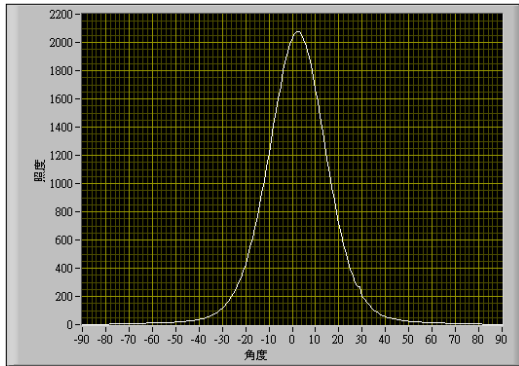
Software

Optic Measurement Instruments



Goniophotometer for Optical Distribution Measurement

Optic Measurement Instruments



Beam Spread, Illumination and Spectrum Measurements

Cofan China

- **Location**

Chanping Zhen, Shenzhen, Guangdong

- **Total Area**

11,000 Square Meter

- **Production Lines**

- Assembly lines x 3
- Reflow oven x 1 (SMTA)
- Sign manufacturing line x 1



Cofan China



Cofan China



Thermal Products

CPU Fan Coolers

- a) Intel 775 (New and Available Now)
- b) Intel P3 & P4
- c) Intel Xeon
- d) AMD Athlon
- e) Intel Mobile Processors

Passive Heatsinks

- a) Extruded Aluminum
- b) Copper Skived
- c) Machined
- d) Heatpipe Integrated
- e) Custom BGA
- f) Standard & Custom Mounting Hardware

Thermal Products

Fans

- a) Tube Axial Ranging from 40mm to 170mm
- b) Blower
- c) Custom Speed, Custom Wire
- d) Low and High Volume Production in 2 Weeks

Thermal Modeling

- a) Board & System Level CFD modeling and analysis
- b) Custom Heatsink Design and Selection
- c) Custom Fan and Heatsink Design

Mechanical Design

- a) Board Level Mechanics, Cooling Air Ducting, Component Placement, Heatsinking,
- b) All Related Mechanics including Faceplates, Stiffeners, Ejectors, IO Hoodst

Metal & Plastic Products

- **Extrusions**

Heatsinks, Faceplates, Ejectors, Misc. Small Parts

- **Processes include**

Tool Fabrication, Machining, Drilling, Punching, Plating, Silkscreening

- **Plastic Injection Parts**

Light Pipes, Housings, Baffles

- **Vacuum Formed Parts**

Packaging Mostly

- **CNC**

Heat sinks and various other parts

Prototyping

- **Prototype** : lead time
 - a) Urgent case – 2 days
 - b) Normal case – 3 days
 - c) Difficult case – 4 days
- **Production**
 - a) 50 PCS or more
 - b) 3 – 5 weeks standard
- **Key parts or process in house**
 - a) Pipe: HWA-Tek, YC
 - b) CNC/ Lathe/ Drilling/ Wire (Laser)-cutting
 - c) Stamping, press-fit fin array
 - d) Soldering process



Capacity

Product	Capacity/month
Heat sink(<100mm)	100K/month
Heat sink(>100mm)	50K/month
Cooler	500K/month
Panel	30K/month
LED	20K/month

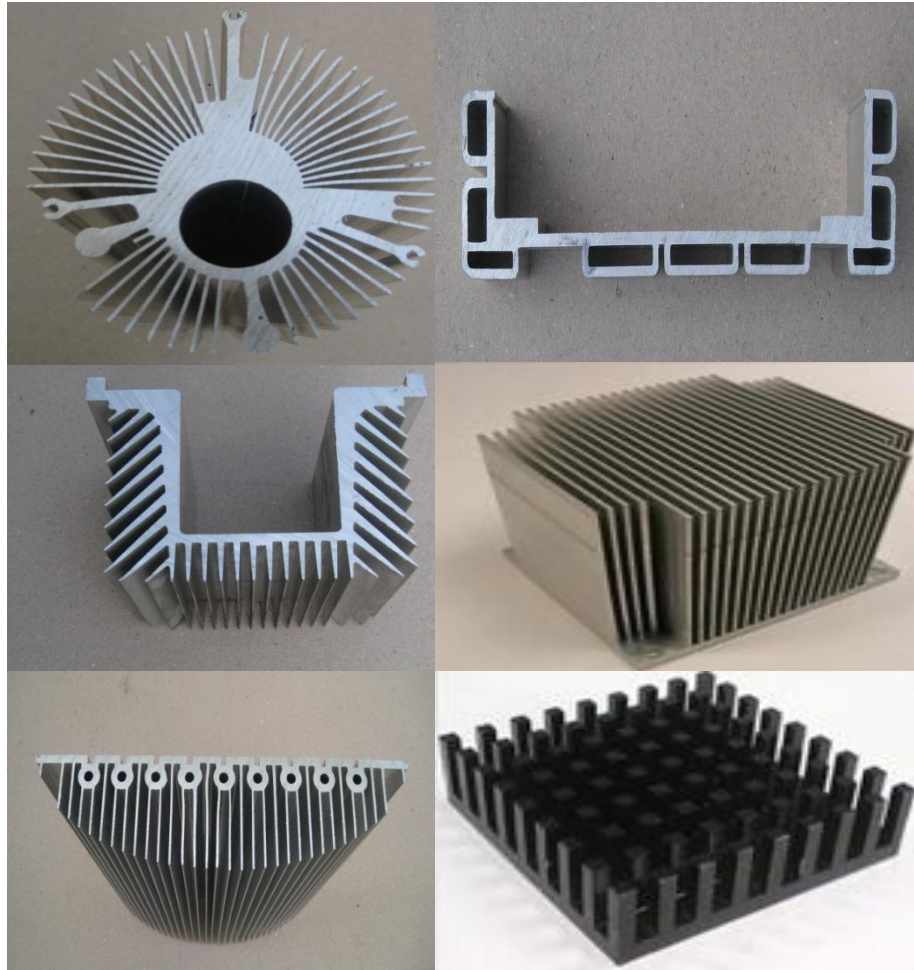
Extrusion Capacity



Extrusion Capacity



Extrusion Capacity

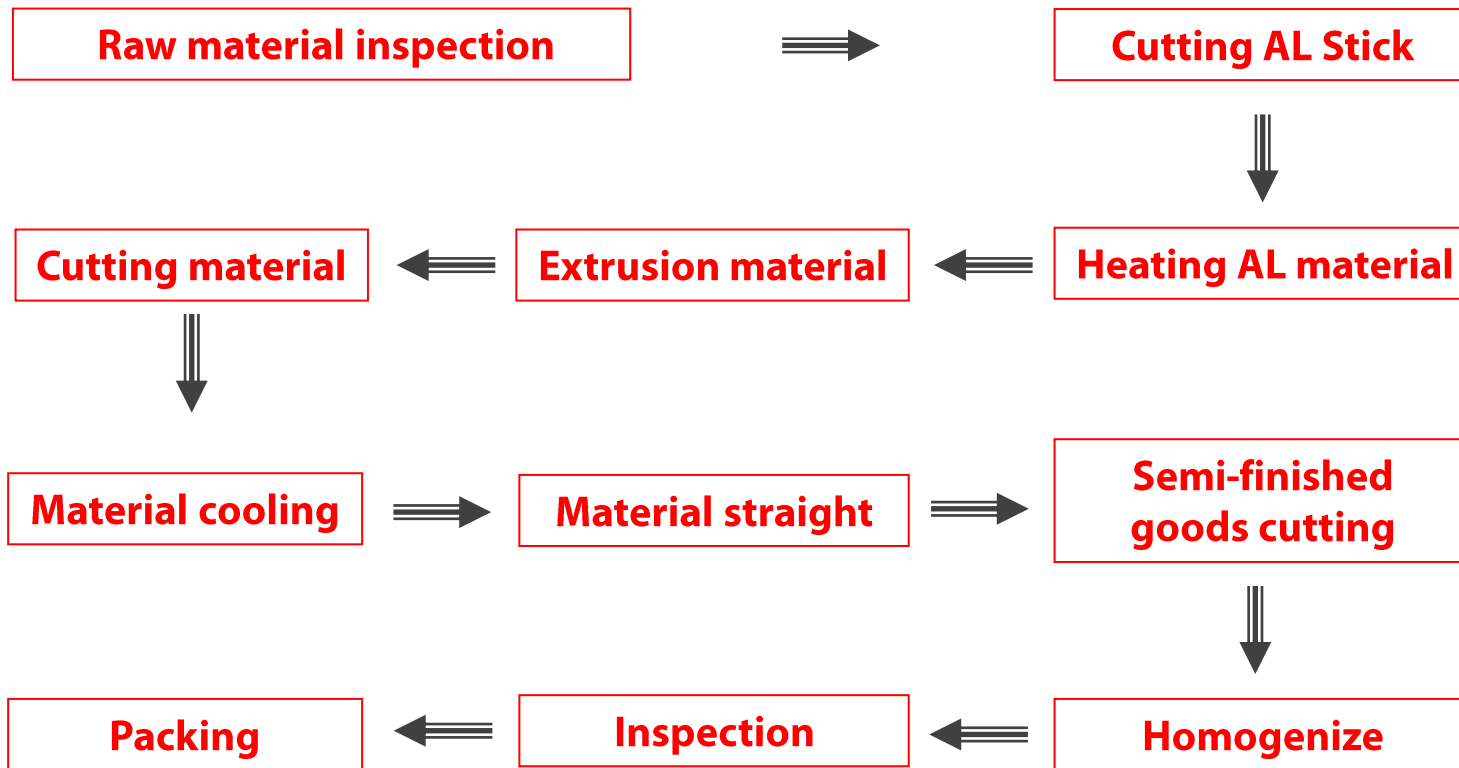


3600T machine
1500T/month

1800T machine
500T/month

600T machine
100T/month

Extrusion Flow Chart



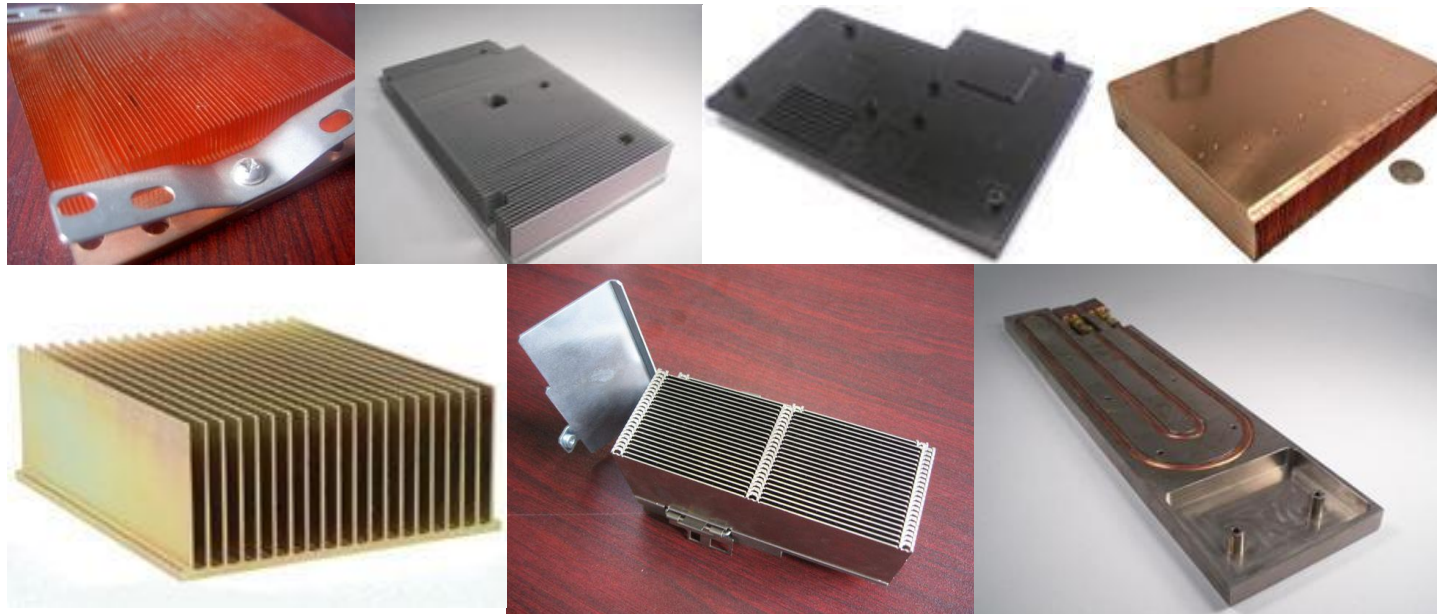
FAN

- DC Fans and Blowers with custom connectors, lengths, etc
(we also handle Mil Spec and Mil Spec Teflon wires)
- Tube axial ranging from 40mm to 170mm
- Blower, Custom Speed, Custom Wire
- Low and High Volume Production in 2 weeks



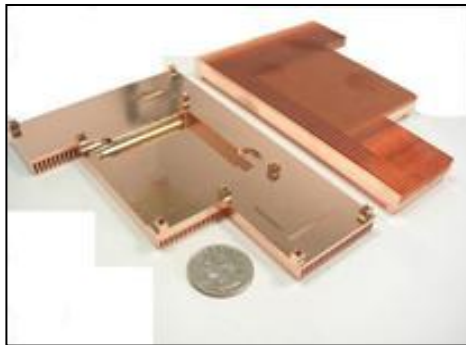
Heat Sink 1

Machined, Extruded, Stack Fin, Skive Fin, Folded Fin, Bonded Fin,
Water Cold, Large Power Heat Sinks (100% Dimensional Quality
Control Inspection Reports generated for every order for all below parts)

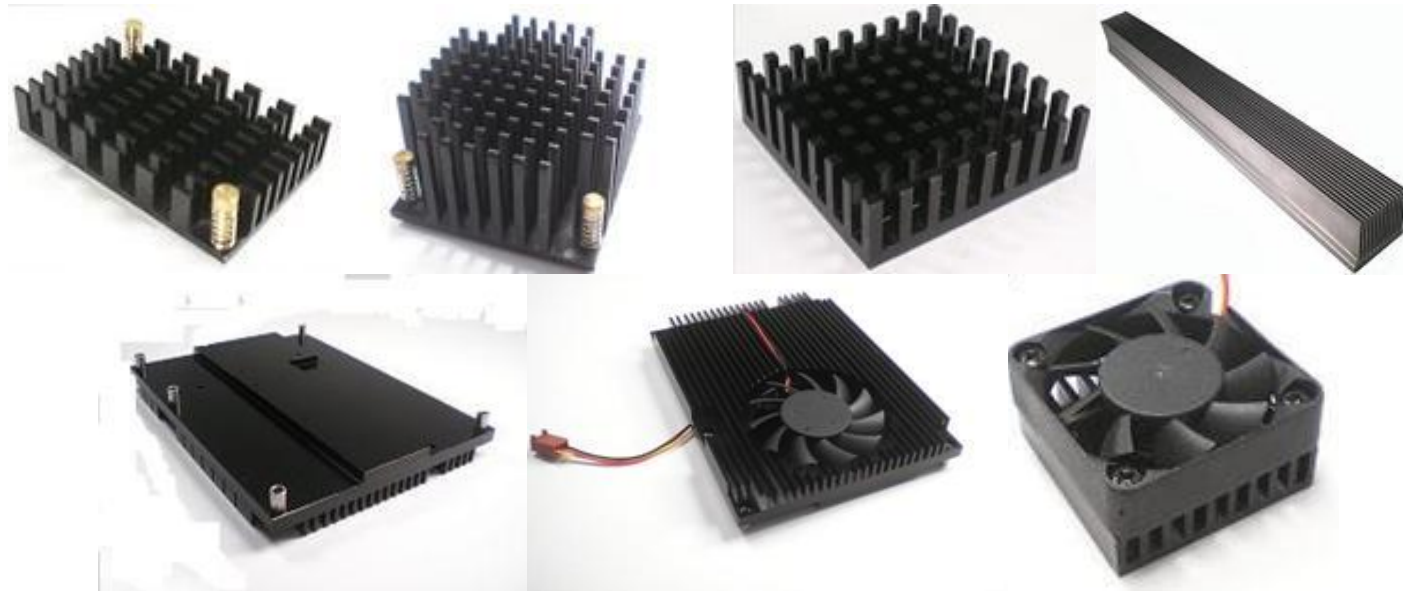


Heat Sink 2

Copper/Aluminum Hybrid Heat Sinks) most of the time, need to be nickel plated, then soldered together (with heat pipes), then machined or bead blasted, then re-nickel plated

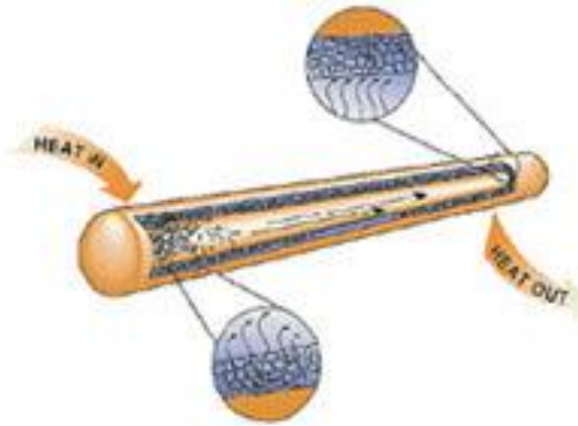


Heat Sink 3



BGA Passive Heat Sinks (many sizes and all in stock) and Extrusion Bar Stock

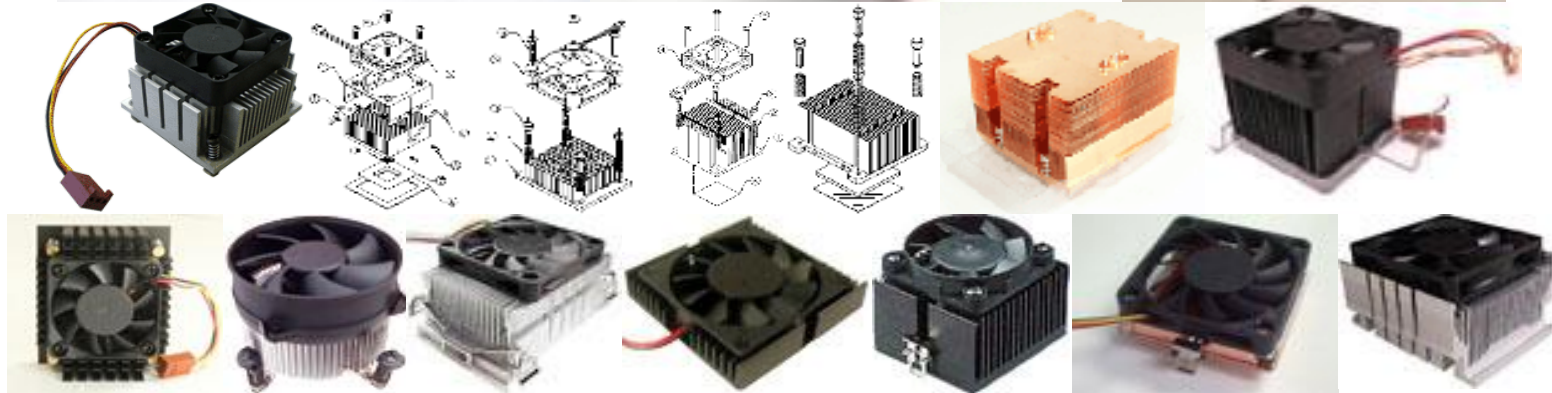
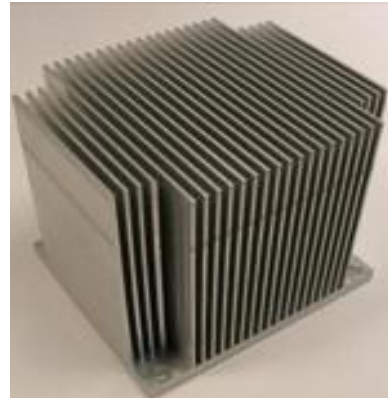
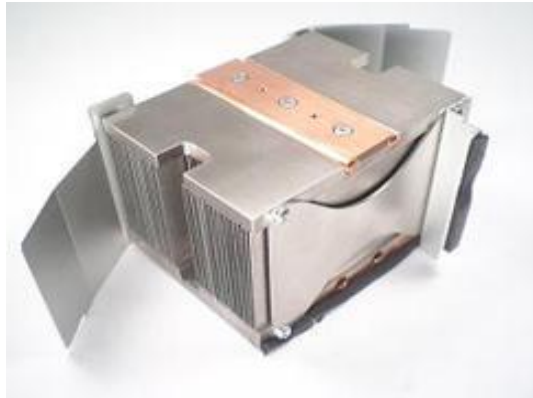
Heat Sink 4



Heat Pipe Heat Sinks

Heat Sink 5

Extreme Low Thermal Resistance Passive and Active Custom Designed Processor Coolers



QC – Inspection



QC Test Room



CMM



Microscope



Tensiometer



Fan speed testing



Thickness Tester



Thread plug Gauge (T.P)



Pin Gauge



Salt Spray Tester



Roughness Tester



Thermometer



Torque Meter



Height Gages



Hi-Pot Test

Quality Assurance & Quality Control

ONLINE CERTIFICATIONS DIRECTORY

ZPWV2.E202216
Wiring, Printed - Component

Wiring, Printed - Component

COFAN ELECTRONIC CO., LTD.
47 Lane 49 Dong Feng Street
SHULIN DISTRICT, TAIPEI CITY, TAIWAN

Type	Code		Min	Max	Unit	Min	Max	Unit	Min	Max	Unit	Min	Max	Unit
	Min	Max												
802	0.1 (0.004)	0.2 (0.008)	17 (0.671)	104 (4.134)	Ω	76 (2.953)	300 (11.811)	Ω	0	0	Ω	0	0	Ω
803	0.1 (0.004)	0.4 (0.016)	17 (0.671)	104 (4.134)	Ω	76 (2.953)	300 (11.811)	Ω	0	0	Ω	0	0	Ω
804	0.1 (0.004)	0.4 (0.016)	17 (0.671)	104 (4.134)	Ω	76 (2.953)	300 (11.811)	Ω	0	0	Ω	0	0	Ω
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CTE

Quality Management System Certificate of Approval

This is to certify that the Quality Management System of

Shenzhen Cofan Technology Co., Ltd.

Behind the Dading Repair Factory, Songshan Road, Guanlan, Shenzhen City, Guangdong Province, P.R. China

Has been assessed and found to meet the requirements of

ISO 9001:2008

Manufacturer and Service of Hardware Products and Plastic Products (Cooling Fan, Cooling Fan), LED Lamp, PCB, Connector

Certificate Number: Q141007129
Date of Issue: 16, July, 2012
Valid until: 15, July, 2015

Authorized by: *[Signature]* Senior Executive

ISO 9001:2008

IAF Registered ISO 9001:2008

TQCSI Quality Certified

Certificate of Registration

Cofan Electronic Co., Ltd.

No. 87, Lane 49, Dong Feng Street, Shulin Dist., New Taipei City, 23856, Taiwan (R.O.C.)

The above licensee has been assessed and registered by TQCSI International Pty Ltd as having the capability to control the environmental systems associated with its operations in accordance with the conditions of the Licence Agreement at or from the addresses shown above, under an environmental management system complying with the requirements of

ISO 14001:2004

The registration covers the manufacturing of MCPCB and PCB

Exclusions: 7.3 Design and Development

Issue Date: 24 November 2011
Licence No: TA1029-QC-EC
Original Certification: 05 May 2010

Expire Date: 21 November 2012

Issue Date: 24 November 2011
Licence No: TA1029-QC-EC
Original Certification: 24 November 2009

Expire Date: 21 November 2012

Craig J Bates
President
TQCSI International (Group) Pty Ltd

Lorraine Walsh
Accreditation Manager
TQCSI International (Group) Pty Ltd
For and on behalf of the TQCSI Certification Approval Panel

This certificate certifies the original certificate issued and is valid as long as it is displayed as an electronic copy at www.tqcsi.com and surveillance audits are satisfactorily completed.

TQCSI TQCSI INTERNATIONAL PTY LTD
AWCB **IAF** **JAS-ANZ** **G**

Quality Standards

- a) ISO 9001:2000
- b) ISO 9001:2008
- c) IPC-6011
- d) IPC-6012B
- e) ANSI/IPC-A-600
- f) IPC-4101B
- g) UL/CSA

Why partner with Cofan-USA?

- 1. TECHNOLOGY**
- 2. QUALITY**
- 3. RESPONSIVENESS**
- 4. DELIVERY**
- 5. COST**

Cofan invites you, our prospective customer, to join us as we grow to the next level of success.

Thanks.

COFAN GROUP

All your quality products supplier.



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