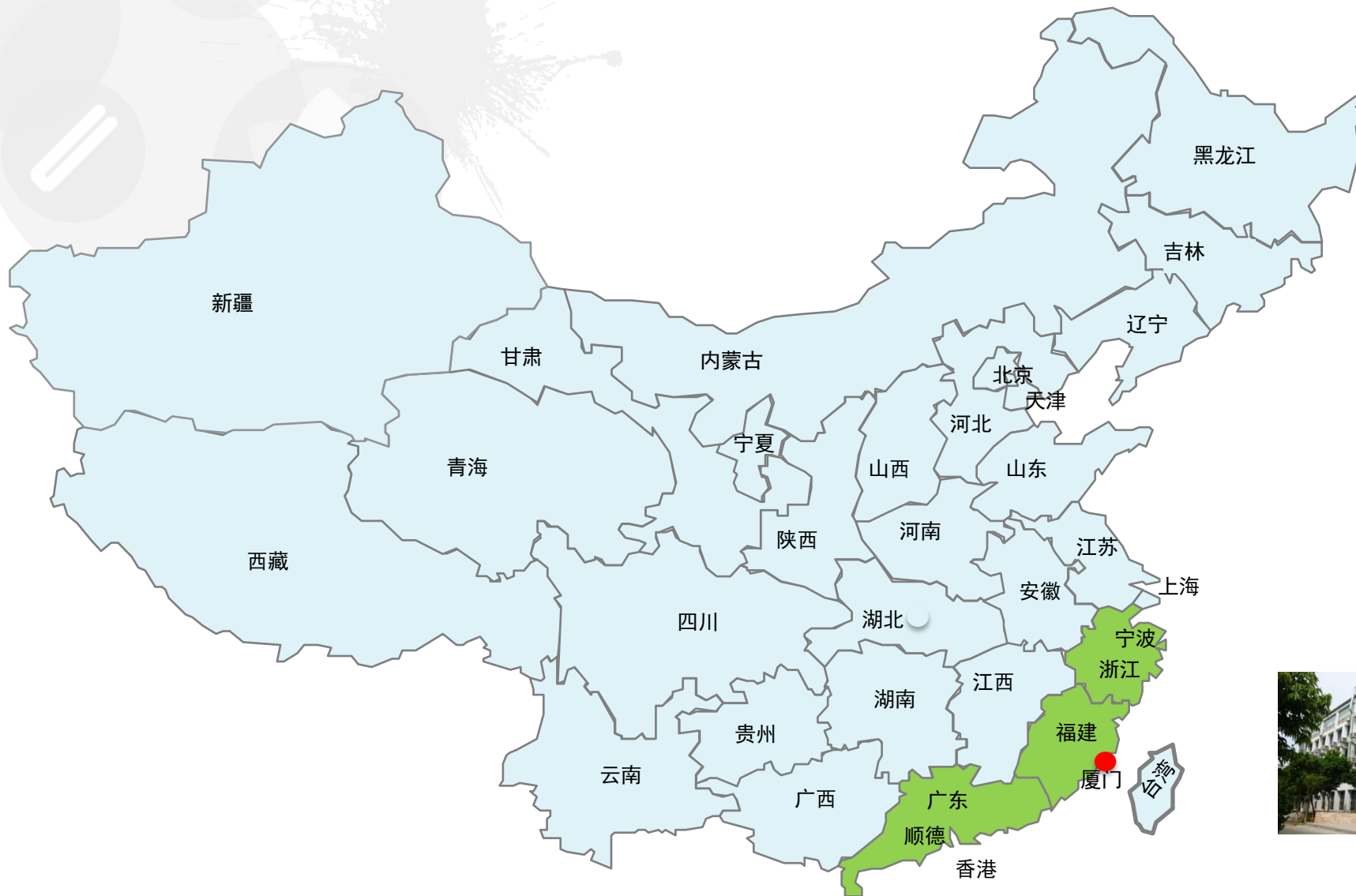


# Chipsun Company Profile

- 
- Become a World-Class Provider of Electronic Control Board Solutions!

# Chipsun Profile



Founded in 2003

Capital: 9M USD

Employees: 800

Facilities:

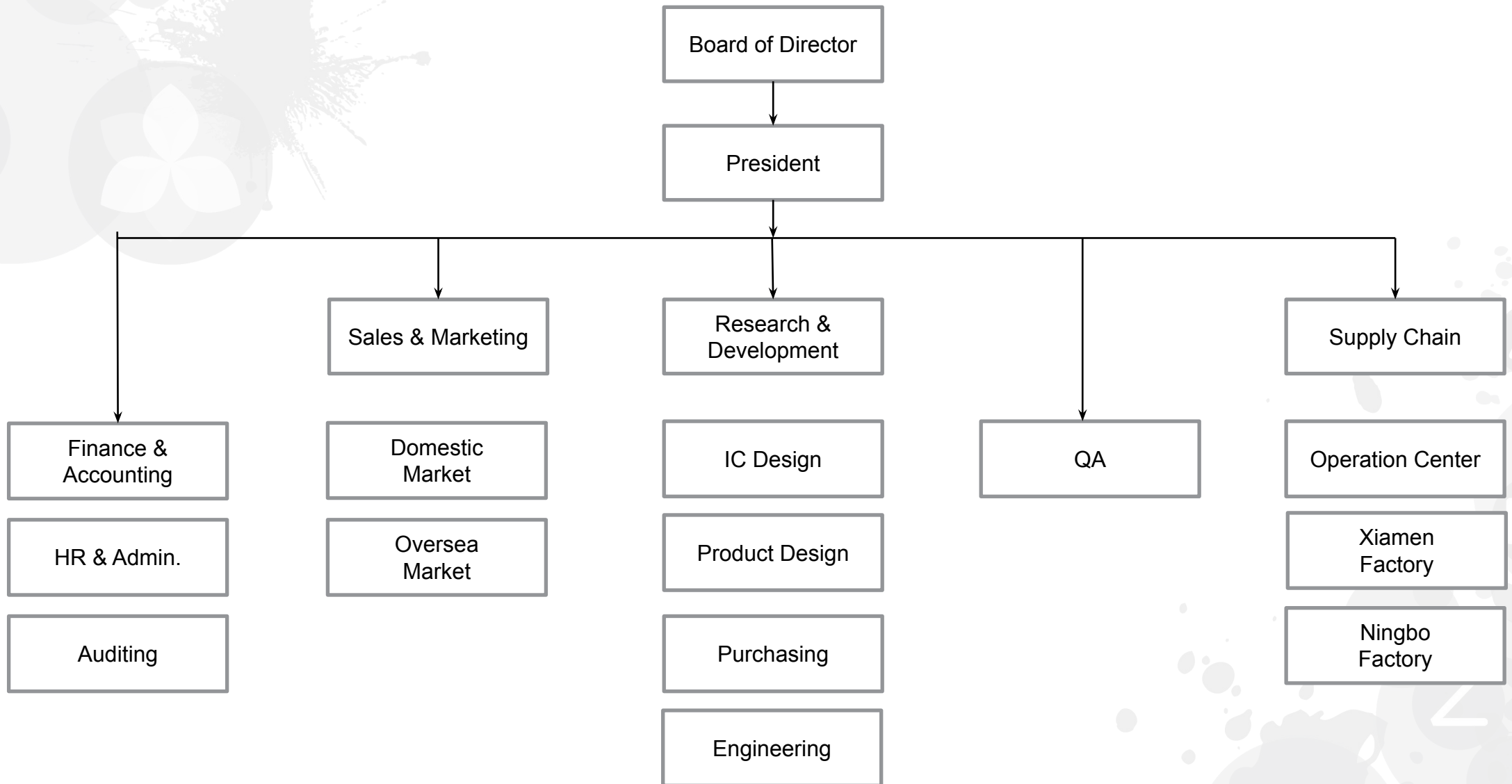
- Xiamen Headquarters
- Xiamen IC Design Center
- Ningbo Factory
- Shunde Office



# Chipsun History

- 2003 Xiamen Chipsun Science & Technology Co., Ltd. was established.
- 2005 Recognized as “Integrated Circuit Design Enterprise” by the Ministry of Information Industry.
- 2011 Officially introduced ISO9001:2008 Quality Management System. Obtained UL factory certification.
- 2013 Officially introduced ISO14001:2004 Environmental Management System.
- 2014 Obtained “Chipsun” national trademark certification.
- 2016 Listed on New Third Board. Ningbo factory was established.
- 2017 Entitled as “National Hi-Tech Enterprise”.
- 2018 Recognized as “Hidden Manufacturing Champion” by National Authority.
- 2019 Officially introduced IATF16949 Automotive Quality Management System.
- 2020 Launched self-developed Manufacturing Execution System.

# Chipsun Organization



# Major Customers List



# R&D Capability

- ✓ Invest 10% of revenue into R&D each year.
- ✓ 30 invention patents, 42 utility model patents.
- ✓ 1 IC design center, focus on development and application of ASIC products.
- ✓ 70 engineers dedicated for 6 categories of Electronic Control Board solutions.
  1. Home Appliances
  2. Kitchen Appliances
  3. Healthcare Appliances
  4. Personal Care Appliances
  5. Smart Home Series
  6. Automotive Electronic

# Home Appliances (生活小家电)

**Iron**



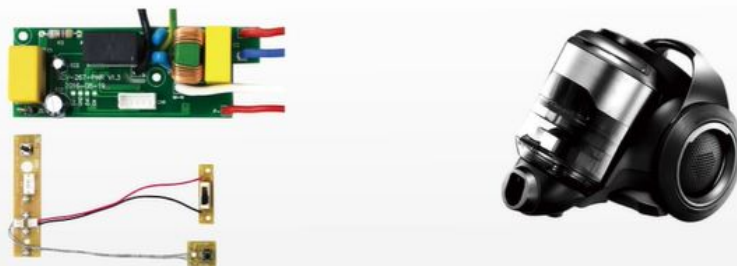
**Iron Station**



**Hanging Iron**



**Dust Collector**



**Clothing Care Machine**



**Steam Mop**

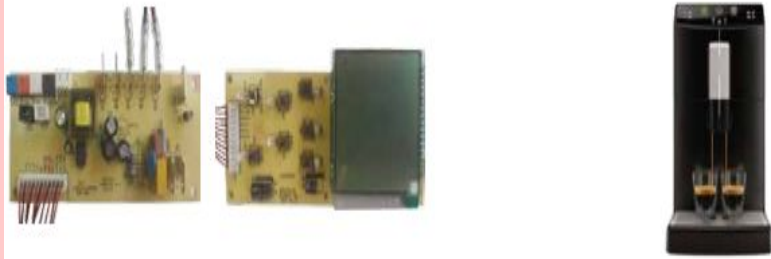


**Features & Core Competitiveness:**

1. 15 years' experience in Iron temperature control technology.
2. Supply more than 50% iron controller in world-wide market.
3. Leading Relay control technology.
4. Self-owned patent of single wire communication.
5. Partial isolated water empty detection.
6. Self-developed position sensor.

# Kitchen Appliances (厨房小家电)

Coffee Maker



Slow Cooker



Grill



Electric Oven



Juicer



Waffle Machine



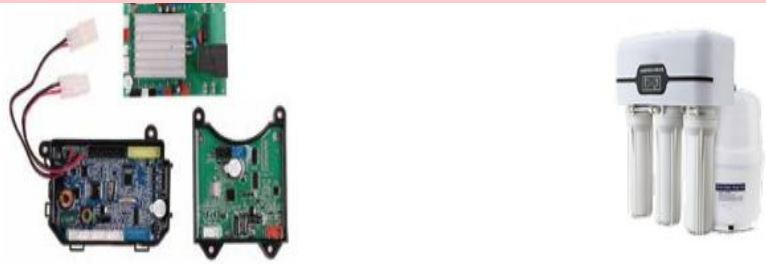
## Features & Core Competitiveness:

1. Drip Coffee Maker: Accurate timing, power fail data keep.
2. Capsule Coffee Maker: Quick heating water temperature control, water flow monitoring auto temperature control.
3. Electric Oven: Smart PID adjustment to realize even temperature control.
4. Grill: Vague PID algorithm and self-adaptive temperature adjustment to realize constant temperature control.
5. Slow Cooker: Smart power adjustment, accurate heating and accurate timing.
6. Waffle Machine: Intelligent identification, self-adaptive PID algorithm for high-precision temperature control.
7. Juicer: High-precision speed adjustment to realize step-less speed regulation.



# Healthcare Appliances (健康电器)

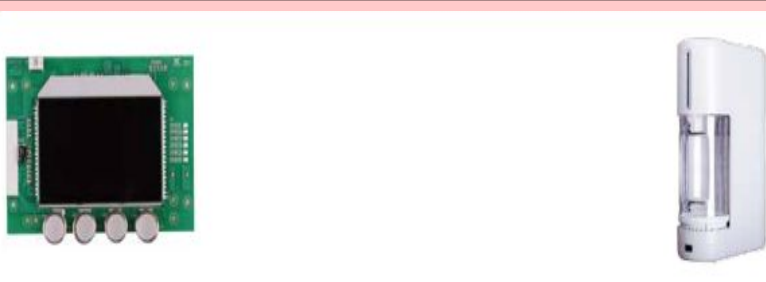
Water Purifier



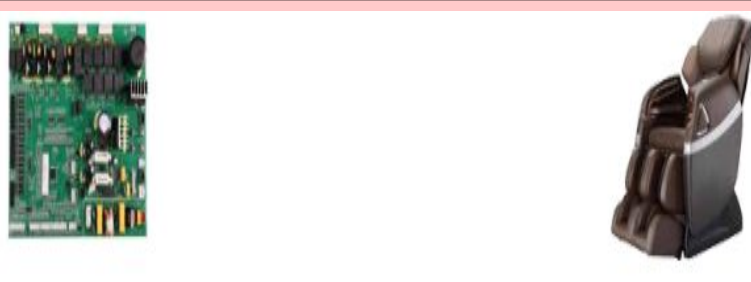
Air Purifier



RO Machine



Massage Chair



Humidifier



Treadmill



## Features & Core Competitiveness:

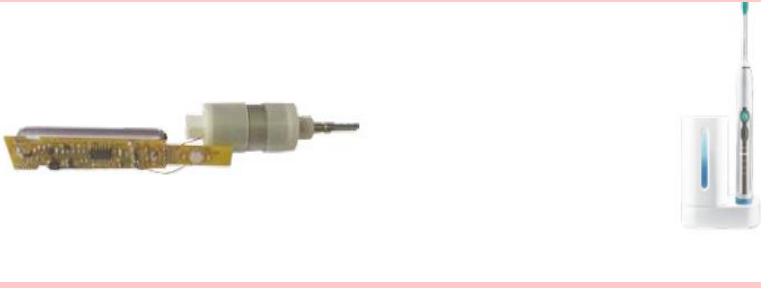




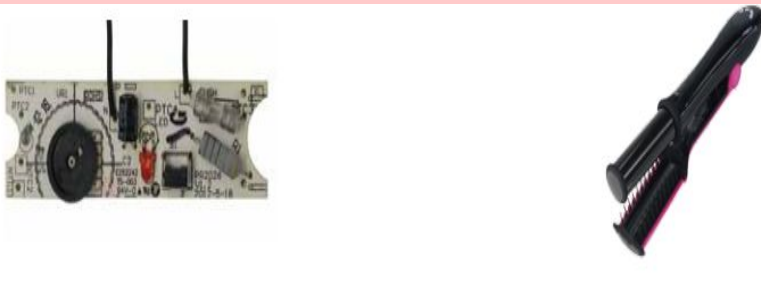
1. Self-developed TDS (total dissolved solids) detection module for water quality control, range (0~2000ppm).



2. Quick heating control technology , reach target temperature in 3 seconds.

3. Smart control with functions of WIFI, Bluetooth, RFID, IOT, OTA, etc..

# Personal Care Products (个人护理产品)

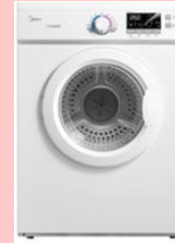
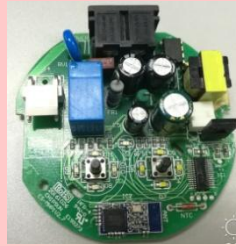
Electronic Toothbrush	Tooth Cleaner	<b>Features &amp; Core Competitiveness:</b> <ol style="list-style-type: none"> <li>1. 8 invention patents and 8 utility model patents.</li> <li>2. Self-developed wireless power charge protocol.</li> <li>3. Battery charge/discharge control</li> <li>4. Battery volume detection and calculation</li> <li>5. Motor control and protection</li> </ol>
		
Hair Clipper	Hair Straightener	
		
Shaver	Hair Curler	
		

# Smart Home Series (智能家居)

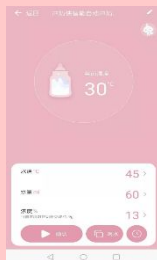
Smart Air Purifier



Smart Clothes Dryer



Smart Milk Machine



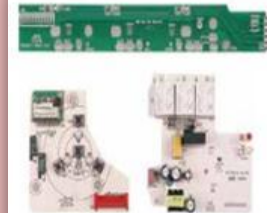
Smart Hanging Iron



Smart Humidifier

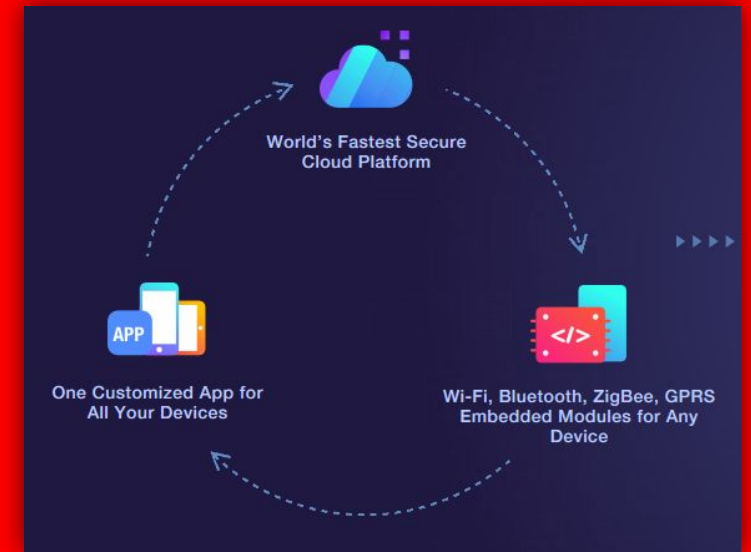


Smart WIFI Socket



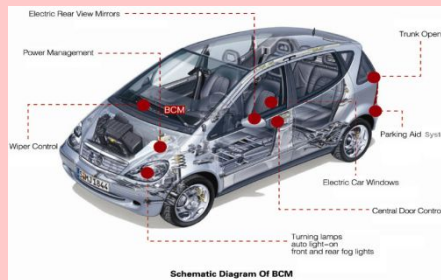
## Features & Core Competitiveness:

1. Closely work with IoT solution provider TUYA to provide smart home solutions for customer.



# Automotive Electronics (汽车电子)

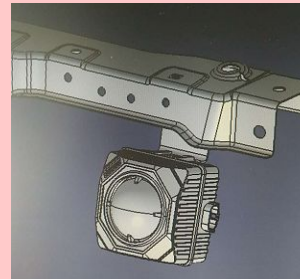
## BCM (Automotive Body Control Module)



## RKE (Remote Keyless Entry)









## AVAS (Automotive Voice Alarm System)



### Features & Core Competitiveness:

1. New developing area of Chipsun product lines.
2. IATF16949 certification
3. 1 invention patent and 9 utility model patents.

# IC Design & Self-Developed Product (集成电路及自主研发产品)

Small Appliance ASIC	Low Dropout Regulator	<b>Features &amp; Core Competitiveness:</b> <ol style="list-style-type: none"> <li>Extensively cooperates with customers in the development and application of ASIC products, designs and develops integrated circuit products with independent intellectual property rights.</li> <li>The self-developed position sensor completely integrates sensor and main control IC and greatly simplifying the circuit design and the number of peripheral components, and improving the reliability of the product.</li> <li>The self-developed relay is widely used in iron products and has the advantage of low cost and high quality products.</li> </ol>
		
<p style="text-align: center;"><b>Battery Charge</b></p>	<p style="text-align: center;"><b>Motor Drive - Low Voltage</b></p>	
		
<p style="text-align: center;"><b>Position Sensor</b></p>	<p style="text-align: center;"><b>Relay</b></p>	
		

# Production Capability

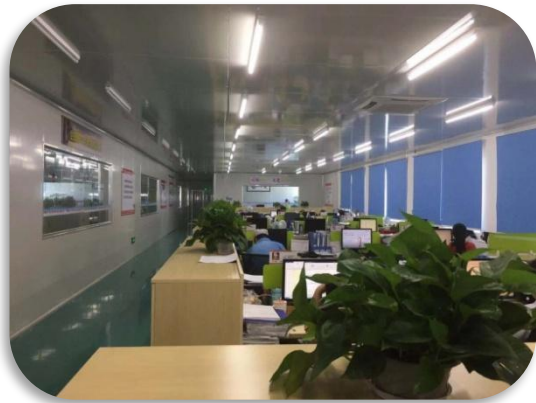
## Xiamen Factory

5 SMT lines  
3 AI lines  
12 PTH lines  
Capacity:  
200K/Day



## Ninbo Factory

2 SMT lines  
2 AI lines  
6 PTH lines  
Capacity:  
100K/Day



Operation Office



Training Room



SMT Workshop



PTH Workshop

# Production Capability

Deployed a lot of advanced SMT and PTH equipments, such as Panasonic NPM high speed placement machine, Panasonic MSF multifunctional mounter, auto wave soldering, lead free reflow, automatic optical inspection (AOI), automatic optical solder paste inspection (SPI), X-Ray, etc..



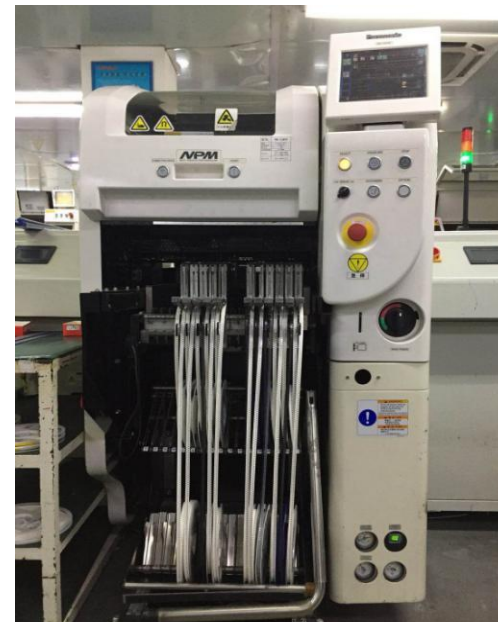
Panasonic MSF



Lead Free Reflow



AOI



Panasonic NPM



SPI



Auto Wave-soldering



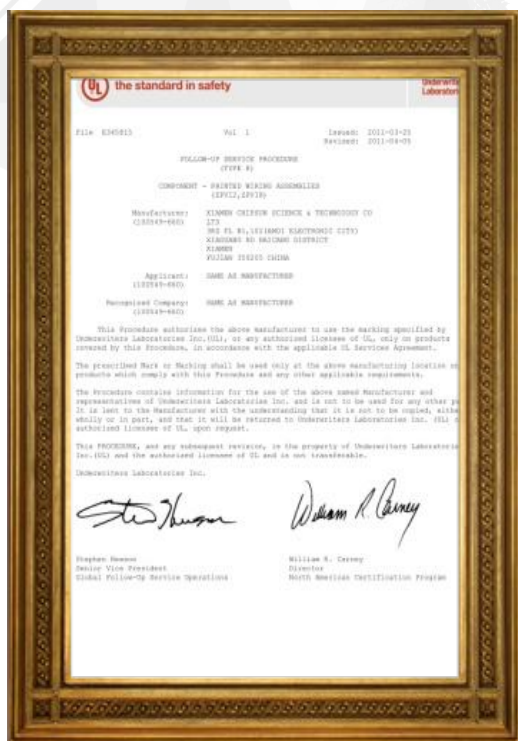
Auto Insertion



X-Ray

# Quality Assurance

Established quality functions: DQA/SQE/IQC/IPQC/PQE/OQC/QS/Lab, and improving continuously.



UL (E345815)



ISO9001



ISO14001



IATF16949



# Quality Assurance

Self-owned Lab for quality testing of environmental/EMC/electrical performance/Packaging, etc..



**Chamber**



**Thermal Shock**



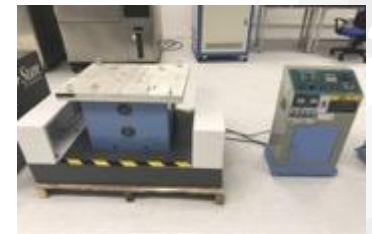
**Temperature Test**



**RO machine test**



**Iron Life Test Bench**



**Vibration**



**EFT&SURGE Tester**



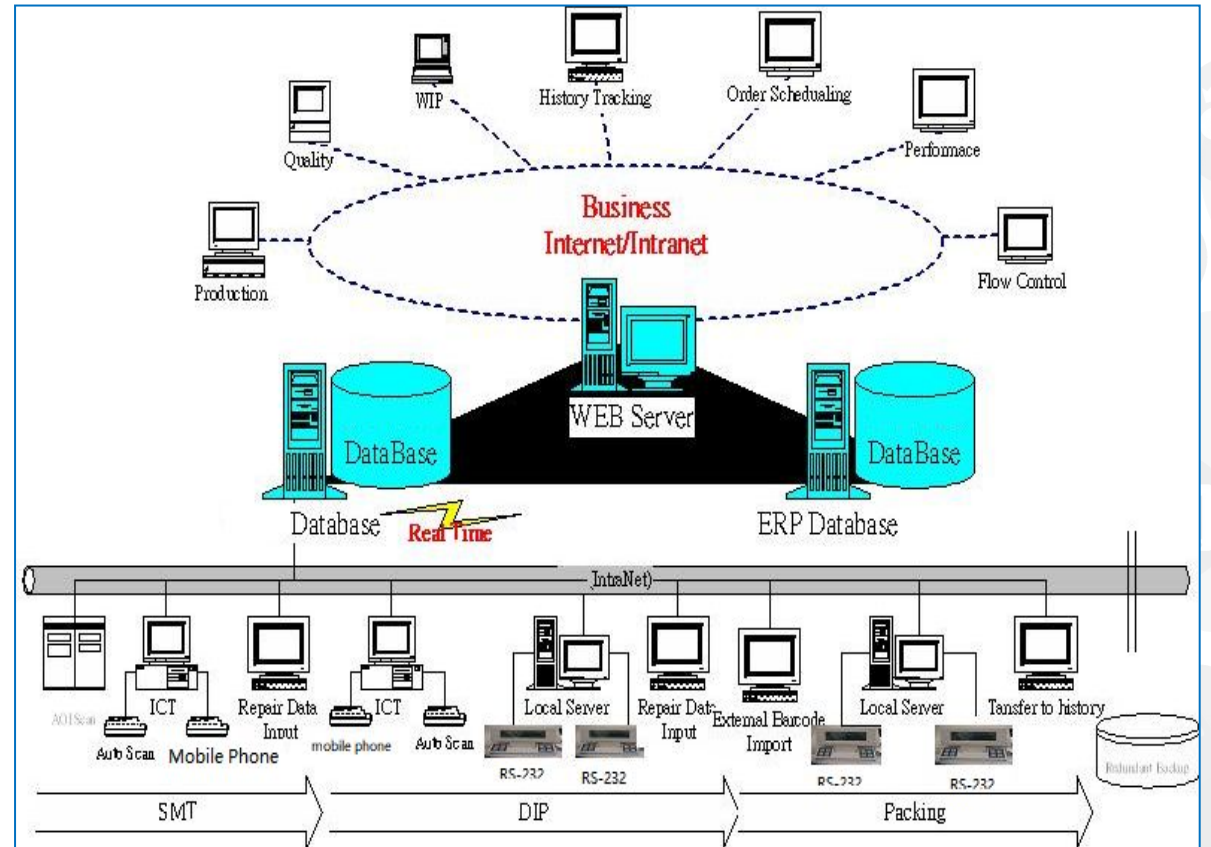
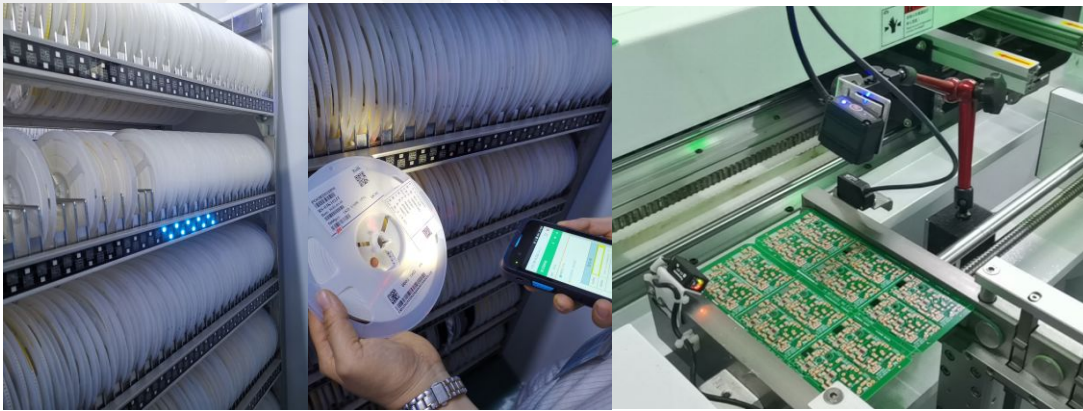
**General test equipment**





**Load Chamber**

# Quality Assurance

Self-developed MES (Manufacturing Execution System) ensure good traceability and fool-proof manufacturing quality.





# Thank You!