

I.C.T Reflow Oven for 5G Modular and Radiator
5G Modular Oven



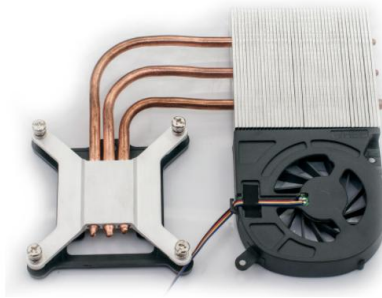
The First Oven in the World, Huawei develops with I.C.T
I.C.T 5G Modular Oven- the sole manufacturer in the world

Some I.C.T machine in huawei factory (Because of the confidentiality agreement with Huawei, many pictures have been specially processed.):





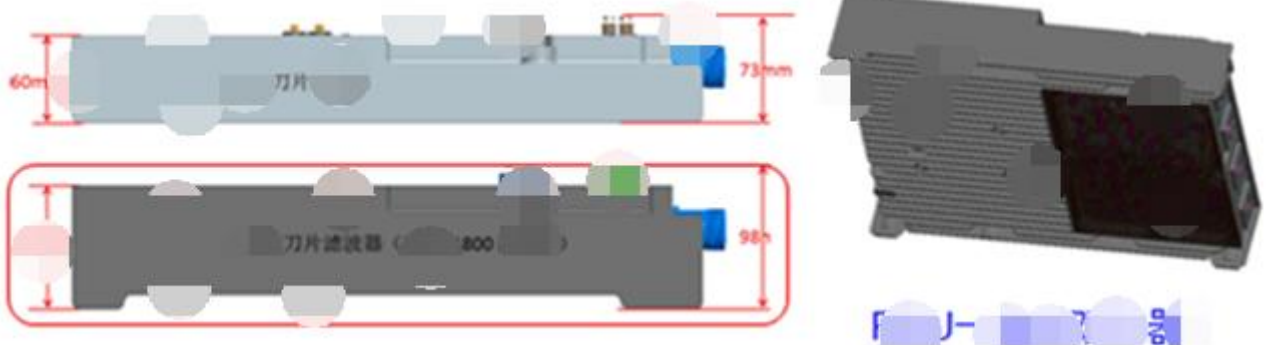
Radiator Oven

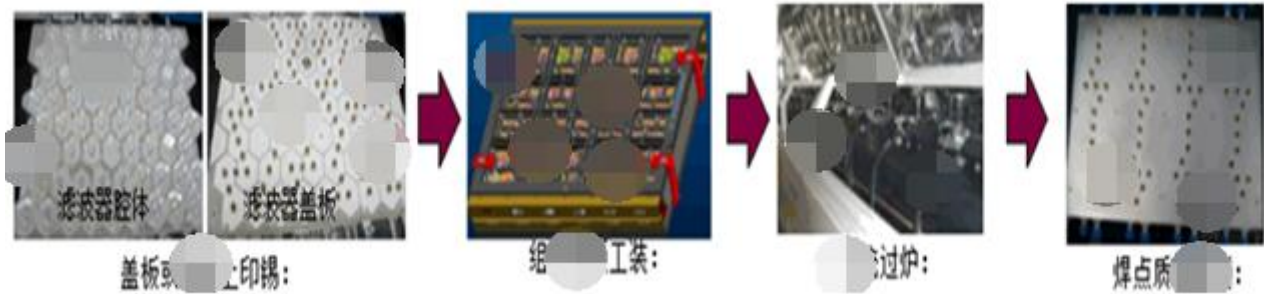




Products:

Aluminum alloy metal structure parts, metal parts need to be soldered with solder paste, module heat capacity is very large; Large size, high height, heavy weight; 600 * 500 * 120 mm, 25KG (including furnace fixture), shape and processing flow as shown in the following figure.





Introduction:

1. Oven length 12m, 24 (top 12 and bottom 12) heating zone is 6m. cooling zone is 6m, 3 cooling zone use individual chiller, 3 cooling zone is Forced air cooling.
2. Double control system, one heating zone and one cooling zone.
3. Special mesh conveyor system.

Features:

1. Two Control System: PC + Siemens PLC control system, accurate temperature control and more stable, ensures temperature stability rate to be more than 99.99%.
2. Hot air system: first-class heating module, the best temperature zone interval design makes optimum temperature uniformity and repeat. The effective utilization and thermal compensation efficiency, it needs less than 20 minutes from temperature control accuracy $\pm 1^\circ\text{C}$ ambient temperature to a temperature stabilization.
3. Monitoring Software: Windows interface, traditional and simplified Chinese and English online free switch, and operator password management, easy to operate. Operation records, temperature curve measurement and analysis functions, virtual simulation, fault self-diagnosis, process monitoring, automatic generate and save process control documents, substrate transport dynamic display.
4. Cooling System: new cooling zone with chiller, quick and easy adjustment, easily reach the cooling requirements of different slopes.
5. Temperature protection: I.C.T using third-party over-temperature protection, multiple layers protection to ensure safe operation.
6. Products comply with CE, CCC, UL, other standards and specifications.
7. User-friendly design: fault detection (such as heaters abnormal alarm, etc.), regular maintenance reminders, the economy functions and tool-free maintenance, reducing equipment failure rates.
8. Heating module: Transverse reflow design makes temperature from each zone is not influenced by neighbour to ensure accurate temperature curve, while ensuring a high production capacity and heat exchange capacity to achieve high adaptability (to meet the soldering of automotive, communications, electronics, computers and mobile phones consumer electronics.)
9. Hot air motor with independently inverter controlled, set operating frequencies depending on different technology to meet a variety of lead-free processes.
10. Machine using zero gas source design, furnace cover with motor lifting, safety rod support, providing significant security.
11. Main parts: Imported main parts ensure equipment runs smoothly and lower the maintenance cost.
12. Customers can choose optional flux processing system according to their own production features to ensure furnace chamber clean.

13.Closed-loop transmission speed control systems, transportation accuracy $\pm 2\text{mm} / \text{min}$, ensuring more stable transmission speed.

Specification:

Specifications	G8	G12
Standard Color	Computer Grey	
Weight	Approx2350KG	Approx3650KG
Number Of Heating Zones	Up8/Bottom8	Up12/Bottom12
Furnace height	Customized	
Number of Cooling Zones	2	6
Length Of Cooling Zones	500-2000mm	
Control System	PC&PLC	
Conveyor Direction	L→R (Option: R→L)	
Temperature Control	Method PID + SSR	
Conveyor Height	750+/-20mm	
Temperature Deviation	$\pm 2.5^{\circ}\text{C}$	
Temperature Control Precision	$\pm 1.5^{\circ}\text{C}$	
Conveyor Time	5min-1hours	
Temp. Setting Range	Room Temp.-- 350 $^{\circ}\text{C}$	
Cooling Method	Forced air +Air fan	Chiller(3set) + Forced air +Air fan
Warming Time	Approx.25 minute	
Transmission Agent	Mash	
Max.Width	450mm(Option:1000mm)	
Top to Bottom Clearance	200mm	
Exhaust Volume	10M3/minx4 Exhausts	
Electric Supply Required	3phase,380V 50/60Hz	
Power For Warm Up	65KW	125KW
Power Consumption	15KW	45KW
Dimension (L*W*H)mm	5000x1450x1490	12000x1450x1490

Reflow Oven Cooling Conveyor



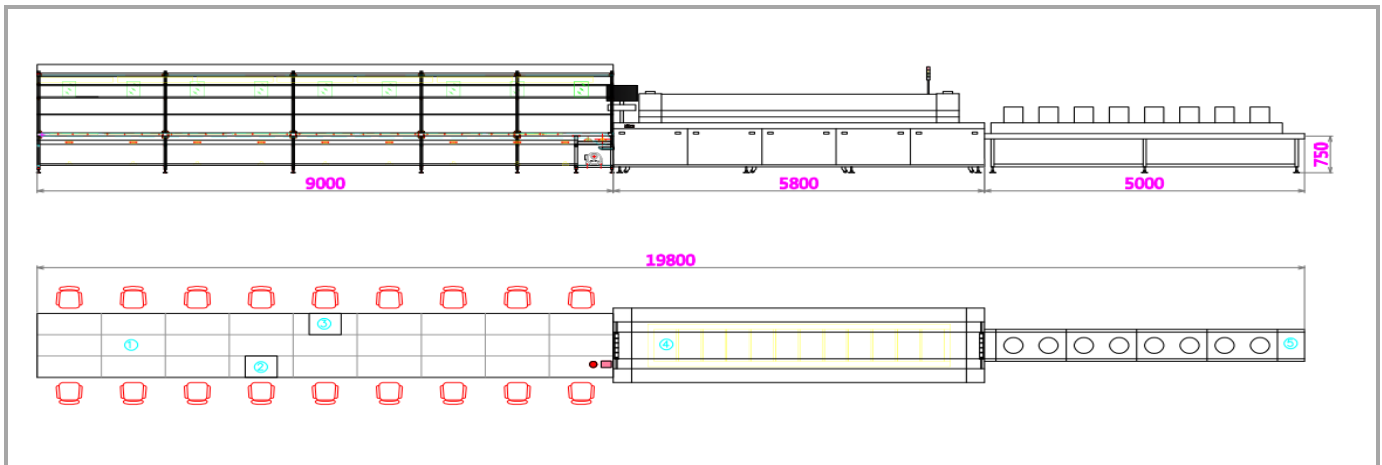
Special Input Conveyor

Electric Supply Required	220V 50/60Hz
Power Consumption	0.5KW

Conveyor	Motor+ Special Mesh
Conveyor Time	5min-30hours
Conveyor Height	750+/-20mm
Weight	Approx100KG
Dimension (L*W*H)mm	600x650x1450

Special Cooling Conveyor	
Electric Supply Required	220V 50/60Hz
Power Consumption	5KW
Cooling	Moter Fan+Fan
Conveyor	Motor+ Special Mesh
Conveyor Time	5min-30hours
Conveyor Height	750+/-20mm
Weight	Approx240KG
Dimension (L*W*H)mm	3000x650x1450

Radiator Assembly Line Solution:








Configuration:

Name	Brand	Note
Computer	Lenovo	China
PLC	Siemens	Germany
Solid relay	Carlogavazzi	Switzerland
Relay base	Carlogavazzi	Switzerland
Contactora	Schneider	France
Wire	Jin Longyu	China
Air switch	DELIXI	China
Power Supply	MW	Taiwan
Switch for light	Yamatake	Japan
Transmission motor	Panasonic	Japan
High Temp. Motor	Sanyue	Taiwan

Heating wire	Hotset	Germany
High temperature fan	Sanyue	Taiwan
Chain	KMC	Taiwan
Chian shackle	KMC	Taiwan
Heat cotton	RockWool	Germany
Magnetic valve	AIRTAC	Taiwan
Binding post	Phoenix	USA
Buzzer	Koino	Korea
Frequency converter	Delta	Taiwan
Solid replay	Schneider	France
Button	Schneider	France
Emergency Button	Schneider	France
UPS	STK	USA
High Temp. Wire	Hotset	Germany
Cooling motor	Sanyue	Taiwan
Mesh	TSUBAKI	Japan
High temp. adhesive tape	Xinyue	Japan
Gear box	Panasonic	Japan
Rotary drum	TSUBAKI	Japan

Customers:

Special Oven Customers	Application
	Test and verification for components
	Glue curing for automobile battery module
	Test and verification for components(inductor and Modular),SMT
	Huawei Duplexer soldering(4G and 5G)
	HISILICON BGA test and verification
	Test and verification for components
	Test and verification for components
	Test and verification for components
	Test for special materials
	Conformal coating curing

EMERSON

Soldering for special products

**Thanks for choosing I.C.T.
I.C.T looks forward to win-win cooperation.
Thank you.**