

# *VENTEC Electronics*

Professional Manufacturer in Copper Clad Laminates

## Company Profile

2008-08-7



NTW INC. 株式会社  
▶ 東京本社  
TEL : 03-5577-9953 (代)  
▶ 名古屋オフィス  
TEL : 052-957-5711 (代)

## Headquarters in SUZHOU, CHINA



# New factory in SUZHOU



# OUR VISION

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**Innovate · Network · Cooperate · Share**

**We at Ventec Electronics (Suzhou) Co., LTD. commit ourselves to continuous development of high performance products, constant attention to cost, quality and service, and ultimate customer satisfaction.**

**In addition, we believe that everyone who establishes a strategic alliance with us can achieve an ALL-WIN result. We are prepared to explore every opportunity to reach this goal and share the outcome of our accomplishments with our customers, vendors, shareholders and employees.**



# COMPANY OVERVIEW

**2008 \***

**March** Monthly capacity increases to 900,000 sheets CCL and 25 million sq ft Prepreg

**2005**

**DECEMBER** Equipment refinement completed, monthly capacity improved to 400,000 sheets CCL and 15 million sq ft. prepreg

**2002**

**AUGUST** Capacity increased to 180,000 sheets per month

**2000**

**NOVEMBER** First CCL successfully produced. Capacity reached 50,000 sheets per month

**FEBRUARY** VENTEC Electronics (Suzhou) Co., Ltd. Established, construction began

**2007**

**SEPTEMBER** Monthly Capacity increases to 600,000 sheets CCL

**2004**

**JANUARY** Jiangyin plant joined production, enlarged total monthly capacity to 300,000 sheets

**2001**

**SEPTEMBER** Mass production began  
Capacity expanded to 130,000 sheets per month

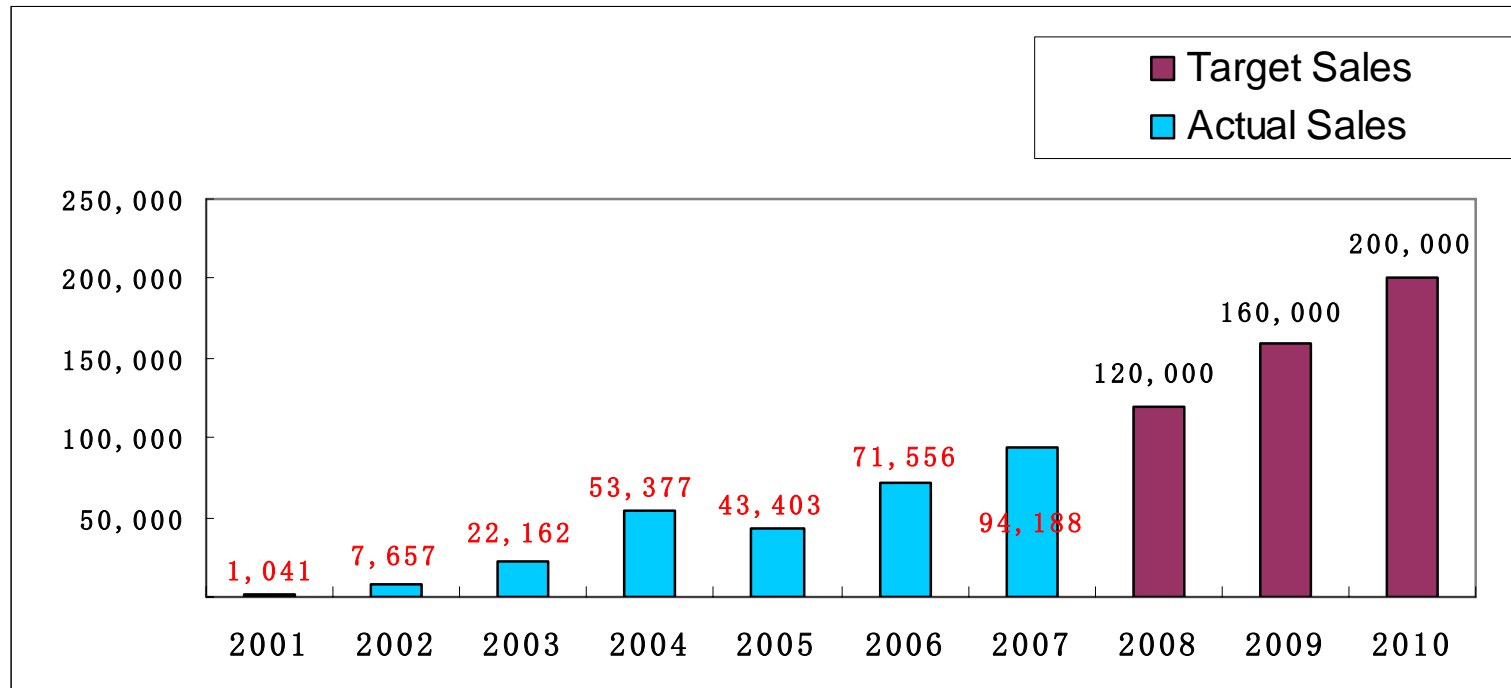
**APRIL** Obtained UL approval

COMPANY OVERVIEW



# 2001–2010 Growth Trend

US\$ ,000



# GLOBAL LOCATION

## HEADQUARTERS

**SUZHOU, CHINA**

## SALES CENTERS

**VENTEC SUZHOU, CHINA**

East China Sales Center

**VENTEC HONG KONG**

South China Sales Center

**GVL UK**

UK Sales Center

## MANUFACTURING FACILITIES

**Plant I & II in SUZHOU, CHINA**

Laminate and Prepreg Manufacturing

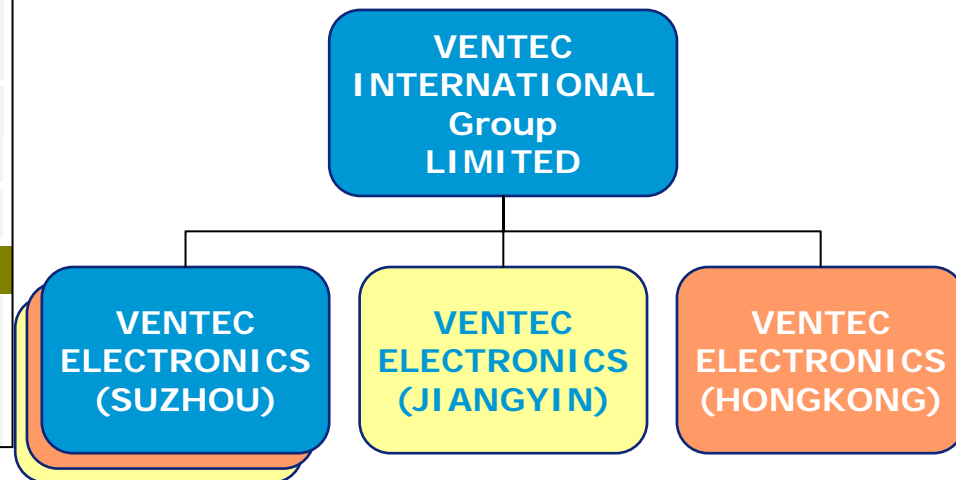
**Plant III in JIANGYIN, CHINA**

Laminate Manufacturing

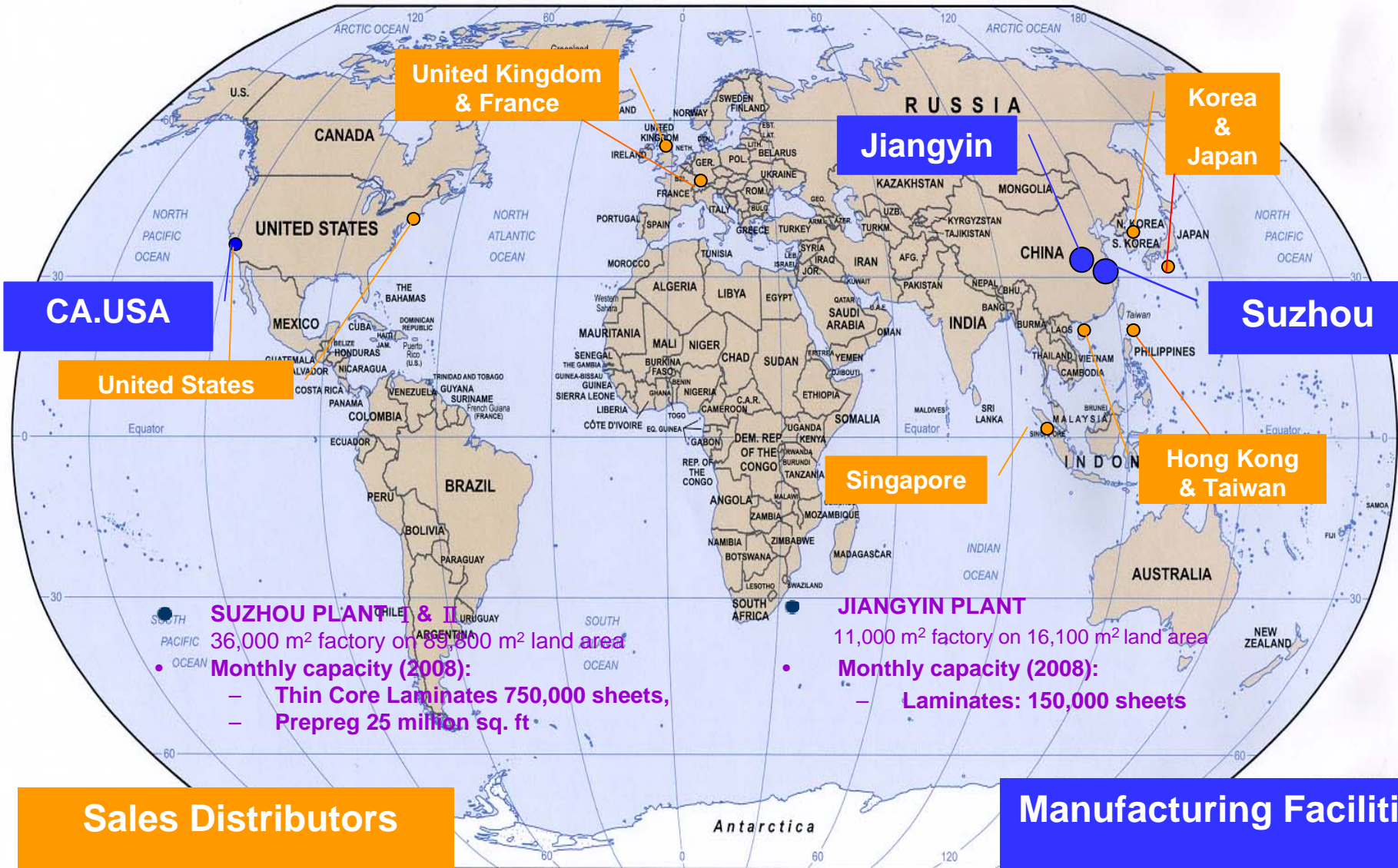
**Quick Turn Plant in CA. USA**

## GLOBAL SALES DISTRIBUTORS

**JAPAN, KOREA, TAIWAN, HK, SINGAPORE,  
UK, EU , USA**



# VENTEC Electronics



Sales Distributors

Manufacturing Facilities

# PRODUCTION CAPABILITIES

Thickness	Laminate	mm	0.05			10		
		mil	2			400		
Copper foil	Weight(oz)		1/7 (5um)	1/4		1/3	1/2	3/4
			1	2	3	4	5	6
			7	8	9	10	11	12
	Un-systemetric Copper		1/0	2/0		H/0		1/H
			2/H	2/1		3/1		
	Unclad Laminate							
Double Side Treated Foil	Reverse foil			Very Low Profile Foil				
Capacity	Laminate	12,000,000 Sq Ft / month						
	Prepreg	25,000,000 Sq Ft / month						
Dimension	Sheet size	Inch	37×49	41×49	43×49	41×41	39×51	
			45×49	49×49	53×49	57×49	73, 81 & 85 x 49	



# PRODUCT – LAMINATES

Application	Product	Description		Equivalent Material	
				Isola	Nelco
Lead Free	VT-481	150. Tg	Phenolic Cured , TD>340°C, Filled	DE-104i	N4000-7
	VT-47	180. Tg	Phenolic Cured , TD>340°C, Filled	IS410, 370 HR	N4000-11
Halogen Free & Lead Free	VT-441	150. Tg	Phenolic Cured , TD>340°C, Filled	DE156, PCL-HF-541	N4000-7 EF
	VT-447	180. Tg	Phenolic Cured, TD>350°C, Filled	<b>MCL-E-679FG (Hitachi)</b>	
Low D.k. & Lead Free	VT-461	200. Tg	Phenolic Cured, TD>350°C, Dk 3.7,unfilled	IS 408/415	N4000-13
Special Application	VT-901	250. Tg	Polyimide Resin System	P95/P96	N7000
	VT-42CTI	140. Tg	CTI 250,400, and 600 Volts		
Regid Flex Prepreg	VT-42 NF	140. Tg	Dicy Cured, unfilled,No Flow	<b>47N (Arlon), FR-402N (Isola)</b>	
	VT-47 NF	180. Tg	Phenolic Cured, High Td ,No Flow	<b>51N (Arlon), FR-406N (Isola)</b>	
	VT-901 NF	250. Tg	Polyimide Resin System,No Flow	<b>37N (Arlon), GIA-671N(Hitachi)</b>	
Traditional FR-4	VT-42	140.Tg 150. Tg	Dicy Cured, unfilled	FR-226, FR-402	N4000-2
	VT-41	140. Tg	Dicy Cure & Nature Color . UV Blocking		



# PRODUCT – PREPREGS

TYPE	VARIOUS RESIN CONTENT		THICKNESS	
	%		MIL	
7628	40	50	6.8	8.5
1506	45	55	6.0	7.0
2116	48	58	4.2	5.5
2313	48	55	4.0	5.0
2113	50	58	3.3	4.1
1080	60	68	2.5	3.2
106	70	75	2.0	2.5
1086/1067/ 1078/1037	Laser Drillable Prepreg			
106N/1080N	No Flow Prepreg (VT-42, VT-47, VT-901)			

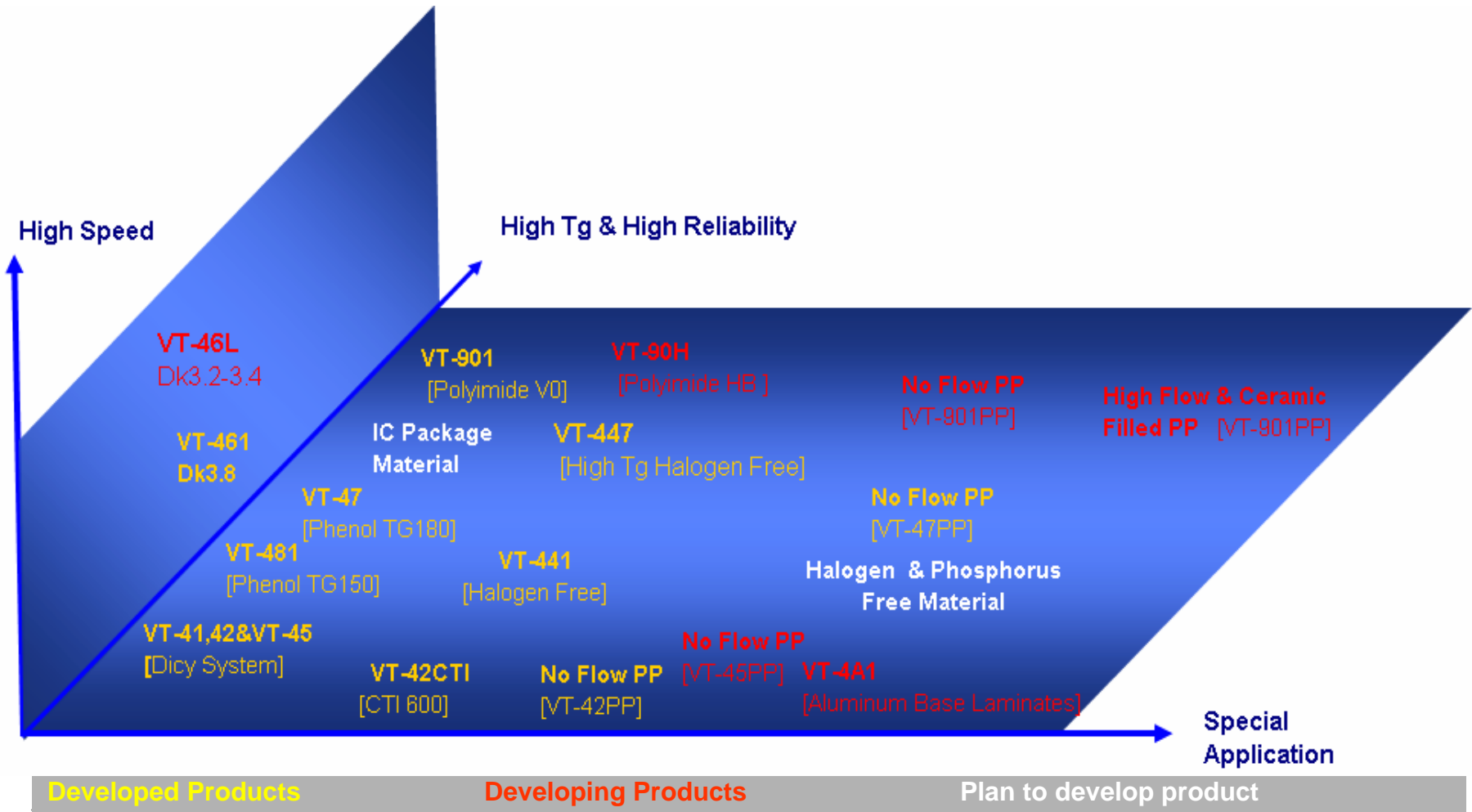


# UL STATUS

	VT-47	VT-481	VT-42	VT-45	VT-441	VT-447	VT-461	VT-901
	Tg180	Tg150	Tg140	Tg170	Tg150	Tg180	Tg200	Tg250
	Phenol	Phenol	Dicy	Dicy	Halogen Free/ Phenol	Halogen Free/ Phenol	Dk 3.7	Polyimide
1 Base Mtl Min Thk/ In.	.002"	.002"	.002"	.002"	.002"	.002"	.002"	.002"
2 Clad Cond Thk								
Min.(External)	8.5um	8.5um	8.5um	8.5um	8.5um	8.5um	8.5um	8.5um
Max.(Internal)	408um	408um	408um	408um	102um	102um	102um	102um
3 Flammability	V0	V0	V0	V0	V0	V0	V0	V0
4 ANSI Grade	FR-4	FR-4	FR-4	FR-4	FR-4	FR-4	FR-4	GPY
5 Family	Family	Family	Family	Family	Family	Family	-	-



# ROAD MAP



Developed Products

Developing Products

Plan to develop product

Special Application



# CUSTOMER SATISFACTION

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## Quality 、 Speed 、 Cost 、 Service

- **High quality and High performance focus**
- **Flexible and quick response production & delivery**
- **Localized Panel cutting & Prepreg tooling services**
- **Localized in time technical services**
  
- **Centralized mass production in China**
- **Distribution in USA, UK, EU, Singapore, HK, Taiwan, Korea and Japan**
  
- **QTD Laminate production in Fullerton, CA, USA**
- **Warehouse in : Canton, China; HK; Singapore; Taiwan  
UK; East Canada;  
USA (Boston; Chicago; LA; San Jose; Portland)**



# MAJOR CUSTOMERS

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We serve customers around the world

- **Dynamic**
  - **Gold Circuit**
  - **Gultech**
  - **Hannstar**
  - **Plotech**
  - **TPT**
  - **Sanmina**
  - **SME / OPC group**
  - **Tripod**
  - **Unitech**
  - **Gainbase (HK)**
  - **Wus (Hitachi OEM)**
  - **...etc**
- Titan (USA)**
  - Waytec Electronics (USA)**
  - Southbay Circuits (USA)**
  - Westak (USA)**
  - Focus (Korea)**
  - DAP(Korea)**
  - LG (Korea)**
  - Option (UK)**
  - Invotec (UK)**
  - Stevenage (UK)**
  - Ruwei (Hitachi OEM)**
  - AT&S(Hitachi OEM)**



# APPLICATIONS

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## Product

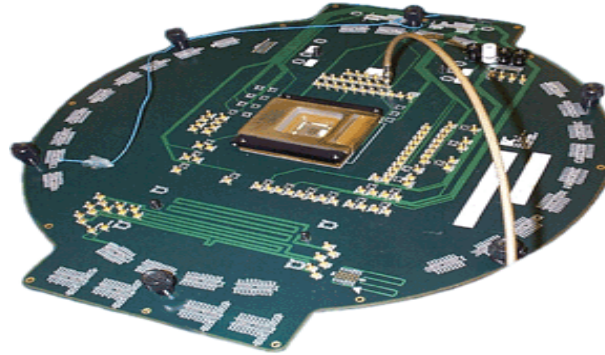
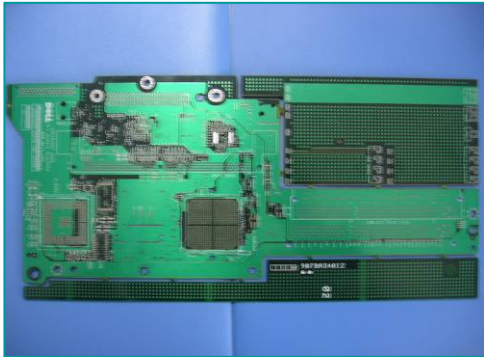
## OEM Company

- **Consumer** Canon, Fuji Film, Toshiba, Panasonic
- **Mobil Phone** LG, Nokia, Motorola, Samsung
- **Server** HP, Asus
- **Probe Card** Samsung, Infeneon
- **Automobile** Toyota Denso , Simens VDO , Jabil, Tyco
- **PC Related** Toshiba, Fujitsu, Samsung, Dell, HP, Seagate
- **Game Box** Microsoft X-box, Nitendo
- **LCD TV** BenQ, Samsung
- **Industrial** Siemens AG, Honeywell , Agilent , GE Engine
- **Aerospace & Defence** BAE System
- **Medical** Siemens Medical
- **Telecom. & Net Works** Alcatel ,Sun Micro System
- **Chips (Graphic) Card** AMD, SanDisk



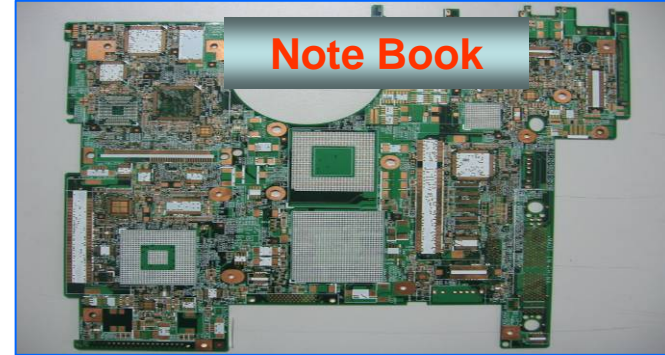
# Product Application

**Server**

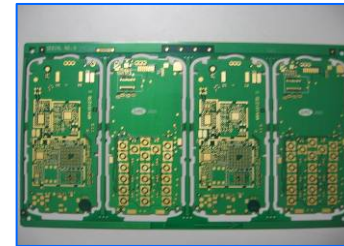


**Load Board(High Layer)**

**Note Book**

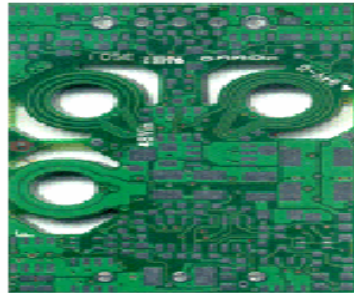


**Mobile Phone  
/HDI**

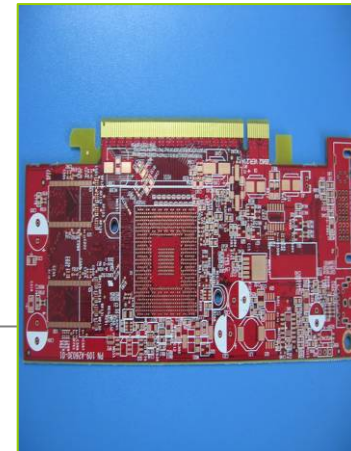


**Heavy Copper Board**

12 oz



**Graphics Card  
& Memory Card**



# QUALITY POLICY

Continuous development and improvement to satisfy customer needs

**Safety  
Certification**



E 214381  
2001.04.02

**Quality  
Certification**

ISO9001  
QCN00008  
2001.12.11



TS16949  
ITAF0008618  
2005.05.15



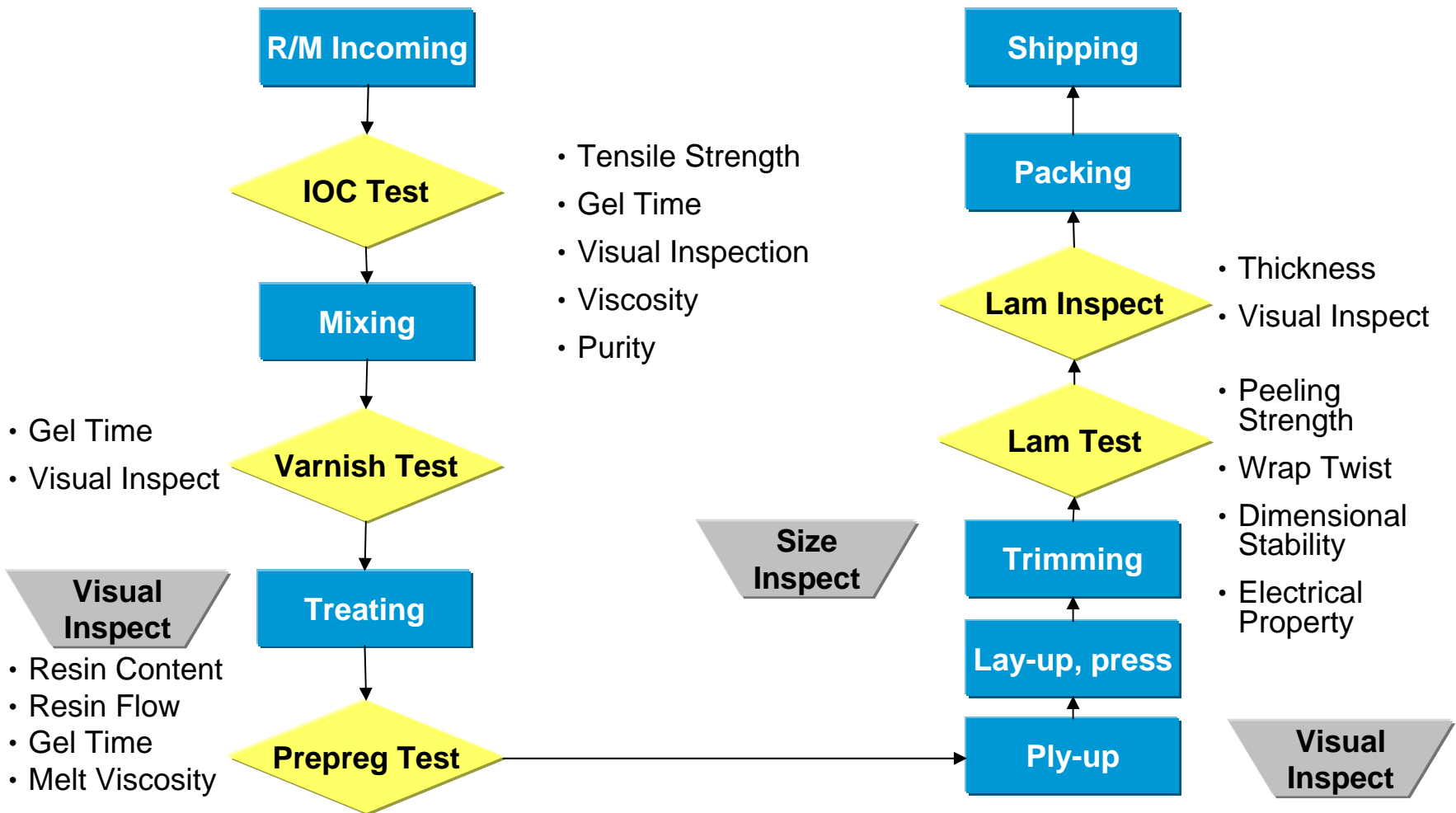
ISO14001  
EMS US-182  
2006.06.01



OHSAS18001  
CN-0009



# QC CHART



# MAJOR SUPPLIERS

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MATERIALS	SUPPLIERS
Epoxy Resin	DOW CHEMICAL
Glass Fabric	TAIWAN GLASS
	GRACE FABRIC
	NITTOBO / UGF
Copper Foil	MITSUI METAL
	JAPAN ENERGY / FURUKAWA

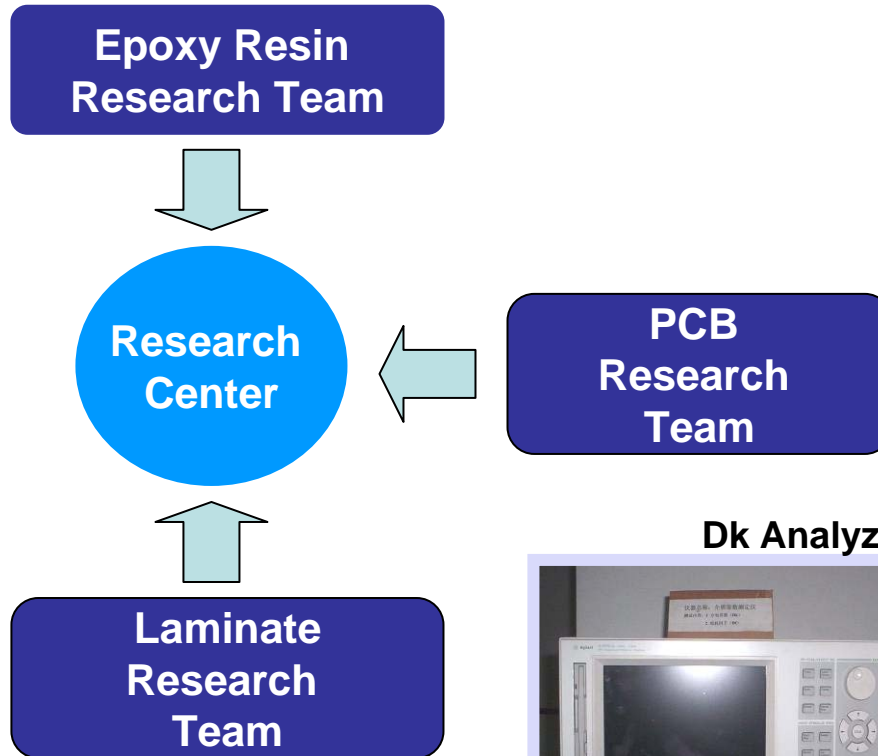


# PRODUCTION FACILITIES

- Radiation Treater 12 Sets
- Thermal-Oil Vacuum Press 16 Sets
- Auto Lay-up System 6 Sets
- 1000 Class Clean Room 5 Sets
- S.S.P. Grinder 2 Set
- Diamond Saw Panel Cutter 4 Sets



# R&D CENTER



Rheometer  
22



Dk Analyzer



Mini Treater

# R&D EQUIPMENTS

- Air Permittivity
- DSC / TMA
- SEM / EDS



**Air Permittivity**



**SEM / EDS**



**DSC**



**TMA**



# R&D EQUIPMENTS

- GPC
- CTI Measurer
- Auto Titrater (For HCL content of resin)



**GPC**



**CTI MEASURER**



**Auto Titrater**



# R&D EQUIPMENTS

- TGA (For Decomposition Temperature Tester)
- CAF Resistance Tester
- Thermal Cycling Tester



TGA



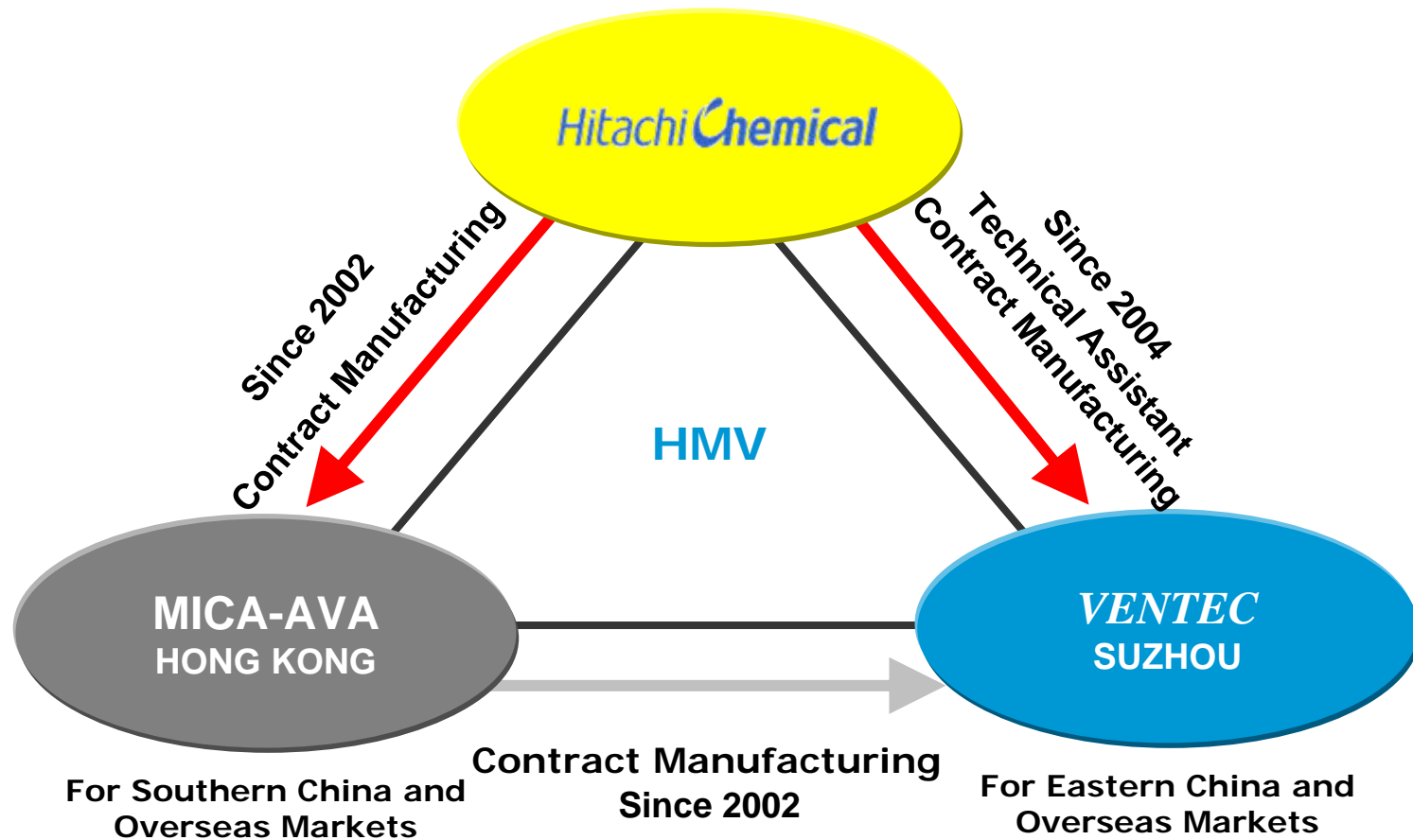
CAF-Resistant Test Equipment



Thermal Cycling Test Equipment



# HMV PROJECT



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