



# Lihexing Electronic Components (Jiangmen)Co.,Ltd.



**01** Introduction of Lihexing Components

**02** Products

**03** Quality Assurance

# 01.Introduction of Lihexing Components



## Brief Introduction

**Founded: Dec.2020**

**Registered Capital: 250 million RMB**

**Location: Jiangmen, Guangdong, China**

**Business: Multilayer Ceramic Capacitor**

**Space: 20,000 M<sup>2</sup>**

**Employee: 180**

**R&D Engineer: 20**



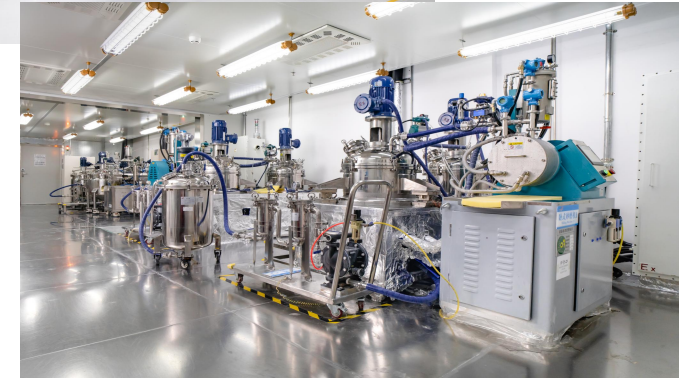
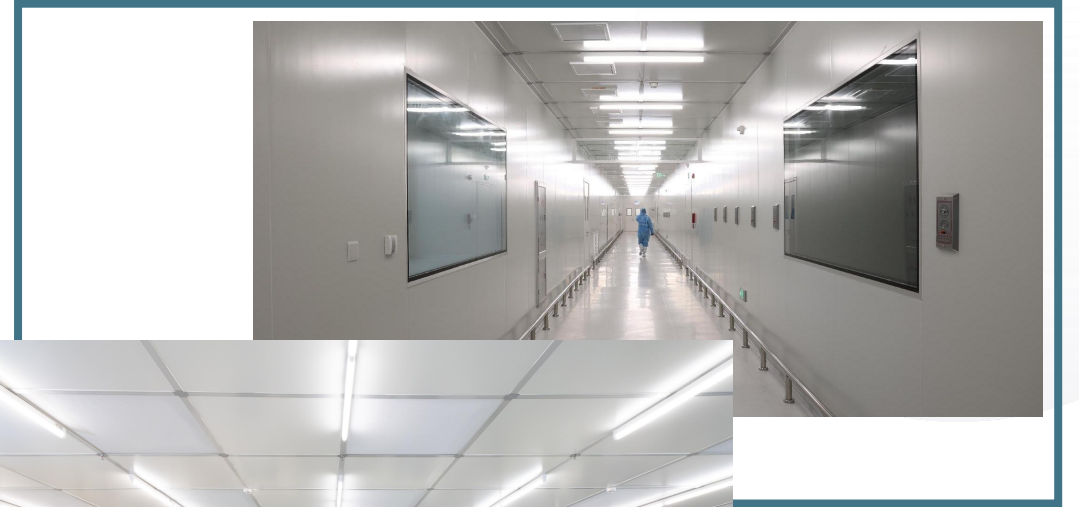


**Enviroment**



# Facilities

## Class-1000 Clean Room



# Production Facilities



**Bead Mill**



**Film Coater**



**R to R Printer**



**R to R Stacker**



**Isostatic Laminator**



**High Speed Testing and Sorting**



# Qualification



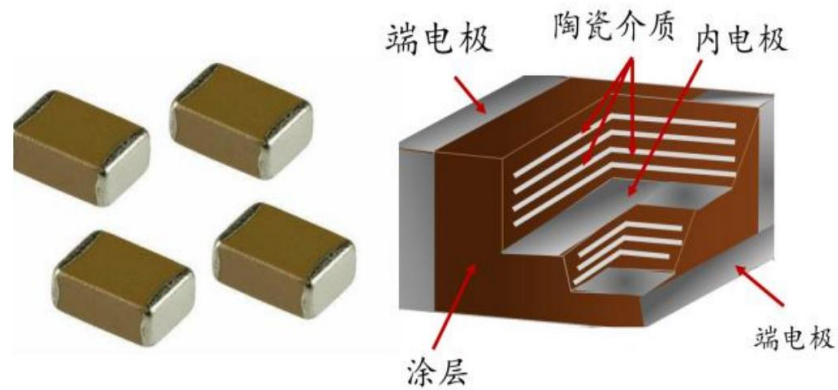
GB/T 19001-2016/ISO 9001: 2015  
ISO 14001: 2015  
IATF 16949:2016



**02.**

# **Products**

## ➤ Structure of Multilayer Ceramic Capacitor(MLCC)



### **Feature:**

High Value of Capacitance(Up to 330 $\mu$ F)

Small Size

Long Life Time

High Reliability

Low ESR for RF

High Thermostability

## ◆ General Series (C0G、X7R、X5R)

### Application:

- Communications, Smart Phone, Router.
- Filter for PS, Coupling, Amplifier, Bypass.
- Household Appliances, Control Circuit.

Size	Matl	Volt (V)	Cap Value
0402	C0G	25-50	0R3-102
	X7R	6.3-25	101-224
	X5R	6.3-50	102-225
0603	C0G	25-50	0R3-102
	X7R	6.3-50	101-225
	X5R	6.3-50	101-475
0805	C0G	10-50	0R5-103
	X7R	6.3-50	101-106
	X5R	6.3-50	102-226
1206	C0G	10-50	1R2-104
	X7R	6.3-50	151-226
	X5R	6.3-50	151-476

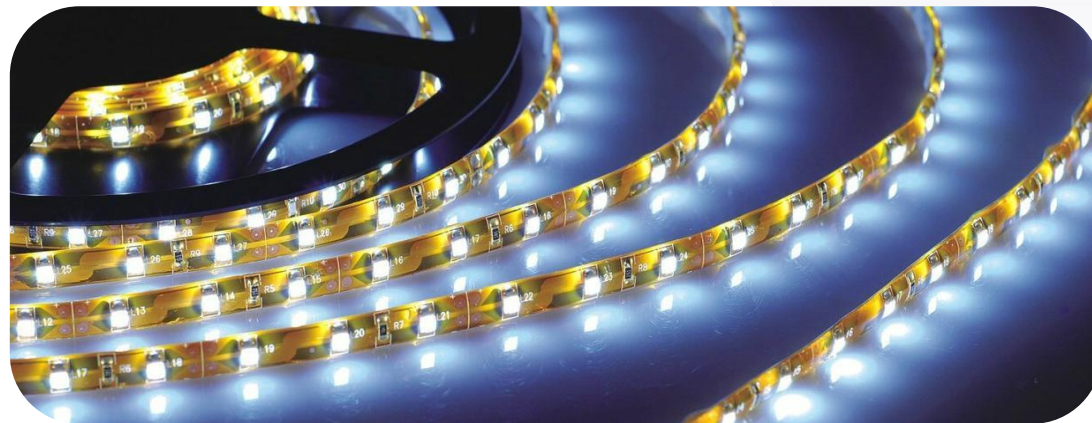


## ◆ General Hi Voltage (C0G、X7R)

### Application:

- Industrial Application, Power Supply、PV Inverter、Electricity Meter
- Buffer Circuit, Filter for Power Supply.
- Lighting, Charger、LED

Size	Matl	Volt (V)	Cap Value
0603	C0G	100-250	0R5-102
	X7R	100-250	101-104
0805	C0G	100-500	0R5-182
	X7R	100-630	101-224
1206	C0G	100-2000	1R5-222
	X7R	100-2500	101-474





## ◆ General Hi Freq and High Cap

### Application:

- Consumer Electronics
- Bypass for PS
- DC-DC converter, Digital Circuit



## ◆ General Large Size Hi Volt and Hi Cap

### Application:

- Coupling or Decoupling in Digital Circuit
- Bypass Circuit
- DC-DC Converter



## ◆ Anti-Cracking

### Application:

- Lighting, to avoid cracking for X7R material
- Special requirement for high reliability application



## ◆ Cu Electrode for RF Application

### Application:

- Tuner
- RF module: RF amplifier, VCO
- Communication equipment: Smart phone, BS





◆ X2Y EMI filter

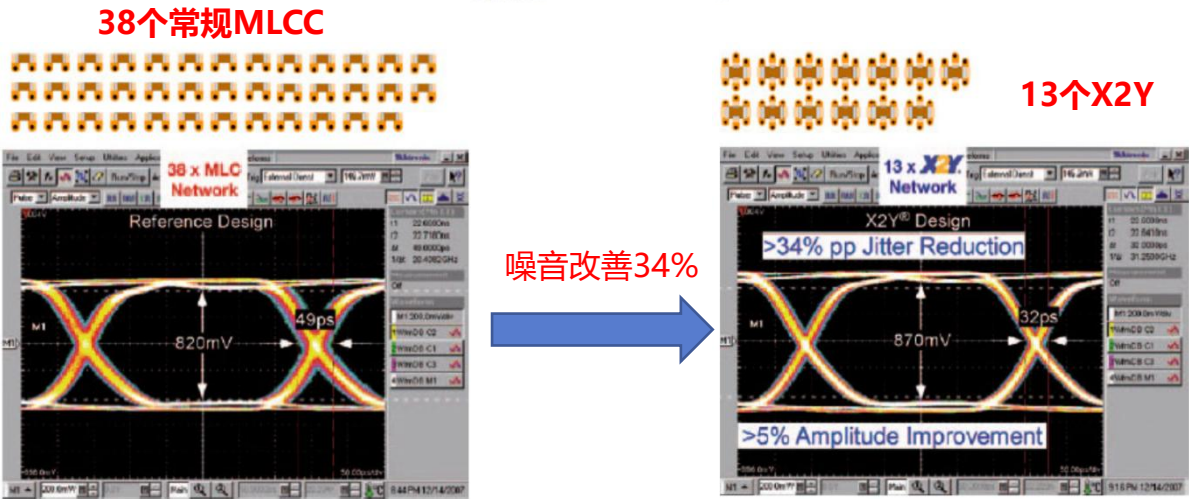
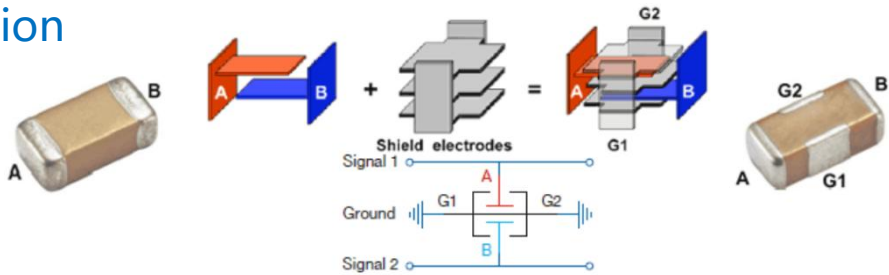
Application:

- Automotives,communication,medical equipments
- Amplifier,filter,decoupling,high speed digital transmission,I/O filter

Typical Size	Matl	Voltage	Cap Value
0603	X7R	100V	102
0805	X7R	100V	103
1206	X7R	100V	104
	X7R	100V	104
1210	X7R	500V	103
1410	X7R	500V	103

Feature:

- Simplified PCB design,high performance noise filtering,reducing MLCC consumption by using X2Y
- High performance of CMRR、 Super-low ESR
- X2Y filter applied on EMI filtering and noise reduction, an effective EMC solution to reduce Common-Mode Radiation



# ◆ Safety Series

## Application:

- Household electrical appliances and Lighting
- Communication equipments
- Power supply

## Feature:

- Nonpolarity,high reliability and high stability
- Reduced PCB space
- To reduce AC power Common-Mode Radiation and differential mode interfere

Typical Size	Class	Material	Rated Voltage	Impulse Voltage	Cap Value
1206	Y3	X7R	250	2500V	472
1210	X2	X7R	250	2500V	104
1808	X1/Y2	X7R	250	5000V	681
2211	X1/Y2	X7R	250	5000V	102-222
2220	X1/Y2	X7R	250	5000V	472





## ◆ High Power Impulse Capacitor

### Application:

- Industrial facilities
- Power grid equipment
- Medical equipment and oil drilling

### Feature:

- High energy
- Less than 100ns width of discharge pulse and up to 3500A discharge current
- Antiferroelectricity characteristic

Typical Size	Electrode	Voltage	Cap Value
4045	PD/Ag	1250V	224
			334
			474

## ◆ PME RF and microwave power capacitor

### Application:

- Medical equipment like MRI, Ultrasonic instrument and X-ray instrument

### Feature:

- Wide range working frequency, from 1KHz to RF
- Low ESR in RF working frequency
- Ferroelectric characteristic

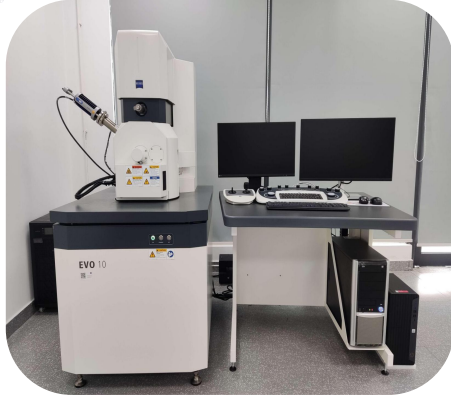
Typical Size	Material	Voltage	Cap Value
3838	C0G/Ag/Pd	7200V	120-181



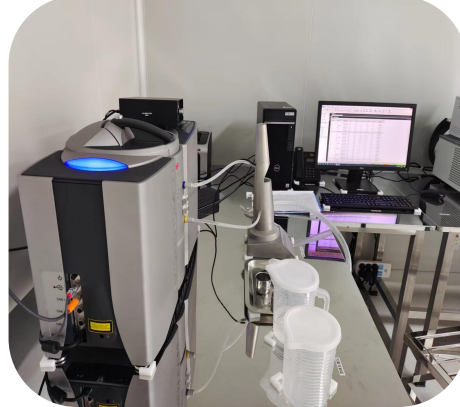
# 03. Quality Assurance

## ◆ For IQC,IPQC and R&D application

### Raw materials quality control



**SEM**  
(product and material  
microstructure analyzed)



**Particle size analyzer**



**Thermal Gravimetric Analyzer**  
(Binder burnout quality control)

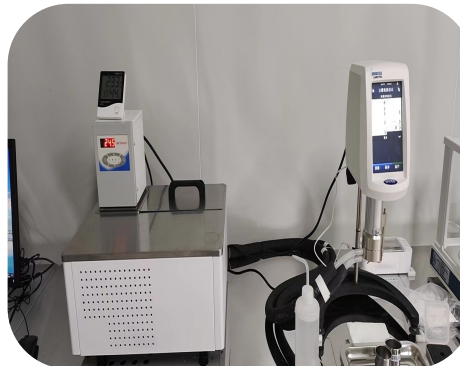


**X ray thickness tester**  
(Inner electrode thickness  
testing)

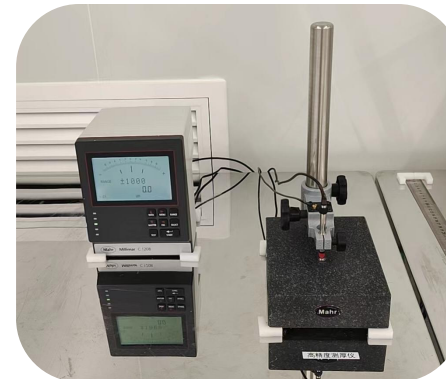
### In process quality control



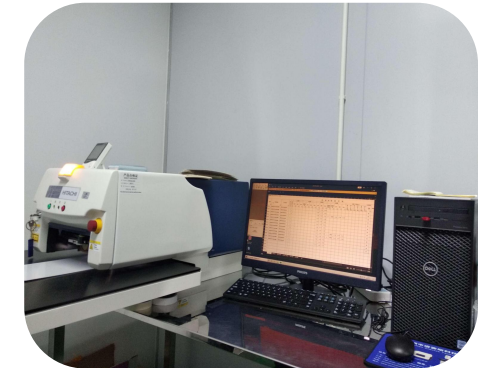
**Water content analyzer**  
(For powder quality control)



**Viscosity Analyzer**  
(For ink and ceramic slurry  
quality control)



**Thickness Tester**

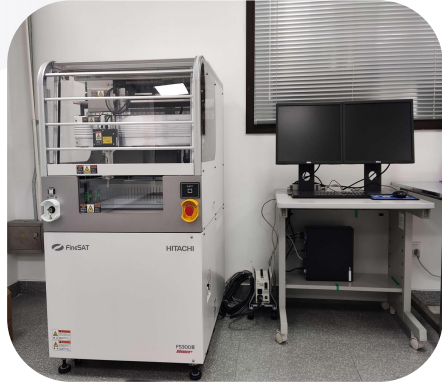


**Coating Thickness Tester**  
(For Ni and Sn thickness control)



## ◆ Quality and Reliability Assurance

### Reliability and life time test



**Ultrasonic Scanner**  
(for analysing inner structure defect )



**High temperature aging**



**Thermal Shock Test**



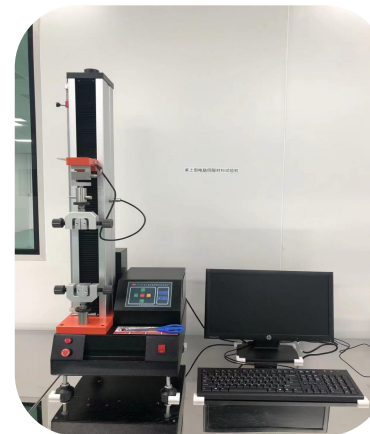
**Polarizing microscope**  
(Microstructure analysing)



**Bending Tester**



**Cross Section Grinder**  
For microstructure analysing



**Pull test**



**Microscope**  
(For visual inspection)



# Thank You

**Lihexing Electronic Components (Jiangmen) Co., Ltd**

**Address: 1/F, Block A, Building 1, 36 Chaocui Road, Jianghai**

**District, Jiangmen, Guangdong, China**

**Phone: 18825998714**

**Web: [www.leacap.com](http://www.leacap.com)**

**Email: [chenjingwen@lihexing.com](mailto:chenjingwen@lihexing.com)**