



# LIZ Electronic

## Company Profile

2023.Q3

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# LIZ Electronics' Development---1



| Company            | LIZ Electronic (Nantong) Co.,Ltd.                |
|--------------------|--------------------------------------------------|
| Address            | No.789 Kangfu Rd.,Nantong, Jiangsu, China 226300 |
|                    | Tel: +86-513-68856666                            |
|                    | Fax:+86-513-68383688                             |
|                    | E-mail: sales.ks@lizgroup.com                    |
|                    | Website: www.lizgroup.com                        |
| Authorized Capital | 33Million USD                                    |
| Employees          | 1200                                             |
| Land Area          | 100,000 m2                                       |
| System Certificate | ISO9001:2015                                     |
|                    | IATF16949: 2016                                  |
|                    | ISO14000: 2015                                   |
|                    | ISO45001: 2018                                   |
| Building Area      | F1: 20,000 m2 ; F2: 20,000 m2                    |

## LIZ Electronics' Development---2

● Year of establishment: 1988

● Factory area: 100,000m<sup>2</sup>

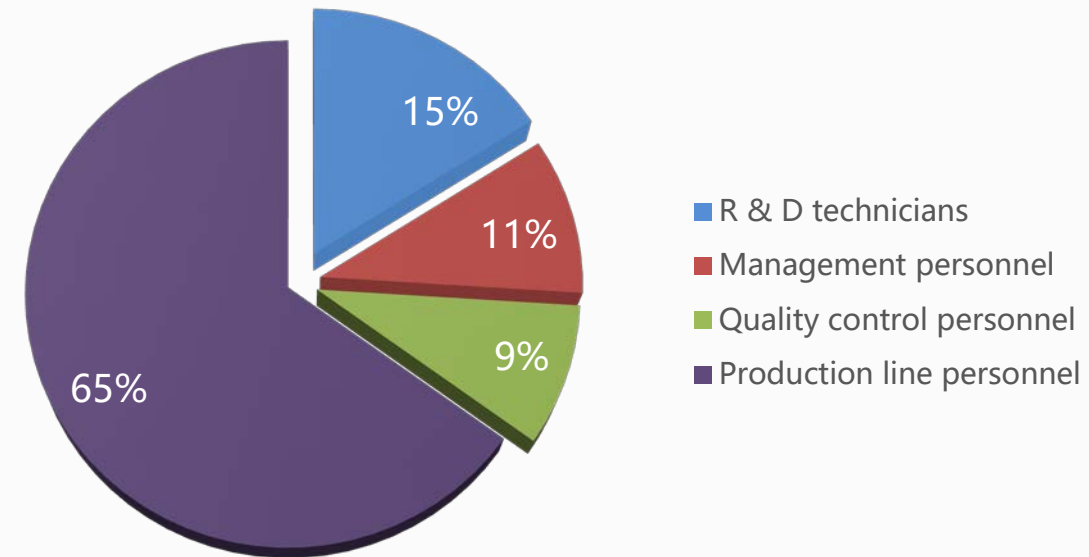
● Number of factories: 1,200

● The main:

- Thick Film Chip Resistors
- Metal Current Sensing Chip Resistors
- Chip Array Chip Resistors
- Chip Diode

DGPHNST  
— 華年 —  
电话: 0755-23173910

LIZ ELECTRONICS  
EMPLOYEE DIVISION



# LIZ Electronics' Development---3

## Nantong Factory



# LIZ Electronics' Development---4

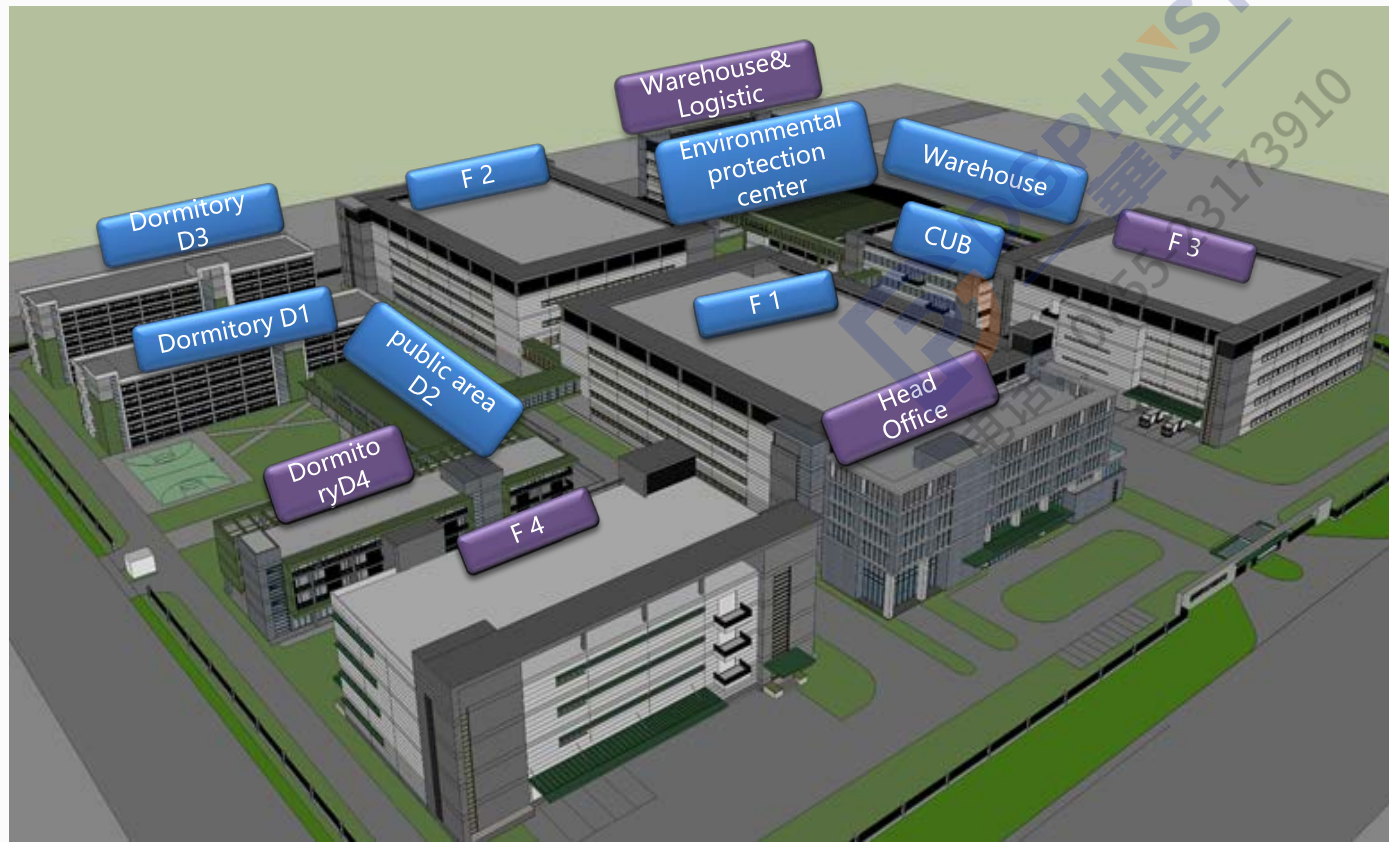
Nantong Factory

National sewage treatment plant



- Nantong Plant started production on May 1, 2017 formally.

# LIZ Electronics' Development---5



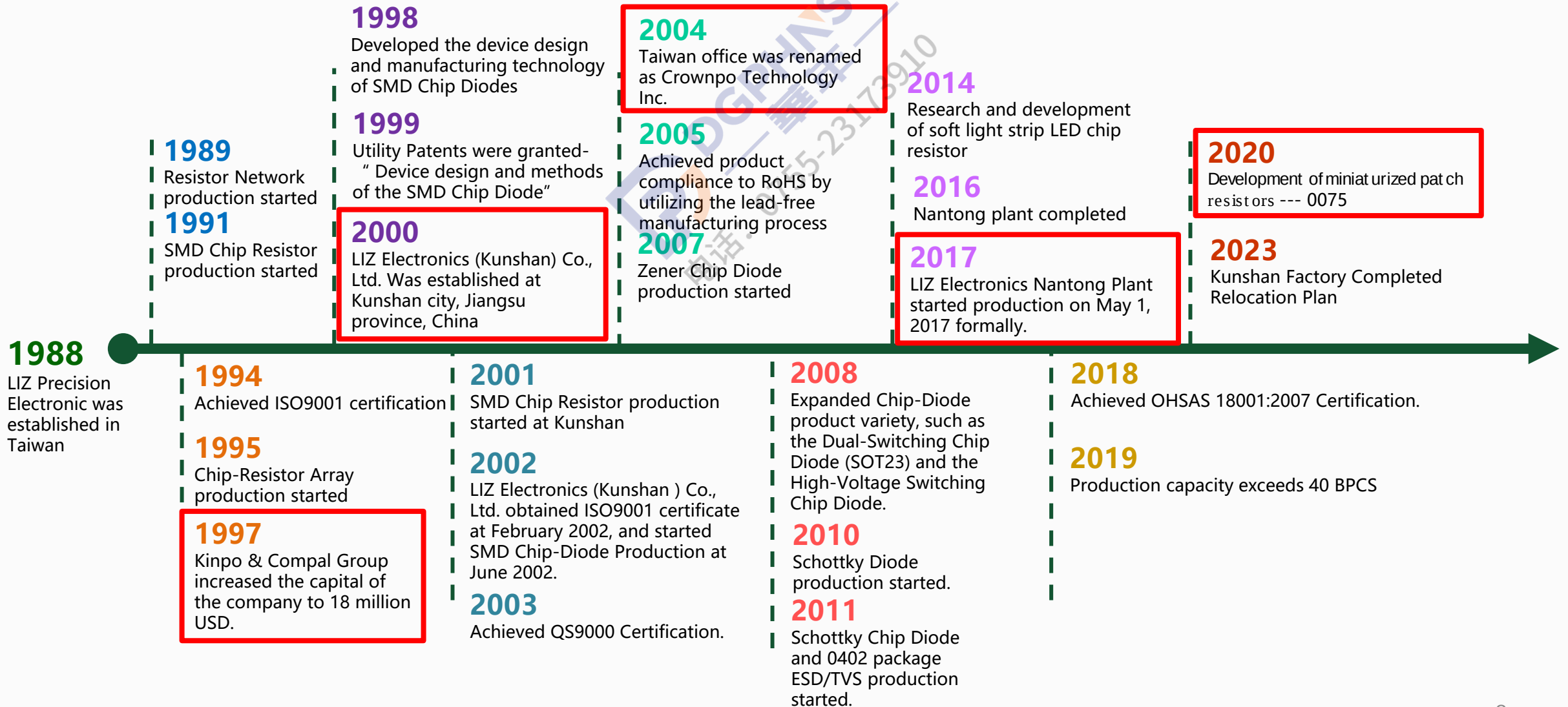
Nantong factory

 **Finished**

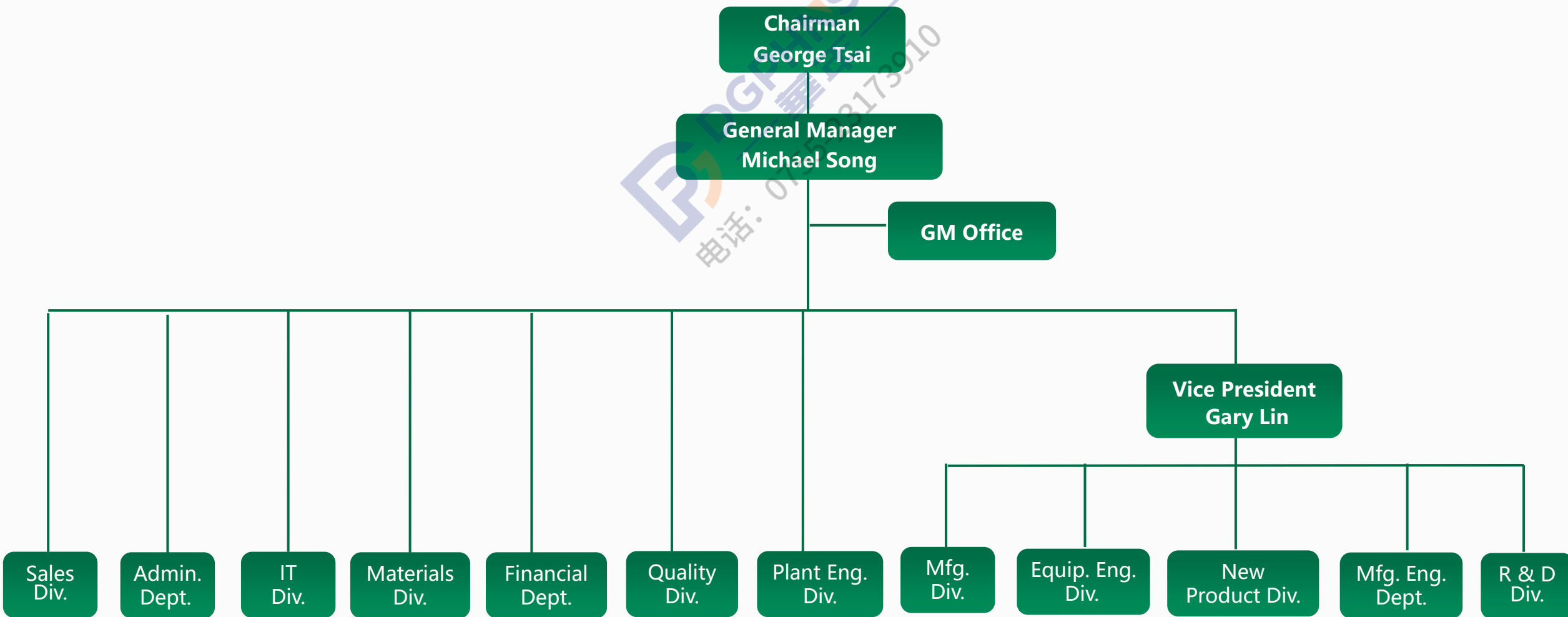
 **Planning**

|                    |               |
|--------------------|---------------|
| Initial Investment | USD 60Million |
| Established        | MAY 2017      |
| Capacity/M         | <b>33Bpcs</b> |

# 1988~2023Y LIZ Electronics' Development



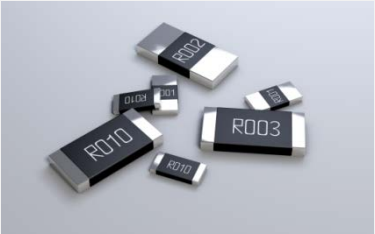
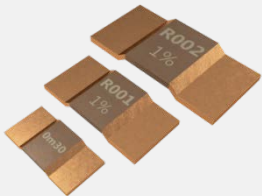
# Company Organization



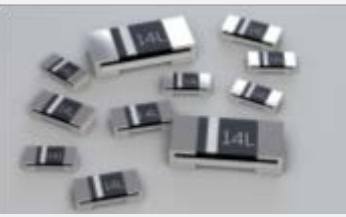
# Chip Resistor Capacity

| Product Type (inch/mm)                                                                                        |                                           | 2023<br>Monthly Capacity<br>(Billion pcs) | 2024<br>Monthly Capacity<br>(Billion pcs) | 2025<br>Monthly Capacity<br>(Billion pcs) |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
|  <p><b>Chip Resistor</b></p> | 01005 (0402)                              | 0.2                                       | 0.2                                       | 0.3                                       |
|                                                                                                               | 0201 (0603)                               | 6                                         | 10                                        | 13                                        |
|                                                                                                               | 0402 (1005)                               | 13                                        | 18                                        | 21                                        |
|                                                                                                               | 0603 (1608)                               | 9.1                                       | 9.1                                       | 10                                        |
|                                                                                                               | 0805 (2012)                               | 7.3                                       | 7.3                                       | 8.2                                       |
|                                                                                                               | 1206 (3216)                               | 8.9                                       | 9.9                                       | 11.9                                      |
|                                                                                                               | 1210 (3225)<br>2010 (5025)<br>2512 (6432) | 0.4                                       | 0.4                                       | 0.5                                       |
|                                                                                                               | 0402 8P4R<br>0603 8P4R                    | 0.1                                       | 0.1                                       | 0.1                                       |
| TOTAL                                                                                                         |                                           | <b>45</b>                                 | <b>55</b>                                 | <b>65</b>                                 |

# Metal Current Sensing Capacity

| Product Type                                                                                                      |                            | Monthly Capacity<br>(Million pcs) |
|-------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------|
| <br><b>Metal Strip</b>           | RM1206                     | 20                                |
|                                                                                                                   | RM2512                     | 25                                |
| <br><b>Metal Foil</b>            | RE0805<br>RE1206           | 20                                |
| <br><b>Low-Resistance Shunt</b> | RZ2512<br>RZ3920<br>RZ5930 | 3                                 |
| <b>Total</b>                                                                                                      |                            | <b>68</b>                         |

# Patented Chip Diode Capacity

| Product Type                                                                       |           | Monthly Capacity<br>(Million pcs) |
|------------------------------------------------------------------------------------|-----------|-----------------------------------|
|   | Switching | 500                               |
|   | Zener     | 100                               |
|  | Schottky  | 50                                |
|                                                                                    | Total     | <b>650</b>                        |

# Chip Resister—Series (1)

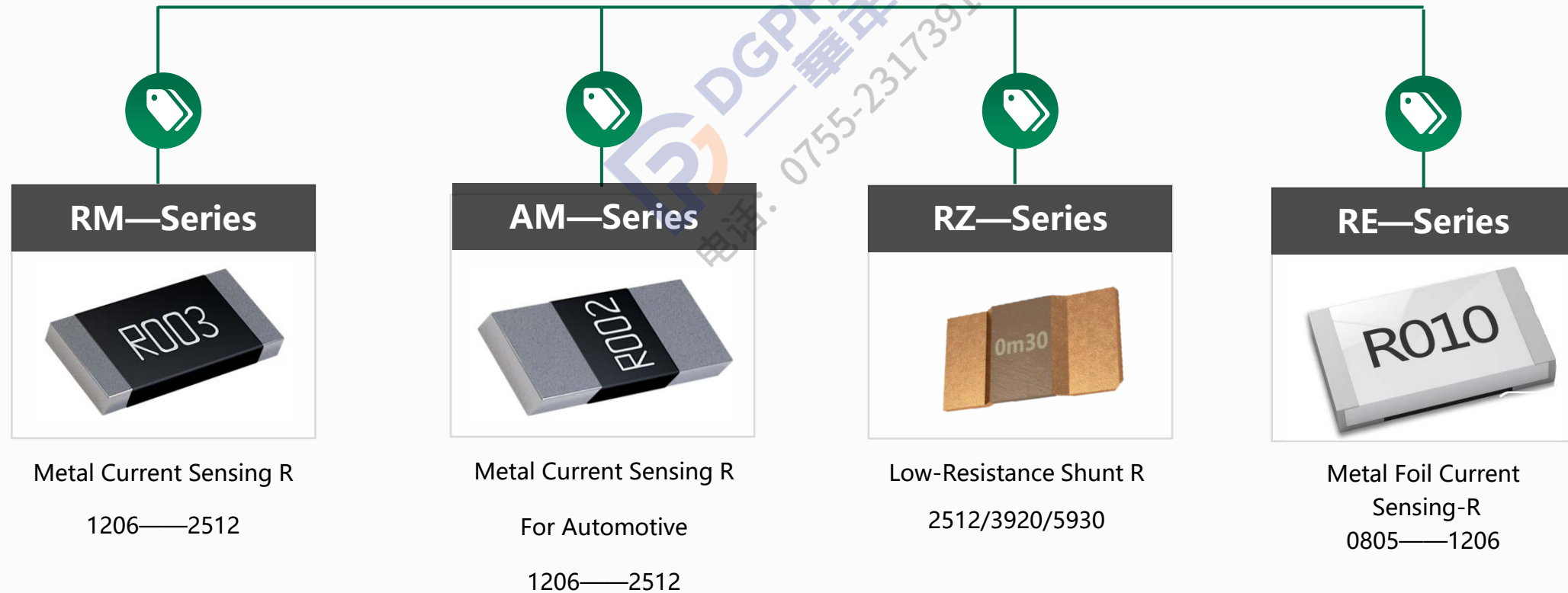


● High Power Thick Film Chip-R CH2512 2W

## Chip Resister—Series (2)



## Chip Resister—Series (3)



# Chip Resister—Series (4)



● High Voltage Thick Film Chip-R

CV 1206 UL certification

# Application of chip resistor



Mobile / Wearable  
CR/AS/PF/RM/RZ



Computer / Netcom  
CR/CA/CD/RM/AM



Medical  
CR/AS/PF/RM/RZ/RE



Household appliances  
CR/AS/PF/RM/AM



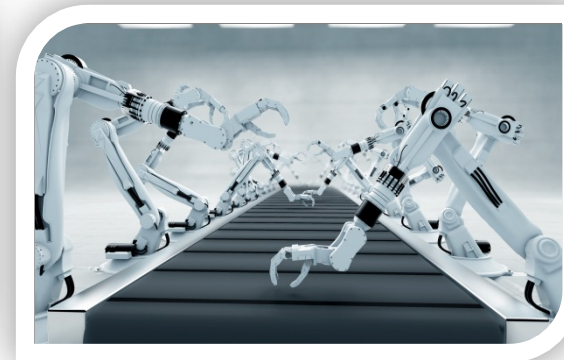
Base station  
CR/AS/RM/RZ/AM/CV



Lighting  
CR/AS

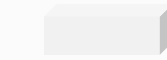
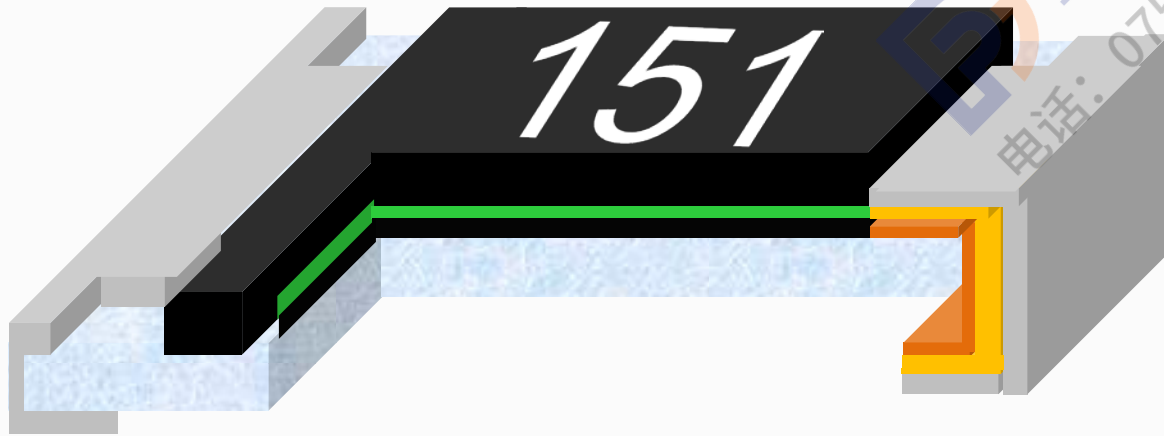


Automobile  
AQ/RS/CH/RM/AM/RZ



Industry  
CR/AQ/RS/CH/RM/RE/AM/CV

# Chip Resister Series Process



Marking



Inside protective layer



Silver electrode



Nickel plating layer



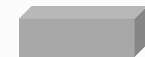
Outer protective layer



Resistance layer

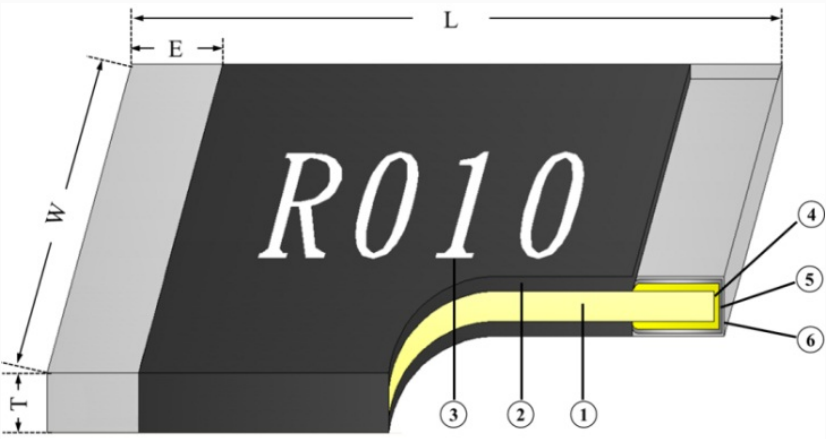


Ceramic substrates



Tin coating

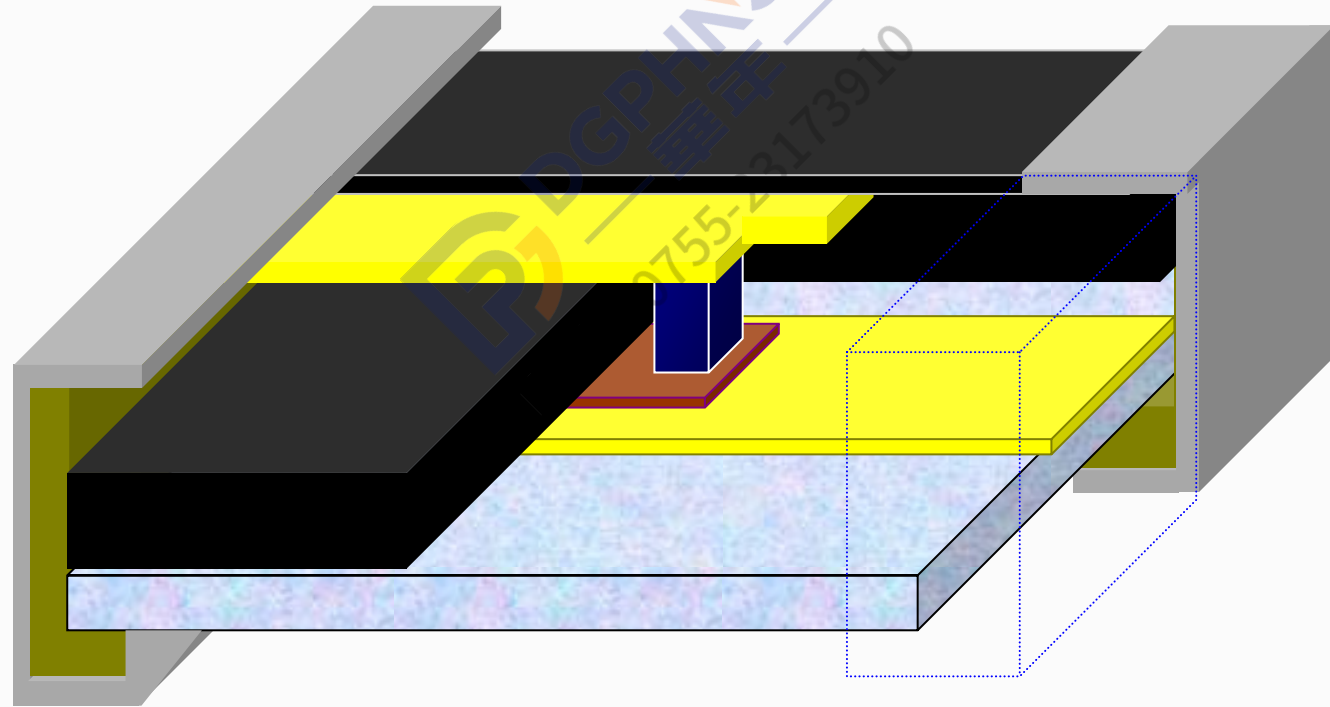
# RM Series Process



Stamping, die pressing, copper plating process, stable and smooth product structure, provide good operation for the user's automatic assembly equipment, reduce the defective rate

| No | Construction                  | Major Material |
|----|-------------------------------|----------------|
| 1  | Resistive layer (Metal Alloy) | Metal Alloy    |
| 2  | Protective layer              | Epoxy          |
| 3  | Marking                       | Epoxy          |
| 4  | Cu plating layer              | Cu             |
| 5  | Ni plating layer              | Ni             |
| 6  | Sn plating layer              | Sn             |

# Chip Diode Process



Ceramic substrates



wafer



Silver conductor



NiCr alloy



Epoxy



Silver conductive



Nickel/tin coating

## LIZ Advantage

### Plating Line

- NT can expand to 24 line  
(Now owns 7line+2 Cu line)
- Automated production line

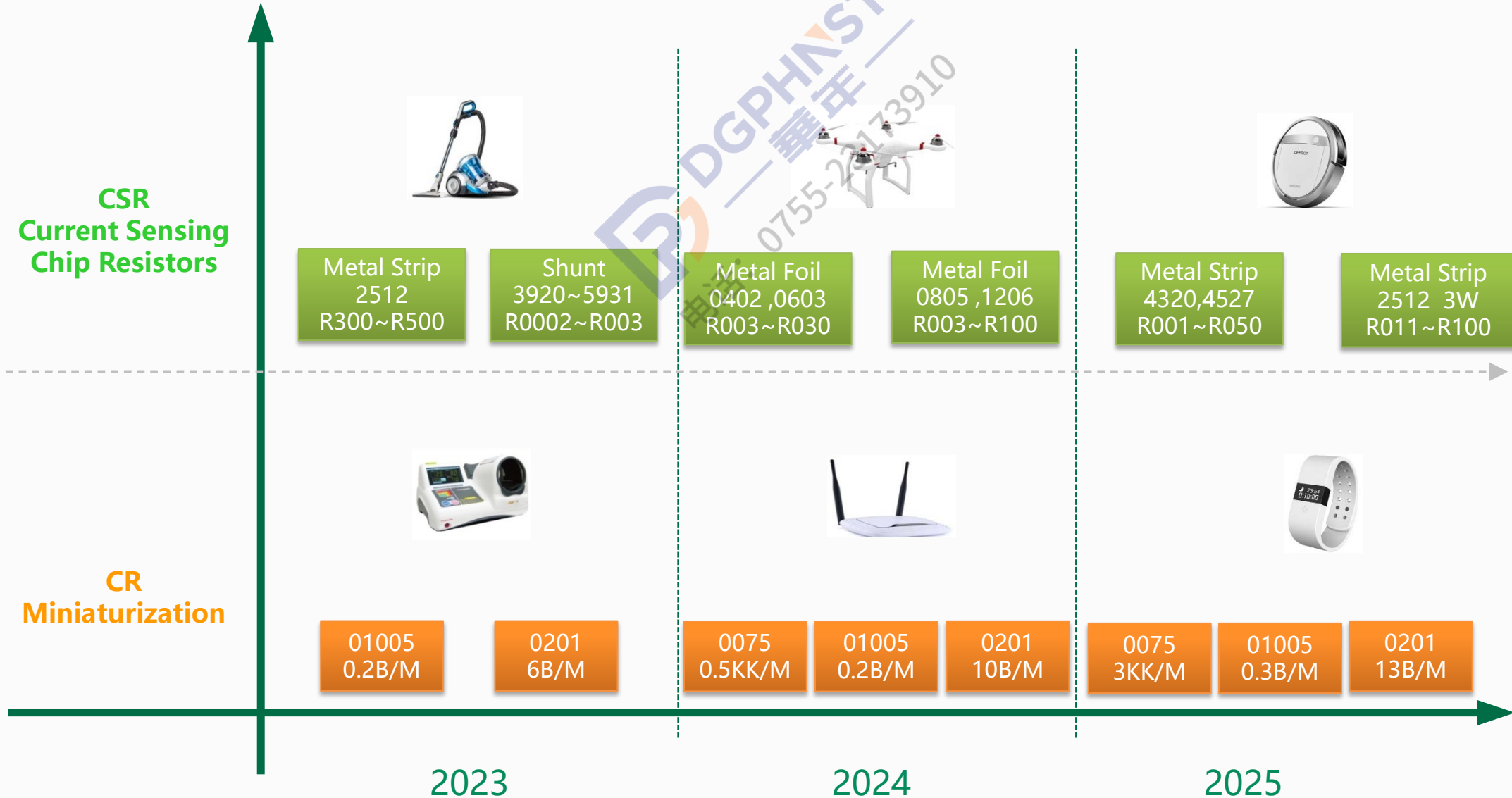
### R&D Ability

- China(KS/NT)
- Taiwan(KH---Li-Cheng Materials Corporation)
- Co-work with Taiwan Industrial Institute

### Product Line

- Full series of Chip Resistor
- R & D and production of ultra small resistor 0075
- New package of Patent Chip Diode

# Product Roadmap 2023 ~ 2025





**Superior Partner**

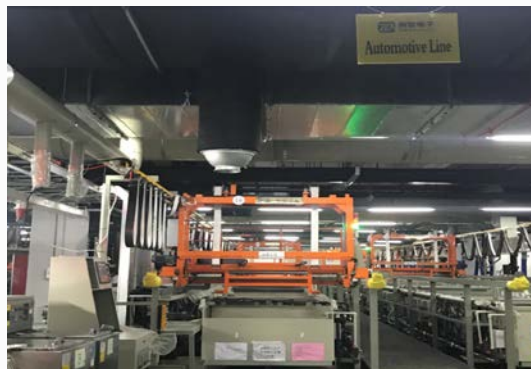
**LIZ**

**Your Best Choice**

**(Process Management)**

## Why engage LIZ as a superior partner

- Valuable **Plating Resource** :
    - **24 plating lines capacity** which waste water discharge approved
    - **Allowed Cu-plating** , LIZ is one of rare approved passive component makers in China
- NT can expand to 24 line ( Now owns 7line+2 Cu line )

| Normal Line                                                                        | 0201 Line                                                                           | Automotive Line                                                                      | Cu-plating line                                                                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |

# Why engage LIZ as a superior partner - Bare-eye Inspection free

- Optical CCD 100% sheets inspection install on printing M/C
- Optical six-side color CCD 100% pcs inspection between plating and taping process for automotive products
- Optical CCD 100% pcs inspection install on taping M/C
- Auto-stuck and bar-code scanning labels device installed taping M/C

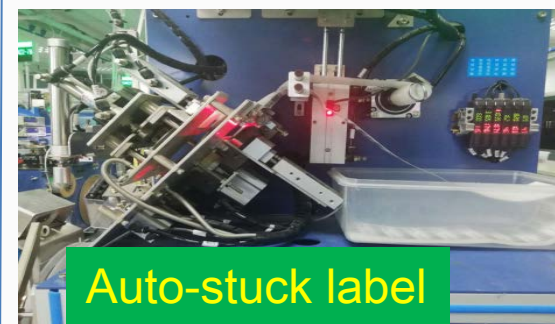
Printing M/C



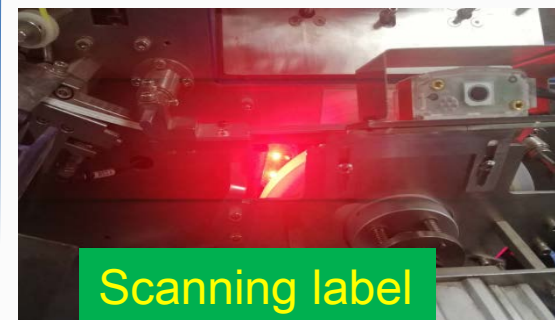
6-side color CCD M/C



Taping M/C



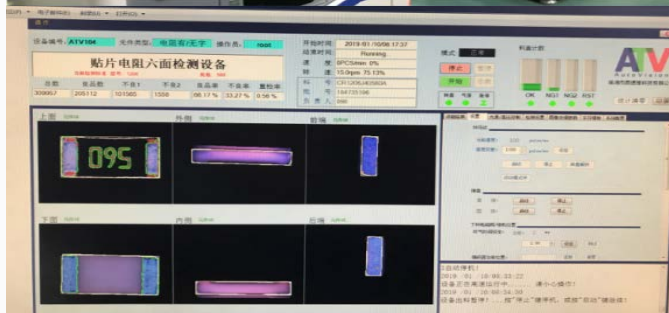
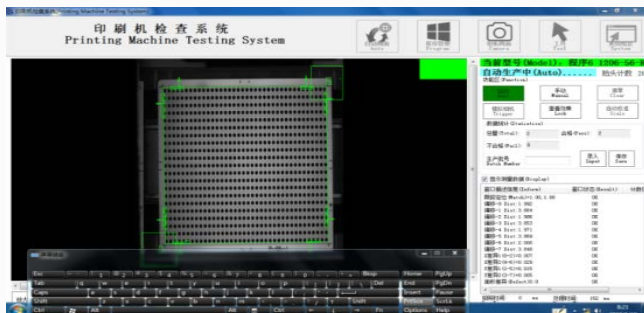
Auto-stuck label



Scanning label



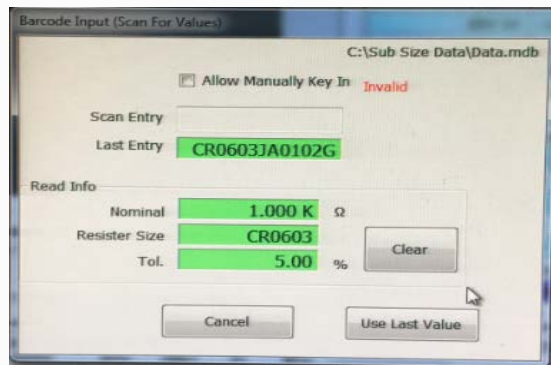
CCD Device



# Why engage LIZ as a superior partner - **Manual Setting free**

- Setting process parameters via Bar-code scanner in Laser-trimming/plating / taping process.

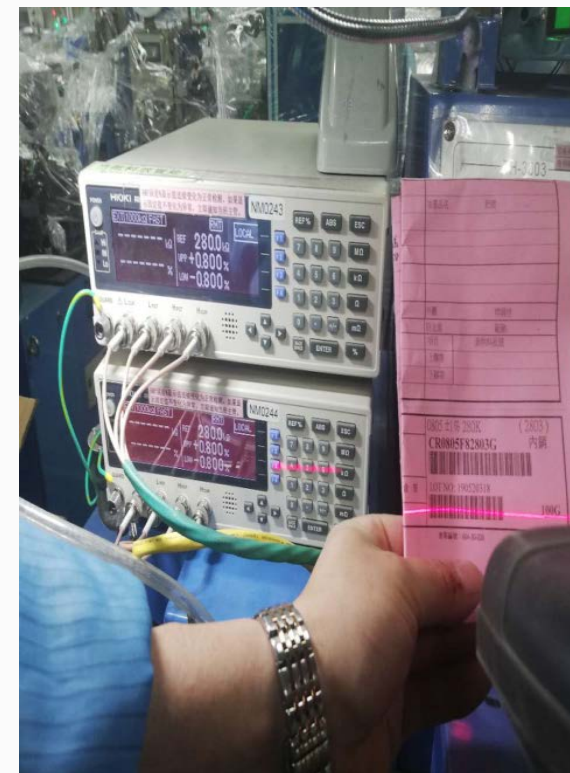
## Laser-trimming



## Plating Process



## Taping process





**Lead Innovation Zero**

领先 - 创新 - 完美



2023.Q3