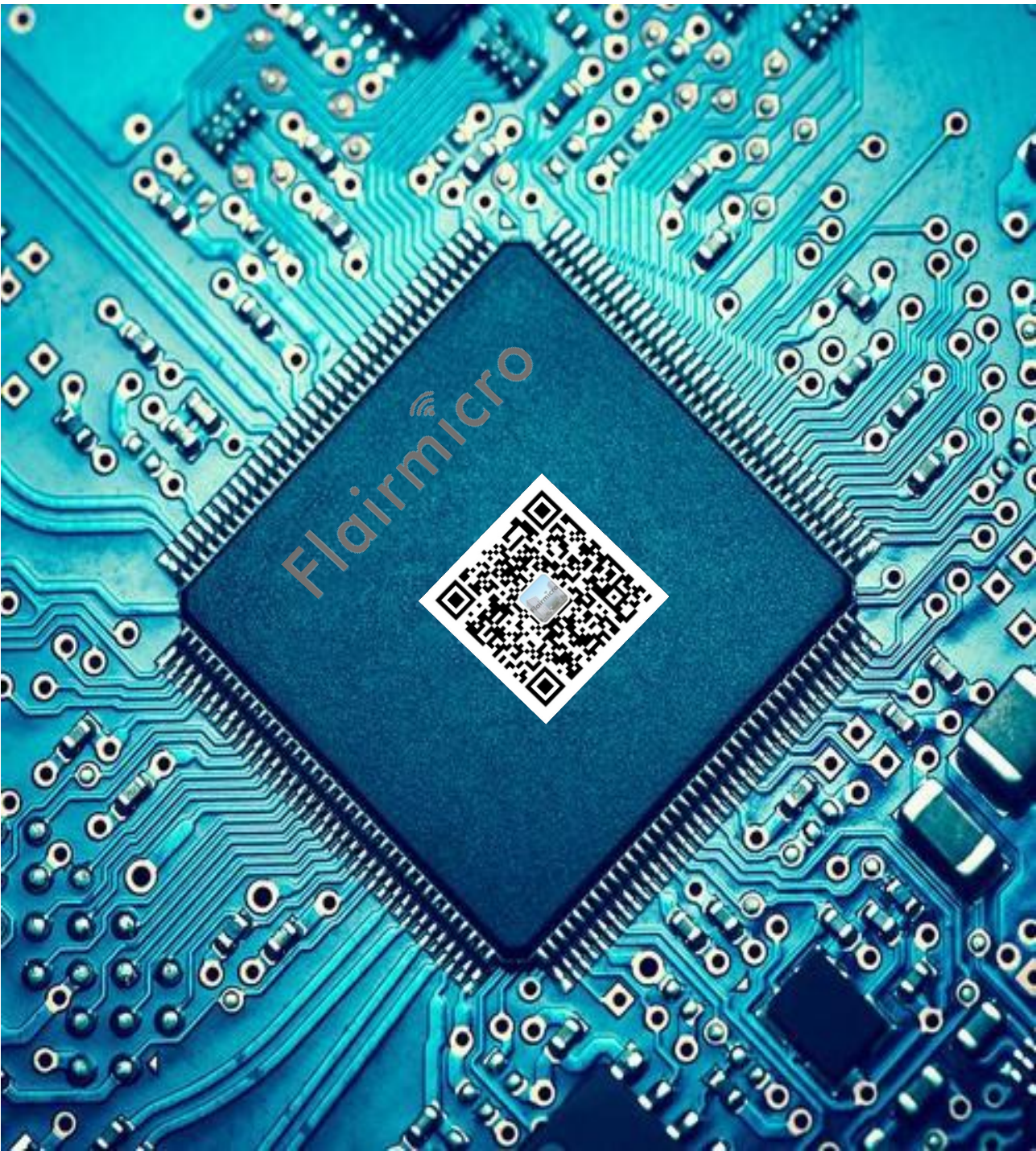


Flairmicro

# Your Reliable Partner of IOT

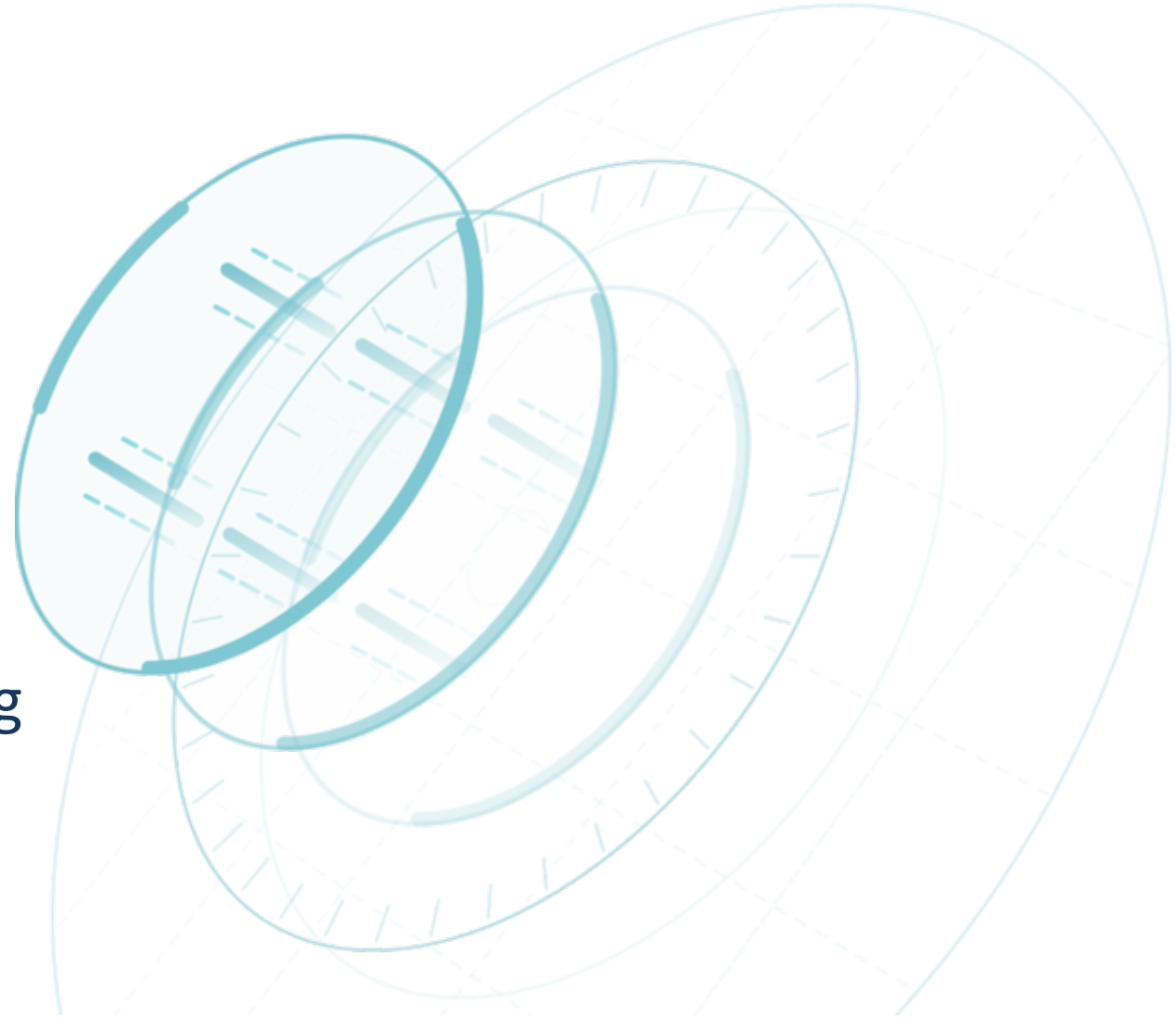
Flaircomm Microelectronics, Inc



# C O N T E N T S

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- About Flairmicro
- IOT Application
- Smart Manufacturing



Flairmicro

Flairmicro



# About Flairmicro



## About Flairmicro

Flairmicro is a high-tech enterprise dedicated to provide high-reliability, cost-effective wireless communications products for Internet of Things, car networking design, development of embedded software and overall solutions. With customers in more than 20 countries and are worldwide leading provider of IoT and vehicle networking solutions.

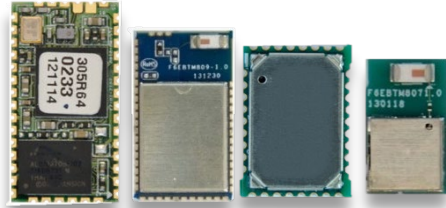


# Location



- 01 Fuzhou-HQ**  
Car networking and IoT research and development, logistics
- 02 Xiamen**  
IoT research and development
- 03 Shanghai**  
Car networking research and development
- 04 Nanjing**  
Production Site
- 05 Shenzhen**  
Sales, Production Site

# What we do



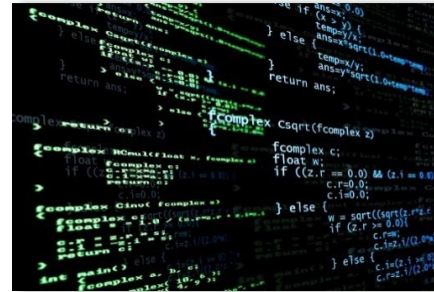
## IOT short-distance communication module

- Bluetooth, WIFI, Positioning, Ample configuration
- Meet strict requirement of automobile before-market
- Remarkable radio-frequency performance
- Reliable and simple interfaces



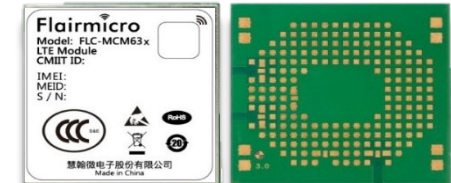
## IOT & V2X Device

- Support all mainstream communication mode
- Ample input and output interface
- High-reliable and cost-effective
- Support E/B/I Calls
- Support built-in battery and antenna



## Stacks & Algorithm

- Stable and reliable communication profiles
- Outstanding acoustic algorithm
- Secure and reliable vehicle communication profile
- Highly customized services



## V2X Cellular module

- Support multiple communication mode
- Support three communication operators in China at the same time
- Pass strict reliability testing
- Support software customize development

# Industry Position



China's largest supplier of automotive frontend and industrial IoT modules



First in China to MP automotive frontend TBOX products and with highest qty shipped



China's first commercial vehicle frontend 4G LTE module and TCU



World 's first mass produced Internet car (SAIC/Alibaba - RX5)  
TCU supplier



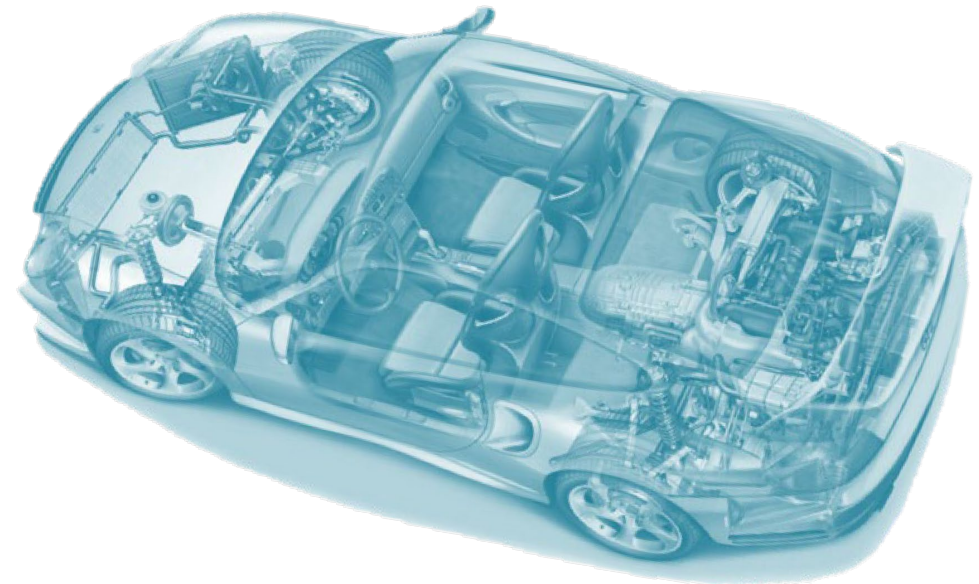
One of the few suppliers in the world that can develop  
and mass produce automotive LTE modules and TCU



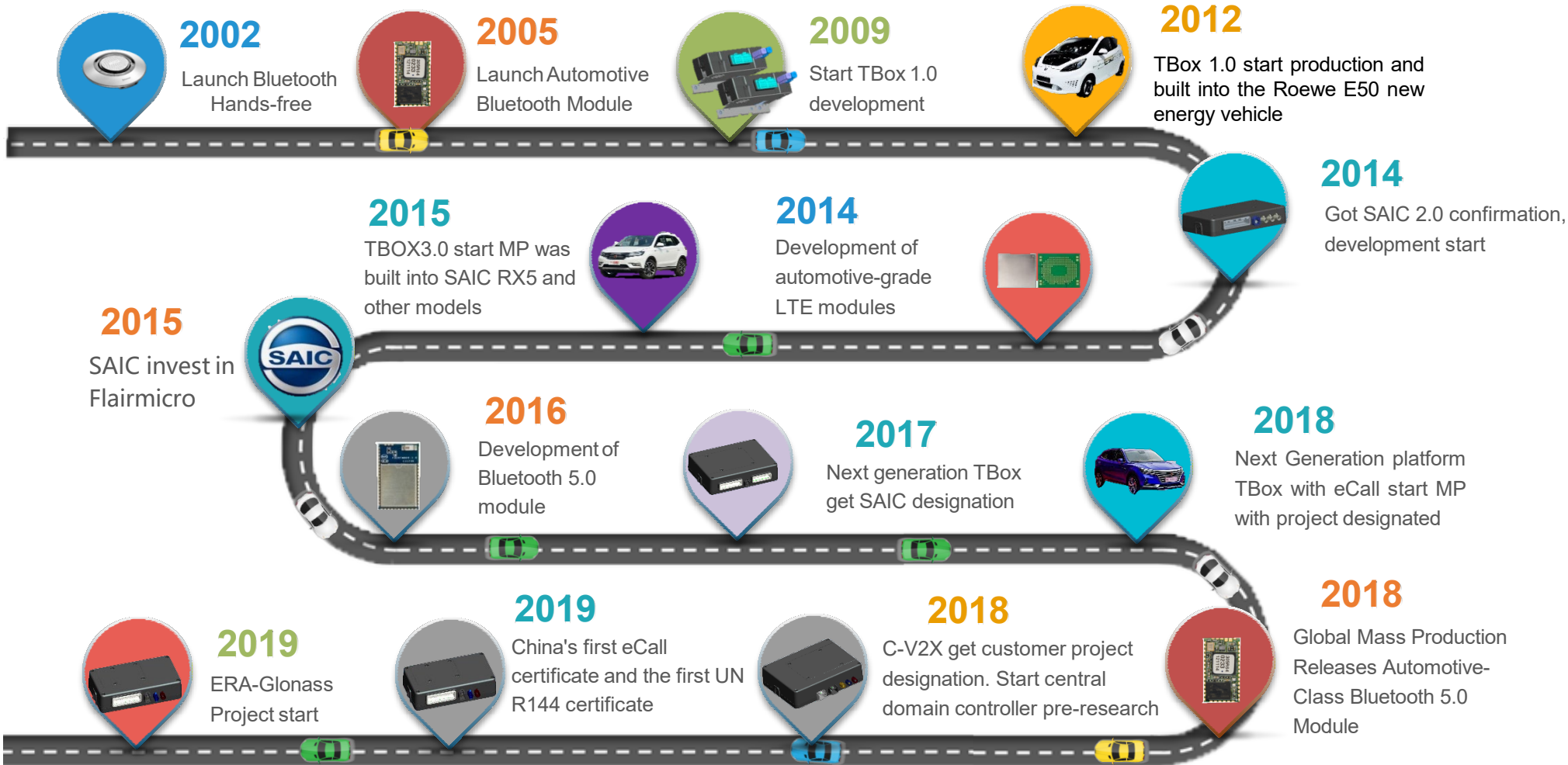
Complete the world's largest automotive FOTA in 2017



First Automotive networking supplier in China to receive  
E-Call certificate through EU certification



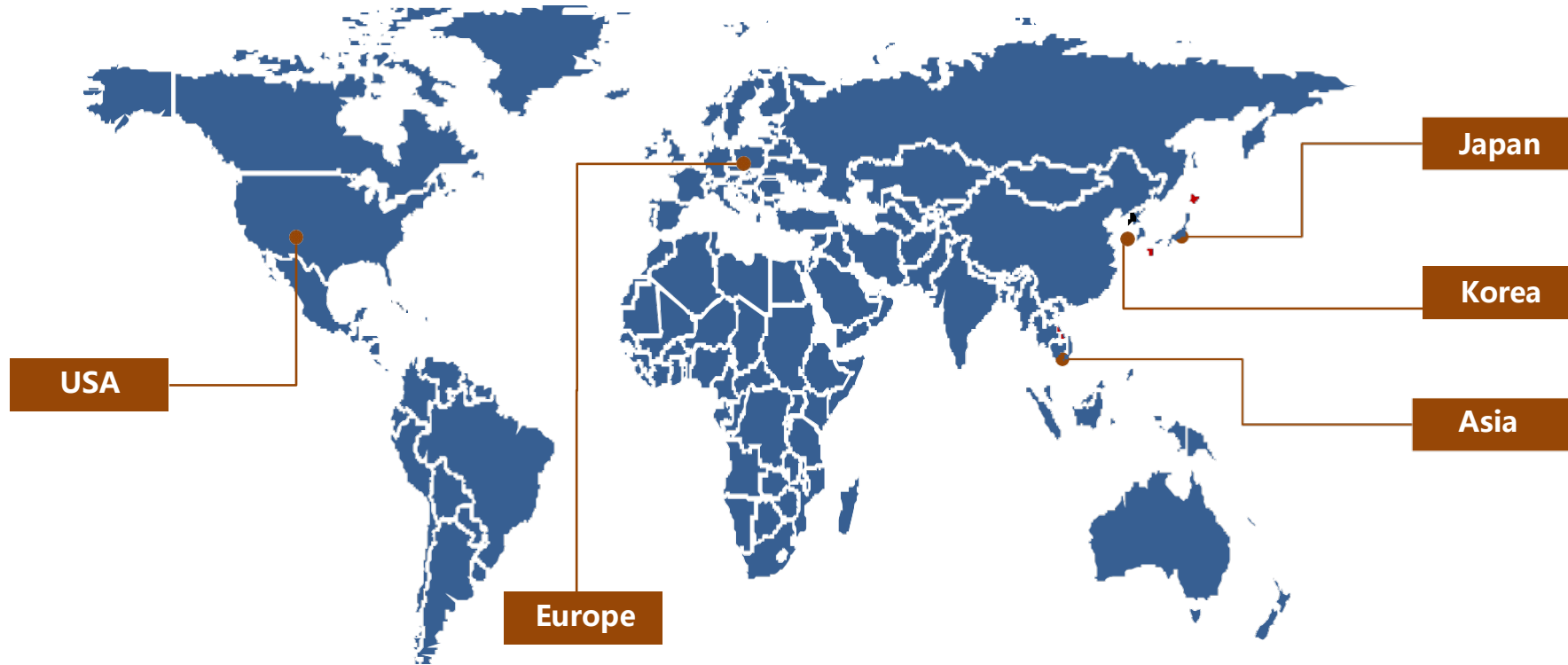
# History of Development





# Overseas Markets and Channels

Flairmicro monitor the global market to promote superior technology and products to Worldwide Overseas Market and Partners .



# Partnership



# Partnership



上汽集团  
SAIC MOTOR



TOYOTA



中国一汽



BUICK



吉利汽车  
GEELY AUTO



CHERY



BORGWARD  
宝沃汽车



五菱汽车  
品质驱动生活



北京汽车  
BAIC MOTOR



SOU EAST  
东南汽车



QOROS  
观致汽车

CATL

*DENSO*

Crafting the Core

SV AUTO  
德赛西威

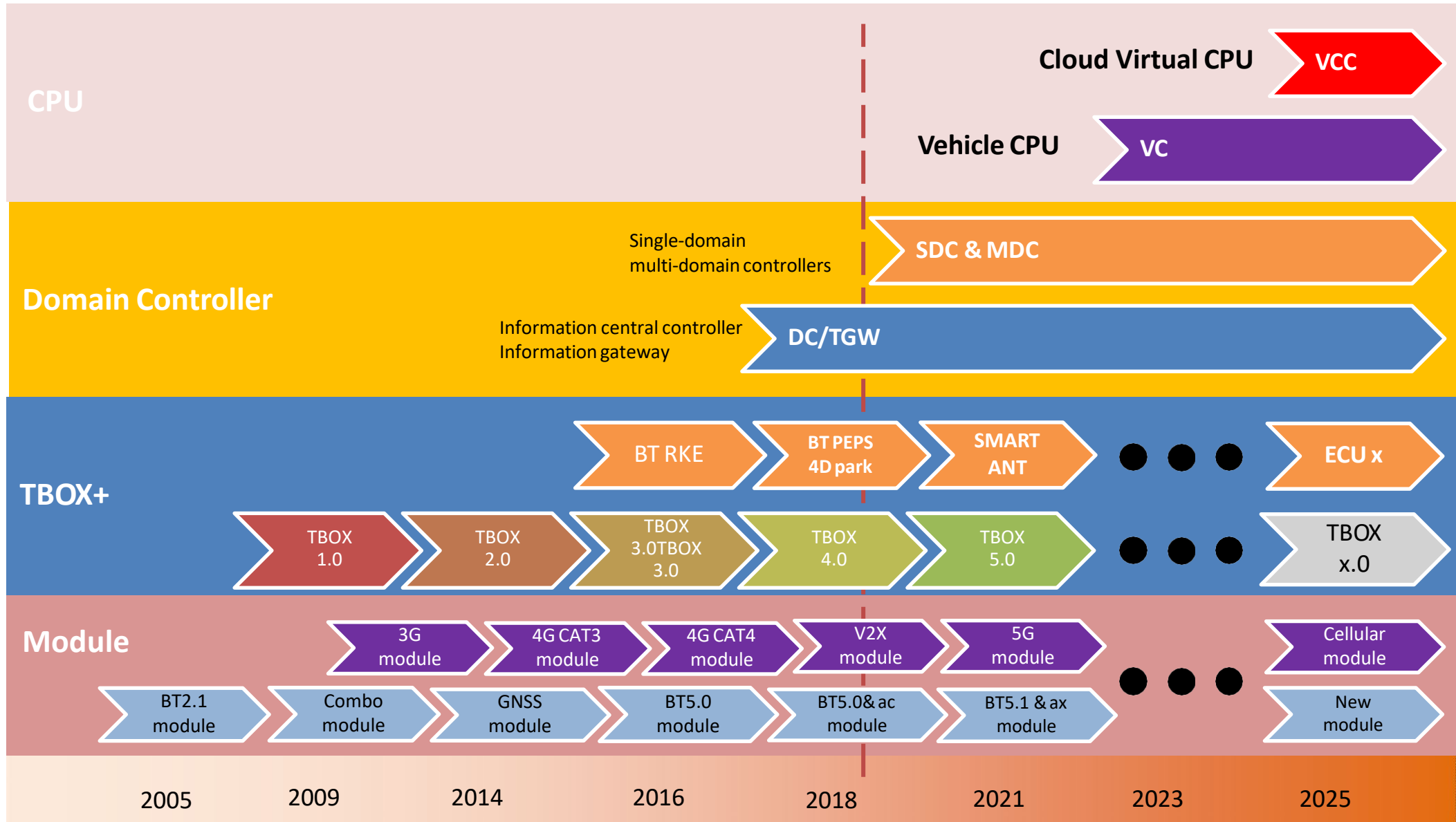
faurecia clarion



MICROCHIP

SIERRA  
WIRELESS

# Technology Evolution





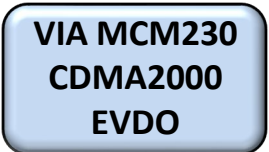


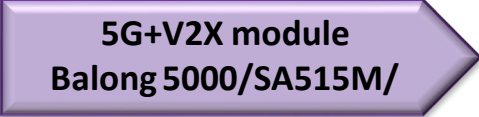
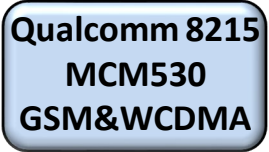
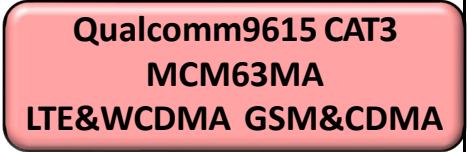
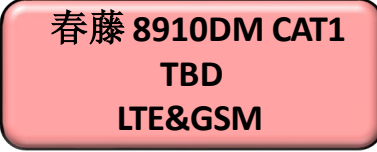
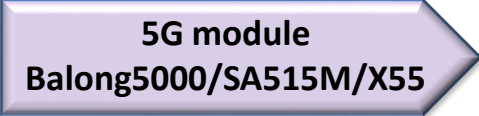






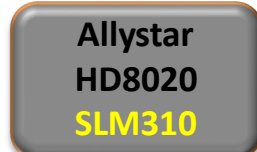





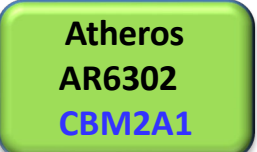

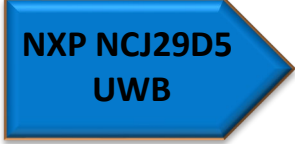



Provides communication modules, Protocol Stack, Acoustic algorithms, Software middleware, Smart Terminals, Complete solutions such as management platforms.







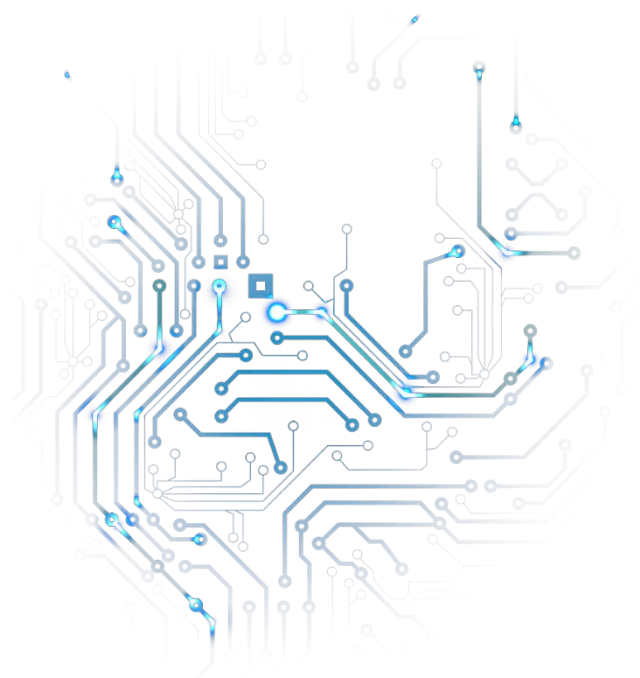
Industrial & Consumer	In Production	2020				2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
 													
													
													
													
													
													
													



# | IOT Solutions

Cold chain, motor monitoring, industrial monitoring,  
automotive applications, conference system

Bluetooth car control, door lock application, Bluetooth tire  
pressure monitoring, Bluetooth intercom system



# Applications of IOT module



Before market & after market



Car video system



Navigation



Car infotainment



Car air fresheners



Smart rearview mirror

# Applications of IoT module



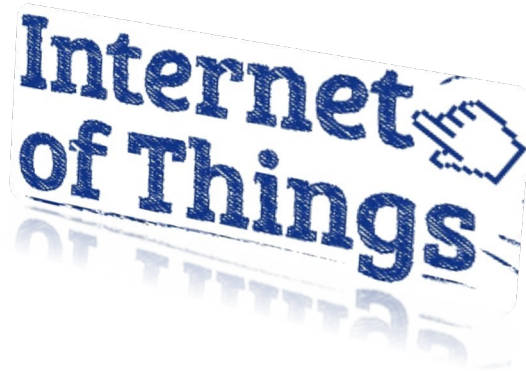
Infrared sensor



Commercial lighting



Agriculture



Energy Management



Video conference system



Logistic



Industrial PDA

# Applications of IoT module

## Health care, Sports



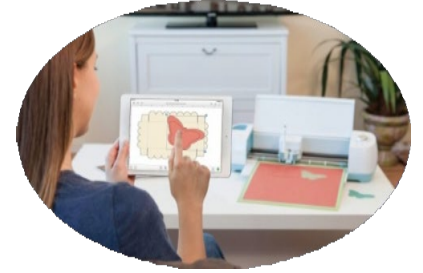
## Wrist strap



## Kinds of Lighting



## DIY Device



## Intercom system



## Home automation



## Entertainment (Games or audio)



# IoT solution



**IOT-RDB**

- remote database bridge
- GPRS.GPS
- CAN connect
- Controlled by remote platform
- Monitor device remotely
- Local data analyst and transmit



**IOT-Parking detection**

- Status detection of parking space
- Remote management and monitoring
- Real-time parking information update
- NB-IOT, BLE
- Temperature detection
- Waterproof and anti-theft



**V2X-BLE PEPS**

- BLE5.0
- AOA/TOF technology
- Precise location 20cm
- The location of mobile phone can be located with multiple nodes



**IOT-DBOX**

- GPS,GPRS,BLE
- Support OBD protocol
- Remote device diagnosis
- Location information and track recording
- Built-in basic diagnostics
- electronic fence

# Cold chain control



To monitor refrigerators' working condition to ensure food safety

To collect:

Freezer temperature

Freezer status



To control:

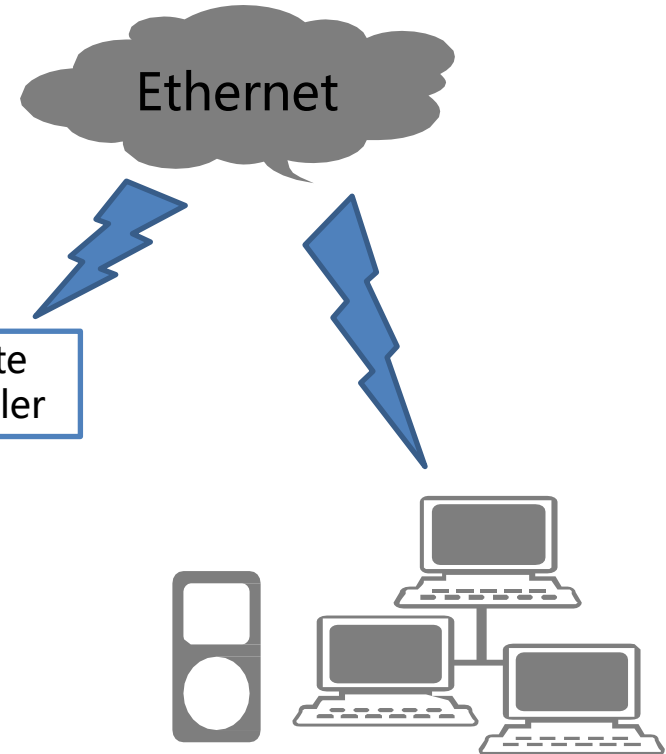
The refrigerator operation

The temperature of the freezer

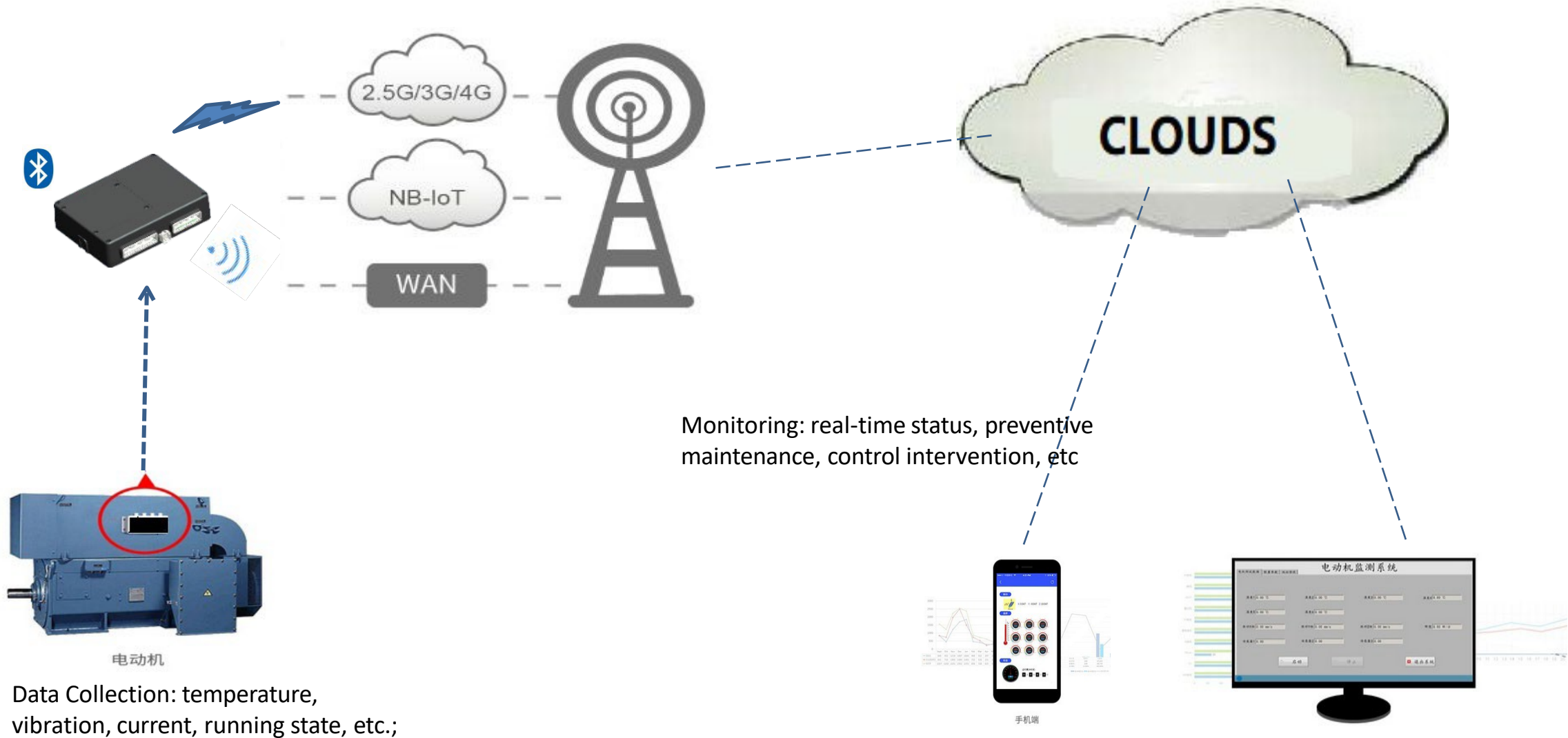
Refrigerator asset tracking



Remote controller



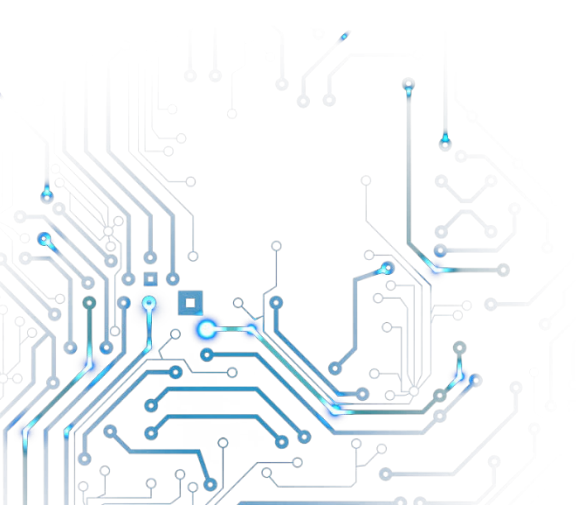
# Motor monitoring solution





# Intelligent manufacturing center

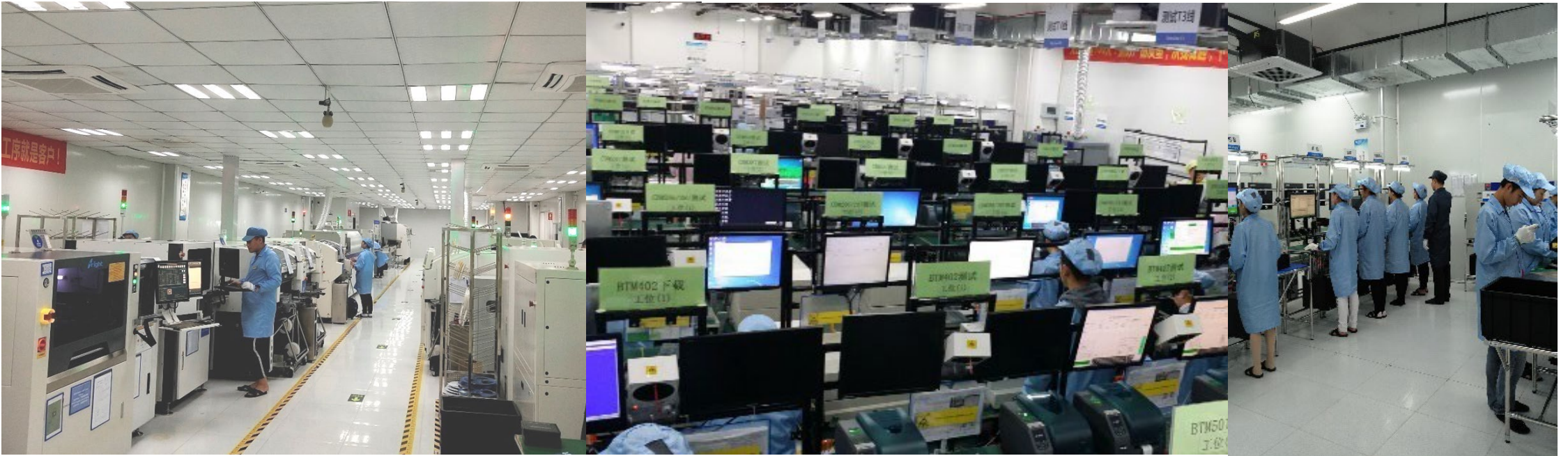
Strictly in accordance with the production requirements of microelectronic products planning and construction, configuration of the industry's cutting-edge production and testing equipment, has passed IATF16949, ISO9001, ISO14001.





# Smart Manufacturing

MFG center is completely in accordance with the production requirements of microelectronic products, including SMT, Test, Assemble workshop with a stable team of operators and test engineers.



# Manufacturing Capability



SMT line ( SMT production capacity 81million patch point s/month )

- 2 fully automatic SMT lead-free production lines
- 1 lead-free wave-soldering line
- 2 units Milling cutter splitter



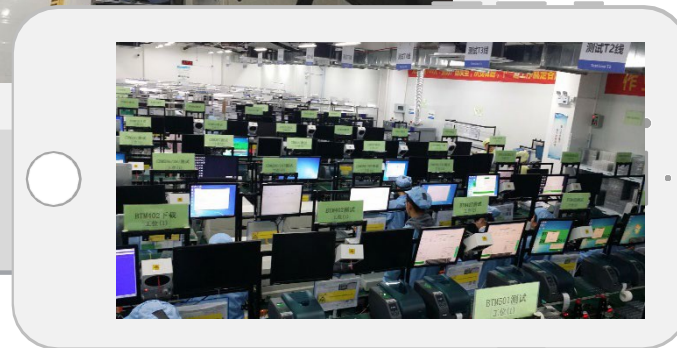
Short range module test shop (capacity 650k pieces/month)

- 6 lines for BT, WiFi, GPS module test
- 1 line for pack



Test & assembly shop

- 2 lines for IOV & IOT products assembly and test
- 1 line for LTE test



# Certificates



2015.10



2015.11



2016.12



2016.12

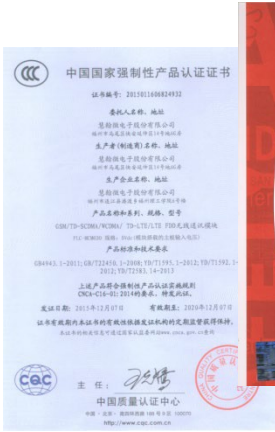


2017.12

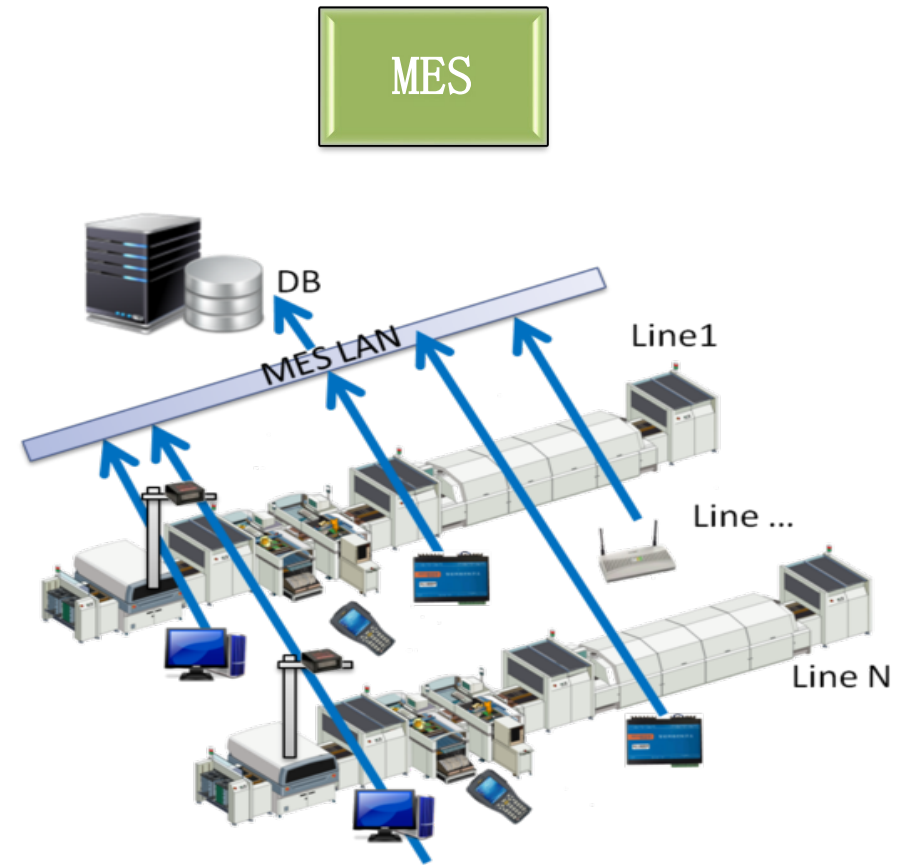


信息安全管理系

Processing  
2020.12



# Manufacturing management system



# Intelligent Warehousing

The screenshot displays the MES software interface, titled '精益制造执行系统(MES)'. It features a sidebar with navigation options like '物料管理' (Material Management) and '盘点管理' (Inventory Management). The main window shows a '盘点管理' (Inventory Management) screen with a table of inventory items. Below it, a '物料管理' (Material Management) screen shows a list of materials with columns for '物料号' (Material No.), '物料名称' (Material Name), '规格' (Specification), '数量' (Quantity), and '状态' (Status). A '物料清单' (BOM) table is also visible at the bottom right, listing components like '电阻' (Resistor) and '电容' (Capacitor) with their specifications and quantities.

物料号	物料名称	规格	数量	状态
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈
1038000126A1	IC S29ALD16J	IC S29ALD16J	3380	盘盈

物料号	物料名称	规格	数量	状态
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	2488	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	2041	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料
10380000781	IC S29AL00J708F10Z (70 8048 PLACK)	IC S29AL00J708F10Z (70 8048 PLACK)	3380	未备料

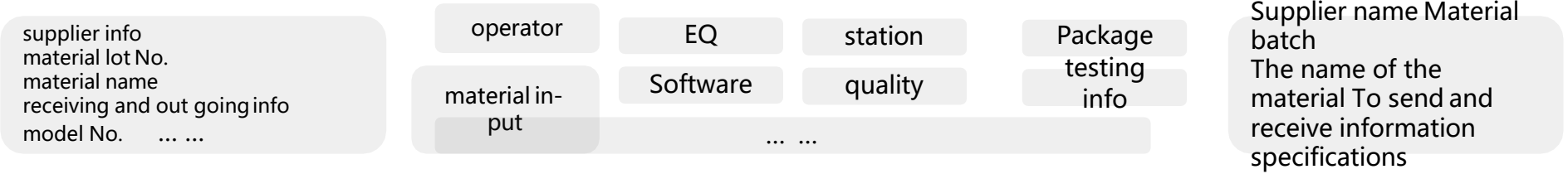
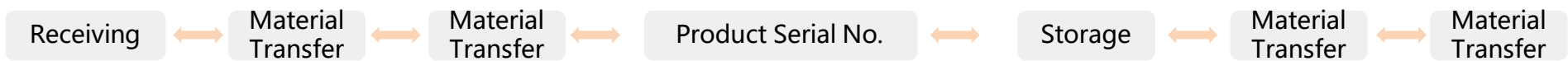
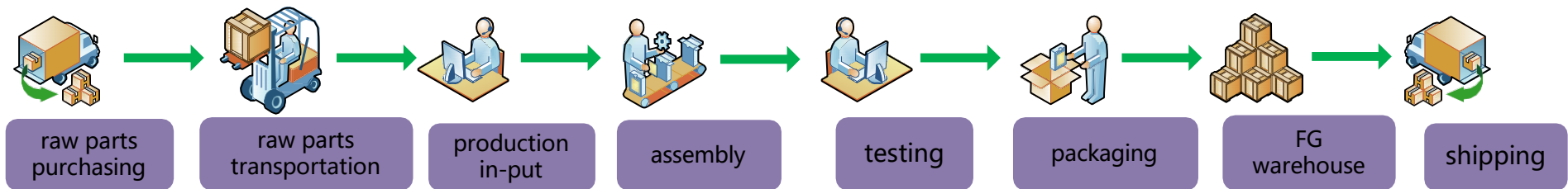
物料号	物料名称	规格	数量	状态
100000000140	电阻	电阻 0R 5% 0402	100080	301
100000000140	电阻	电阻 10R 5% 0402	100080	301
100000001240	电阻	电阻 2.2K 5% 0402	100080	301
101000000840	电容	电容 3.3uF ±0.25	100080	301
101000000940	电容	电容 10uF 5% 0402	100080	301
101000003040	电容	电容 1uF 10% 0402	100080	301
10100019440	电容	电容 47nF 10% 0402	100080	301
10100019540	电容	电容 2.2uF 10% 06	200160	601
10100019640	电容	电容 18uF 5% 0402	100080	301
10100019740	电容	电容 10uF 10% 0402	300240	901
10100019940	电容	电容 15uF 5% 0402	100080	301
10200000241	电感	电感 15uH 5% 0402	100080	301
103800000781	IC	IC S29AL00J708F10Z	100080	0
103800010141	IC	IC NC417143B-Q108-24	100080	0
104000012080	PCB	PCB 11C-0338	100080	0
107000000550	滤波器	滤波器 FT232C450	100080	301
11200001230	晶振	晶振 11.289644501	100080	301
110000000000	继电器	继电器	100080	301



# Quality Management-Traceability

**Forward Tracing:** Based on material information (SN/Lot Code), we can trace the products using the material for each work order, and further trace the equipment, personnel, work stations related to the product and the destination of the shipments.

**Reverse Tracing:** Based on a shipping order, we can trace back to the materials of the products, and related equipment, personnel and working stations.



ELEKTRONIK  
**Blume**

Christoph Haßenpflug

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