

INTERNATIONAL SEMICONDUCTOR MANUFACTURER

# Suzhou Shengxin

Electronic Technology Ltd.

**ACT — ADVANCED COMPONENTS & TECHNOLOGY**

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IATF 16949 & AEC-Q200 Certified · SAW Filters · Resonators · Duplexers · Vehicle Security ·  
GPS Tracking · PAYG Solar Home Storage

# A Vertically Integrated IDM Enterprise

**SUZHOU SHENGXIN ELECTRONIC TECHNOLOGY CO., LTD (ACT)** — Founded in 2019, ACT is a pure-play IDM manufacturing enterprise specializing in 10 MHz – 3 000 MHz Surface Acoustic Wave devices (SAW Filters, SAW Resonators) and multi-industry hardware & software solutions. With 300+ employees across 6 facilities, we operate one of China's largest independent SAW foundry lines — from raw piezoelectric substrate to finished, AEC-Q200 qualified RF components shipped to Tier-1 automotive and telecom customers worldwide. We fully accept global **OEM (Original Equipment Manufacturing)** and **ODM (Original Design Manufacturing)** partnerships.

## Facility Footprint

**Headquarter & R&D:** Zhangjiagang, Suzhou, Jiangsu — Administration, R&D center & small-batch production line.

**Mass Production 1:** Rudong, Nantong, Jiangsu — High-volume automated SAW assembly & test.

**Mass Production 2:** Rizhao, Shandong — IATF 16949 certified wafer fab & packaging.

**Mass Production 3:** Funing, Yancheng, Jiangsu — Intelligent warehousing & JIT logistics.

## Subsidiaries & Specialized Bases

**South China Base:** Guangzhou — Central lock anti-theft systems & GPS tracking product manufacturing.

**Jinan Shengxin:** Jinan, Shandong — PCBA SMT assembly focused on EV central control & anti-theft system hardware integration.

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JINAN SHENGXIN ELECTRONIC TECHNOLOGY CO., LTD — a wholly-owned subsidiary.

**300+**

TOTAL EMPLOYEES

**2,500+**

SAW MODELS

**6**

FACILITIES

**2019**

FOUNDED

# Headquarter



## Headquarter & R&D Center

**Suzhou (Zhangjiagang):** 165 employees, housing the executive team, R&D wafer prototyping line, small-batch production, and the central quality laboratory. All SAW filter design originates here.

**Wuxi R&D Sub-Center:** A dedicated 12-person filter design team — every member holds a Master's degree or higher in RF / microelectronics engineering. This elite team executes ADS simulation, mask layout, and acoustic optimization for every custom part number.

**Shenzhen Sales Office:** Nanshan Software Park — global export hub supporting OEM/ODM partners across 30+ countries.

# Three Mass Production Bases

**Shandong Shengxin** — Rizhao Smart Microelectronics Park. High-volume SAW wafer fabrication and packaging. IATF 16949 certified cleanroom.

**Rudong Shengxin** — Nantong Semiconductor Industrial Park. Secondary high-volume line with automated assembly and automotive-grade testing.

**Funing Shengxin** — Yancheng Intelligent Equipment Park. Intelligent warehousing and JIT delivery logistics for global distribution.

**Jinan Shengxin** — PCBA SMT base focused on slow-speed EV central control and anti-theft system assembly.



PART 2 · ADVANCED IDM CAPABILITIES

## 180 nm DUV Lithography

Shengxin operates industry-leading **180 nm Deep Ultraviolet (DUV) step-and-repeat lithography** — the recognized physical performance limit of SAW filter technology. While most domestic competitors rely on 250 nm (i-line) equipment with compromised frequency ceilings, our 180 nm capability enables **higher fundamental frequencies, tighter linewidth control, and superior out-of-band rejection** that meets stringent 5G NR and automotive telematics specifications.

### WAFER FABRICATION FLOW

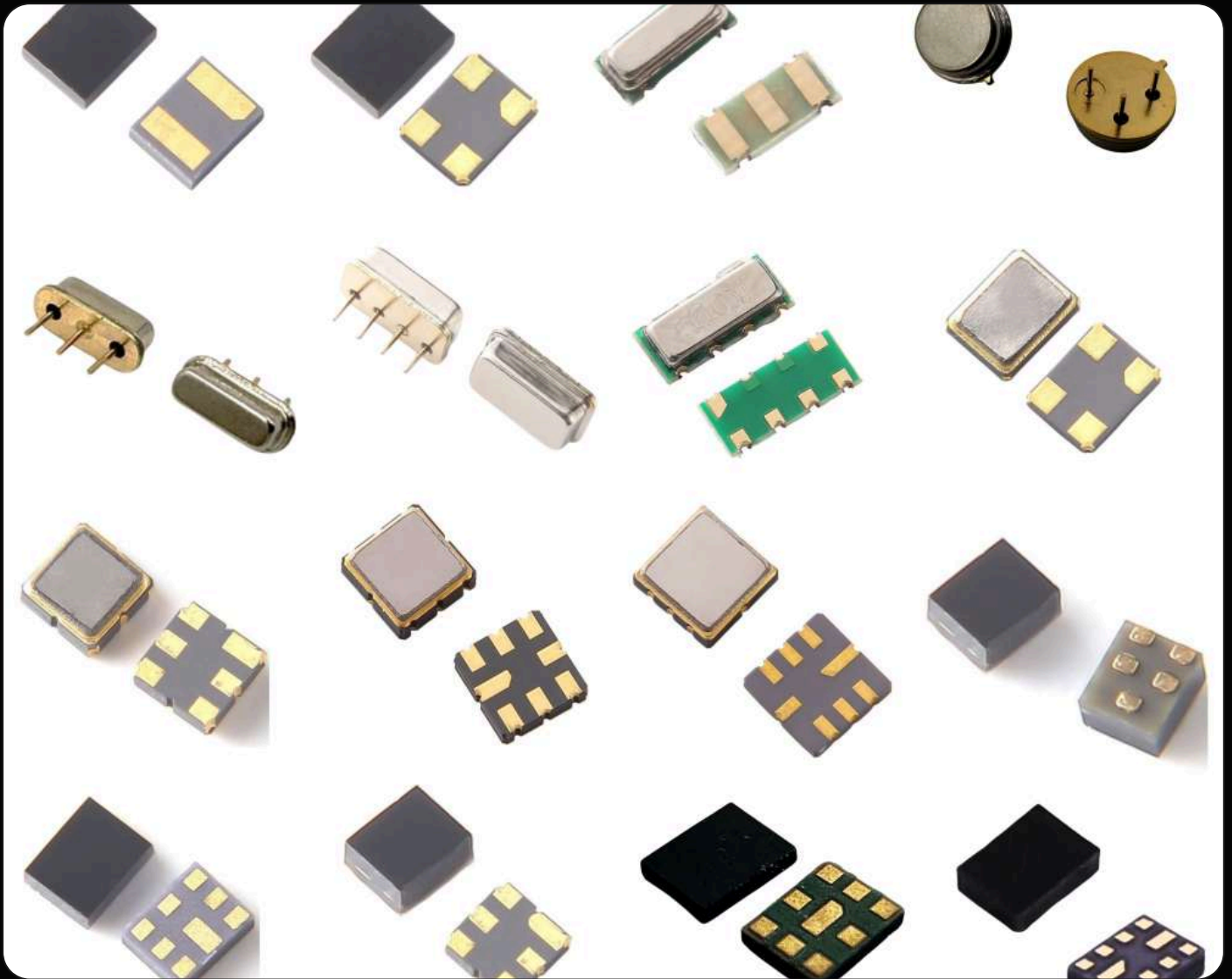
- 4-inch & 6-inch piezoelectric substrate preparation
- PVD aluminum electrode deposition (Murata-process compatible)
- DUV photolithography & lift-off patterning
- CVD dielectric passivation for environmental protection
- Wafer thinning, precision dicing, flip-chip bumping
- Hermetic ceramic SMD packaging & 100% RF probe testing

### RELIABILITY TESTING

<b>HAST</b>	130 °C / 85% RH / 96 hrs
<b>THERMAL SHOCK</b>	-55 °C ↔ +150 °C, 1 000 cyc
<b>HTOL</b>	1 000 hrs @ +125 °C continuous
<b>VIBRATION</b>	MIL-STD-202G Method 204
<b>MECHANICAL</b>	MIL-STD-202G Method 213
<b>ESD (HBM)</b>	≥ 2 kV per AEC-Q200



# Three Core Product Ecosystems



## SAW Components

Our flagship product line — **2,500+ standard SAW models** covering 10 MHz to 3 000 MHz — one of the industry's largest off-the-shelf selection portfolios. Every datasheet includes full S-parameters, Smith chart, and package drawing. Key sub-categories:

### SAW Filters

**2,000+**

Bandpass filters for base stations, routers, GPS

### SAW Resonators

**200+**

High-Q oscillators for RKE, TPMS, ISM

### SAW Duplexers

**100+**

Tx/Rx isolation for cellular bands

### Automotive-Grade

**50+**

AEC-Q200 certified for TCU/V2X

# Vehicle Security Systems

Complete turn-key automotive electronics — from PCB design to harness assembly, tested and certified for global aftermarket and OEM channels. Comprehensive BOM-level supply chain integration for fleet, EV, and patrol vehicle manufacturers.

- Central Lock Control Box (ECU)
- Ignition Coils & Induction Rings
- Alarm Siren Horns (120 dB)
- Door Handles (Interior & Exterior)
- Central Lock Actuators / Motors
- RF Remote Keys (315/433 MHz)
- Lock Cylinders & Mechanical Keys
- Main Wiring Harnesses
- Cables, Steel Wires & Linkage Brackets





## Tracking Devices Ecosystem

Multi-band GNSS positioning hardware covering GPS, BDS, GLONASS, and Galileo constellations. IP68 rugged enclosures with 4G LTE Cat-M1 / NB-IoT connectivity for real-time telemetry and fleet management.

### Product Lines

- Asset Trackers (CH52)
- Pet Locators (CH62 / CH165)
- Rescue Locators (CH96)
- Vehicle Trackers (CC180 OBD)

### Key Specs

10 000 mAh / 90-day standby  
28 g ultra-light / IP67 / 7-day  
GPS+BDS+Wi-Fi+LBS / 90-day history  
MIL-STD-810G / SOS / Iridium option  
OBD-II / CAN bus / Remote immobilization



## SHS Solar Home Storage

Purpose-built for off-grid emerging markets — from portable 80 W lighting kits to 2 500 W whole-home backup systems. All models feature:

### C80

80 Wh · Portable Solar Kit

### S80

80 Wh · PAYG Keypad Lockout

### C1200

1 200 Wh · LiFePO<sub>4</sub> · Wi-Fi App

### C2500

2 500 Wh · Dual MPPT · UPS

All SHS products feature hardware-encrypted IoT PAYG token-based remote lock/unlock logic. 12-month installment locking cycles eliminate default risk for African and Southeast Asian distributors.

In June 2025, **8 core SAW filter models (SXCF series)** successfully completed the full AEC-Q200 qualification test suite — the global automotive industry gold standard for passive component reliability. Our IATF 16949 certified manufacturing line guarantees full **PPAP Level 3 documentation readiness** for every automotive shipment.



**SXCF1176TBNSC11**

1 176.45 MHz



**SXCF1189RBNSC11**

1 189.00 MHz



**SXCF1197RANSC11**

1 197.00 MHz



**SXCF1582RENSC11**

1 582.00 MHz



**SXCF1582RENSC14**

1 582.00 MHz



**SXCF1582RJNSC11**

1 582.00 MHz



**SXCF1588RBNS02**

1 588.00 MHz



**SXCF1L1L5RCNSC15**

1 575.42 MHz

**ROHS COMPLIANT**

**REACH REGULATION (EC) 1907/2006**



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