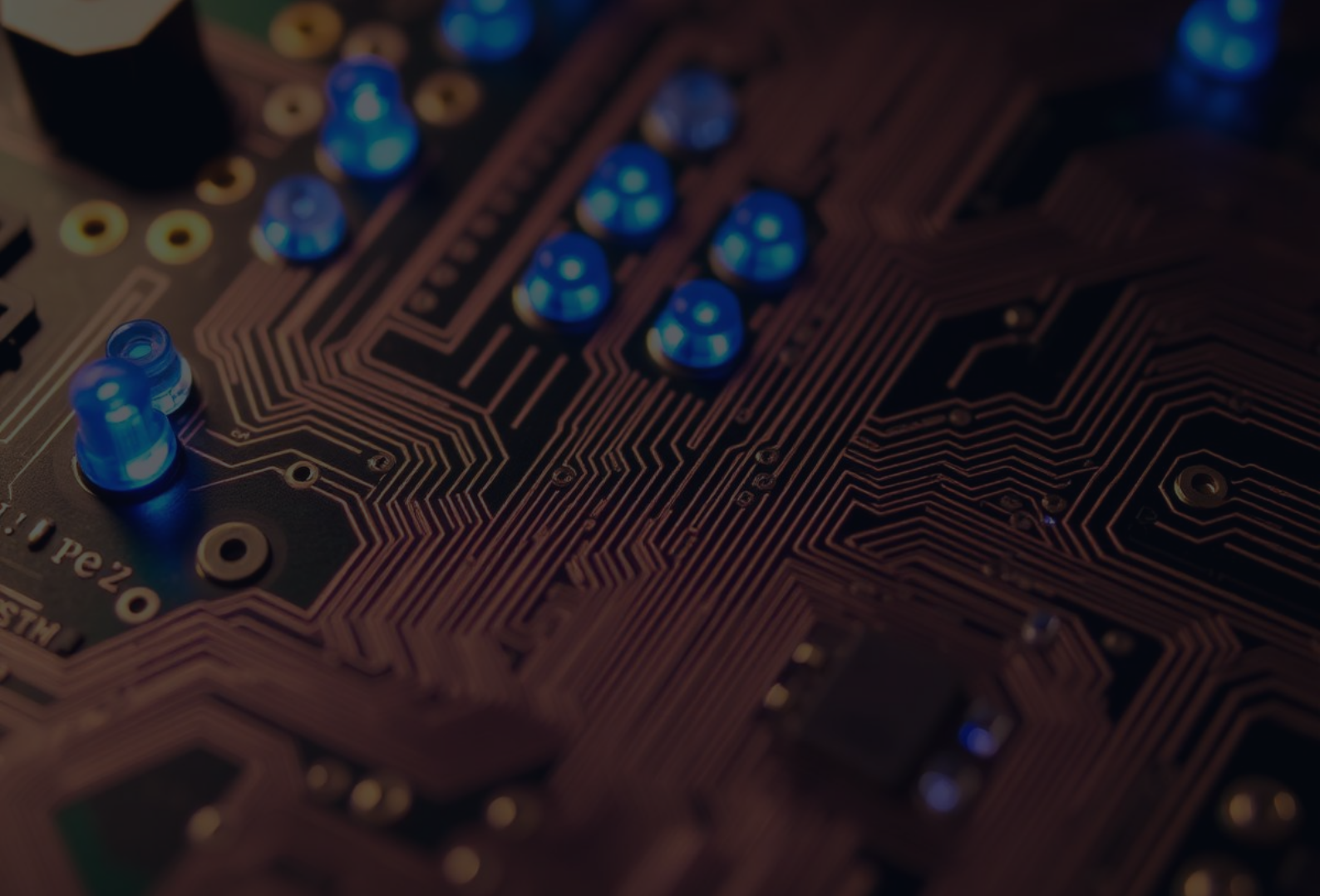




ZRG · 泽锐格

[SUZHOU ZRG INTERNATIONAL CONSULTING / COMPANY INTRODUCTION]

China sourcing management for automotive electronics.

China sourcing agent & Asia sourcing management for automotive electronics: wire harnesses, RF connectors, injection mold tooling and BLDC motors — RFQ to JIT.

Wire harness & RF connector alternatives / PCBA & EMS / Injection mold tooling & BLDC motors

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Sourcing management, not trading

Suzhou ZRG International Consulting is a China sourcing agent focused on the automotive electronics supply chain — end-to-end Asia sourcing management of automotive electronics, wire harnesses & high-frequency connectors, injection mold tooling and BLDC motors. We connect Tier-1 suppliers and OEMs with the Yangtze and Pearl River Delta manufacturing base, from RFQ to JIT delivery.

Suzhou Headquarters	420+ Qualified Suppliers	8.2M Units / Year	IATF 16949 Quality Framework
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ZRG is not a trading house. We act as your sourcing management function in Asia. Our revenue comes from management fees and delivered milestones, not from margin on parts — so our incentive is to select the right supplier, not the easiest one to close.

Client NDAs prevent us from publishing member names or supplier identities. The roles below describe how the team is actually staffed; full CVs, certificates, the supplier list and audit reports are shared after a mutual NDA.

Organisation at a glance

Legal entity	Suzhou ZRG International Consulting
Headquarters	Suzhou, Jiangsu, China
Resident coverage	Yangtze Delta (Suzhou / Kunshan / Shanghai), Pearl River Delta (Dongguan / Shenzhen)
Working languages	Chinese, English, German
Core roles	Purchasing, supplier development & audit, electronics and mechanical engineering, quality, logistics, plus a client manager based in Germany
Supplier base	Audited capacity pool for electronics, harnesses, tooling and motors
System language	IATF 16949 / VDA 6.3 / ISO 14001 / ESG checklists
Engagement models	Project-based sourcing management, ongoing supply-chain outsourcing, one-off audits and inspections

How we work

Neutral position

We are paid by you, take no supplier rebates, and our supplier selection is fully auditable.

Documentation first

Audit reports, inspection records and change logs follow your templates and are handed over at project close.

European cadence

Direct German and English communication inside overlapping hours — no layered translation.

Risk pulled forward

Tolerance, part-number and capacity risks surface during sampling, not during ramp-up.

How the team is staffed

Roles are shown anonymised; named CVs and certificates follow a mutual NDA.

Code	Role	Focus	Experience / Base
R-01	Sourcing Director	Client interface, category strategy, cost negotiation, commercial terms Category strategy · Cost models · Contracts	15+ years automotive electronics purchasing Suzhou
R-02	Supplier Development & Audit (SQE)	On-site audits, system assessment, corrective-action tracking, capacity checks IATF 16949 · VDA 6.3 · ESG audits	12+ years Tier-1 SQE Suzhou / Shenzhen
R-03	Electronics Engineer (PCBA / EMS)	Drawing and BOM review, DFM, alternate-part assessment, test concepts SMT process · BOM & alternates · ICT / FCT	10+ years automotive-grade electronics Kunshan / Shanghai
R-04	Mechanical & Tooling Engineer	Mold design review, part tolerances, trial runs, transfer to serial production Mold flow · Tolerances & gauges · Trial tracking	12+ years tooling and injection molding Dongguan / Suzhou
R-05	Quality & PPAP Engineer	Control plans, FMEA, MSA, PPAP packages, batch traceability PPAP · FMEA / MSA · 8D	10+ years quality systems Suzhou
R-06	Logistics & Customs Coordinator	Export clearance, origin documents, sea/air freight, JIT replenishment Customs docs · JIT replenishment · Buffer stock	8+ years export logistics Shanghai / Shenzhen
R-07	German Client Manager (based in Germany)	Requirement intake with German and European customers, technical clarification, on-site meetings, program follow-up Fluent German & English · Requirement clarification · European client interface	15+ years in Germany, engineer by background in automotive components, broad supply-chain experience Germany

[\[02 / CATEGORIES \]](#)

Two category tiers by supply-chain control

We split our scope by how much of the supply chain we control: core in-house categories with short lead times and simple procurement, and long-development categories supported through partners.

Tier 1 — Core In-House Categories [\[ZRG-owned delivery\]](#)

Above 60% control over our own supplier base. Short development cycles and comparatively simple procurement — ZRG owns quotation, audit, samples and series delivery.

#	Category	Scope	Focus
01	Automotive Electronic Components & PCBA / EMS	Automotive-grade PCBA assembly, electronic components and EMS contract manufacturing — from prototypes and low volume to full series production.	• Automotive PCBA / SMT • Turnkey EMS
02	Wire Harness, FAKRA / HSD / Mini-FAKRA & Connector Alternatives	LV/HV vehicle harness assemblies plus qualified domestic alternatives to leading high-frequency connector brands.	• FAKRA / Mini-FAKRA alt. • HSD / 100/1000Base-T1
03	Injection Molds, Plastic Structural Parts & BLDC Motor Assemblies	Large injection mold development and trials, precision plastic structural parts in series, and BLDC motor assemblies for tailgates, pumps and fans.	• Up to 4000T injection • Automotive BLDC assemblies

Tier 2 — Long-Development Categories [\[Supported via partners\]](#)

Below 20% control, with long R&D and validation cycles. We provide supplier screening and program coordination; delivery capability depends on partner organisations.

#	Category	Scope	Focus
04	ECU & Control Units	Engine management, body control and domain controllers for ICE and NEV platforms — long hardware and software validation cycles.	• 32-bit MCU platforms • CAN-FD / Ethernet
05	E-Powertrain (BMS / Battery / Traction Inverter)	Battery management, cells and modules, traction inverters and HV distribution — high-voltage safety and long certification cycles.	• 800V architectures • HV safety & thermal
06	ADAS Modules	mmWave radar, LiDAR and camera vision modules — long algorithm and calibration cycles, dependent on partner R&D capability.	• Multi-sensor fusion • Algorithm & calibration

[03 / SUPPLY CAPABILITIES]

Supplier Matrix — Capability Profile

All registered suppliers are audited against IATF 16949 and assessed on-site, then classified by capability domain. After RFQ submission, the ZRG engineering team matches the right capacity within 48 hours. Specific supplier identities are disclosed under NDA at project stage.

Code	Capability	Description	Region
S-A	Sourcing Tooling — Molds	Large automotive injection mold development, trials and mass production for bumpers and trim parts. Up to 4000T · 5-axis / gantry CNC	Yangtze + Overseas
S-B	Precision Injection & Parts	90T-3300T injection capacity for automotive electronic housings and cross-industry precision parts. IATF 16949 · ISO 14001	Yangtze Delta
S-C	BLDC Motors	Automotive BLDC motor development with winding and driver-algorithm integration for actuators. AEC-Q100 · Driver IC integration	Yangtze + Pearl River
S-D	Wire Harness / RF Connectors	LV/HV vehicle harness assemblies; domestic alternatives for FAKRA, HSD, Mini-FAKRA. IATF 16949 · 100/1000Base-T1	Pearl River Delta
S-E	Semiconductors & Components	Automotive MCUs, power devices, passives and automotive optics module sourcing. AEC-Q100/Q200 · Long-term agreements	East Asia
S-F	EMS Electronics Solutions & ODM	Design and production of smart cockpit, telematics and domain controller solutions. ODM / JDM · HW + SW integrated	Yangtze Delta

Technology domains covered: Electronics · Harness / Connectors · Mold Tooling · Precision Parts · BLDC Motors · Semiconductors · + 420 qualified suppliers

[\[04 / PROCESS \]](#)

Sourcing Management Workflow

Eight controlled stages from compliance to line-side delivery and cost-down loops.

- | | |
|----|--|
| 01 | Compliance & NDA
Compliance review and NDA signing before kick-off — technical and commercial information stays controlled end-to-end. |
| 02 | Demand & RFQ Clarification
Receive BOM, drawings and specs; align with the client's engineering team on functional requirements, annual volume and target price. |
| 03 | Supplier Matching & Costing
Feasibility, capacity and cost assessment against the supplier database — output 2-3 shortlisted suppliers and a preliminary quote. |
| 04 | On-Site & System Audit
Tailored audits to client requirements: IATF 16949 quality system, VDA 6.3 process audit, ESG and sustainability compliance (labor, environment, conflict minerals) — plus capacity, special processes and PPAP readiness verification. |
| 05 | Sample Development & Trials
Manage DV/PV sample development, mold try-out and pilot runs; track critical dimensions and functional validation. |
| 06 | Quality Control & PPAP
Process inspection (AOI, X-Ray, thermal cycling) and full PPAP submission with client sign-off. |
| 07 | Production Planning & Logistics
Sync rolling forecasts, coordinate raw material readiness, line scheduling and cross-border logistics (sea/air/rail). |
| 08 | JIT Delivery & Continuous Improvement
Direct line-side delivery with buffer stock, live tracking and 8D / VA-VE continuous cost-down loops. |

Asian Supply Hubs

- | | | |
|----|------------------------------------|---|
| 01 | Suzhou / Yangtze Delta (HQ) | Program management, supplier development and client interface. |
| 02 | Shanghai / Kunshan | Cluster for automotive electronics solutions and smart-terminal ODMs. |
| 03 | Dongguan / Shenzhen | PCBA, harness, connector and sensor manufacturing belt. |
| 04 | Taiwan / Seoul / Nagoya | Semiconductors, automotive optics and high-end passive components. |

Selected projects

Client NDAs remove company names and part numbers. What remains is the category, the constraint, the decisions we took and the measured outcome.

C-01 · [Harness & connector alternatives](#)

RF connector alternative plus LV harness consolidation

Client: German Tier-1 (infotainment and antenna systems)

Challenge. FAKRA / Mini-FAKRA connectors had long lead times and high prices; the alternative had to fit the existing PCB layout and assembly tooling unchanged.

Result. The alternative passed the client's lab release and went to serial production; cost dropped sharply and lead time moved from imported weeks to domestic weeks.

-32%	14 weeks → 4 weeks	12 weeks	< 50
Connector cost	Lead time	Validation to SOP	First-year PPM

C-02 · [PCBA / EMS](#)

Automotive PCBA transferred from Europe to the Yangtze Delta

Client: European Tier-2 (body control electronics)

Challenge. European contract manufacturing was expensive and capacity-limited, but the client feared a quality break and component compliance risk after the transfer.

Result. The transfer closed within a quarter with serial yield above the original site, plus full batch traceability and an annual audit cycle.

-25%	13 weeks	99.2%	7 part numbers
Piece cost	Transfer duration	First pass yield	EOL parts resolved

C-03 · [Tooling & structural parts](#)

Large injection tool development and transfer to serial parts

Client: Tier-1 supplier to a European OEM (interior structural parts)

Challenge. A large part with uneven wall thickness warped out of tolerance in the original concept, and the client required tool ownership with the option to relocate later.

Result. Full dimensional conformity was reached at the third trial; tool ownership and drawings were handed over, and serial dimensions stayed stable.

10 weeks to T0	T3	≥ 1.67	Client-owned, relocatable
Tool development	Trials to conformity	Critical dimension CPK	Tool ownership

C-04 · BLDC motors

Dual sourcing for BLDC motor assemblies

Client: European actuator manufacturer (domestic and automotive)

Challenge. Single-source dependency was unacceptable, but a second source could not widen the performance band.

Result. The second source reached serial production within half a year, with matched performance bandwidth and materially lower supply risk.

24 weeks	< 3%	Fully met	Single point removed
Second source qualification	Performance deviation	Noise requirement	Supply risk

C-05 · Supplier audit

Standalone assignment: VDA 6.3 audit and capacity verification

Client: German mid-size Tier-1 (purchasing department)

Challenge. The client had shortlisted a plant but could not send staff to China to verify capacity and system maturity.

Result. Two high-risk findings changed the client's nomination decision and their ramp-up plan.

2 weeks incl. report	2 high / 6 medium	VDA 6.3 + ESG annex	8 weeks
Turnaround	Findings	Report structure	Corrective closure

C-06 · Logistics & delivery

Consolidated shipping and JIT replenishment across categories

Client: European Tier-1 (multiple receiving plants)

Challenge. Harnesses, structural parts and electronics shipped separately from different plants, driving freight cost and unpredictable arrivals.

Result. Freight cost dropped, on-time delivery improved and line stoppages from missing parts went to zero.

-18%	98.6%	0 in 12 months	3 weeks
Freight cost	On-time delivery	Line stoppages	Safety stock cover

[06 / CONTACT]

Ready to launch your Asia sourcing program?

Submit your BOM or project brief — the ZRG engineering team will respond within 48 hours with a complete sourcing plan and preliminary quote.

Email	contact@zrg-consulting.com
Website	https://zrg-consulting.com
Headquarters	Suzhou, Jiangsu, China
Languages	Chinese · English · German
Response SLA	< 48 hours with sourcing plan and preliminary quote

Supplier identities, audit reports and CVs are disclosed under a mutual NDA at project stage.