Shanghai Autotec International Corp

Shanghai Autotec International Corp
Shanghai China | 021-51942000 | autotec@autotec.com.cn | www.autotec.com.cn

01

COMPANY PROFILE

Autotec

COMPANY PROFILE

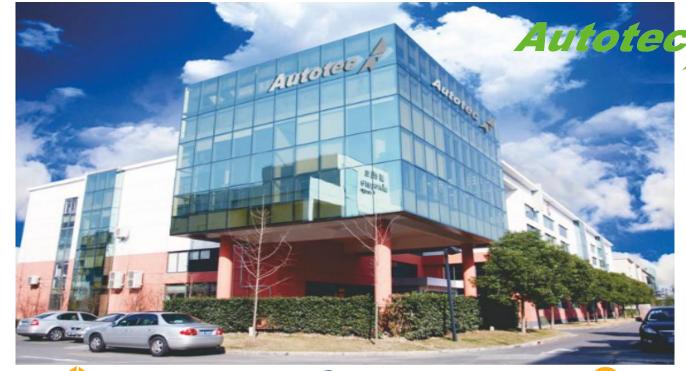Founded in 1994, the Autotec Group were originally set up to sell Autotec products globally.

Autotec has become a global spare part provider for OEMs and the aftermarket.

Our suppliers and partners are all from leading Chinese manufacturers.

Our products cover all car makes of Japanese, European, American and Korean key brands.

Autotec holds centification of CE, ISO 9001, QS-9000

Our large exports enable us to achieve pricing advantages by leveraging our total sales volume.

With the digital system managing over 20,000 products, customer orders can be processed quickly and properly

Autotec

Founded in 1994
30 years in Spare parts

100+ employees
450+ R&D personnel

2 R&D centers
Service covering China

shipping of more than 100 million units

143 invention patents
216 software copyrights

16000sq.ft laboratory
290000sq.ft factory

Autotec

两轮车
低速车

BENDA
CFMOTO
HISUN环松
林海摩托 TIANCHENG
QJMOTOR

乘用车

广汽埃安 GAC AION
AION埃安
长安汽车 CHANGAN
VW
东风乘用车
红旗
CHERY
AITO
小鹏

Tier 1

ADIENT
Cummins
CATL 宁德时代
三花汽零 SANHUA AUTOMOTIVE
天成 TIANCHENG
银轮股份 YINLUN CO.,LTD

商用车

北奔重卡 BEIBEN TRUCK
长安商用
大运汽车 DAYUN AUTO
FOTON 福田汽车
HIGER 海格
CAMC 华菱汽车
KING LONG
CATERPILLAR® 卡特彼勒

瑞驰新能源
SANY
陕汽重卡 品质成就未来
上汽红岩 HONGYAN
WEICHAI 潍柴
五菱汽车
XCMG 徐工集团
远程汽车 FARIZON AUTO
中国重汽 SINOTRUK

* Enterprises are listed in alphabetical order

Autotec

02

PRODUCT SOLUTION

Four product lines covering intelligent networking, intelligent cockpit, controller and big data platform.

Autotec

Intelligent Networking

- T-BOX
- Tachograph/DVR
- ADAS
- ...

Intelligent Cockpit

- IVI
- Instrument Cluster
- Intelligent Cockpit
- ...

Controller

- Seat Control
- Thermal mgmt control
- Gateway Control
- Body Electronic Control
- ...

IoV Platform

- Gov Supervisory Platform
- OEM Platform
- After-market Platform
- OTA Platform
- ...

PRODUCT LAYOUT

Autotec

COMMERCIAL VEHICLE

Intelligent Networking Series
T-Box ● Tachograph

Intelligent Cockpit Series
IVI ● Instrument ● Integrated type

Controller Series
Seat ● Heat Mgmt
● Gateway ● Body electronics

IoV Platform Series
OEM ● After-sales ● OTA ● marketing

PASSENGER CAR

Intelligent Networking Series
T-Box

Controller Series
Seat
Heat Mgmt
Auto-lighting
Temp Controlled Storage Box Controller

MOTORCYCLE&OTHER

Intelligent Networking Series
T-Box ● Tachograph

Instrument Series
segment code ● LCD ● Dual System

Controller Series
Body ● Gateway
● Digital key ● Electronic fence

IoV Platform Series
Platform ● APP
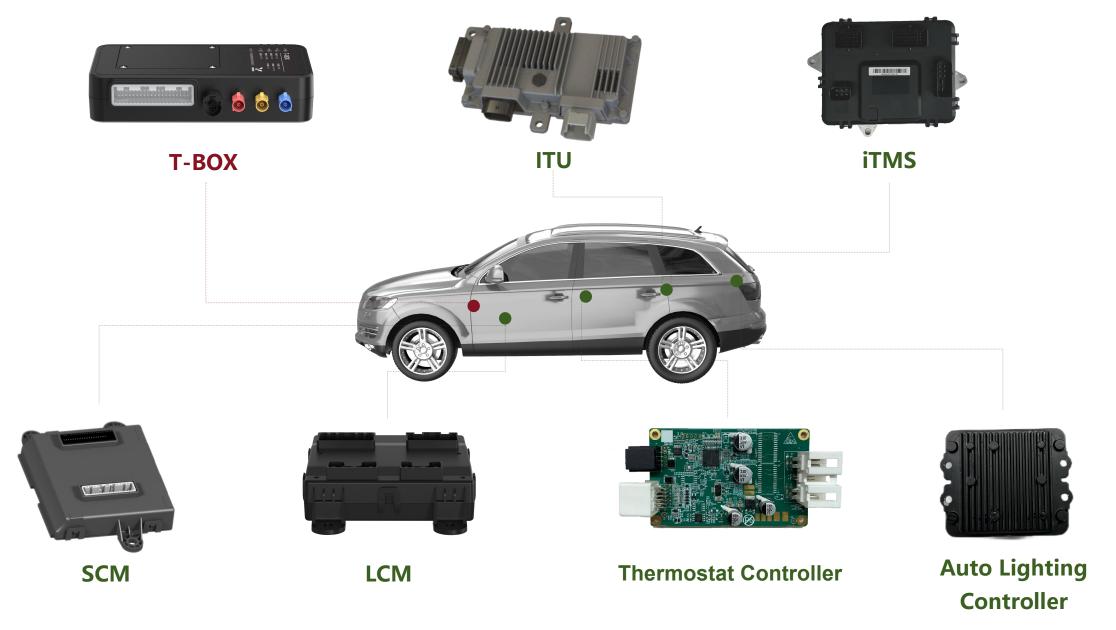
PRODUCT LAYOUT-COMMERCIAL VEHICLE

Autotec

T-BOX

Tachograph

IVI

Instrument

Smart Cockpit

SCM

IoV

LCM

PEPS

CGW

EGW

DCM

BCM

IBDU

AC

cTMS
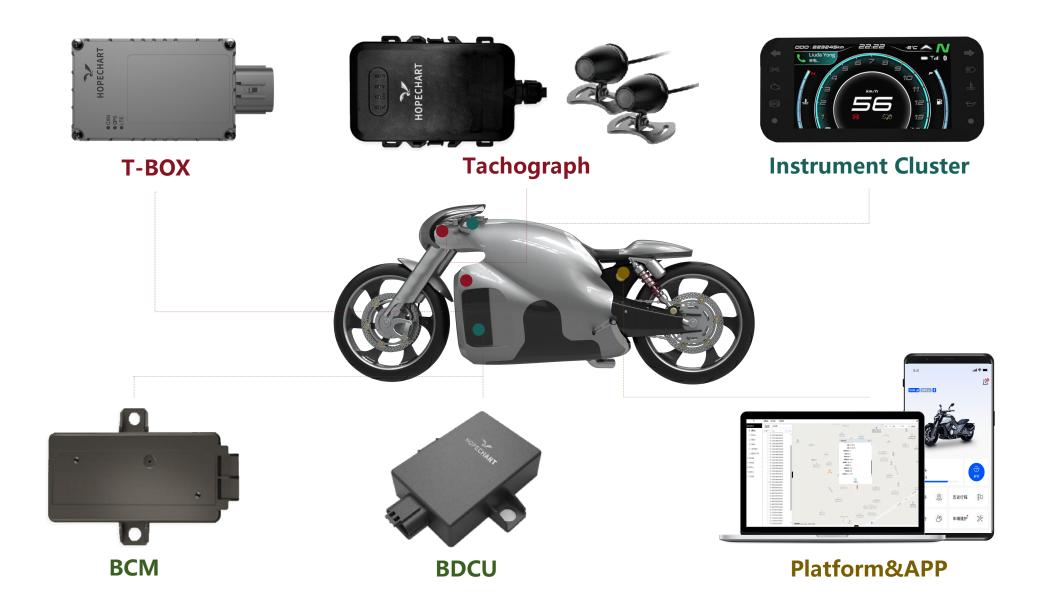
PRODUCT LAYOUT-PASSENGER CAR

Autotec

T-BOX

ITU

iTMS

SCM

LCM

Thermostat Controller

Auto Lighting Controller

PRODUCT LAYOUT-MOTORCYCLE

Autotec

T-BOX

Tachograph

Instrument Cluster

BCM

BDCU

Platform&APP

CUSTOMIZED PRODUCTS

Autotec

T-BOX

TCO

IVI

T-BOX APPLICATION SCENARIO

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Meet Standard	Networking	Positioning	Vehicle data acquisition& storage	Vehicle attitude recognition	Remote upload	Remote command distribution
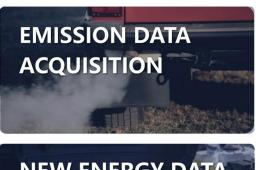
FLEET MANAGEMENT

OTA

MERCEDES-BENZ UPTIME

EMISSION DATA ACQUISITION

V2X VEHICLE TO EVERYTHING

NEW ENERGY DATA ACQUISITION

DRIVING BEHAVIOR ANALYSIS

检测违规打电话   检测违规抽烟

VEHICLE MORTGAGE TRACKING

REMOTE FAULT DIAGNOSIS

12345
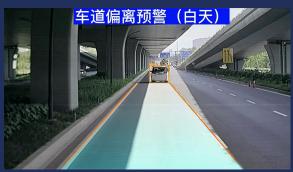
COMMERCIAL VEHICLE TACHOGRAPH

ADAS

前碰撞预警（白天） | 车道偏离预警（白天） | 前碰撞预警（夜晚） | 车道偏离预警（夜晚）

白天：前侧行人预警 | 白天：右侧行人预警 | 夜晚：盲区行人预警

由远及近，动态跟踪 | 星光夜视+视频联动+蜂鸣+声光扑

BSD

From far and near, dynamic tracking red-yellow-green, graded alarm Inside the cab: beep alarm + video linkage + dynamic tracking Outside the cab: sound and light alarm, inside and outside the night: starlight night vision + video linkage + beep + sound and light alarm

DMS

fatigue alarm

Smoking alarm

Phone call alarm

Distraction alarm

Abnormal driver alarm

AVM

Integrated blind zone alarm

One-touch auto calibration

PLATFORM MATRIX

Autotec

Individual Customer
- Driver App Service
- Smart Cockpit Service

Corporate Client
- Large Fleet

Automobile Company
- MKT | SD | CS | QC | R&D

Automobile Dealer
- Sale | Maintenance | Insurance | Used-car

Government Regulatory Agencies
- GB for Commercial Vehicle
- GB for Passenger Vehicle
- Prefectural Standard

④ Super Client Application | ⑤ Major Customers Application Platform | ⑥ Manufacturer Platform | ⑦ OTA platform | ⑧ Dealer Platform | ⑨ Used car platform

National/ Prefectural Standard Forwarding Service

③ Unified Certification Platform
- Application Management
- Unified Account
- Transparency Audit
- Unified Authorization
- Unified Certification

- New Energy National Standard Kit
- Traditional Vehicle Ministerial Standard Kit
- National Phase VI Motor Vehicle
- Pollutant/NRMM Phase IV Emission Kit
- Video and Active Safety Kit

② Automobile Company Data Platform
- Data Cleaning
- Data Storage
- Data Analysis
- Data Open
- Data Presentation

① Unified Access Platform
- Data Access Gateway
- Network Connected Ecosystem Service
- Device Access Gateway

⑩ Unified Monitoring Platform

Automobile Company Information System
- BOM System
- MES System
- ERP System
- DMS System
- CRM System

Intelligent Network Connected Ecosystem
- Customer Service Center
- Communication Carrier
- Map Navigation
- Speech recognition
- Network Connected Music
- Network Connected Medium
- Network Connected Game

Equipment Operation Data
- Tower crane
- Crane Truck
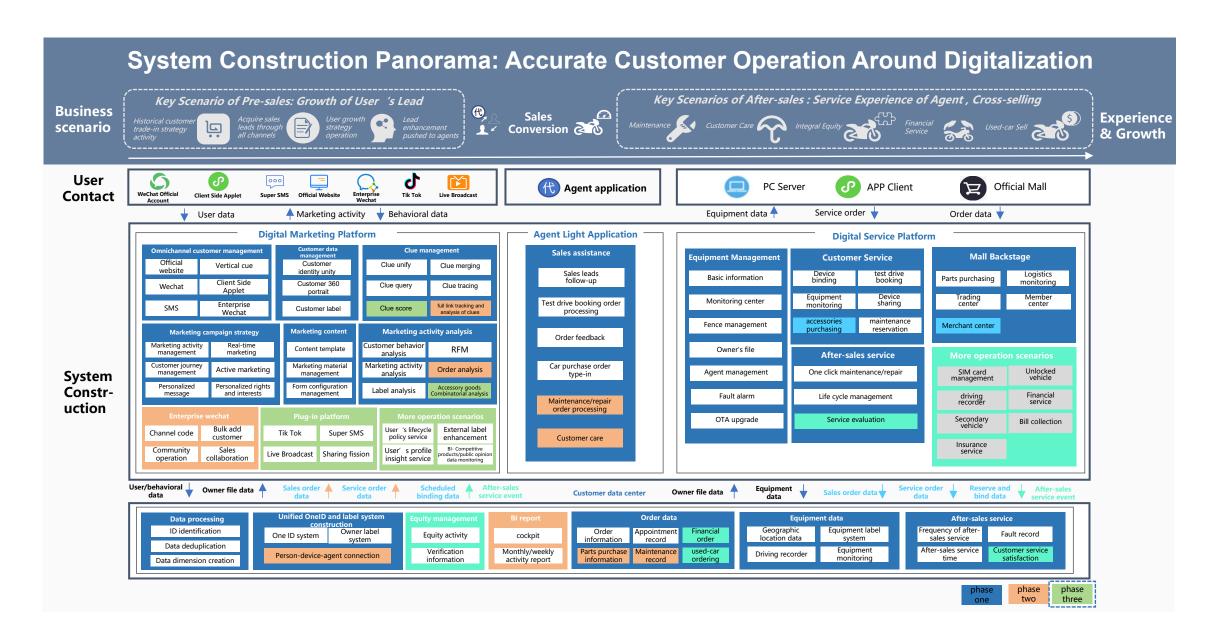- Excavator
- Forklift
- Mining Truck
- Truck

* Each product supports overall application and independent deployment, and can also be integrated with customer's existing systems.
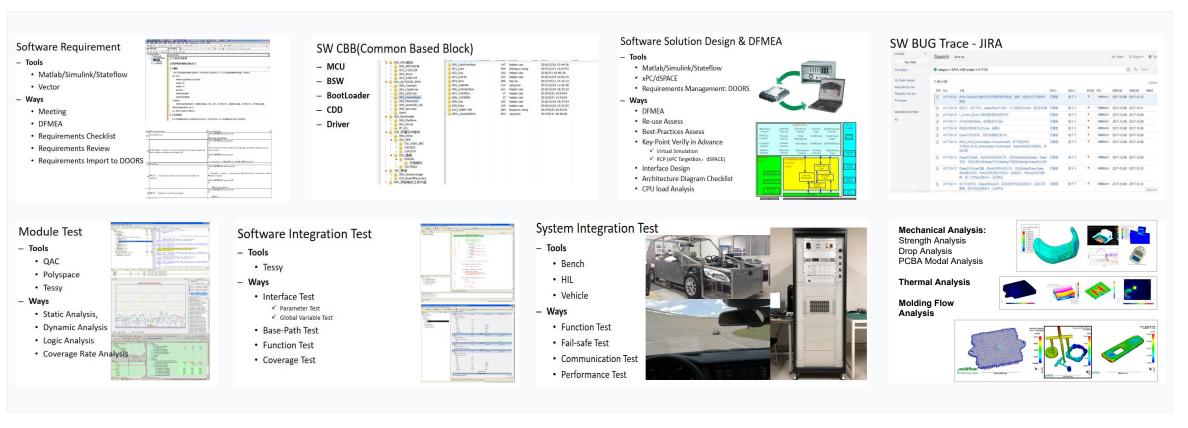
BIG DATA APPLICATION

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System Construction Panorama: Accurate Customer Operation Around Digitalization

Business scenario

Key Scenario of Pre-sales: Growth of User's Lead

Historical customer trade-in strategy activity	Acquire sales leads through all channels	User growth strategy operation	Lead enhancement pushed to agents

Sales Conversion

Key Scenarios of After-sales : Service Experience of Agent , Cross-selling

Maintenance	Customer Care	Integral Equity	Financial Service	Used-car Sell

Experience & Growth

User Contact

WeChat Official Account	Client Side Applet	Super SMS	Official Website	Enterprise Wechat	Tik Tok	Live Broadcast

Agent application

PC Server	APP Client	Official Mall

User data → | Marketing activity ↑ | Behavioral data ↓ | Equipment data ↑ | Service order ↓ | Order data ↓

System Construction

Digital Marketing Platform

Omnichannel customer management

Official website	Vertical cue
Wechat	Client Side Applet
SMS	Enterprise Wechat

Customer data management

Customer identity unity
Customer 360 portrait
Customer label

Clue management

Clue unify	Clue merging
Clue query	Clue tracing
Clue score	full link tracking and analysis of clues

Marketing campaign strategy

Marketing activity management	Real-time marketing
Customer journey management	Active marketing
Personalized message	Personalized rights and interests

Marketing content

Content template
Marketing material management
Form configuration management

Marketing activity analysis

Customer behavior analysis	RFM
Marketing activity analysis	Order analysis
Label analysis	Accessory goods Combinatorial analysis

Enterprise wechat

Channel code	Bulk add customer
Community operation	Sales collaboration

Plug-in platform

Tik Tok	Super SMS
Live Broadcast	Sharing fission

More operation scenarios

User's lifecycle policy service	External label enhancement
User's profile insight service	BI- Competitive products/public opinion data monitoring

Agent Light Application

Sales assistance

- Sales leads follow-up
- Test drive booking order processing
- Order feedback
- Car purchase order type-in
- Maintenance/repair order processing
- Customer care

Digital Service Platform

Equipment Management

- Basic information
- Monitoring center
- Fence management
- Owner's file
- Agent management
- Fault alarm
- OTA upgrade

Customer Service

Device binding	test drive booking
Equipment monitoring	Device sharing
accessories purchasing	maintenance reservation

After-sales service

- One click maintenance/repair
- Life cycle management
- Service evaluation

Mall Backstage

Parts purchasing	Logistics monitoring
Trading center	Member center
Merchant center	

More operation scenarios

SIM card management	Unlocked vehicle
driving recorder	Financial service
Secondary vehicle	Bill collection
Insurance service	

User/behavioral data | Owner file data ↑ | Sales order data ↑ | Service order data ↑ | Scheduled binding data ↑ | After-sales service event ↑ | Customer data center | Owner file data ↑ | Equipment data ↑ | Sales order data ↓ | Service order data ↓ | Reserve and bind data ↓ | After-sales service event ↓

Data processing

ID identification
Data deduplication
Data dimension creation

Unified OneID and label system construction

One ID system	Owner label system
Person-device-agent connection	

Equity management

Equity activity
Verification information

BI report

cockpit
Monthly/weekly activity report

Order data

Order information	Appointment record	Financial order
Parts purchase information	Maintenance record	used-car ordering

Equipment data

Geographic location data	Equipment label system
Driving recorder	Equipment monitoring

After-sales service

Frequency of after-sales service	Fault record
After-sales service time	Customer service satisfaction

phase one	phase two	phase three

DESIGN,R&D,QLTY,MFG

Help customers achieve success and continuously improve our service.

Autotec

👨‍💻 **450+** R&D personnel, with **80+** individuals with more than **30** years of experience in automotive electronics

🏅 Platform development ability + Automated testing ability

Software Requirement
- **Tools**
  - Matlab/Simulink/Stateflow
  - Vector
- **Ways**
  - Meeting
  - DFMEA
  - Requirements Checklist
  - Requirements Review
  - Requirements Import to DOORS

SW CBB(Common Based Block)
- **MCU**
- **BSW**
- **BootLoader**
- **CDD**
- **Driver**

Software Solution Design & DFMEA
- **Tools**
  - Matlab/Simulink/Stateflow
  - xPC/dSPACE
  - Requirements Management: DOORS
- **Ways**
  - DFMEA
  - Re-use Assess
  - Best-Practices Assess
  - Key-Point Verify in Advance
    - ✓ Virtual Simulation
    - ✓ RCP (xPC TargetBox，dSPACE)
  - Interface Design
  - Architecture Diagram Checklist
  - CPU load Analysis

SW BUG Trace - JIRA

Module Test
- **Tools**
  - QAC
  - Polyspace
  - Tessy
- **Ways**
  - Static Analysis,
  - Dynamic Analysis
  - Logic Analysis
  - Coverage Rate Analysis

Software Integration Test
- **Tools**
  - Tessy
- **Ways**
  - Interface Test
    - ✓ Parameter Test
    - ✓ Global Variable Test
  - Base-Path Test
  - Function Test
  - Coverage Test

System Integration Test
- **Tools**
  - Bench
  - HIL
  - Vehicle
- **Ways**
  - Function Test
  - Fail-safe Test
  - Communication Test
  - Performance Test

Mechanical Analysis:
Strength Analysis
Drop Analysis
PCBA Modal Analysis

Thermal Analysis

Molding Flow Analysis

INDEPENDENT R&D ABILITY IN AI ALGORITHM

Autotec

Core basic technology

Deep learning

Traditional Machine Learning

Sensor information processing

Information fusion

Image processing

Big Data

Main Research Directions

Computer vision
- Object detection and tracking
- Visual Classification and Segmentation
- Keypoint detection
- Face & Gesture Recognition
- Human pose estimation
- Text recognition
- 3D perception
- ...

Intelligent voice
- Voice recognition
- Voice wake-up
- Voice synthesis
- Audio event detection
- ......

High precision positioning and attitude measurement
- RTK
- UWB
- RAC
- Integrated navigation
- Attitude and inclination measure
- ...

Mobile robot
- Multi-source fusion localization
- Multi-source fusion perception
- Intelligent behavior prediction
- Path planning and control
- V2X vehicle routing coordination
- ...

Typical products and applications

ADAS

DSM摄像头
BSD摄像头
货箱识别摄像头
室内显示屏
行驶记录仪
倒车摄像头
ADAS摄像头
驾驶室监控摄像头
声光报警器
AIBOX（ADAS核心处理）

smart cockpit

Smart construction site
安装示意图

Smart Sanitation

COOPERATIVE DEVELOPMENT MODE

Autotec

OEM

Based on the platform design provided by A u t o t e c

Requirement Changes

Prototype Manufacturing (Manual) —— 5.1 —→ Testing

4.1

1.1 → Design Change Analysis — 2.1 → Design Change — 4.2 → Release Prototype BOM

6.1

Ready for Mass Production

6.2

5.2

Release BOM

4.3

3

6.3

Autotec

1.2

2.2

Business Support

6.5

Product Delivery

Requirement Analysis and Change Review

Review (Design & Process)

Testing

Business Support

6.4

4.4

4.5

Prototype Manufacturing

Production Manufacturing

7

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OEM

Matlab Interface Development

Alication Model pp Development

Matlab/Simulink

Communication and Diagnostic Configuration

DEM

Basic Software Development

Model Files

Code Generation

CCP/XCP

A2L Files

MCAL and AutoSAR Design

Open Source Files

Compilation

Database File Configuration

Bootloader Download

S19 Execution File

QUALITY GUIDELINE

Autotec

CONTINUOUS IMPROVEMENT FOR CUSTOMERS

Coordinated by the General Manager

Quality Center

Total quality management, responsible for R&D quality, supplier quality, process quality, continuous change system management, etc.

Testing Center

Independent operation, responsible for raw material recognition, new product DV and PV work

Research Institute

Exploration of cutting-edge products and prevention of technological risks in the R&D process

R&D Center

APQP process system development, the realization of research progress, assist in the analysis of market problems.

Autotec Electronic

The whole process of automotive electronics, covering SMT, DIP, automatic assembly and test line to reduce risk
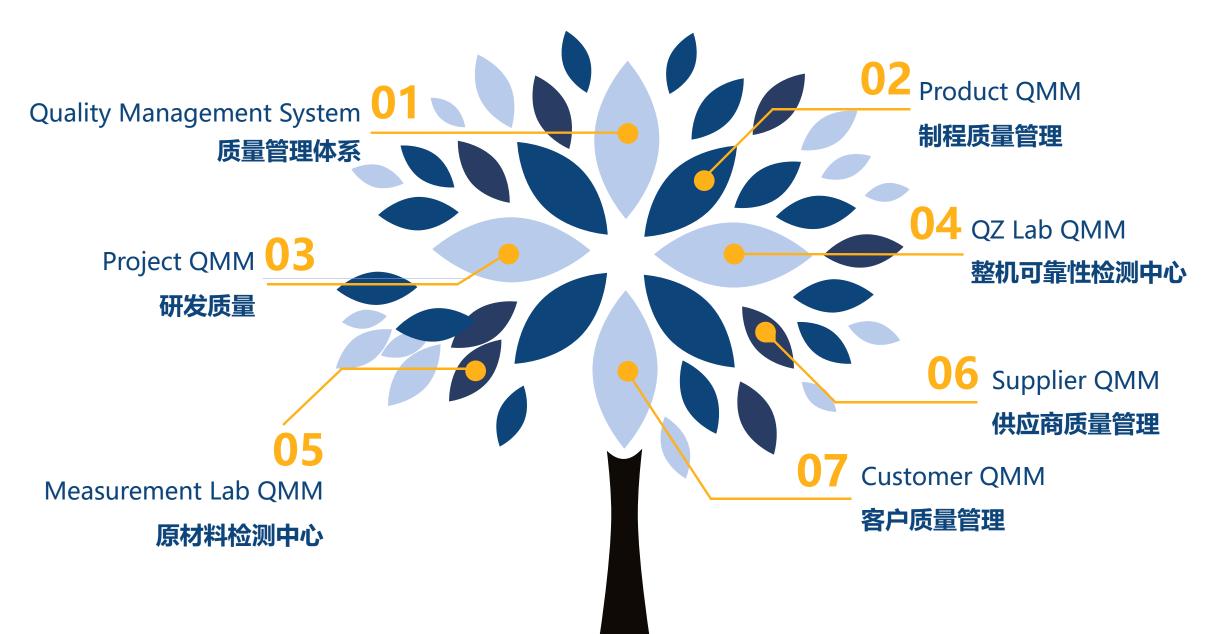
Supply Chain Center

New supplier development, material procurement for mass production, supplier performance evaluation

Other Department

Resource assistance

QA Tree

Autotec

01 Quality Management System
质量管理体系

02 Product QMM
制程质量管理

03 Project QMM
研发质量

04 QZ Lab QMM
整机可靠性检测中心

05 Measurement Lab QMM
原材料检测中心

06 Supplier QMM
供应商质量管理

07 Customer QMM
客户质量管理

TESTING&EXPERIMENTATION CAPABILITY

Autotec

| CNAS certification | ISO17025 | IATF16949:2016 | Foton and Geely Accredited Laboratory | 105 experiments |
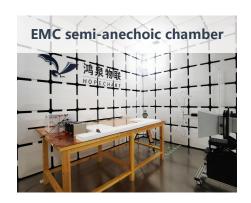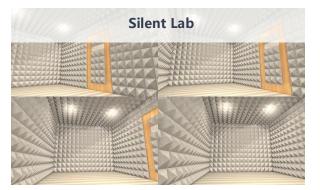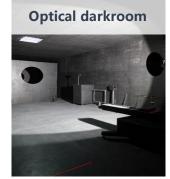
Experimental site: 16000sq.ft   Total investment: 30 million yuan

EMC semi-anechoic chamber

ADAS test benches

Silent Lab

Optical darkroom

Inertial guided test bench

Random vibration test bench

Comprehensive environmental test chamber

Salt spray test chamber

Waterproof test chamber

Aging test chamber

Autotec

IQNet
®
THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CQC has issued an IQNet recognized certificate that the organization:

Shanghai Autotec International Corporation

Registered Address: Room 1208, No.738, Shangcheng Road, Shanghai Pilot Free Trade Zone, Shanghai, China
Operation Address: Building 8, No.509, Renqing Road, Pudong New Area, Shanghai, China

has implemented and maintains a

Quality Management System

for the following scope:

Import & Export Trade of Auto Spare Parts and Motorcycles Spare Parts

which fulfils the requirements of the following standard:

GB/T 19001-2016 / ISO 9001:2015

Issued on: April 8, 2020

Expires on: April 28, 2023

Registration Number: CN00120Q31869R5S/3100

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Alex Stoichitoiu
President of IQNet

Lu Mei
President of CQC

CQC

质量管理体系认证证书

证书编号：00120Q31869R5S/3100

兹证明

上海奥泰克国际贸易有限公司

统一社会信用代码：913101157432855610

注册地址：中国（上海）自由贸易试验区商城路 738 号 1208 室
运营地址：中国上海市浦东新区仁庆路 509 号 8 号楼

建立的质量管理体系符合标准：

GB/T 19001-2016 / ISO 9001:2015

通过认证范围如下：

汽车、摩托车配件的进出口贸易

首次发证日期：2005年4月12日 本次发证日期：2020年4月8日 有效期至：2023年4月28日

在一个监督周期后，本证书必须与CQC签发的监督审核合格通知书合用方为有效。查询证书有效状态请登陆www.cqc.com.cn。
本证书信息可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询

IAF CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C001-M Signed by: Lu Mei IQNet THE INTERNATIONAL CERTIFICATION NETWORK

中国质量认证中心

中国·北京·南四环西路188号9区 100070
http://www.cqc.com.cn
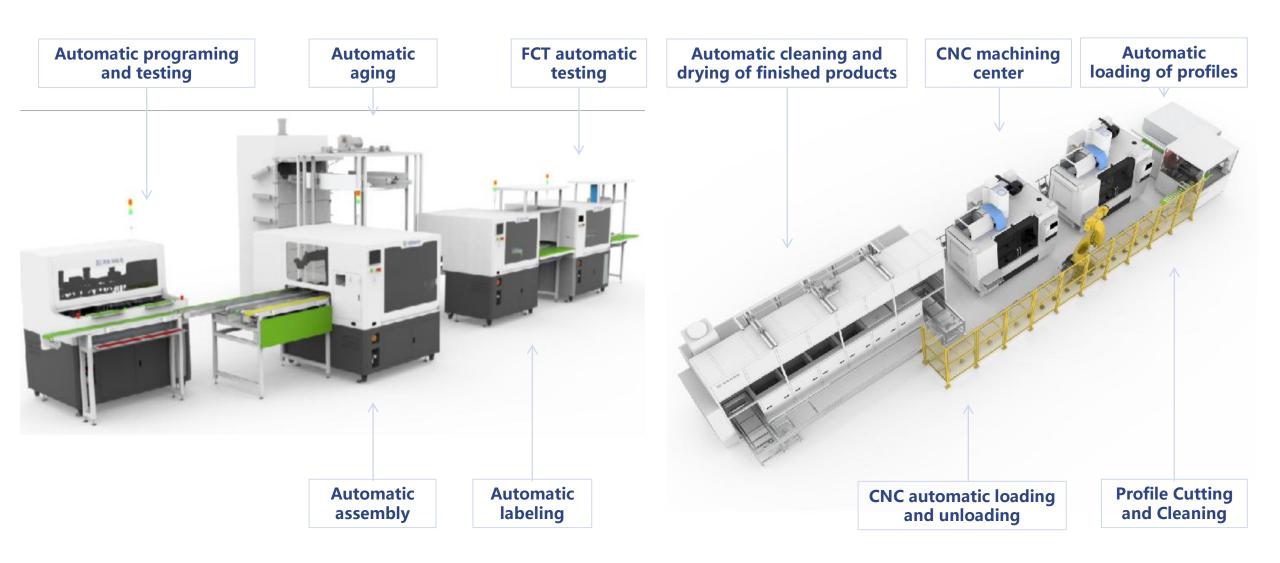
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2018年版

Autotec

- **SMT workshop**: 4 Automatic Patch Line matched solder paste heating equipment,steel mesh testing equipment,steel mesh cleaning machine,radium engraving machine,X-Ray,automatic binding machine,AOImachine,First tester,etc.

- **DIP workshop:** 1 Esa selective wave welding,2 traditional crest welding and supporting ICT equipment,three anti lacquer coating machine,milling cutter splitting machine,laser engraving machine,AGV,etc.

- **Assembly workshop:** 1 fully automatic assembly line,3 Semi-automatic assembly line,various assembly tooling, automatic screw machine and test robot, etc.

- **Packing workshop:** 1 packingline.
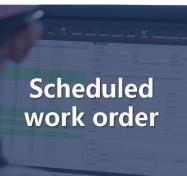
FULLY AUTOMATED BURN-IN TEST LINE

Autotec

Automatic programing and testing

Automatic aging

FCT automatic testing

Automatic cleaning and drying of finished products

CNC machining center

Automatic loading of profiles

Automatic assembly

Automatic labeling

CNC automatic loading and unloading

Profile Cutting and Cleaning

THANKS!

Autotec

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