



CAMT

Company Profile

CAMT Automotive Co., Ltd., founded by a visionary who transitioned from the aviation industry in 2004, has since been at the forefront of automotive innovation. Our dedicated team has relentlessly pursued excellence in the automotive field. At CAMT, we adhere strictly to the IATF16949 quality management system, ensuring our products meet the highest standards through rigorous testing and quality control. Our state of the art manufacturing technology, coupled with advanced production equipment, positions our products at the leading edge of the automotive industry.

We serve a diverse clientele, catering to both the aftermarket and original equipment (OE) markets globally. CAMT is committed to delivering stable and reliable products, backed by robust technical and service support. Our product portfolio spans traditional fuel vehicles and new energy vehicles, encompassing steering systems, engine systems, and thermal management systems. Looking ahead, CAMT is dedicated to continuous innovation in the automotive sector, aiming to provide our customers with smarter systems and comprehensive integration solutions.

CAMT, une abréviation de CAMT Automotive Co., Ltd. Le fondateur, séparé de l'industrie aéronautique en 2004, a dirigé une équipe exceptionnelle qui s'est prolongée dans le domaine automobile jusqu'à présent.

CAMT met pleinement en oeuvre le système de gestion de la qualité IATF16949. Nous avons plusieurs ingénieurs de titre de niveau intermédiaire / supérieur. Avec des normes de test et des équipements de test, un excellent équipement de production, une technologie de fabrication exquise, un contrôle de qualité strict, nos produits sont toujours au premier plan de l'industrie automobile. Les clients de CAMT ne sont pas seulement dans le marché de l'après-vente mais aussi les marchés OE dans le monde entier.

CAMT toujours fournit aux clients des produits stables et fiables, une protection technique et de service solide.

Nos principaux produits couvrent les véhicules à carburant traditionnel et les véhicules à énergie nouvelle, qui comprennent les systèmes de direction, les systèmes de moteur et les systèmes de gestion thermique. À l'avenir, CAMT continuera d'explorer l'industrie automobile et développer les autres industries pour fournir aux clients des systèmes et des solutions d'intégration plus intelligents.



Product Development Process



Forward Design Capability

Reverse Design Capability

Forward Engineering Capability

Reverse Engineering Capability

Typical Range of New Items Introduced Annually

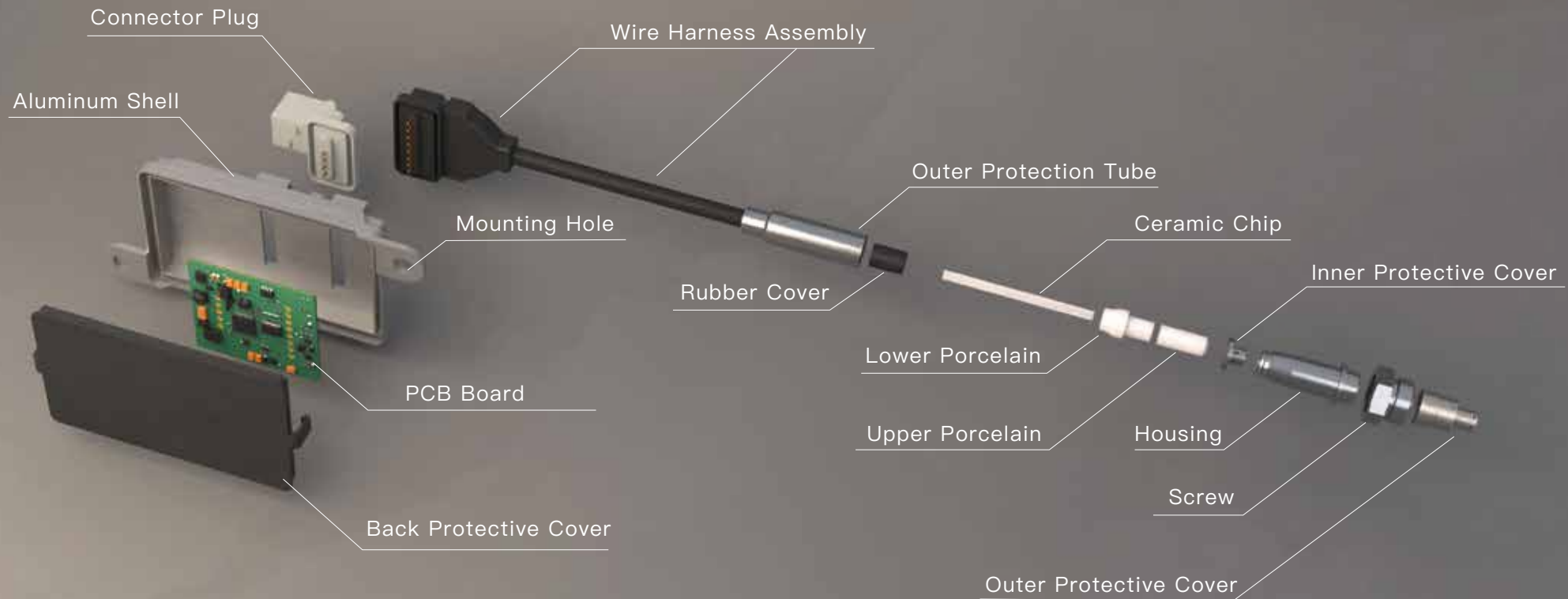
- Quickly expanding NOx Sensor items
- Continuously extending ABS Sensor items
- Reasonably increase other product range
- New products welcome to be developed or outsourced under CAMT's QC.

Product Introduction

NOx Sensor

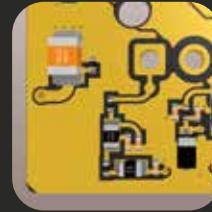
The product is used in automobile exhaust treatment systems, and it complies with the applicable emission standard of Euro 6. CAMT Solution provides software (communication protocol) flashing using the latest engineering technology, which has already been verified by the market.

Le produit est utilisé dans les systèmes de traitement des gaz d'échappement des automobiles et il est conforme à la norme d'émission applicable Euro 6. CAMT Solution fournit un logiciel (protocole de communication) qui utilise la technologie d'ingénierie la plus récente, qui a déjà été vérifiée par le marché.

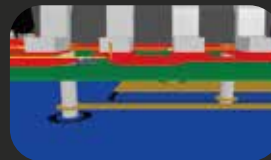


NOx Sensor

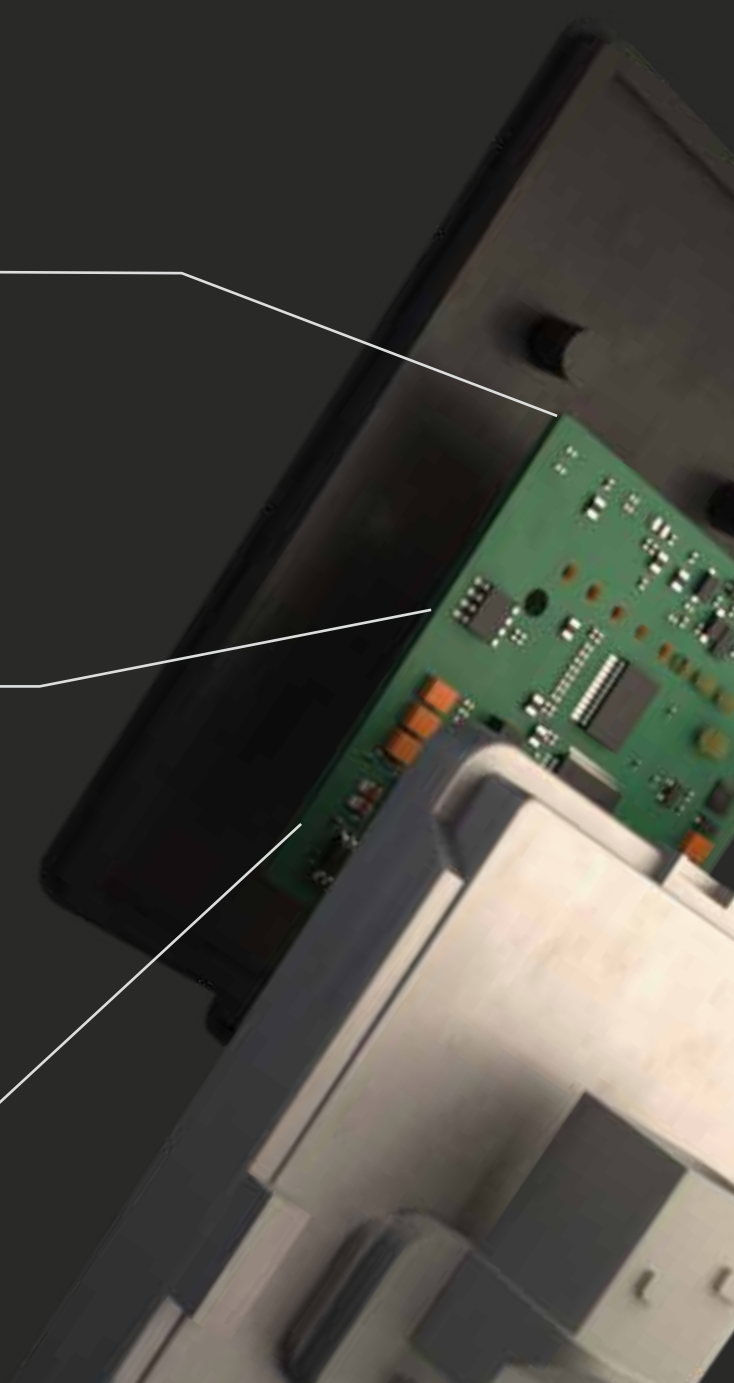
The excellent PCB alignment (rounded corner alignment, differential alignment, impedance matching) can optimize EMC performance, increase immunity, and reduce external conduction and emission interference.

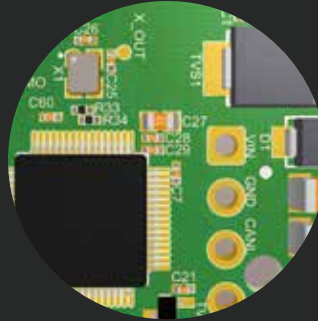


The 4-6 Multi-layer board design ensures reliable and stable signal transmission and meets the electrical performance, especially EMC performance, while significantly improves product accuracy.

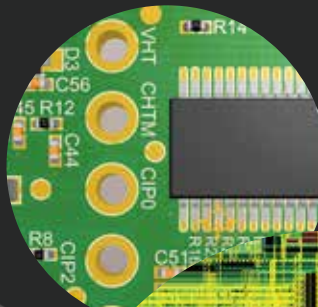


The high-performance MCU in our PCB can reach 80MHz operating frequency and has additional co-processing units (Filter, DIV, CRC, Cordic, etc.) with an ample Flash user space of 256K and encryption.

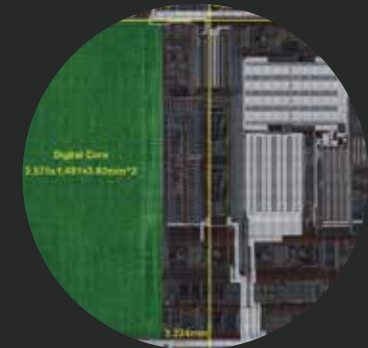
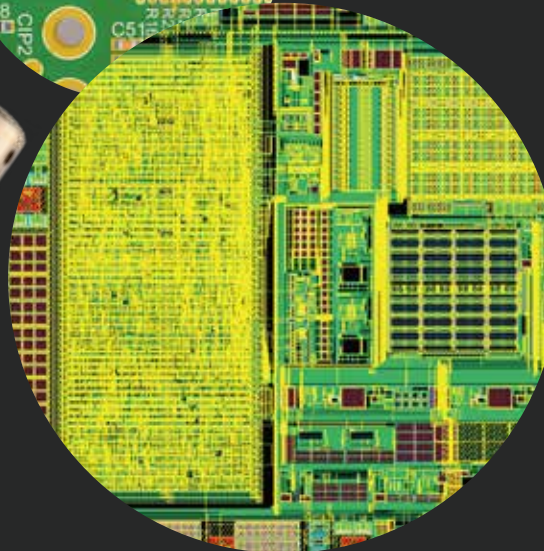




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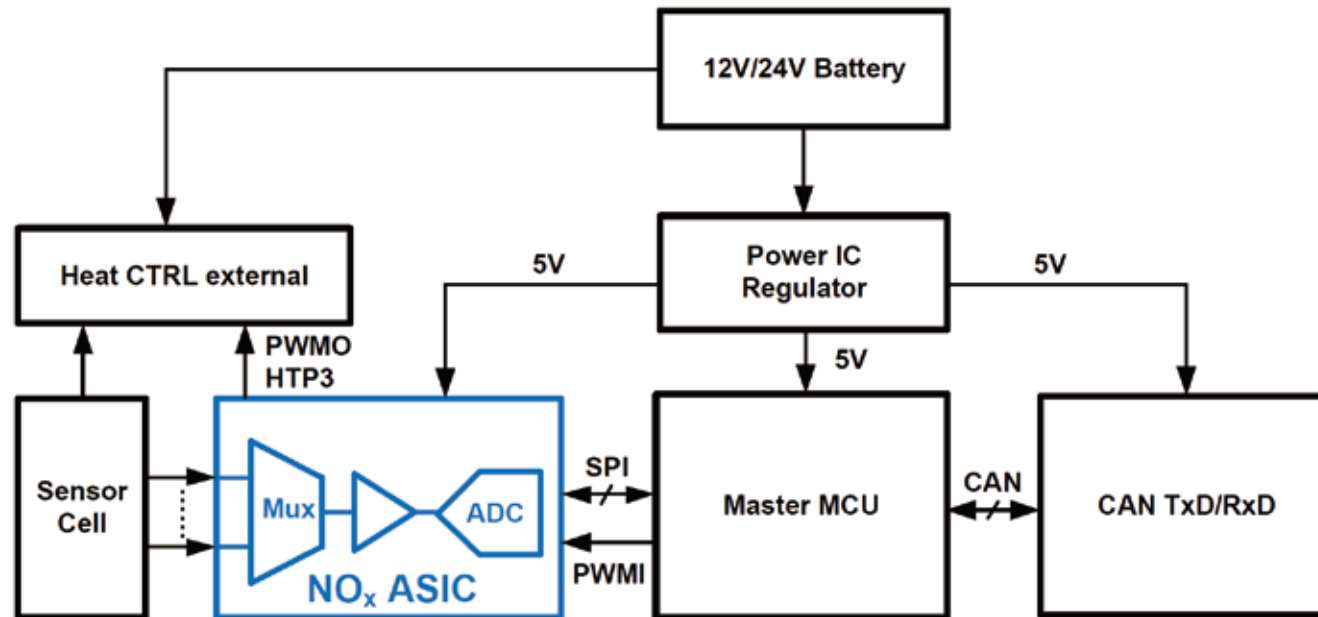


The ASIC chip helps our NOx sensor have a high-precision current reference. Our ASIC chip supports 3.3V and 5V SPI communication protocols, which allows us to simplify control and increase reliability.



NOx Sensor

Electrical Connection Diagram



Circuit Design Standards

IC devices meet the AEC-Q100 standard.

Passive devices meet the AEC-Q200 standard.

Product design meets EMC testing requirements.

(EMC testing standards refer to standards of automotive companies such as Bosch, VW, etc.)

Product Introduction

Particulate Matter Sensor

Particulate matter sensor used to detect soot and DPF failure; regeneration temperature~800°C, PMS Element laminated structure.

Capteur de particules utilisé pour détecter la suie et la défaillance du DPF ; température de régénération ~ 800 °C, structure stratifiée PMS Element.



Oxygen Sensor

On an engine that uses a three-way catalytic converter to reduce exhaust pollution, an oxygen sensor is an essential component.

Sur un moteur qui utilise un convertisseur catalytique à trois voies pour réduire la pollution des gaz d'échappement, un capteur d'oxygène est un composant essentiel.



Product Introduction

Adblue (DEF/AUS 32) Quality Sensor

Adblue quality sensor is used to detect the urea and urea concentration by distinguishing the difference in the propagation speed of ultrasonic waves in different media. SAE J1939 protocol. Measurement accuracy of urea concentration: $\pm 1\%$, $-7^{\circ}\text{C} \leq T \leq 60^{\circ}\text{C}$ and $25\% \leq \text{Urea}\% \leq 36\%$; $\pm 2\%$, within other temperature ranges and $0\% \leq \text{Urea}\% \leq 25\%$, $36\% \leq \text{Urea}\% \leq 50\%$; Temperature measurement accuracy: $\pm 1^{\circ}\text{C}$.

Le capteur de qualité d'urée est utilisé pour détecter l'urée et la concentration d'urée en distinguant la différence de vitesse de propagation des ondes ultrasonores dans différents milieux. Protocole SAE J1939. Précision de mesure de la concentration d'urée: $\pm 1\%$, $-7^{\circ}\text{C} \leq T \leq 60^{\circ}\text{C}$ et $25\% \leq \text{Urea}\% \leq 36\%$; $\pm 2\%$, dans d'autres plages de température et $0\% \leq \text{Urée}\% \leq 25\%$, $36\% \leq \text{Urée}\% \leq 50\%$; Précision de mesure de la température: $\pm 1^{\circ}\text{C}$.



Product Introduction

Electric Water Valve

12/24V with CAN/LIN/PWM communication protocol used for flow control of water, glycol, coolant, antifreeze and other media in new energy vehicles (pure electric, hybrid electric) and traditional vehicles.

12/24V avec protocole de communication CAN/LIN/PWM utilisé pour le contrôle de débit d'eau, de glycol, de liquide de refroidissement, d'antigel et d'autres fluides dans les véhicules à énergie nouvelle (électrique pur, électrique hybride) et les véhicules traditionnels.



Electric Water Pump

From 12W to 280W with CAN communication protocol used for thermal management system in passenger and commercial vehicles.

De 12W à 280W avec protocole de communication CAN utilisé pour le système de gestion thermique des véhicules de tourisme et utilitaires.



Product Introduction



Pressure Sensor

The pressure sensor is a device for pressure measurement of gases or liquids. It is used for control and monitoring in thousands of everyday applications.

Un appareil de mesure de pression de gaz ou de liquides. Il est utilisé pour le contrôle et la surveillance dans des milliers d'applications quotidiennes.

Temperature Sensor

The temperature sensor measures the temperature of various fluid media, such as water, fuel, or oil, over a wide temperature range. It is specially designed for automotive applications.

Utilisé pour measurement de la température de divers fluides, tels que l'eau, le carburant ou l'huile, sur une large plage de températures. Il est spécialement conçu pour les applications automobiles.



Technology Strategy

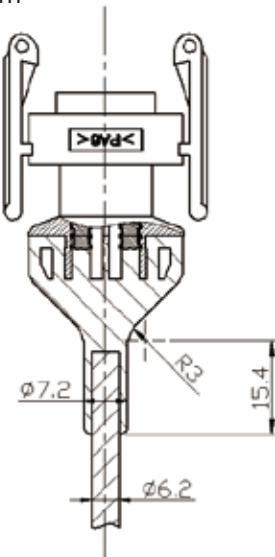
Traditional Technology Re-Design and Re-Engineering

Materials:

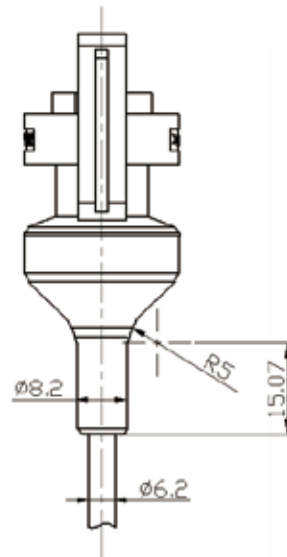
- Metal and Plastic.

Science:

- Mechanics
 - Electromagnetism
- Engineerings



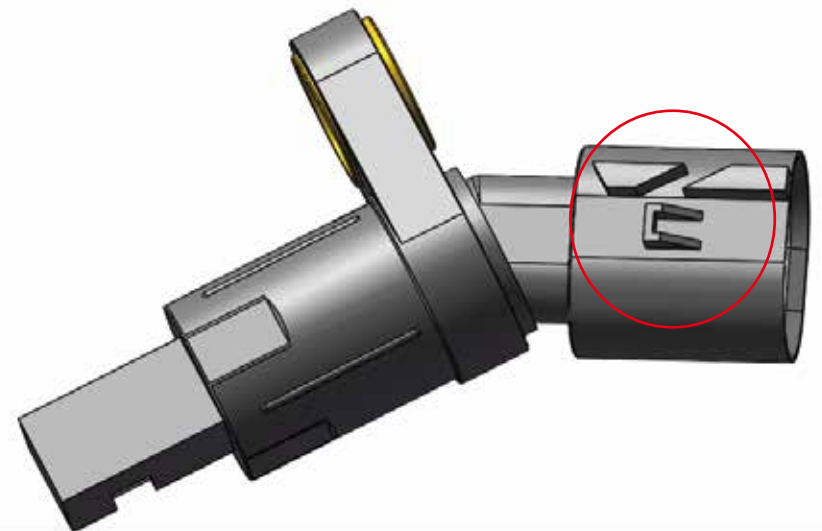
Old Version



New Version

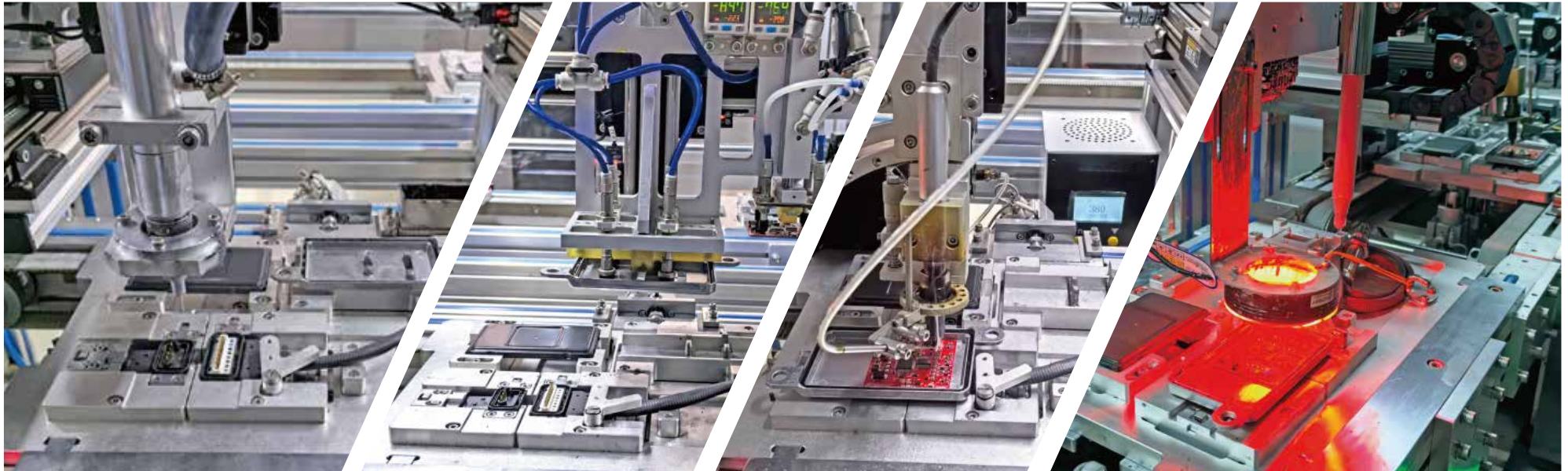


Old Version



New Version

NOx Sensor Assembly Line



Gluing ▲

Assembling ▲

Welding ▲

Visual Recognition System For QC
Detecting and Sealing ▲

CAMT designed all NOx sensor production
Assembly Lines In-House

NOx Sensor Assembly Line



Aging Machine ▲



Writing Machine ▲

Research and Development Team Advantage

CAMT has a professional R&D team, and has the ability to develop synchronously with machine manufacturers and system vendors. Various design and analysis software can be used for three-dimensional modeling; mechanism motion simulation and finite element analysis calculation; rapid analysis, evaluation and modification of design schemes, ensuring the optimization and reliability of key parts structures. Over the past years, the company has obtained dozens of patent protections through continuous technological accumulation and innovation, while learning and introducing new technologies.

CAMT's manufacturing capabilities are reflected in 6S management, special line production, Human-machine prevention and control, and comprehensive traceability.

CAMT dispose d'une équipe de R&D professionnelle et a la capacité de se développer de manière synchrone avec les fabricants de machines et les fournisseurs de systèmes. Divers logiciels de conception et d'analyse peuvent être utilisés pour la modélisation tridimensionnelle; simulation de mouvement de mécanisme et calcul d'analyse par éléments finis; analyse, évaluation et modification rapides des schémas de conception, garantissant l'optimisation et la fiabilité des structures des pièces clés. Au cours des dernières années, l'entreprise a obtenu des dizaines de protections par brevet grâce à une accumulation et une innovation technologiques continues, tout en apprenant et en introduisant de nouvelles technologies.

Les capacités de fabrication de CAMT se reflètent dans la gestion 6S, la production de lignes spéciales, la prévention et le contrôle homme-machine et la traçabilité complète.



Quality Assurance and Control

● Long History In Automotive Field

We entered the automotive field since 1999 and cooperated with many world level customers for OE projects and aftermarket projects.

● Experienced Engineers

Our chief engineer has more than 20 years experience in the ABS sensor projects, most of other engineers also at least 5 years experience in the auto sensors. We always keep on learning to provide customers with more new products according to the market demand.

● Rich QA and QC Experience

We have rich experience in QA and QC, especially in the FPC, not only controlling the quality of products produced by ourselves but also those by our partners.

● Complete Equipment

We have the complete set of equipment to confirm our efficient development and stable production, including the high-low temperature tester, salt spray tester, pressure tester, vibration tester, cable fatigue tester, watertightness tester and tensile tester etc.

● Wide Product Range

For the aftermarket, there are more than 3000 pieces ABS sensor items and hundreds of other articles; for OE Market, more than 20 articles.



Contact



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