

Kiwa Electrical Compliance

VCA Automotive Testing

Kiwa Electrical Compliance are a VCA Technical Service and UKAS accredited testing laboratory No. 2360.

We perform UNECE Regulation 10 'E' mark testing for electrical sub-assemblies (ESA's) and components, as well as devices intended for aftermarket fitments.

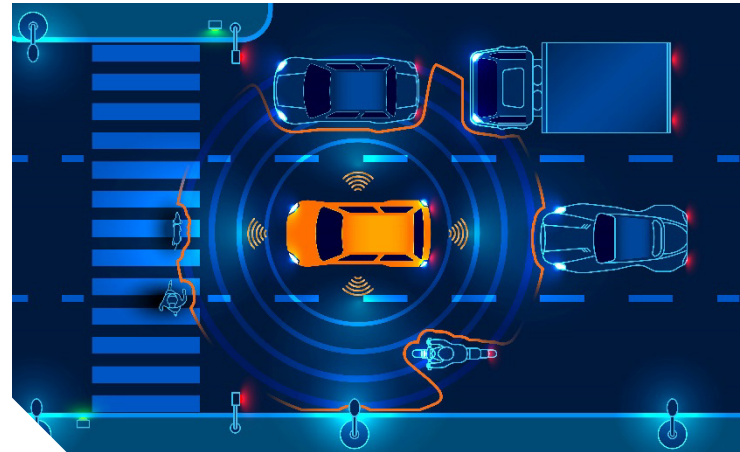
We offer testing for the automotive sector at greatly reduced lead times and can act on our customer's behalf to obtain the approval certificate from the Vehicle Certification Agency (VCA). A designated Type Approval authority in charge with operating the system of automotive type approvals in the UK.

Automotive Devices Testing

- Testing to Regulation 10.06
- VCA certification
- E-marking of wireless devices
- Automotive Short-Range Radar (SRR) – (advanced driver assistance systems)
- Radiated Emissions 30 MHz – 1 GHz
- Radiated Immunity 400 MHz – 2 GHz
- Conducted Immunity BCI 20 MHz – 400 MHz
- Vehicular Transients 12 & 24V Emissions & Immunity (ISO 7637)

Scope

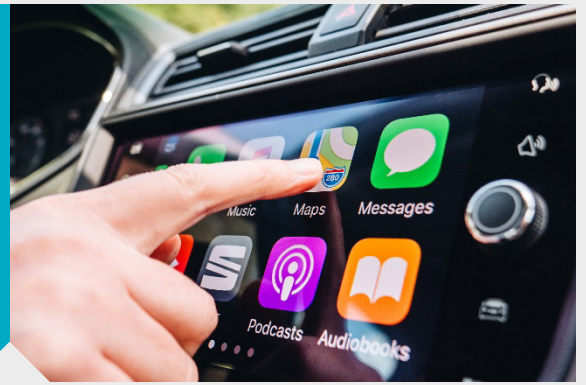
Regulation 10.06 requires manufacturers to obtain type approval for all electronic sub-assemblies (ESAs). Whether an original part or an aftermarket part) requires to be approved before it can be sold.



Regulation 10.06 covers specific requirements for the EMC testing and certification of all components and ESA which are related to the functions of:

- Direct control of the vehicle (e.g. engine, gear, brake, suspension, steering, speed limiting, driver position, driver visibility)
- Driver, passenger and other road-user protection (e.g. airbags, seat belts)
- Vehicle data bus (i.e. by blocking data transmission to other safety critical functions)
- Vehicle statutory data (e.g. tachograph, odometer) and functions which when disturbed cause confusion to the driver
- Are required to be Type Approved and carry the 'E' mark.

Ensure compliance, reliability and safety of your automotive components, systems and sub-assemblies with E Mark, national and international regulatory EMC standards, automotive EMC and wireless testing and certification from a VCA Technical Service and Accredited laboratory.



The Regulation also covers electric and plug-in hybrid vehicles (PHEV), particularly the components that interface to the mains power supply or off vehicle charging equipment.

VCA Certification

We can provide all the necessary information and documentation for certification, testing and reporting. RN Electronics can act on customers' behalf enabling the VCA to issue relevant approval certificates to the customer through RN Electronics rather than being directly involved, making the entire process of obtaining an 'E' mark on automotive components more efficient and cost effective.

The certification process for 'E' marking starts after the customer provides relevant documentation and test samples for assessment and testing:

- Kiwa Electrical Compliance carries out testing on your product in line with United Nations Economic Commission for Europe (UNECE) Regulation 10.
- We then arrange submission of all test reports/technical documentation to the Vehicle Certification Agency (VCA).
- VCA issues an approval certificate, subject to a satisfactory review of the submitted documents and Conformity of Production (CoP) assessment clearance has been given.
- Customer can affix 'E' mark on the product after receiving an approval number from the VCA, via Kiwa Electrical Compliance.

Most Common Terms

ESA

Electrical Sub Assembly.

CAN-bus

CAN-bus (Controller Area Network) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within a vehicle without a host computer. A modern vehicle may have as many as 70 electronic control units (ECU) for various subsystems. Typically the biggest processor is the engine control unit, which is also referred to as "ECU" in the context of vehicles; others are used for transmission, airbags, antilock braking, cruise control, audio systems, windows, doors, mirror adjustment, etc. Some of these form independent subsystems, but communications among others are essential. The CAN bus may be used in vehicles to connect engine control unit and transmission, or (on a different bus) to connect the door locks, climate control, seat control, etc.

CoP

Conformity of Production (CoP) is a means of evidencing the ability to produce a series of products that exactly match the specification, performance and marking requirements outlined in the type approval documentation. Whether you are a manufacturer, or the agent applying for approvals on behalf of a manufacturer, and whatever your product is, suitable CoP arrangements must be made.



Visit www.kiwa.co.uk to understand more about our comprehensive range of services, call +44 (0)1277 352219 / (0)1495 229219 or email uk.electrical@kiwa.com