

**CONSUMER
SGSTESTING
SERVICES**

AUTOMOTIVE-TESTING

**QUALIFICATION SERVICES
FOR COMPONENTS AND VEHICLES**

**ELECTROMAGNETIC
COMPATIBILITY
ENVIRONMENTAL
SIMULATION**



SGS

In our accredited Center for Quality Engineering in Munich we offer EMC (electromagnetic compatibility) and environmental testing (climatic, mechanical, corrosion) for the automotive and transportation sectors. Our quality testing covers not just components but also complete vehicles and machines.

We cover the entire test spectrum from EMC to climatic requirements, performing tests according to international standards such as ISO 7637 x, ISO 11452 x and ISO 16750 as well as OEM standards and customers' individual specifications.

EMC TESTS

- Emission up to 40 GHz
- Immunity up to 600 V/m
- ESD
- Vehicle transients
- Time-domain measurements

CONSULTING/SIMULATION

- EMC simulation
- Layout consulting
- Functional Safety

EMC LABORATORY EQUIPMENT

- Absorber chambers with 3 m and 10 m measurement distance; turntable (up to 6 t)
- Screened cells
- Stripline
- GTEM / TEM cell
- Impulse generators
- EM scan
- CAN bus monitoring
- BCI clamp

SGS is a development member of AUTOSAR.

EMC APPROVAL TEST FOR VEHICLES AND COMPONENTS (e/E)

In addition to our accreditation under DIN EN ISO/IEC 17025, we are also accredited by the German Federal Automotive Office (KBA) to perform tests for awarding the E/e mark. If desired we will also handle approval formalities (homologation) with the Federal Automotive Office.

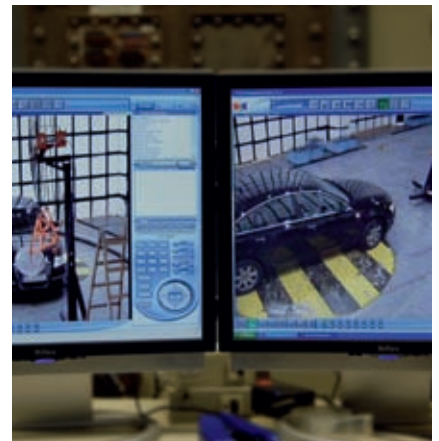
ENVIRONMENTAL SIMULATION TESTS

- Climatic tests (temperature, humidity)
- Mechanical tests (vibration, shock)
- Salt spray tests
- Mixed flowing gas tests
- Protection class testing (IP)
- HALT (highly accelerated life test)
- Qualification of connectors and press fit technique

ENVIRONMENTAL TEST EQUIPMENT

- Climatic cabinets and chambers in the range 90 °C to +300 °C
- 2 chamber and 3 chamber temperature shock cabinets
- Mixed flowing gas chambers
- Vibration systems up to 1.5 t
- Shock test systems up to 2500 g
- HALT test system

More information about our testing and analysis services for the automotive sector is available at www.sgs-cqe.de/en or www.sgs-auto.com.



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