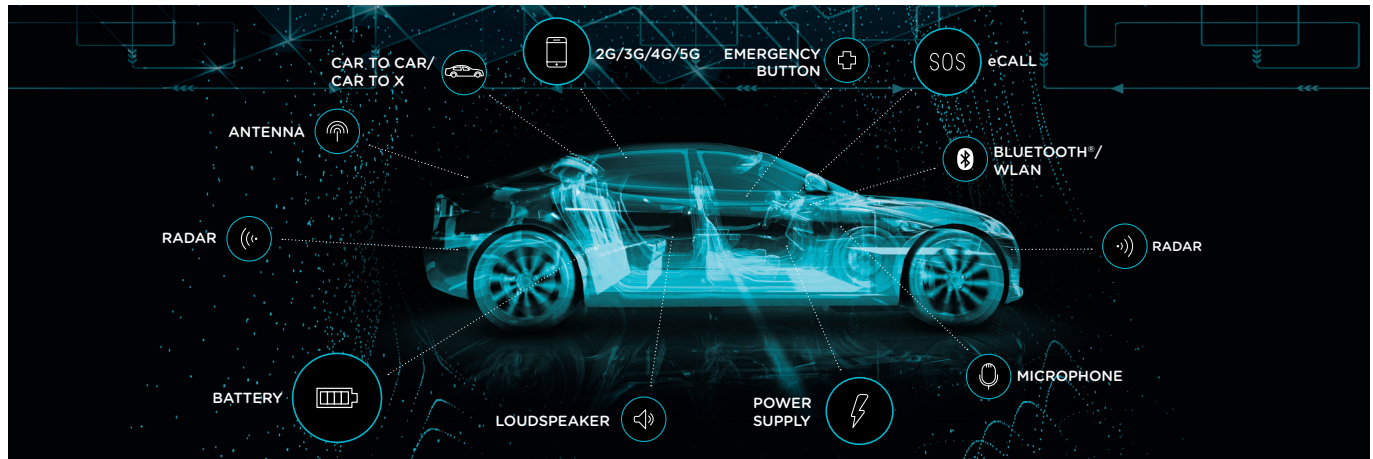


# Automotive Testing & Certification

Electrical and Electronic Subassemblies (ESA) in vehicles have become increasingly important in the recent years. They are present in modern vehicles in a large number with various functions and tasks. cetecom advanced can both consider regulatory aspects as well as the industry requirements.



## AUTOMOTIVE SERVICES AT A GLANCE

- Regulatory EMC testing of electric / electronic subassemblies for motor vehicles
- E-mark (E1, E13) - recognized by KBA and SNCH as a technical service for testing according to UN ECE R 10
- EMC testing following requirements of the automobile industry acc. specification of manufacturer, agriculture and forestry, as well as construction machines

## ECALL / ERA-GLONASS CERTIFICATION FOR EMERGENCY CALL SYSTEMS IN THE VEHICLE

cetecom advanced offers diverse test- and certification services according to manufacturer specifications:

- BMW (GS 95002-2, GS 95002-5)
- MAN (M3285, M3499)
- Mercedes Benz (MBN 10284)
- Peugeot, Citroen (PSA B21 7110)
- Smart (DE 10005B)
- Volvo (STD 515-0003)
- VW, Seat, Skoda, Audi, Porsche (VW80000, TL81000)
- Jaguar Land Rover (JLR-EML-CS)

## AUTOMOTIVE COMPONENT APPROVAL

cetecom advanced is recognized for E-Mark approval according to:

- e1/E1 (Germany)
- e13/E13 (Luxembourg)

## REGULATORY APPROVAL

### EMC

- EN 301 489-1
- EN 301 489-3
- EN 301 489-7
- EN 301 489-24

### BLUETOOTH® / WIFI

- EN 301 489-17

### RADIO

- EN 301 511 (GSM)
- EN 301 908-1 (W-CDMA, LTE)
- 301 908-25 (5G)
- EN 301 908-25 (5G) (WLAN)
- EN 300 328 (Bluetooth®)
- EN 302 291/ EN 300 330 (RFID)
- EN 300 440-2 (GPS)
- EN 302 288 (24 GHz Radar)
- EN 301 091 (77GHz Radar)

### SAFETY

- EN 60950-1
- EN 62368-1

### MPE

- EN 62311

### BATTERY

- ECE R100-2

**CETECOM ADVANCED IS THE APPROVAL PARTNER FOR THE AUTOMOTIVE INDUSTRY**

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## CETECOM ADVANCED – YOUR RELIABLE PARTNER FOR AUTOMOTIVE RADAR...

In the course of the further development of our testing services, we have invested nearly a quarter of a million Euros over the past year to modernize our testing lab for automotive radar systems (24 GHz & 76-81 GHz).

In particular, we have integrated new measuring devices in our test environment to inspire our customers with faster measurement times and higher precision in regulatory tests:

Signal and spectrum analyzer with up to 85 GHz frequency multipliers from 50 to 170 GHz harmonic mixers

By means of new measuring techniques and a new signal- and spectrum analyzer, we are able to determine the most important parameters of your products reliably up to 85 GHz, without external mixers. Thus, we are ideally equipped to test future generations on broadband automotive radars. Even if it goes higher with the harmonics, no problem for us! We cover the frequency ranges up to 325 GHz with our further calibrated "measure grounds" and the expertise of our team.

## THE FOLLOWING SERVICES SHOW YOU OUR RANGE IN THE RADAR AND RADIO AREA: 77 GHZ

### EUROPA:

ETSI EN 301 091-1, Automotive Radar

### USA:

FCC Part 95, Automotive Radar

### CANADA:

RSS-251, Automotive Radar

Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment

### JAPAN:

Article 2, Paragraph 1, Item 8

Ordinance Regulating Radio Equipment

Article 49.14-12, Article 49.14-13

## 24 GHz

### EUROPA:

ETSI EN 302 858, Automotive Radar

### USA:

FCC Part 15.249, Automotive Radar

### CANADA:

RSS-310, Automotive Radar

Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment

### JAPAN:

Article 2, Paragraph 1, Item 8

Ordinance Regulating Radio Equipment

Article 49.14-11

## 24 GHz UWB

### JAPAN:

Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment Article 2, Paragraph 1, Item 47-2

Ordinance Regulating Radio Equipment, Article 49.27-2

Of course, we are proud to complement our portfolio of radio measurements with our additional lab- and certification services.

## Keep us on your radar...

[www.cetecomadvanced.com](http://www.cetecomadvanced.com)

