

# EMC and Product Safety

Electromagnetic Compatibility and Electrical Safety are basic requirements your product has to fulfill if you want to place it on the market. All electrical equipment must be interference free and able to function properly in the presence of electromagnetic disturbances. The products under test also have to pass stress tests like energy, mechanical and heat hazards, fire, as well as radiation or chemical hazards. That's exactly what CTC advanced does in its laboratories, check if your product demonstrate conformity to current EMC and safety standards. Regardless of what industry you come from.

## ELECTROMAGNETIC COMPATIBILITY

CTC advanced has many years of experience in conducting regulatory EMC test services and completing approvals in a timely manner. CTC advanced offers comprehensive EMC testing services according to the EMC compatibility requirements of Europe, the United States, Canada, Japan and Korea. EMC test reports issued by CTC advanced are recognized by official bodies, regulatory agencies and governments throughout the world. CTC advanced is also accredited for almost all relevant EMC standards based on various international EMC Guidelines and Directives, such as for example

- RE Directive (2014/53/EU)
- EMC Directive (2014/30/EU)
- Medical Device Directive (93/42/EEC)
- In Vitro Diagnostic Directive (98/79/EC)
- UN ECE R10, Rev. 5
- Conformity Assessment Body (CAB) for US (FCC) and Canada (IC)

As a Notified Body under the RE Directive, CTC advanced is capable of creating specific test plans for radio products in the areas where harmonized standards deviate or are nonexistent.

## EMC AUTOMOTIVE

Electrical and Electronic Subassemblies (EUB) 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. CTC advanced can both consider regulatory aspects as well as the industry requirements.

CTC advanced can offer the following Automotive Services

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

## ELECTRICAL SAFETY

CTC advanced is accredited test lab according to

- IEC/EN 62368-1 (Safety for Audio/video, information and communication technology equipment (transition period for IEC/EN 60950 and 60065 until 06/2019))
- IEC/EN 60601 (Safety for medical electrical equipment)
- IEC/EN 61010 (Safety for electrical equipment in lab use)
- IEC/EN 62133 (Safety requirements for batteries)

Additionally our test reports fulfill the requirements for the CB Scheme. The CB Certificate is currently recognized by 48 countries outside the European Union, offering manufacturers a simplified way of obtaining multiple national safety certifications.

If you want to bring your product to the US and Canada markets you will need an NRTL approval. We are recognized National Recognized Testing Laboratory to conduct testing and certification for the US and Canadian market.

## SUPPLEMENTARY SERVICES

### RADIO

Laboratory for Conformity Testing or In Development Testing for any known radio application

### HEALTH/SAR

Depending on the application or intended use we can offer SAR measurements or EMF calculations to proof the compliance to current Health standards.

### ENVIRONMENTAL SIMULATION

Mechanical vibrations, climatic impact and IP (internal protection) class, a.o.

### CERTIFICATION

Conformity Assessment Body for EU (CE 0682), USA (FCC), Canada (ISED) and Japan (RCB). In countries where no regulatory scheme exists, our team for International Type Approval will take care of the approval handling in more than 180 countries.