# Consumer Electronics

## Product safety & compliance

### Eurofins E&E

Eurofins Electrical and Electronics (E&E), part of Eurofins Consumer Product Testing (CPT) Division, is a global network of accredited laboratories offering electronic compliance testing, inspection, certification and market access services allowing you to deliver compliant products to international markets quickly and cost-effectively.

### Meeting the demands of the modern consumer

From Electromagnetic and Wireless compatibility to Product Safety and Performance Verification, manufacturers face a wide range of regulatory and market-specific requirements as customers' demands for new technology have created many new opportunities for growth.

However, these new opportunities have created additional pressures on manufacturers, product designers and retailers alike to ensure that products meet customers' demands whilst continuing to stay apace with regulatory requirements.

For example, the addition of Wi-Fi to refrigerators, NFC to washing machines or Bluetooth® to smart home devices has dramatically increased the range of products that may need additional testing and certification, some of which may require additional regulatory approvals at regional or local levels.

From kitchen appliances, smart lighting and wireless chargers to accessories for mobiles and tablets, smart speakers and air quality products, Eurofins E&E can provide you with all of the services you need to allow you to meet these demands, now and in the future.

### Service scope

#### Global market access

Being able to place a single product onto multiple global markets is an essential requirement in the lifecycle of many consumer electronic products. Understanding any specific entry requirements for each market is critical, both at a product design stage and during testing, approval and certification.

Eurofins E&E provides a Global Market Access service to manufacturers that assists you in obtaining international approvals and any specific in-country certifications.

Our GMA teams work with you throughout the process, ensuring that all aspects of product compliance, approval, and certification are covered and provide guidance on the best route to market, both now and in the future.

Our global network of laboratories and our extensive industry knowledge can help you meet these demands and ensure that you can:

- Deliver products to market, on-time and on-budget
- Reduce costs and timelines during product design and development
- Grow revenue in new and emerging markets
- Maintain regulatory compliance and customer acceptance at every stage of your product's lifecycle

## Electromagnetic compatibility (EMC)

Electromagnetic Compatibility, or EMC, is a fundamental component of product acceptance in many markets.

Eurofins E&E provides extensive EMC testing and certification services covering many regulatory requirements, including, but limited to:

- CE Marking for Europe
- UKCA for the GB market
- FCC for the US
- ISED for Canada

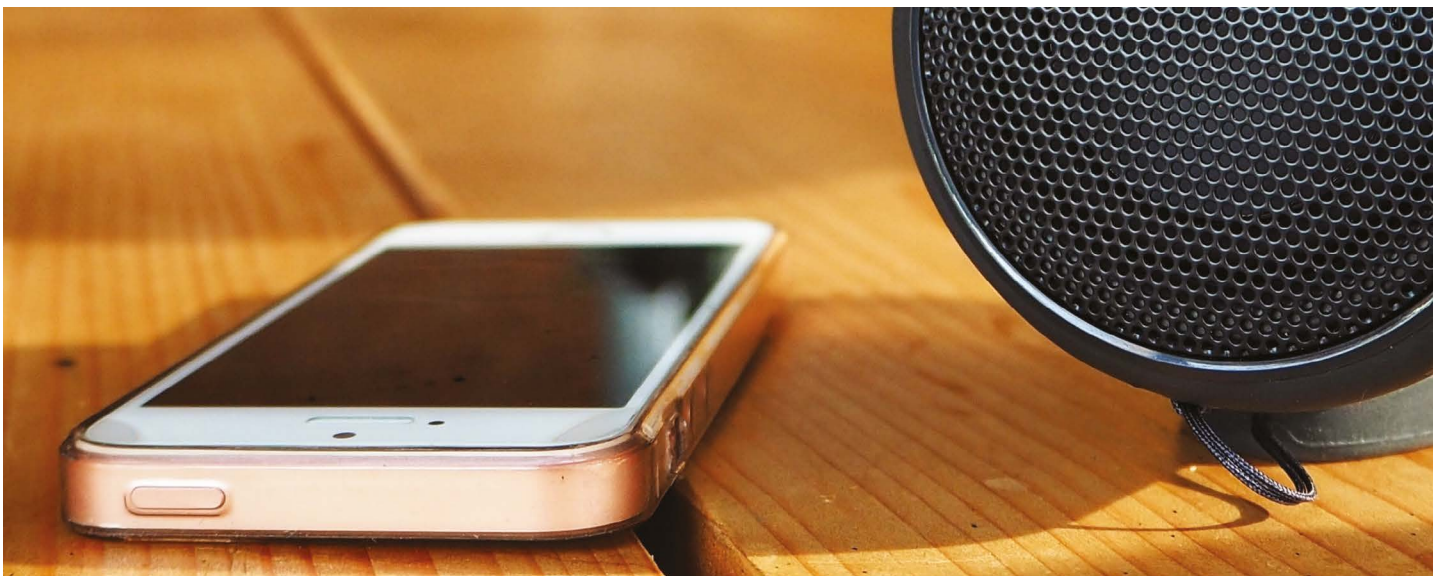## Wireless (radio) testing and certification

The use of wireless technologies in all manner of consumer electronic products has dramatically increased in recent years.

With this has come increased regulatory scrutiny and compliance requirements for products that include this type of technology.

Eurofins E&E provide extensive wireless testing, compliance and certification services for products that include wireless technologies covering all major protocols including, but not limited to:

- Bluetooth®
- Cellular (GSM / EGPRS / UMTS / WCDMA / LTE / NB-IoT / LTE-M2M)
- Wi-Fi
- RFID & NFC
- Bluetooth® SIG (BQTF & BQC)
- IEEE 802.15.4 (ZigBee)

Our laboratories can also provide Specific Absorption Rate (SAR) Testing, CITA Accreditation for OTA performance testing, PTCRB & Verizon ITL approvals, as well as specific approvals and certifications for the EU, UK, US & Canada, Japan, Australia and New Zealand, Korea, Vietnam and Taiwan.

## Electrical safety testing

Ensuring that your products are safe to use and do not pose a risk to the user is a critical part of product acceptance from both retailers and consumers alike.

Although often referred to as electrical safety testing, some assessments go beyond electrical characteristics to ensure that products do not present a danger or hazard during everyday use or expected abuse.

Eurofins E&E has an extensive scope of accreditation for product safety testing, covering key markets such as the EU with the CE Mark, the US & Canada with the MET NRTL mark and the global IEEE CB Scheme, which covers more than 50 countries.

## Mechanical & environmental testing

The range of environments where consumer products are use is extensive.

To ensure that your products can operate across the spectrum of expected use, Eurofins E & E&E can provide product testing to a range of mechanical and environmental standards.

Environmental testing covers areas such as:

- Dust and water Ingress Protection (IP)
- Impact protection (IK) rate testing & drop testing
- Temperature and humidity testing
- Flame testing

- Battery charge and discharge performance
- Corrosion testing and many more

Eurofins E&E can also provide acoustic & vibration testing such as impact, shock and mechanical durability, vibration transmission for handheld products and sound level, sound power, and sound intensity measurements.

## Chemical testing

The use of hazardous chemicals and materials in products is heavily regulated under international regulations such as RoHS, REACH Annex XVII and SVHC and other that may be product specific, such as the legislations on Food Contact Materials (also applicable to kitchen appliances), those intended for infant and childcare products, VOC emissions, PAHs and more. Eurofins provides a complete range of product chemical testing and physical-chemical analysis.

## Performance & fit-for-use testing

As well as ensuring that your product meets the technical and regulatory requirements for your markets, it is essential that your products perform as designed and that they are fit for their intended use.

Eurofins E&E can provide a wide range of performance tests against globally accepted methods such as endurance and accelerated life testing.

We can also offer testing against energy efficiency protocols such as Energy Star®, EcoDesign and EU energy labelling requirements.

Fit-for-use testing services include suitability for intended use, functionality checks against user documentation such as user manuals and quick start guides, ergonomic testing for handling and manoeuvrability and user-friendly functionality.

Eurofins E&E can also undertake technical documentation reviews, such as TCFs and Declarations of Conformity, and the verification of product packaging and labelling for the accuracy or where performance claims are made.

## Failure analysis & benchmarking

By analysing product failures, both during manufacture and in the market, manufacturers can drive product quality improvements and maintain brand reputation.

Eurofins E&E provides failure analysis on electrical and electronic consumer products for manufacturers, brand owners and retailers to determine the cause of marketplace failures and returns.

This information can be used for claim substantiation as well as to drive improvements in product quality.

Eurofins E&E can also provide product benchmarking services to allow manufacturers to check product performance against industry standards as well as against competitive products.

## Inspection & audits

Alongside the testing and certification of products, the ongoing inspection and auditing of manufacturing facilities, locations, production lines, and products before, during or after production is a vital part of the process of delivering and continuing to deliver compliant products to market.

Eurofins offers a range of auditing and inspection services in manufacturing countries, such as raw material inspection, production line and post-production sampling, and pre-shipment inspections for all types of electrical consumer products.

Alongside these services, Eurofins E&E provides a range of inspection and auditing services covering certification schemes such as the MET NRTL mark and for products that are to be used in hazardous locations and as medical devices.