

Radio testing, certification and approval services





Your challenge

Element Materials Technology is the trusted advisor to manufacturers, distributors, importers and authorised representatives of electronic products with built in radio devices.

We understand how the inclusion of a radio device into your product alters your design considerations, and the implications of EMC and safety testing, as well as country approvals required when taking your product to international markets. Element can support your radio testing and approval needs with a global platform of laboratories and over 185 years of testing experience.

Our network of engaged experts, worldwide capacity and innovative service is designed to meet these challenges by increasing your speed to market, reducing the administrative burden and managing your testing costs.

Our solution

Element is an excellent choice of partner for companies who wish to take their radio and wireless products to the global market. We provide assistance from the early design stage to support your successful radio testing and approvals services:

- RED and R&TTED Radio Testing for CE Marking in Europe
 - Products placed on market between 13 June 2016 and 12 June 2017 can use R&TTED or RED
 - Products placed on market after 12 June 2017 must use RED
- Federal Communications Commission (FCC) rules and Canadian Innovation, Science and Economic Development (ISED) standards
- Radio testing and certification services for the Japanese Ministry of Internal Affairs and Communication (MIC)
- Bluetooth SIG Qualification
- ZigBee Testing and Certification

We commonly provide radio testing services for these technologies:

- Non-specific Short Range Devices (SRD) (868 / 915 MHz, Bluetooth / WLAN / ZigBee)
- Radio-Frequency Identification (RFID)
- Machine to Machine (M2M) communications
- Radio Detection And Ranging (RADAR)
- Point to point microwave links
- Satellite



Engaged experts all over the world

We help our clients take electronic products, many with radio devices, to 167 different countries. Our expertise means we support clients from the conception of their products, so they can achieve compliance across a wide range of standards over multiple territories. We understand and support customers through their design process, the complexity of supporting documentation when accessing international markets, and the challenges of securing in-country testing and support.

Radio testing services and approvals within Europe

CE Marking

Element is a Notified Body for the Radio Equipment Directive (RED) / Radio Telecommunication Terminal Equipment Directive (R&TTED) and a leading provider of CE Marking for electrical equipment, including products that incorporate a radio device. Our global capacity of complimentary testing services (EMC, Safety and ATEX) allows us to test thousands of products every year. This gives our clients confidence when completing their Declaration of Conformity to support their CE Mark.

Our engaged experts provided both pre-compliance services and formal radio testing to help our customers get their products to market faster and access all EU member states and European Free Trade Association (EFTA) countries.

The European harmonized standards that we commonly provide radio testing to include:

- EN 300 328
- EN 300 220
- EN 300 330
- EN 300 440
- EN 301 893

We add the certainty of



Element Materials Technology is UKAS accredited to BS EN ISO/IEC 17025:2005, a European Notified Body for the Radio Equipment Directive (RED) / Radio and Terminal Telecommunication Equipment Directive (R&TTED), an FCC Telecommunication Certification Body (TCB) for the United States, an ISED Foreign Certification Body (FCB) for Canada, and a Conformity Assessment Body (CAB) for Japan.

We can help with EMC and safety testing and assist manufacturers who want to take their radio and wireless products to the global market.

International radio testing services and approvals

North America

Appointed by the Federal Communications Commission (FCC) as a Telecommunication Certification Body (TCB), and as a Foreign Certification Body (FCB) by Innovation, Science and Economic Development (ISED) Canada, Element helps companies export their electronic products containing radio devices into the North American market.

In the United States we most commonly test our clients' radio products against the following:

- Part 15 Radio frequency devices
- Part 22 Public mobile services
- Part 24 Personal communication services
- Part 25 Satellite communications
- Part 27 Miscellaneous wireless communication services
- Part 90 Private land mobile radio services

In Canada our clients frequently ask us to test their products against:

- RSS-210 License-exempt radio apparatus (All Frequency Bands): category I equipment
- RSS-247 Digital Transmission Systems (DTS), Frequency Hopping Systems (FHS) and License-Exempt Local Area Network (LE-LAN) devices

Japan

Element is an appointed Japanese Ministry of Internal Affairs and Communications (MIC) Conformity Assessment Body (CAB). As such, we assist manufacturers of embedded radio devices with regulations for Japanese radio compliance that fall under the Ordinance concerning Technical Regulations Conformity Certification of Specified Radio Equipment, including:

- Article 2 Paragraph 1, Item (19)
- Article 2 Paragraph 1, Item (19)-2
- Article 2 Paragraph 1, Item (21)-2
- Article 2 Paragraph 1, Item (8)
- Article 2 Paragraph 1, Item (19)-3
- Article 2 Paragraph 1, Item (19)-3-2



element®

www.element.com