

Wireless products and devices

Certification and market access for wireless products. Our team of experts handles the compliance process, ensuring your wireless equipment reaches the market smoothly.

Your challenges

Wireless technology plays a key role in today's communications and has rapidly transformed ourworld. The increased use of wireless technologies now extends far beyond laptops and mobile phones. They are now being included in all kinds of devices, from domestic appliances to industrial machinery.

Every country has different regulatory requirements for wireless products. Manufacturers, importers and retailers face the challenge in navigating the differing national standards to the various markets.

What are wireless products?

Wireless modules provide products with communication technologies to support their specific function(s).

Common technologies include:

- Bluetooth®
- Radio frequency identification (RFID)
- Global positioning system (GPS)
- Near field communication (NFC)
- Global system for mobile communication (GSM)
- · Wide band code division multiple access (WCDMA)
- Wireless local area network (WLAN)
- Long-term evolution (LTE)

Wireless communications systems come in several forms. Integrators will select the technology that supports their application. For example, cellular technology would be used if you are trying to telemeter data back to a centralised network due to the high-capacity coverage over a wide area. Whereas short-range technologies (WLAN or Bluetooth®) would support short range communication between devices like a smart fridge.

Depending on the intended functions, some end products could be classified as Short Range Devices (SRD). These types of devices typically have a low level of transmitted power, and hence their communication range is restricted.

The definition 'Short Range Device' may be applied to many different types of wireless equipment, including various forms of:

- Access control (including door and gate openers)
- Alarms and movement detectors
- Closed-circuit television (CCTV)
- Cordless audio devices, including wireless microphones Industrial controls
- · Local area networks (LAN)
- Medical equipment and implants
- Mobile phones (Bluetooth®, WLAN)

- Radio-controlled systems
- Radio frequency identification (RFID)
- Remote control
- Road transport telematics
- Smart home appliances
- Telemetry
- UWB sensors & radars (such as ground probing radar)
- Wearable devices

In addition to SRD, there are other end products that might integrate short range communication with dedicated cellular and/or satellite-based communications modules.

These include mobile phones, laptops, navigation equipment, and safety critical communication devices used in autonomous cars or medical applications.

Conformity requirements in key markets

A wide variety of laws and guidelines from different countries must be met before your wireless devices can enter new markets. This table presents mandatory conformity requirements for wireless devices in more than 40 countries. We also provide support for countries and areas that are not listed here. Please contact us directly for more information.

Continent	Country and region	Mandatory conformity requirements
Europe	EU	CE Mark
	Iceland	CE Mark
	Liechtenstein	CE Mark
	Moldova	INSM Mark
	Norway	CE Mark
	Serbia	Serbian Mark of Conformity
	Switzerland	CE Mark
	Turkey	CE Mark
	United Kingdom	UKCA
Americas	Argentina	ENACOM Approval
	Brazil	ANATEL Approval
	Canada	ISED Approval
	Chile	SUBTEL Approval
	Ecuador	ARCOTEL
	Mexico	IFETEL Certification
	United States of America	ACTA Approval, FCC Approval
Australasia	Australia	RCM
	New Zealand	R-NZ, RCM

Continent	Country and region	Mandatory conformity requirements
Africa	South Africa	ICASA Approval
	Kenya	CA Type Approval
	Nigeria	NCC Approval
Asia	Brunei Darussalam	AITI Approval
	Cambodia	TRC Approval
	China	NAL Certification, SRRC Approval
	Hong Kong	OFCA Certification
	India	TEC Approval, WPC Approval
	Indonesia	SDPPI Approval
	Japan	MIC Approval
	South Korea	KC Mark
	Malaysia	SIRIM MCMC Approval
	Philippines	Philippines NTC Certification
	Singapore	IMDA Equipment Registration
	Taiwan	NCC Approval
	Thailand	Thai NBTC Approval
	Vietnam	ICT Mark
Middle East	Egypt	NTRA
	Israel	MoC Approval
	Kuwait	MoC Approval
	Oman	Type Approval
	Saudi Arabia	Equipment Approval
	United Arab Emirates	TDRA Approval
Commonwealth of	Armenia	CE Mark
independent states	Azerbaijan	MINCOM CoC
	Uzbekistan	MITC
		Type Approval
	Turkmenistan	TDS CoC

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Why are wireless testing and certification important for your business?

There is an increased demand for wireless technologies to be included in all kinds of devices and applications. There is also a growing market of devices which uses different types of wireless technologies to function.

A key reason for non-compliance of final host products containing wireless modules is that while these modules are compliant as an independent unit, once they are integrated into another product, this often changes the regulatory requirements.

It is therefore essential to take an efficient and systematic approach of managing compliance with regulations in order to optimise time to market and costs. Third-party conformity assessments also help to strengthen your competitive position in the market.

How can we help you?

TÜV SÜD's experts can certify any of your wireless products. We are a recognised Notified Body (NB) under the European Union's Radio Equipment Directive, an Appointed Body for GB markets (UKCA marking), a Telecommunication Certification Body (TCB) for the U.S., an Industry Canada Foreign Certification Body (FCB) and a Conformity Assessment Body (CAB) for Japan and the United Kingdom.

Our global market access experts study target market access requirements and advise customers on the most efficient and economical certification path, ensuring that your product or radio module complies with the regulatory requirements of its intended market.

Our services

- Pre-evaluation of modules or end-user products

 identify applicable standards in each target country

 and the most efficient certification approach.
- **Testing** to meet the regulatory requirements for market access to Europe, the U.S., the United Kingdom, Canada, Japan, Australia and other related markets.
- Certification against the requirements of over 100 countries.
- Research our team of highly skilled experts has indepth knowledge of the latest changes and updates to the global regulations and standards which are relevant to your products and target markets.
- Quality assurance our global network of accredited test laboratories identifies potential issues early to minimise market access and supply problems.

TÜV SÜD's Global Market Access (GMA) service determines applicable regulations, managing product compliance for the different countries into which you sell. Our GMA services for wireless products and devices include Africa, the Americas, Asia, Australasia, Europe and the Middle East.

Your business benefits

- Save time and money by covering all your testing and certification needs through our one stop solution, as well as using our technical pre-check service to avoid retests and minimise costs.
- Minimise risk of business disruption by ensuring that your products conform to a broad range of global market regulations.
- **Shorten time to market** through TÜV SÜD's process systems and advanced knowledge of regulations.
- Enjoy expert partnership with our team of highly skilled experts that has in-depth knowledge of the latest changes and updates to global regulations and standards.

Why choose TÜV SÜD?

TÜV SÜD has experience in wireless device compliance, helping our customers to understand and comply with the wide variety of laws and guidelines from different countries and telecoms providers, which must be met before products can enter new markets.

Our experts have specialist knowledge in key industries such as marine, aviation, defence, electronics consumer products, and communication technology infrastructure and equipment. They ensure you have the competitive edge and certifications to uphold it.

Related services

TÜV SÜD provides the following related services:

- · EMC testing
- ETSI EN 303 645 cybersecurity testing
- Marine testing and certification
- Quality management system audits
- Radio Equipment Directive
- Radio testing
- Safety testing
- SAR testing
- TÜV SÜD CyberSecurity Certified (CSC) certification