Since 1872, TÜV Rheinland has been a world leader in compliance testing, guaranteeing customer satisfaction with its technical expertise and efficient delivery process. Since its presence in Indian market from 1996, TÜV Rheinland offers solutions encompassing EMC, Safety and Wireless testing services facilitating its valued customers gain access to global market.
The exploding market for telecommunication products since 1934 has created technological advances that no one could have imagined. By upgrading its testing labs in India, TÜV Rheinland has met and continues to meet the demand by industry leaders worldwide for electromagnetic compatibility (EMC) tests — including ZigBee®, Bluetooth and Wi-Fi® in its constant endeavour to meet the demands of global industry requirements.

TÜV Rheinland provides:

- Extensive experience in telecommunication testing and certification including both wireline and wireless technologies
- As a Telecommunication Certification Body (TCB) & Industry Canada (IC) Foreign Certification Body (FCB), TÜV Rheinland can provide both testing and certification in a single process
- Experienced and highly-trained engineers
- Technical guidance: its global experience and knowledge far surpasses its competitors. TÜV Rheinland can assess a product and ensure it is ready to market in countries around the world by applying specific testing and local documentation requirements
- Full portfolio of testing to many standards — single source for multiple certification including regulatory and special interest groups such as ZigBee®, Bluetooth and Wi-Fi®

At TÜV Rheinland, customers are more than just clients – they are partners. By working together, long-term strategic relationships flourish.

Do Not Disturb and Do Not Get Disturbed

EMC directive conformity evaluation can be combined with testing according to FCC/IC, AS/NZS standards providing additional economical benefits also encompassing certification and design support.

Efficient EMC Solution

As a ‘Notified Body’ and international service provider, we have been providing professional services for conformity assessment for CE marking. We offer evaluation services at our laboratories as well as on-site. Our strength is our lab infrastructure, accreditation and global network.

- Capabilities: Radiated & Conducted Emission, Radiated & Conducted Susceptibility, Electrical Fast Transient, Surge, Electrostatic Discharge, Dips & Interruptions, Power Frequency & Pulsed Magnetic Fields, Clicks, Disturbance Power
- Laboratories: Testing at 10m/3m Anechoic / shielded chambers
- Design Support: Our facilities can be used for design analysis
- On-site Testing: Testing at customer site under special conditions
- Competent Body: For on-site testing or in case of non-harmonized standards
- TÜV EMC Mark: Voluntary third party mark conforming to EMC regulations
- One-Stop: Safety and life time simulation testing are available together
- Products Covered: Commercial, Medical, MIL, Automotive components etc

Engagement model throughout Product Development Cycle

<table>
<thead>
<tr>
<th>Developmental Assistance</th>
<th>In DA we provide our laboratory setup with assistance of qualified and experienced engineers to help you carry out developmental activities and evaluate your product in a more accurate way.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Compliance Testing</td>
<td>We engage with product development teams at the stage when the product is in the design prototype stage and support them with Design Review, Gap Analysis and perform critical tests as per the reference standard to evaluate the compliance level while ascertaining the deviations.</td>
</tr>
<tr>
<td>Regulatory Compliance Testing</td>
<td>TÜV Rheinland being a third party independent certification laboratory having accreditations such as NABL, FCC &amp; IC from various regulatory authorities across the globe can assist you with Compliance Test Reports for global markets. Our strength in this respect is our laboratory infrastructure, accreditations and network of group laboratories across the globe that help us act as a single point solution for you when it comes to regulatory compliance.</td>
</tr>
<tr>
<td>Global Market Access</td>
<td>By virtue of our global presence in 500+ locations in 65+ countries and a network of 100+ laboratories globally having recognition by majority of the regulatory bodies we can support you with getting your product certified for global market.</td>
</tr>
<tr>
<td>Training</td>
<td>We can assist your product development and engineering team in understanding the regulatory compliance requirements in depth with respect to your product portfolio by devising custom made training modules.</td>
</tr>
</tbody>
</table>
TÜV Rheinland is the focal point providing wireless certification to the world

Global Certification Scheme

R & TTE – Radio & Telecommunication Terminal Equipment

In the European Union, sales and operations of all radio-controlled products and telecommunication terminals are governed by R&TTE directive 99/5/EG. As an accredited testing laboratory and “appointed body,” we can run the required conformity assessment procedure. European Telecommunications Standards Institute (ETSI) is the standards body for most of Europe, Africa, Middle East and parts of Asia. According to the Radio and Telecommunications Terminal Equipment (R&TTE) Directive, the manufacturer must issue a Declaration of Conformity (DoC) indicating device compliance with the basic requirements of applicable directives with complete in-house testing facilities within India.

FCC – Federal Communication Commission

The U.S. Federal Communications Commission (FCC) requires that all customer-premise telecom equipment and network-attached telecom equipment meet minimum compliance standards. Part 15 of the FCC rules requires emissions testing to prevent harmful radio interference.

TÜV Rheinland is a Telecommunication Certification Body (TCB) that can process these FCC approvals ensuring that your products can be marketed and sold in the United States.

TÜV Rheinland offers testing, reporting, and processing of Federal Communications Commission (FCC) approvals for:

- Telecommunications terminal equipment
- RF (wireless) device under Parts 15, 22 and 24
- Others in which the FCC allows approval by a TCB

IC – Industry Canada

Telecommunications equipment is required to meet minimum technical requirements in accordance with the provisions of the legal requirements and departmental standards. Testing and certification according to regulatory requirements set by the appropriate government agency IC (Industry Canada) is a necessary condition for market launch. TÜV Rheinland can issue certificate in accordance to Industry Canada standards like RSS Gen and RSS 210 as our India facility is registered under Industry Canada Regulations.

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TÜVRheinland
Precisely Right.
Over-the-Air Performance (OTA & Antenna Measurements)

An antenna’s RF performance plays a major role in the quality of a device. Factors such as a human head or hand can greatly influence the transmitter’s performance while poor receiver performance can result in bad voice quality or dropped calls. Certain requirements are in place to ensure proper transmitter and receiver performance.

TÜV Rheinland Services to test Specific Wireless Technologies & Products Certification

Home Automation

Home Automation is the industry leading global standard helping to create smarter homes that enhance the comfort, convenience, security and energy management for the consumer. It supports a diverse ecosystem of service providers, original device manufacturers (ODM) and original equipment manufacturers (OEM) with a standards-based wireless solution for home and small office automation.

Industrial Automation

Wireless technology in industrial automation systems offers a number of potential benefits, from the obvious cost reduction brought about by the elimination of wiring to the availability of better plant information, improved productivity and better asset management. Wireless technology ensures improvement of production quality and safety in plants.

Automotive Wireless

Wireless automotive products and applications are making road users’ lives safer, more comfortable and a lot smarter. TÜV Rheinland supports manufacturers and integrators of wireless automotive devices in launching their products by taking over all testing, regulatory and certification requirements. We use our knowledge base covering more than 200 countries as well as our global network of local consultants and partners.

Wireless Energy Meter

TÜV Rheinland is accredited to provide testing & certification services for Zig Bee PRO and smart Energy Management System. With inhouse lab facility in India and Global network of labs conveniently located from coast-to-coast in the US and throughout Europe, TÜV Rheinland can test to Zig Bee PRO Standard as defined by the Zig Bee Alliance and its variations as defined in the Manufactures Specific Profile. Zigbee Smart Energy testing extends to all clusters that include Demands Response and load control, pricing, messaging and smart metering.

SAR – Specific Absorption Rate

The Global Regulatory and standards bodies (FCC, EU, IC and WPC) have defined the testing of RF transmitting devices for compliance with RF radiation safety standards. The SAR measurement apparatus of TÜV Rheinland meets all of these standards.

Ministry of Communications and Information Technology (India) and Department of Telecommunications has recently revised the Specific Absorption Rate (SAR) limits in respect of Mobile handsets in India. The new limit is more stringent in line with US requirements whereas the earlier requirements were in line with the EU Standards. All mobile handsets (Manufactured in India / Imported / Sold) shall have to be checked up for SAR in an IEC 17025 Accredited lab.

TÜV Rheinland India has SAR facility fully equipped with latest professional system. The System is capable of evaluating products for SAR to all the global SAR standards for both hand held and body worn devices.

Over-the-Air Performance (OTA & Antenna Measurements)

An antenna’s RF performance plays a major role in the quality of a device. Factors such as a human head or hand can greatly influence the transmitter’s performance while poor receiver performance can result in bad voice quality or dropped calls. Certain requirements are in place to ensure proper transmitter and receiver performance.
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<tr>
<th>STANDARD</th>
<th>COUNTRY</th>
<th>DESCRIPTION</th>
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<td>Dynamic Frequency Selection (DFS)</td>
<td>USA</td>
<td>FCC (Subpart E) Part 15.407/ETSI EN 301 893</td>
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<tr>
<td>RSS 210</td>
<td>Canada</td>
<td>Low Power License Exempt Radio Communication Device (All Bands)</td>
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<tr>
<td>ETSI EN 300 328</td>
<td>Europe</td>
<td>Electromagnetic compatibility and Radio Spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&amp;TTE Directive</td>
</tr>
<tr>
<td>ESTI EN 301-893</td>
<td>Europe</td>
<td>Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&amp;TTE Directive</td>
</tr>
<tr>
<td>ETSI EN 301 489-1/17</td>
<td>Europe</td>
<td>Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment</td>
</tr>
<tr>
<td>802.11 a/b/g/N</td>
<td>Worldwide</td>
<td>General purpose Wi-Fi™ Alliance standards</td>
</tr>
<tr>
<td>802.15.4 (ZigBee®)</td>
<td>Worldwide</td>
<td>General purpose ZigBee® Alliance standards</td>
</tr>
<tr>
<td>Bluetooth</td>
<td>Worldwide</td>
<td>Wireless technical standard for short distance data exchange</td>
</tr>
<tr>
<td>ANSI C12.1</td>
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<td>General MeterTesting Requirements</td>
</tr>
<tr>
<td>AIRB STD 66</td>
<td>Japan</td>
<td>Second generation low-power data communication system/wireless LAN system</td>
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<td>AIRB STD 67</td>
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<td>RRA Notices</td>
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<td>LP002</td>
<td>Taiwan</td>
<td>Low-power radio-frequency devices technical regulations</td>
</tr>
</tbody>
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Aiming for New Destinations

Get going! Today, you can gain access to all the key markets in the world from the value-added, documented safety and quality – for your products, systems or services.

We will be delighted to work with you, offering a wide range of testing, inspection and certification services.

The TÜV Rheinland Group Worldwide

- Founded in 1872
- At 500 locations in 65 countries
- More than 18000 employees
- More than 39 industries across 6 business streams
- More than 2,500 services across all sectors

Our Business Portfolio

- Industry Services
- Mobility
- Products
- Lifecare
- Training & Consulting
- Systems

Contact Us

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