Bureau Veritas
Services

BUREAU VERITAS
Move Forward with Confidence

RADIO TESTING

Local Access to Global Radio (WiFi, WiMAX, SRD, …) Markets

BUSINESS CHALLENGE

With the increasing convergence of IT and radio/telecoms technologies, the wireless/digital home becoming ever more a reality, and with radio technologies being introduced and updated on an almost daily basis, partnering with a knowledgeable technology and compliance expert such as Bureau Veritas is a critical success factor being adopted by many companies.

Equipment buyers and prescribers such as importers, retailers and telecom/WLAN operators, have also made it very clear that they require increasing quality of product and supply chain management on a worldwide level. Staying abreast of, and compliant with, the legal framework in your target markets is critical for your success. Saving costs by working with experts located in America, Asia and Europe at the outset of your project also ensures compliance costs can be kept to a minimum whilst time to market is improved upon.

SOLUTION

What is Radio Testing?

Radio Frequency / Protocol testing is used to simulate the performance and functionality of wireless devices such as WLAN access points and mobile phones. Test equipment, similar to the picture to the left, costing many hundreds of thousands of dollars to buy and maintain, must be purchased to perform this radio performance and functionality testing.

There are a variety of radio technologies that are in common use around the world, some of the more common technologies and standards being:

- WiFi (based on IEEE 802.11 range of standards)
- WiMAX (based on the IEEE 802.16 standard)
- GSM/3G (mobile phone technologies)
- Bluetooth
- Zigbee (based on the IEEE 802.15.4 standard)
- Infrared (based on the Infrared Data Association standards)

What are the key benefits?

- For many products, you cannot sell your product without it being tested and certified first
- Demonstrate by way of an independent test report to your clients and authorities that your product is compliant with RF/Protocol regulations
- Save on investing heavily in Radio test equipment, calibration, accreditations and staffing by outsourcing to a global leader in compliance solutions

MARKET ACCESS COMPLIANCE SERVICES

Testing
- EMC
- Electrical Safety
- Radio & Telecoms
- Environmental Simulation
- ATEX
- NEBS/FOC
- IT Interoperability
- Performance
- RoHS

Product Certification
- RoHS, IECQ, IECEX and IECEE CB Scheme for International Markets
- CE marking Notified Body
- NRTL/SCC/TCB for North America
- NF/GS for Europe
- CCC/BSMI/GOST-R for Asia
- Access to 150+ countries via International Approvals service

Technical Consultancy / Compliance Assistance
- Product Design
- Regulations Translation
- Technical File Compilation and Assessment
- International Approvals Management / Homologation (150+ countries)

Training
- Technical
- Compliance

Inspection, Audit & Assessment
- Social Accountability (SA8000) Audits
- Production & Shipment Inspections
- Factory Assessment
- Management System Certification

Move Forward with Confidence

WHY CHOOSE BUREAU VERITAS?

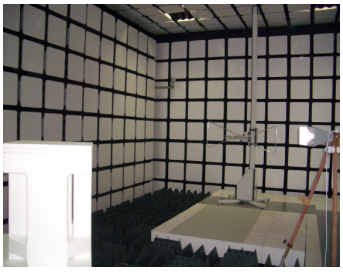
Reputation - For over 100 years, we have worked successfully with leading electrical and electronic product manufacturers, importers, retailers and operators around the world to help them better manage risk and assure regulatory compliance. Our Radio test reports also act as the basis of market entry worldwide. Our International Approvals teams also have experience of successfully placing radio products on 150+ countries of the world.

Worldwide Locations - With Radio test centers close to buying and sourcing areas in countries worldwide, we offer you the convenience of global coverage with local service where you need it.

Technical Knowledge & Leadership – As a WiFi Alliance appointed laboratory and leading player in the development of WiMAX technologies, Bureau Veritas is a global leader in the fields of WiFi and WiMAX testing. We participate in the development of international, industry and regulatory standards worldwide, keeping you, and us, at the forefront of changes in Radio requirements and testing methods. Our flexible team of consultants and engineers are also experienced in offering compliance design and debug advice for your product, should you encounter any issues or failures, ensuring your project and release date stays on track. Our expert engineers can also perform Radio testing and assessments at your premises, if you have the equipment. Bureau Veritas can also deliver Notified Body services for the EU R&TTE Directive as well as FCC TCB/Industry Canada services for North America.

Personalized Service - At Bureau Veritas, we are committed to meeting your evolving needs and helping you anticipate new market trends. We offer you customized and specialized services to meet your needs throughout your supply chain. Providing you with the highest levels of service is a priority for us.

OUR APPROACH



Complying with Radio regulations is a critical issue when looking to launch your product on the global marketplace. Understanding the myriad of regulations that affect your product in your target market is key to this success. Our testing process begins with understanding the product from your point-of-view; where will the product be marketed, who will use the product, what are your quality expectations?

The answers help us to identify the regulatory barriers and to develop a rationalized Radio Test plan for your product in your target markets, saving you from retesting for each market you will be selling into. Consequently, the appropriate testing is performed so you can sell, manufacture, or distribute your product anywhere in the world (in your target countries) with confidence. Our engineers will also help fix any Radio issues we may encounter during testing; ensuring your market release date is met.

FREQUENTLY ASKED QUESTIONS

What are the main differences between WiFi, WiMAX and GSM/3G?

WiFi describes wireless local area networks (WLAN) technology based on the IEEE 802.11 specifications and uses the spectrum at 5 GHz and near 2.4 GHz. It was developed to be used for mobile computing devices, such as laptops, in LANs, but is now increasingly used for more services, including Internet and VoIP phone access, gaming, and basic connectivity of consumer electronics such as televisions and DVD players, or digital cameras. WiFi can achieve download speeds of upto 54 Mbit/s at upto 100 meters.

WiMAX is used to promote conformance and interoperability of the IEEE 802.16 standard, officially known as WirelessMAN. The bandwidth and reach of WiMAX make it suitable for connecting WiFi hotspots, providing a wireless alternative to cable and DSL for last mile (last km) broadband access, high-speed mobile data and telecommunications services, etc... WiMAX has an optimum delivery of symmetrical speeds of 10Mbps at 10km, but in urban environments it is more likely that 30% of installations may be non-line-of-sight and therefore users may only receive 10Mbps over 2km.

GSM/3G are cellular based technologies with in excess of 2 billion GSM users around the world and almost 100 million 3G users by the end of 2006 according to the GSM Association. With 3.5G, 3 Mbit/s data rates are expected.

CONTACT

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