Smart Wearable Device Services

Wearable devices are currently highly sought after, and are expected to soon become a mainstream consumer electronic product. With sales of these devices anticipated to continue to rise, many companies are investing heavily in R&D, but there is still considerable room for improvement in the areas of product safety, performance, interoperability and durability. To address these deficiencies, TÜV Rheinland has setup a working group with international product experts and launched the world’s first certification standard for wearable devices. Such certification will allow manufacturers to prove the safety and quality of their products, as well as the smart, wearable functions of those products, thereby helping them to stand out from the crowd and gain a competitive edge. TÜV Rheinland’s new certification standard will also promote industry development and help consumers to choose the safest and best quality wearable devices.

Our experience – your benefits

- TÜV Rheinland is a leading international technical service provider with over 140 years of experience.
- Backed by our global network and technical expertise, our dedicated and highly qualified experts are committed to providing professional services customised to your needs.
- Our certification mark and testing reports are widely recognised by international buyers, thus helping you to reinforce your brand name in the international marketplace.
- Our professional teams and service network throughout the world provide a non-stop service for safety, quality, fitness-for-use (FFU) and performance testing, thereby saving you repeat testing costs and shortening your product’s time to market.
- We are the world’s first Qi-compatible testing accredited lab by the Wireless Power Consortium (WPC).
- Our FFU testing lab provides product performance- and convenience-related testing that can help you to gain and retain consumer trust.
- Our electrical, electromagnetic compatibility (EMC) and battery labs have all been accredited by CNAS, DAKks, CBTL, NRTL and CTIA, and our chemical lab by DAP and CNAS. Our battery lab is one of only four BATSO members worldwide. Such prestigious international accreditation attests to the high standards of our testing capabilities.
- We have years of Bluetooth testing and certification experience. Our Bluetooth labs are fully equipped and capable of performing radio-frequency and compatibility testing according to the latest Bluetooth regulation (version 4.1).

Always a good sign.

This mark stands for all the information about products, services and systems that are tested, certified or inspected by TÜV Rheinland. Transparent, available anytime worldwide – powerful and unique. The TÜV Rheinland test mark.
Evaluation criteria for smart wearable bracelets

The recently launched evaluation criteria for smart wearable bracelets were formulated on the basis of product safety. Moreover, we also evaluate their smart, wearable functions according to a range of standards.

### Safety
- Device safety
- Battery safety
- Adaptor safety
- EMC
- Wireless communication
- WEEE
- Hazardous substances
- Factory inspection

### Wearable functions
- Appearance characteristics
- Durability
- Skin-contact materials
- Environmental adaptability
- Internal battery
- Electromagnetic Interference (EMI) evaluation for medical field

### Smart functions
- Evaluation of sensors
- Evaluation of feedback mode
- Evaluation of connectivity between bracelet and Central Data Processing Unit (CDPU)
- CDPU-specific evaluation
- Evaluation of information security