



“Bluetooth® – The global wireless standard for simple, secure connectivity.” That’s how the Bluetooth SIG promotes this wireless technique on their webpage. Bluetooth is present anytime and everywhere. To keep this standard high, safe and always available, several standards for producing Bluetooth applications have to be maintained:

Lately the new EN ETSI and RED decree appeared which implicates duties for manufacturers. Especially for body-close applications you need to do SAR measurements and a special Bluetooth declaration process is required.

This flyer gives you a short overview over these regulations.

Radio Equipment Directive (RED) – 2014/53/EU

By 13 June 2017, the Radio Equipment and Telecommunications Terminal Equipment Directive (R&TTED) is replaced completely by the Radio Equipment Directive (RED).

The following requirements have to be fulfilled by the manufacturer due to the RED:

- Protection of the health and safety of humans and house-hold pets and livestock (Article 3.1[a])
- Establish appropriate level of electromagnetic compatibility (Article 3.1 [b])
- Effective and efficient use of the radio frequencies (Article 3.2)
- Additional general requirements for certain product groups still need to be defined by the European Committee (Article 3.3)
- No violation of radio frequency regulations in at least one EU member state
- Demonstration of product conformity by a notified body, internal production controls or by a comprehensive quality assurance ⇒ CE label
- Technical documents must be kept for ten years starting with market launch
- Identification label on products
- Easily understandable trademarks, postal address and enclosed product documents
- Providing used frequencies and emitted power for radio wave emitting products
- Indication of usage restriction on the packaging

EN ETSI 300 328 V2.1.1

This norm deals with data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques. This harmonized standard covers the essential requirements of article 3.2 of the new Radio Equipment Directive (RED) – 2014/53/EU. By 31 August 2018 this standard is obligatory also for Bluetooth applications.

SAR (Specific Absorption Rate)

The SAR value defines the maximum amount of RF power which deposits in the human body [W/kg]. In the EU, Australia and in Japan the permitted SAR is 2.0 W/kg, in Korea, USA and Canada it is 1.6 W/kg. Especially for applications worn close at the body (e.g. mobiles, watches with Bluetooth, headsets etc.) it is important to have a small test distance while doing the SAR measure and also to have a small SAR value.

Supplier Portfolio:

We can offer Bluetooth components of the following suppliers:



Bluetooth® Declaration Process

For almost all kind of Bluetooth solutions offered by Rutronik there is a valid QDID available. If you respect the given requirements in your design, you can refer to this QDID and save the costs for creating an own QDID.

For checking an available QDID you can visit www.bluetooth.com. Click on "Find a product" in the top right corner of the homepage and type in the component name you want to have in your design. Use the search engine to get an overview of the existing declarations which you want to refer to. If so, you only need to take care about the listing of your end product. The declaration process always consists of three steps:

Product Listing

No matter if you use the Bluetooth logo or the labelling or you don't, you always need to list your product. That requires a declaration fee!

Declaration Fee

For any new, changed, used or branded Bluetooth product you have to pay a declaration fee.

If you are an:

Adopter member, the declaration fee is 8000 \$.

Associate member, the declaration fee is 4000 \$.

The associate membership fee differs in your company's annual revenue:

Less than 100 million \$ ⇒ 7,500 \$ per year

Greater than 100 million \$ ⇒ 35,000 \$ per year

Agree & Submit

Process without a Given QDID

If your product doesn't contain a Bluetooth solution with a valid and given QDID, you would need to create your own QDID with a separate fee before you can start the product listing process.

Insider Know-how to Avoid the Bluetooth® Listing Fee

There is another ultra-low power mesh network wireless technology available in most of the Android based smartphones called 'ANT'. This protocol has some technical advantages compared to Bluetooth and could be a clever and cheaper alternative depending on your application. Get in contact with our wireless experts to find out if this would make sense for you.

Sources & Further Information

- <https://www.bluetooth.com/develop-with-bluetooth/qualification-listing>
- http://www.etsi.org/deliver/etsi_en/300300_300399/300328/02.01.01_60/en_300328v020101p.pdf
- <http://www.etsi.org/technologies-clusters/technologies/regulation-legislation/red>

Wireless Competence Center

Tel.: +49 7231 801-1579

E-Mail: wireless@rutronik.com

www.rutronik.com

Rutronik Elektronische Bauelemente GmbH
Industriestraße 9 | 75228 Ispringen Germany



Committed to excellence

Regulations to go with

Bluetooth®



Consult | Components | Logistics | Support

www.rutronik.com