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Federal Network Agency for Electricity,
Gas, Telecommunications, Post and
Railways

Draft

SSB LA-NOE 043

Interface specification for Radio Equipment for Radio Frequency Identification (RFID)

Edition: November 2024

Notification number under Directive (EU) 2015/1535: xxxx/xxxx/
DE

Notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17.9.2015, p. 1).

This interface description consists of 4

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1 General information

Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 (OJ L 153/62) on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC was transposed in the Federal Republic of Germany by the Act on the making available of radio equipment on the market (Radio Equipment Act – FuAG) of 27 June 2017 (Federal Law Gazette (BGBl.) I No 42, p. 1947), last amended by Article 1 of the Act of 14 May 2024 (BGBl. I, p. 148).

Pursuant to § 33(1) FuAG, the Federal Network Agency shall provide specific and appropriate specifications of the radio interfaces as regards radio equipment operated in frequency bands for which the conditions of use are not harmonised throughout the Community.

This interface specification (SSB) contains information necessary to enable the manufacturer to carry out the relevant tests in relation to the essential requirements applicable to the relevant radio equipment in accordance with the provisions of FuAG § 4(2) and, where applicable, § 4(3).

Furthermore, radio equipment must be designed in such a way that other basic requirements under § 4(1)(1) and (2) FuAG are observed.

For the commissioning and operation of radio equipment, the provisions concerning frequency allocation, in particular those contained in Part 6 of the Telecommunications Act (TKG) of 23 June 2021 (Federal Law Gazette I No 35, p. 1858), last amended on 14 May 2024 by Article 35 of the Act of 06 May 2024 (Federal Law Gazette I No 149), remain unaffected.

The Federal Network Agency shall order the enactment of the interface specification in its Official Gazette and publish its reference therein; only the German edition is binding.

2 Single Market Clause

Goods lawfully marketed in another Member State of the European Union or in Turkey, or originating in an EFTA State that is a contracting party to the EEA agreement and lawfully marketed there are presumed to be compatible with this measure. The application of [this measure] is subject to Regulation (EU) 2019/515 of 19 March 2019 on the mutual recognition of goods lawfully marketed in another Member State from 19 April 2020.

3 Scope of application

This interface description outlines the basic requirements pursuant to FuAG § 4(2) for radio equipment for Radio Frequency Identification (RFID).

Radio equipment within the meaning of this interface specification is to be used for its intended purpose and operated in accordance with the manufacturer's instructions. Directive 2014/53/EU requires manufacturers to provide radio equipment users with appropriate information to enable them to operate the radio equipment as intended and in accordance with the provisions of said Directive. This information shall also include appropriate instructions on cabling and antenna types to be used in conjunction with the radio equipment.

This interface specification replaces SSB LA-NOE 018, July 2013 edition, notified under 2012/0697/D.

4 Documentation

The following cited documents are necessary for the application of this document. For dated references, only the referenced edition of the document shall apply. For undated references, the most recent edition of the referenced document (including any amendments) shall apply.

Presumption of conformity may only be based on versions of harmonised European standards that are included in the current list of harmonised standards within the framework of Directive 2014/53/EU and have been published by the European Commission in the Official Journal of the EU.

- Frequency plan in accordance with the Telecommunications Act (TKG) on the distribution of the frequency range from 0 kHz to 3000 GHz among spectrum usages and on the definitions for such use
Published by the Federal Network Agency
- Decision 6/2010, as amended by Decision 4/2018, on the general allocation of frequencies in the 865-868 MHz and 2446 - 2454 MHz frequency bands for radio applications for identification purposes; ("Radio Frequency Identification Applications", RFID); Official Journal of the Federal Network Agency No. 5 of 17 March 2010, Official Journal of the Federal Network Agency No. 2 of 24 January 2018
- Radio Regulations¹ (VO Funk),
International Telecommunication Union (ITU), Geneva
(Règlement des radiocommunications, Union internationale des télécommunications (UIT), Geneva)
- EN 300 440
Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard covering the essential requirements of Article 3.2 of Directive 2014/53/EU
- CEPT/ERC/REC 70-03
Relating to the use of Short Range Devices (SRD)

The following draft has not yet been published at the time of notification in the current list of harmonised standards and therefore cannot be used for the declaration of conformity:

¹ The Radio Regulations are available in Arabic, Chinese, English, French, Russian and Spanish. In all cases of dispute or doubt, the French text shall prevail.

- Draft EN 303 851
Radio Frequency Identification Equipment operating in the band 2 446 MHz to 2 454 MHz with power levels up to 4 W; Harmonised Standard for access to radio spectrum

5 Technical interface requirements

This SSB contains the technical interface requirements for radio frequency identification (RFID) equipment in the frequency range 2 446 MHz – 2 454 MHz:

Table 1: Radio equipment for radio frequency identification (RFID) 2 446 MHz – 2 454 MHz				
	No	Parameter <i>(Description)</i>	Description <i>(Description)</i>	Comments <i>(Comments)</i>
Normative section	1	Radio services <i>(Radiocommunication Service)</i>		
	2	Intended use/Application <i>(Application)</i>	RFID	
	3	Frequency band <i>(Frequency band)</i>	2 446 MHz – 2 454 MHz	
	4	Channelling <i>(Channelling)</i>		
	5	Modulation/occupied bandwidth <i>(Modulation/Occupied bandwidth)</i>	Frequency Hopping (FHSS)	
	6	Direction/separation <i>(Direction/Separation)</i>		
	7	Transmission power/power density <i>(Transmit power/Power density)</i>	> 0.5 W – 4 W (EIRP)	Automatic Power Control (APC) Note 1
	8	Channel access and assignment regulations <i>(Channel access and occupation rules)</i>	Duty cycle: ≤ 15 % In each period of 200 ms (max. 30 ms on / min. 170 ms off)	
	9	Approval procedure <i>(Authorisation regime)</i>	General allocation	
	10	Additional essential requirements <i>(Additional essential requirements)</i>	Exclusive use inside closed rooms	
	11	Frequency planning assumptions <i>(Frequency planning assumptions)</i>		
Information sec-	12	Planned changes <i>(Planned changes)</i>		
	13	References <i>(References)</i>	EN 300 440, CEPT/ERC/REC 70-03	
	14	Notification number <i>(Notification number)</i>		
	15	Remarks <i>(Remarks)</i>		

Note 1:

Radiation powers > 500 mW EIRP are only permitted when used within enclosed buildings. The field strength measured at a distance of 10 m from the building shall not be higher than the field strength generated by an outdoor 500 mW signal at the same measuring distance. If several RFID applications within a building are operated by different users, this condition applies at the boundaries of the respective operating areas.