



Bundesnetzagentur gency

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

Draft

SSB OR 025

Interface specification for radar equipment for monitoring shipping traffic

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 6

Contact
Information:

Federal Network Agency for Electricity, Gas, Telecommunications, Post,
and Railways
Department 421, Seidelstr. 49, D-13405 Berlin

As at: 21. November 2024

Phone: +49 30 4374 0
Fax: +49 30 4374

E-Mail: ssb@bnetza.de
Website: www.bundesnetzagen-

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 No 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 (BGBl. I No 35, p. 1858), last amended on 14 May 2024 by Article 35 of the Act of 6 May 2024 (BGBl. I No 149), remain unaffected.

The Ordinance on the Detection Procedure for Limiting Electromagnetic Fields (BEMFV) of 20 August 2002 (OJ I No 60, p. 3366), last amended on 4 July 2017 by Article 3(3) of the Act of 27 June 2017 (OJ I No 42, p. 1947), must be complied with.

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 Türkiye, or originating and lawfully marketed in an EFTA State that is a contracting party to the Agreement on the European Economic Area, are deemed 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 essential requirements pursuant to FuAG § 4(2) for radio equipment for stationary radar installations used for monitoring shipping traffic.

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 OR 012, June 2013 edition, notified under 2013/0498/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
- Radio Regulations¹ (VO Funk),
International Telecommunication Union (ITU), Geneva
(Règlement des radiocommunications, Union internationale des télécommunications (UIT), Geneva)
- ITU-R M.1177 Techniques for measurement of unwanted emissions of radar systems
- ITU-R M.1314 Reduction of unwanted emissions of radar systems operating above 400 MHz
- ITU-R M.1372 Efficient use of the radio spectrum by radar stations in the radiodetermination service
- ITU-R M.1461 Procedures for determining the potential for interference between radars operating in the radiodetermination service and systems in other services
- ITU-R SM.329 Unwanted emissions in the spurious domain
- ITU-R SM. 1138
Determination of necessary bandwidths including examples for their calculation and associated examples for the designation of emissions
- ITU-R SM.1541 Unwanted emissions in the out-of-band domain
- ETSI EN 303 135 Electromagnetic compatibility and Radio spectrum Matters (ERM); Coastal Surveillance, Vessel Traffic Services and Harbour Radars (CS/VTS/HR); **Harmonised Standard** covering the essential requirements of Article 3.2 of the Directive 2014/53/EU.
- CEPT/ERC/REC 74-01
Unwanted emissions in the spurious domain

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.

5 Technical interface requirements

This interface specification contains the technical interface requirements for radio equipment for stationary radar installations intended for monitoring shipping traffic in the following frequency ranges:

The following requirements are to be used:

Table 1: 8 825 – 9 000 MHz, 9 000 – 9 200 MHz, 9 200 – 9 225 MHz

Table 2: 9 300 – 9 500 MHz

Table 1: 8 825 – 9 000 MHz, 9 000 – 9 200 MHz, 9 200 – 9 225 MHz				
	No	Parameter <i>(Parameter)</i>	Description <i>(Description)</i>	Comments <i>(Comments)</i>
Normative section	1	Radio service <i>(Radiocommunication Service)</i>	RADIODETERMINATION SERVICE	
	2	Intended use/Application <i>(Application)</i>	Pilot radar	Land radar application for monitoring shipping traffic
	3	Frequency range <i>(Frequency band)</i>	8 825 – 9 000 MHz 9 000 – 9 200 MHz 9 200 – 9 225 MHz	
	4	Channelling <i>(Channelling)</i>		
	5	Modulation/occupied bandwidth <i>(Modulation/Occupied bandwidth)</i>	P0N--, G0N--, F0N-- Pulse modulation Phase modulation Frequency modulation	Transmission mask according to ITU-R SM 1541 Annex 8
	6	Direction/distance <i>(Direction/Separation)</i>		
	7	Transmission power/power density <i>(Transmit power/Power density)</i>	The specific value is stipulated with the frequency allocation.	
	8	Channel access and assignment regulations <i>(Channel access and occupation rules)</i>		
	9	Approval procedure <i>(Authorisation regime)</i>	Individual allocation	
	10	Additional essential requirements <i>(Additional essential requirements)</i>	Sector blanking for troubleshooting must be possible.	
	11	Frequency planning assumptions <i>(Frequency planning assumptions)</i>		
Information section	12	Planned changes <i>(Planned changes)</i>		
	13	References <i>(References)</i>	ITU-R M.1177, ITU-R M.1314, ITU-R M.1372, ITU-R M.1461, ITU-R SM.329, ITU-R SM.1138, ITU-R SM.1541, EN 303 135, ERC/REC 74-01	
	14	Notification number <i>(Notification number)</i>		
	15	Remarks <i>(Remarks)</i>	In order to minimise interference with ship radars, preference should be given to the use of solid-state technology.	

Table 2: 9 300 – 9 500 MHz

No	Parameter <i>(Parameter)</i>	Description <i>(Description)</i>	Comments <i>(Comments)</i>
Normative section	1 Radio service <i>(Radiocommunication Service)</i>	RADIODETERMINATION SERVICE	
	2 Intended use/Application <i>(Application)</i>	Pilot radar	Land radar application for monitoring shipping traffic
	3 Frequency range <i>(Frequency band)</i>	9 300 – 9 500 MHz	
	4 Channelling <i>(Channelling)</i>		
	5 Modulation/occupied bandwidth <i>(Modulation/Occupied bandwidth)</i>	P0N--, G0N--, F0N-- Pulse modulation Phase modulation Frequency modulation	Transmission mask according to ITU-R SM 1541 Annex 8
	6 Direction/distance <i>(Direction/Separation)</i>		
	7 Transmission power/power density <i>(Transmit power/Power density)</i>	The specific value is stipulated with the frequency allocation.	
	8 Channel access and assignment regulations <i>(Channel access and occupation rules)</i>		
	9 Approval procedure <i>(Authorisation regime)</i>	Individual allocation	
	10 Additional essential requirements <i>(Additional essential requirements)</i>	Sector blanking for troubleshooting must be possible.	
	11 Frequency planning assumptions <i>(Frequency planning assumptions)</i>		
Information section	12 Planned changes <i>(Planned changes)</i>		
	13 References <i>(References)</i>	ITU-R M.1177, ITU-R M.1314, ITU-R M.1372, ITU-R M.1461, ITU-R SM.329, ITU-R SM.1138, ITU-R SM.1541, EN 303 135, ERC/REC 74-01	
	14 Notification number <i>(Notification number)</i>		
	15 Remarks <i>(Remarks)</i>		