Bundesnetzagentur

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

Draft

SSB SE 030

Interface description for emergency radio equipment for coordination and location-related guidance of search and rescue services (121.5 MHz and 123.1 Mhz) and of the maritime distress beacon (406 MHz, EPIRBs)

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Notified pursuant to 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 of 17.9.2015, p. 1).

This interface specification has 8 pages.

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1 Overview

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 (Funkanlagengesetz – 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.

In addition, maritime regulations must still be observed with regard to radio equipment on ships.

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 specification describes the basic requirements with regard to FuAG Section 4(2) for radio equipment for implementing emergency traffic for coordination and location-related guidance of search and rescue services on the frequencies 121.5 MHz and 123.1 MHz as well as the emergency maritime distress beacon (EPIRB) on the frequency 406 MHz.

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 SE 019, June 2016 edition, notified under 2016/0165/D.

4 Documents

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 be based solely 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
- GASV - Ordinance for the determination of further essential requirements for equipment and for the determination of equivalences of national interfaces and device class identifiers in the field of radio equipment and telecommunications terminal equipment (Grundlegende Anforderungen- und Schnittstellen-Verordnung, GASV [Basic Requirements and Interface Ordinance]) of 08.01.2002, (Federal Law Gazette I p. 398 from 11.01.2002), last amended by Article 1 of the Ordinance of 31 March 2014 (Federal Law Gazette I p. 313)
- Administrative Order 52/2023, General allocation of frequencies for mobile radio applications for maritime and inland waterway radio telephone services; Official Gazette of the Federal Network Agency No 10 of 24.05.2023
- Radio Regulations[1] (VO Funk),
  International Telecommunication Union (ITU), Geneva
  (Règlement des radiocommunications, Union internationale des télécommunications (UIT), Geneva)
- ITU-R M. 585
  Assignment and use of identities in the maritime mobile service
- ITU-R M.690
  Technical characteristics of emergency position-indicating radio beacons operating on the carrier frequencies of 121.5 MHz and 243 MHz

[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.

- IEC 60489-3 (edition 2.0) and Amendment 1
  Methods of measurement for radio equipment used in the mobile services. Part 3: Receivers for A3E or F3E emissions
- ETSI EN 301 688
  Technical characteristics and methods of measurement for fixed and portable VHF equipment operating on 121,5 MHz and 123,1 MHz
- ETSI EN 302 152-1
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Satellite Personal Locator Beacons operating in the 406,0 MHz to 406,1 MHz frequency band, Part 1: Technical characteristics and methods of measurement
- ETSI EN 302 961
  Maritime Personal Homing Beacon intended for use on the frequency 121,5 MHz for search and rescue purposes only; **Harmonised Standard** covering the essential requirements of article 3.2 of the Directive 2014/53/EU
- ETSI TR 100 028 (all parts)
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
- CEPT/ERC/REC 74-01
  Unwanted Emissions in the Spurious Domain
- 2005/631/EC
  Commission Decision of 29 August 2005 concerning essential requirements as referred to in Directive 1999/5/EC of the European Parliament and of the Council ensuring access of Cospas-Sarsat locator beacons to emergency services
  (Official Journal of the EU, L 225/28 of 31.08.2005)
- 2013/638/EU
  Commission Decision of 12 August 2013 on essential requirements relating to marine radio communication equipment which is intended to be used on non-SOLAS vessels and to participate in the Global Maritime Distress and Safety System (GMDSS) (Official Gazette of the EU, L 296/22 of 07.11.2013)

5 Technical interface requirements

This interface specification contains the technical interface requirements for radio equipment for rescue radio and search and rescue communications (via satellite) on the following frequencies:

Table 1: Rescue communications: 121.45 MHz – 121.55 MHz (International Emergency Frequency 121.5 MHz)

Table 2: Rescue communications: 121.45 MHz – 121.55 MHz, 123.05 MHz – 123.15 MHz

Table 3: Search and rescue communications (via satellite): 406.0 MHz – 406.1 MHz (EPIRBs)

Table 1: 121.45 MHz – 121.55 MHz (International Emergency Frequency 121.5 MHz)

	No.	Parameter	Description *(Description)*	Comments *(Comments)*
Normative part	1	Radio service *(Radiocommunication Service)*	AERONAUTICAL MOBILE (R)	
	2	Intended use/Application *(Application)*	Beacons (maritime)	Marine distress beacons for marking the emergency position for location-related guidance purposes
	3	Frequency range *(Frequency band)*	121.45 MHz – 121.55 MHz	Emergency frequency
	4	Channelling *(Channelling)*		
	5	Modulation/occupied bandwidth *(Modulation/Occupied bandwidth)*	A3X	
	6	Direction/distance *(Direction/Separation)*	non-directional	
	7	Transmission power/power density *(Transmit power/Power density)*	0.5 W (ERPEP)	
	8	Channel access and occupation rules *(Channel access and occupation rules)*		
	9	Approval procedure *(Authorisation regime)*	General allocation	Note 1
	10	Additional essential requirements *(Additional essential requirements)*		
	11	Frequency planning assumptions *(Frequency planning assumptions)*		
Informative part	12	Planned changes *(Planned changes)*		
	13	References *(References)*	ITU-R M.580, ITU-R M.690, IEC 60489-3, EN 301 688, EN 302 961 CEPT/ERC/REC 74-01	
	14	Notification number *(Notification number)*		
	15	Notes *(Remarks)*		

Note 1:
To be able to use the frequencies, a Ship Station Licence needs to be issued beforehand (assignment of numbers for the maritime or inland waterway radio telephone service) by the Federal Network Agency (Order 52/2023).

Table 2: 121.45 MHz – 121.55 MHz, 123.05 MHz – 123.15 MHz

	No.	Parameter	Description *(Description)*	Comments *(Comments)*
Normative part	1	Radio service *(Radiocommunication Service)*	AERONAUTICAL MOBILE (R)	
	2	Intended use/Application *(Application)*	Aeronautical communications	Airborne intercom systems with EASA approval on board passenger ships
	3	Frequency range *(Frequency band)*	121.45 MHz – 121.55 MHz 123.05 MHz – 123.15 MHz	Emergency frequency Auxiliary frequency to the emergency frequency
	4	Channelling *(Channelling)*		
	5	Modulation/occupied bandwidth *(Modulation/Occupied bandwidth)*	A3E	
	6	Direction/distance *(Direction/Separation)*	non-directional	
	7	Transmission power/power density *(Transmit power/Power density)*	1.5 W (ERP)	
	8	Channel access and occupation rules *(Channel access and occupation rules)*		
	9	Approval procedure *(Authorisation regime)*	General allocation	Note 1
	10	Additional essential requirements *(Additional essential requirements)*		
	11	Frequency planning assumptions *(Frequency planning assumptions)*		
Informative part	12	Planned changes *(Planned changes)*		
	13	References *(References)*	ITU-R M.580, ITU-R M.690, IEC 60489-3, EN 301 688, EN 302 961 CEPT/ERC/REC 74-01	
	14	Notification number *(Notification number)*		
	15	Notes *(Remarks)*		

Note 1:
To be able to use the frequencies, a Ship Station Licence needs to be issued beforehand (assignment of numbers for the maritime or inland waterway radio telephone service) by the Federal Network Agency (Order 52/2023).

Table 3: 406.0 MHz – 406.1 MHz (EPIRBs)

	No.	Parameter	Description *(Description)*	Comments *(Comments)*
Normative part	1	Radio service *(Radiocommunication Service)*	MOBILE-SATELLITE SERVICE (Earth-to-space direction)	
	2	Intended use/Application *(Application)*	EPIRBs	
	3	Frequency range *(Frequency band)*	406.0 MHz – 406.1 MHz	
	4	Channelling *(Channelling)*		
	5	Modulation/occupied bandwidth *(Modulation/Occupied bandwidth)*	G1B	
	6	Direction/distance *(Direction/Separation)*	non-directional	
	7	Transmission power/power density *(Transmit power/Power density)*	5 W	
	8	Channel access and occupation rules *(Channel access and occupation rules)*		
	9	Approval procedure *(Authorisation regime)*	General allocation	Note 1
	10	Additional essential requirements *(Additional essential requirements)*		
	11	Frequency planning assumptions *(Frequency planning assumptions)*		
Informative part	12	Planned changes *(Planned changes)*		
	13	References *(References)*	IEC 60489-3, EN 302 152, CEPT/ERC/REC 74-01 EC 2005/631/EG, EC 2013/638/EU, GASV	
	14	Notification number *(Notification number)*		
	15	Notes *(Remarks)*		

Note 1:
To be able to use the frequencies, a Ship Station Licence needs to be issued beforehand (assignment of numbers for the maritime or inland waterway radio telephone service) by the Federal Network Agency (Order 52/2023).