

EN	Interface specification	UHF radiotelephone systems for communication on board ships (maritime radio service)	SSB SE 031	April 2025
----	-------------------------	--	------------	------------

1 General

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 (Funkanlagenengesetz – 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 Turkey, 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.

EN	Interface specification	UHF radiotelephone systems for communication on board ships (maritime radio service)	SSB SE 031	April 2025
----	-------------------------	--	------------	------------

3 Scope of application

This interface specification describes the basic requirements with regard to FuAG § 4(2) for UHF radiotelephone systems for communication on board ships (only in the maritime radio service).

Radio equipment within the meaning of this SSB should 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 027, edition June 2018, notified under No. 2018/0500/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.

For a presumption of conformity, only the versions of the Harmonised European Standards listed in the current list of Harmonised Standards under Directive 2014/53/EU and published by the European Commission in the Official Journal of the EU may be used.

- Frequency plan according to the Telecommunications Act (TKG) on the allocation of the frequency range from 0 kHz to 3000 GHz among frequency uses and on the specifications for these frequency uses. Published by the Federal Network Agency.
- GASV Ordinance on the Determination of Further Essential Requirements for Equipment and on the Determination of Equivalences of National Interfaces and Equipment Class Identifiers in the Field of Radio Equipment and Telecommunications Terminal Equipment (Basic Requirements and Interfaces Ordinance - GASV) of 8 January 2002, (Federal Law Gazette no. 1202/2002). 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 Regulations¹ (VO Funk),
International Telecommunication Union (ITU), Geneva
(Règlement des radiocommunications, Union internationale des télécommunications (UIT), Geneva)
- ITU-R M.1174 Technical characteristics of equipment used for on-board vessel communications in the bands between 450 and 470 MHz
- ITU-R SM.329
Unwanted emissions in the spurious domain
- ITU-R SM.332
Selectivity of receivers
- ITU-R SM.1539
Variation of the boundary between the out-of-band and spurious domains required for the application of Recommendations ITU-R SM.1541 and ITU-R SM.329

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.

EN	Interface specification	UHF radiotelephone systems for communication on board ships (maritime radio service)	SSB SE 031	April 2025
----	-------------------------	--	------------	------------

- ITU-R SM.1540
Unwanted emissions in the out-of-band domain falling into adjacent connecting bands
- ITU-R SM.1541
Unwanted emissions in the out-of-band domain
- ETSI EN 300 720
Ultra-High Frequency (UHF) on-board vessels communications systems and equipment;
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

5 Technical interface requirements

This SSB contains the technical interface requirements for UHF intercom systems for communication on board ships (only in the maritime radio service) in the following frequency sub-ranges:

Table 1: Analogue technology 457,5125 MHz – 457,5875 MHz
 467,5125 MHz – 467,5875 MHz

Table 2: Digital technology 457,5125 MHz – 457,5875 MHz
 467,5125 MHz – 467,5875 MHz

Table 1: Analogue technology; 457.5125 MHz – 457.5875 MHz 467,5125 MHz – 467,5875 MHz				
	No.	Parameter <i>(Parameter)</i>	Beschreibung <i>(Description)</i>	Bemerkung <i>(Comments)</i>
Normative part	1	Funkdienst <i>(Radiocommunication Service)</i>	MOBILE RADIO SERVICE	Radio Regulations Footnote 5.287
	2	Verwendungszweck/Anwendung <i>(Application)</i>	Communication on board ships	
	3	Frequenzbereich <i>(Frequency band)</i>	457,5125 MHz – 457,5875 MHz 467,5125 MHz – 467,5875 MHz	
	4	Kanalbelegung <i>(Channelling)</i>	25 kHz 12.5 kHz	± 2.3 kHz ± 1.15 kHz
	5	Modulation/belegte Bandbreite <i>(Modulation/Occupied bandwidth)</i>	G3E	
	6	Richtung/Abstand <i>(Direction/Separation)</i>		
	7	Sendeleistung/Leistungsdichte <i>(Transmit power/Power density)</i>	Maximum radiated power: 2 W ERP	
	8	Kanalzugangs- und Belegungsregeln <i>(Channel access and occupation rules)</i>		
	9	Genehmigungsverfahren <i>(Authorisation regime)</i>	General allocation	Note 1
	10	Wesentliche Zusatzanforderungen <i>(Additional essential requirements)</i>		
	11	Frequenzplanungsannahmen <i>(Frequency planning assumptions)</i>		
Informative part	12	Vorgesehene Änderungen <i>(Planned changes)</i>		
	13	Referenzen <i>(References)</i>	ITU-R M.1174, ITU-R SM.329, ITU-R SM.332, ITU-R SM.1539, ITU-R SM.1540, ITU-R SM.1541, EN 300 720, CEPT/ERC/REC 74-01	
	14	Notifizierungsnummer <i>(Notification number)</i>		
	15	Anmerkungen <i>(Remarks)</i>		

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 radiotelephone service) by the Federal Network Agency (Order 52/2023).

Table 2: Digital technology; 457.5125 MHz – 457.5875 MHz
467,5125 MHz – 467,5875 MHz

No.	Parameter <i>(Parameter)</i>	Beschreibung <i>(Description)</i>	Bemerkung <i>(Comments)</i>	
Normative part	1	Funkdienst <i>(Radiocommunication Service)</i>	MOBILE RADIO SERVICE Radio Regulations Footnote 5.287	
	2	Verwendungszweck/Anwendung <i>(Application)</i>	Communication on board ships	
	3	Frequenzbereich <i>(Frequency band)</i>	457,5125 MHz – 457,5875 MHz 467,5125 MHz – 467,5875 MHz	
	4	Kanalbelegung <i>(Channelling)</i>	12 kHz 6.25 kHz	± 1.25 kHz ± 0.625 kHz
	5	Modulation/belegte Bandbreite <i>(Modulation/Occupied bandwidth)</i>	4FSK	
	6	Richtung/Abstand <i>(Direction/Separation)</i>		
	7	Sendeleistung/Leistungsdichte <i>(Transmit power/Power density)</i>	Maximum radiated power: 2 W ERP	
	8	Kanalzugangs- und Belegungsregeln <i>(Channel access and occupation rules)</i>		
	9	Genehmigungsverfahren <i>(Authorisation regime)</i>	General allocation	Note 1
	10	Wesentliche Zusatzanforderungen <i>(Additional essential requirements)</i>		
	11	Frequenzplanungsannahmen <i>(Frequency planning assumptions)</i>		
Informative part	12	Vorgesehene Änderungen <i>(Planned changes)</i>		
	13	Referenzen <i>(References)</i>	ITU-R M.1174, ITU-R SM.329, ITU-R SM.332, ITU-R SM.1539, ITU-R SM.1540, ITU-R SM.1541, EN 300 720, CEPT/ERC/REC 74-01	
	14	Notifizierungsnummer <i>(Notification number)</i>		
	15	Anmerkungen <i>(Remarks)</i>		

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 radiotelephone service) by the Federal Network Agency (Decree 52/2023).