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SSB SE 024

Interface specification for VHF radio equipment in inland waterway radio communications (excluding AIS)

Edition: September 2025

Notification number under Directive (EU) 2015/1535:
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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 specification has 17 pages

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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 provision of radio equipment on the market and repealing Directive 1999/5/EC was transposed in the Federal Republic of Germany by the Act on the provision 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 radiocommunication interfaces as regards radio equipment operated in frequency bands for which the conditions of use are not harmonised throughout the European 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 Section 4(2) and, where applicable, Section 4(3).

Furthermore, radio equipment must be designed in such a way that other basic requirements under Section 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 30 July 2025 by Article 1 of the Act of 24 July 2025 (BGBl. I No 181), remain unaffected.

In addition, maritime regulations on inland waterway navigation (such as the Inland Waterway Administration Act 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 Internal 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 Ordinance (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 describes the basic requirements relating to Section 4(2) of the Radio Equipment Act (FuAG) for VHF radio equipment in inland waterway radiocommunication (excluding Automatic Identification Systems – AIS).

Radio equipment as defined in this interface specification must 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 the interface specification SE 017, September 2013 edition, notified under No 2013/0624/D.

4 Documents

The following cited documents are essential 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 according to the Telecommunications Act (TKG) on the allocation of the frequency range from 0 kHz to 3000 GHz to the 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 equipments and telecommunications terminal equipment (Basic requirements and interfaces ordinance - GASV) of 8 January 2002, (BGBl. I p. 398 from 11.01.2002), last amended by Article 1 of the Ordinance of 31 March 2014 (BGBl. I p. 313)
- Decision 52/2023, General allocation of frequencies for mobile radiocommunication applications of maritime and inland waterway radiocommunication; Official Gazette of the Federal Network Agency No 10 of 24.05.2023
- Regional Arrangement on the Radiocommunication Service for Inland Waterways (Bucharest 2012)
- Inland waterway radiocommunication manual – General section, 2017 edition
- Radio Regulations¹ (VO Funk),
International Telecommunication Union (ITU), Geneva
(Règlement des radiocommunications, Union internationale des télécommunications (UIT), Geneva)
- ITU-R M.1084
Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service

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.

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- ETSI EN 300 698
Radio telephone transmitters and receivers for the maritime mobile service operating in the VHF bands used on inland waterways;
Harmonised Standard for access to radio spectrum and for features for emergency services
- ETSI EN 301 178
Portable Very High Frequency (VHF) radiotelephone equipment for the maritime mobile service operating in the VHF bands (for non-GMDSS applications only);
Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
- CEPT ECC Decision (19)03
Harmonised usage of the channels of the Radio Regulations Appendix 18 (transmitting frequencies in the VHF maritime mobile band)
- CEPT/ERC/REC 74-01
Unwanted emissions in the spurious domain
- Decision 2000/637/EG
Commission Decision of 22 September 2000 on the application of Article 3(3)(e) of Directive 1999/5/EC to radio equipment subject to the Regional Arrangement on the Radiocommunication Service for Inland Waterways (Official Journal of the EU, L 269/50 of 21.10.2000)

5 Technical interface requirements

This interface specification contains the technical interface requirements for VHF radio equipment in inland waterway radiocommunication (without AIS) for the following radio stations:

Table 1: Ship radio stations: 156,0125 – 156,4875 MHz, 156,5625 – 156,7625 MHz

Table 2: Ship radio stations: 156,7625 – 156,8375 MHz (emergency and call)

Table 3: Ship radio stations: 156,8375 – 157,4375 MHz, 160,6125 – 160,9625 MHz,
161,7875 – 161,9625 MHz, 161,9875 – 162,0125 MHz

Table 4: Ship radio stations: 156,4875 – 156,5125 MHz (K10), 156,5375 – 156,5625 MHz (K11)

Table 5: Aeronautical radio stations: 156,2875 – 156,3125 MHz, 156,3625 – 156,3875 MHz,
156,4375 – 156,4625 MHz, 156,6125 – 156,6375 MHz, 156,6625 – 156,6875 MHz

Table 6: Aeronautical radio stations: 156,4875 – 156,5125 MHz (K10)

Table 7: Aeronautical radio stations: 156,7875 – 156,8125 MHz (K16, emergency and call)

Table 1: Ship radio stations: 156,0125 – 156,4875 MHz, 156,5625 – 156,7625 MHz

	No.	Parameter	Description (Description)	Comments (Comments)
Normative part	1	Radiocommunication service (Radiocommunication Service)	MOBILE RADIOCOMMUNICATION SERVICE excluding aeronautical mobile radiocommunication service (R)	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment with ATIS for inland waterway radiocommunication	
	3	Frequency range (Frequency band)	156,0125 – 156,4875 MHz 156,5625 – 156,7625 MHz	
	4	Channel occupancy (Channelling)	25 kHz channel grid	Assignment of channels to transport sectors in accordance with the Inland Waterway Radiocommunication Manual
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E	Language
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	$\leq 25 \text{ W}$ $\leq 6 \text{ W}$ $\leq 1 \text{ W}$ (automatic (power reduction))	Permanently installed radio equipment Note 1 Portable radio equipment Note 2 Note 3
	8	Channel access and occupancy rules (Channel access and occupation rules)	Permanently installed and portable VHF radio equipment with ATIS within the scope of the 'Regional Arrangement on the Radiocommunication Service for Inland Waterways'	
	9	Authorisation procedure (Authorisation regime)	General allocation	Note 4
	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.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

Does **not** only apply to the channels: K06, K08, K71, K12, K72, K13, K14, K74 and K15. For these channels, an automatic power reduction to $\leq 1 \text{ W}$ applies.

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EN	Interface specification	VHF radio equipment in inland waterway radiocommunication (without AIS)	SSB SE 024	September 2025
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Note 2:

Does **not** only apply to the channels: K06, K08, K71, K12, K72, K13, K14, K74 and K15. For these channels, an automatic power reduction to ≤ 1 W applies.

Note 3:

Automatic power reduction to ≤ 1 W shall apply for the following channels: K06, K08, K71, K12, K72, K13, K14, K74 and K15.

Note 4

- a) To be able to use the frequencies, a ship station licence needs to be issued beforehand (assignment of numbers for maritime radiocommunication or inland waterway radiocommunication) by the Federal Network Agency (Decision 52/2023).
- b) No transmission shall take place without the assigned ATIS (automatic transmitter identification system) identifier.

Table 2: Ship radio stations: 156,7625 – 156,8375 MHz (emergency and call)

	No.	Parameter	Description (Description)	Comments (Comments)
Normative part	1	Radiocommunication service (Radiocommunication Service)	MARITIME MOBILE RADIOCOMMUNICATION SERVICE	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment with ATIS for inland waterway radiocommunication	
	3	Frequency range (Frequency band)	156,7625 – 156,8375 MHz	
	4	Channel occupancy (Channelling)	25 kHz channel grid	Assignment of channels to transport sectors in accordance with the Inland Waterway Radiocommunication Manual Note 1
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E	Language
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	$\leq 25 \text{ W}$ $\leq 6 \text{ W}$ $\leq 1 \text{ W}$ (automatic power reduction)	Permanently installed radio equipment, K 16 only Portable radio equipment K 16 only K 75 and K76 only
	8	Channel access and occupancy rules (Channel access and occupation rules)	Permanently installed and portable VHF radio equipment with ATIS within the scope of the 'Regional Arrangement on the Radiocommunication Service for Inland Waterways'	
	9	Authorisation procedure (Authorisation regime)	General allocation	Note 2
	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.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

K75: 156,7625-156,7875 MHz; K16: 156,7875-156,8125 MHz; K76: 156,8125-156,8375 MHz

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Note 2:

- a) To be able to use the frequencies, a ship station licence needs to be issued beforehand (assignment of numbers for maritime radiocommunication or inland waterway radiocommunication) by the Federal Network Agency (Decision 52/2023).
- b) No transmission shall take place without the assigned ATIS (automatic transmitter identification system) identifier.

Table 3: Ship radio stations: 156,8375 – 157,4375 MHz, 160,6125 – 160,9625 MHz, 161,7875 - 161,9625 MHz, 161,9875 – 162,0125 MHz

Normative part	No.	Parameter	Description (Description)	Comments (Comments)
	1	Radiocommunication service (Radiocommunication Service)	MOBILE RADIOCOMMUNICATION SERVICE except for the aeronautical mobile service	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment with ATIS for inland waterway radiocommunication	
	3	Frequency range (Frequency band)	156,8375 – 157,4375 MHz 160,6125 – 160,9625 MHz, 161,7875 – 161,9625 MHz, 161,9875 – 162,0125 MHz	
	4	Channel occupancy (Channelling)	25 kHz channel grid	Assignment of channels to transport sectors in accordance with the Inland Waterway Radiocommunication Manual Note 1
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E FXB	Language Data (VHF Data Exchange System – VDES)
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	≤ 25 W ≤ 6 W ≤ 1 W (automatic power reduction)	Permanently installed radio equipment Note 2 Portable radio equipment Note 3 K17 (156,8375—156,8625 MHz) and K77 (156,8625 – 156,8875 MHz only)
	8	Channel access and occupancy rules (Channel access and occupation rules)	Permanently installed and portable VHF radio equipment with ATIS within the scope of the 'Regional Arrangement on the Radiocommunication Service for Inland Waterways'	
	9	Authorisation procedure (Authorisation regime)	General allocation	Note 4
	10	Additional essential requirements (Additional essential requirements)		
	11	Frequency planning assumptions (Frequency planning assumptions)		
	12	Planned changes (Planned changes)		

Informative part	13	References (References)	ITU-R M.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

- a) No analogue frequency use for voice permitted for the channels: K24, K84, K25, K85, K26, K86, K27 and K28.
- b) Only digital frequency use by VDES for the channels: K1024, K2024, K1084, K2084, K1025, K2025, K1085, K2085, K1026, K2026, K1086 and K2086.
- c) Analogue frequency usage for voice for the channels K1027 (157.3375–157.3625 MHz) and K1028 (157.3875–157.4125 MHz) as of 01.01.2024.
- d) Frequency use for application specific message for the channels ASM1 (161,9375 - 161,9625 MHz) and ASM2 (161,9875 - 162,0125 MHz) as of 01.01.2024.
- e) Frequency use only permitted for AIS for the channels AIS1 (161,9625 - 161,9875 MHz) and AIS2 (162,0125 - 162,0375 MHz).

Note 2:

Does **not** only apply to the channels: K17 (156,8375—156,8625 MHz) and K77 (156,8625 – 156,8875 MHz).

Note 3:

Does **not** only apply to the channels: K17 (156,8375—156,8625 MHz) and K77 (156,8625 – 156,8875 MHz).

Note 4:

- a) To be able to use the frequencies, a ship station licence needs to be issued beforehand (assignment of numbers for maritime radiocommunication or inland waterway radiocommunication) by the Federal Network Agency (Decision 52/2023).
- b) No transmission shall take place without the assigned ATIS (automatic transmitter identification system) identifier.

Table 4: Ship radio stations: 156,4875 – 156,5125 MHz (K10), 156,5375 – 156,5625 MHz (K11)

	No.	Parameter	Description (Description)	Comments (Comments)
Normative part	1	Radiocommunication service (Radiocommunication Service)	MARITIME MOBILE RADIOCOMMUNICATION SERVICE (Emergency and call via DSC)	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment for the maritime radiocommunication service	
	3	Frequency range (Frequency band)	156,4875 – 156,5125 MHz 156,5375 – 156,5625 MHz	K10 K11 Note 1
	4	Channel occupancy (Channelling)	25 kHz channel grid	
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E	Language
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	≤ 1 W (automatic power reduction)	
	8	Channel access and occupancy rules (Channel access and occupation rules)		
	9	Authorisation procedure (Authorisation regime)	General allocation	Note 2
	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.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

In inland waterway radiocommunication, no frequency use is permitted in the frequency range 156,5125 – 156,5375 MHz (K70).

Note 2:

To be able to use the frequencies, a ship station licence needs to be issued beforehand (assignment of numbers for maritime or inland waterway radiocommunication) by the Federal Network Agency (Decision 52/2023).

Table 5: Aeronautical radio stations: 156,2875 – 156,3125 MHz, 156,3625 – 156,3875 MHz, 156,4375 – 156,4625 MHz, 156,6125 – 156,6375 MHz, 156,6625 – 156,6875 MHz

	No.	Parameter	Description (Description)	Comments (Comments)
Normative part	1	Radiocommunication service (Radiocommunication Service)	MOBILE RADIOCOMMUNICATION SERVICE excluding aeronautical mobile radiocommunication service (R)	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment for the maritime radiocommunication service	
	3	Frequency range (Frequency band)	156,2875 – 156,3125 MHz 156,3625 – 156,3875 MHz 156,4375 – 156,4625 MHz 156,6125 – 156,6375 MHz 156,6625 – 156,6875 MHz	K06: Analogue voice radio, simplex K67: Analogue voice radio, simplex. K09: Analogue voice radio, simplex, for pilot dispatch service only K72: Analogue voice radio, simplex, for pilot dispatch service only K73: Analogue voice radio, simplex
	4	Channel occupancy (Channelling)	25 kHz channel grid	
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E	Language
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	≤ 1 W	
	8	Channel access and occupancy rules (Channel access and occupation rules)		
	9	Authorisation 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.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

- a) No transmission shall take place without the assigned ATIS (automatic transmitter identification system) identifier.

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- b) The use of frequencies from the maritime mobile radiocommunication service and inland waterway radiocommunication by aviation personnel in aircraft requires the prior allocation of a maritime or inland waterway radiocommunication number for the relevant aircraft by the Federal Network Agency.
- c) Further frequency usage conditions are contained in Decision 52/2023.

Table 6: Aeronautical radio stations: 156,4875 – 156,5125 MHz (K10)

	No.	Parameter	Description (Description)	Comments (Comments)
Normative part	1	Radiocommunication service (Radiocommunication Service)	MARITIME MOBILE RADIOCOMMUNICATION SERVICE (Emergency and call via DSC)	
	2	Intended use/Application (Application)	Permanently installed and portable VHF radio equipment for the maritime radiocommunication service	
	3	Frequency range (Frequency band)	156,4875 – 156,5125 MHz	Note 1
	4	Channel occupancy (Channelling)	25 kHz channel grid	
	5	Modulation/Occupied bandwidth (Modulation/Occupied bandwidth)	G3E	Language
	6	Direction/distance (Direction/Separation)		
	7	Transmission power/Power density (Transmit power/Power density)	≤ 1 W	
	8	Channel access and occupancy rules (Channel access and occupation rules)		
	9	Authorisation procedure (Authorisation regime)	General allocation	Note 2
	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.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number (Notification number)		
	15	Notes (Remarks)		

Note 1:

In inland waterway radiocommunication, no frequency use is permitted in the frequency range 156,5125 – 156,5375 MHz (K70).

Note 2:

- a) The use of frequencies from the maritime mobile radiocommunication service and inland waterway radiocommunication by aviation personnel in aircraft requires the prior allocation of a maritime or inland waterway radiocommunication number for the relevant aircraft by the Federal Network Agency.
- b) Further frequency usage conditions are contained in Decision 52/2023.

Table 7: Aeronautical radio stations: 156,7875 – 156,8125 MHz (K16, emergency and call)

	No.	Parameter <i>(Parameter)</i>	Description <i>(Description)</i>	Comments <i>(Comments)</i>
Normative part	1	Radiocommunication service <i>(Radiocommunication Service)</i>	MARITIME MOBILE RADIOCOMMUNICATION SERVICE	
	2	Intended use/Application <i>(Application)</i>	Permanently installed and portable VHF radio equipment for the maritime radiocommunication service	
	3	Frequency range <i>(Frequency band)</i>	156,7875 – 156,8125 MHz	K16 voice (analogue), simplex, Frequency use for emergency traffic, urgent and safety calls only, and as a call channel
	4	Channel occupancy <i>(Channelling)</i>	25 kHz channel grid	
	5	Modulation/Occupied bandwidth <i>(Modulation/Occupied bandwidth)</i>	G3E	Language
	6	Direction/distance <i>(Direction/Separation)</i>		
	7	Transmission power/Power density <i>(Transmit power/Power density)</i>	≤ 1 W	
	8	Channel access and occupancy rules <i>(Channel access and occupation rules)</i>		
	9	Authorisation procedure <i>(Authorisation regime)</i>	General allocation	Note 1
	10	Additional essential requirements <i>(Additional essential requirements)</i>		
	11	Frequency planning assumptions <i>(Frequency planning assumptions)</i>		
Informative part	12	Planned changes <i>(Planned changes)</i>		
	13	References <i>(References)</i>	ITU-R M.1084, EN 300 698, EN 301 178, CEPT ECC Decision (19)03, CEPT/ERC/REC 74-01	
	14	Notification number <i>(Notification number)</i>		
	15	Notes <i>(Remarks)</i>		

Note 1:

- The use of frequencies from the maritime mobile radiocommunication service and inland waterway radiocommunication by aviation personnel in aircraft requires the prior allocation of a maritime or inland waterway radiocommunication number for the relevant aircraft by the Federal Network Agency.
- Further frequency usage conditions are contained in Decision 52/2023.