



REGULATION

28 March 2024 No 10

**Amendment to Minister of Economic Affairs and
Communications Regulation No. 118 of 1 December
2009 on “Technical requirements for radio
equipment used on the basis of frequency
authorisation”**

The regulation is established on the basis of subsection 120² (2) of the Electronic Communications Act.

Regulation No 118 of the Minister for Economic Affairs and Communications of 1 December 2009 on “Technical requirements for radio equipment used on the basis of a frequency authorisation” is amended as follows:

- 1) the text ‘and amended by Directive (EU) 2022/2380 of the European Parliament and of the Council (OJ L 315, 7.12.2022, p. 30-43)’ is added in the legislative note of the Regulation after the text ‘(OJ L 212, 22.8.2018, p. 1-122)’;
- 2) the new wording of Annexes 1 to 5 and 7 (appended) is established.

(signed digitally)

Tiit Riisalo

Minister of Economic Affairs and Information Technology

(signed digitally)

Ahti Kuningas

Secretary General

Annex 1 Broadcasting

Annex 2 Land mobile communication

Annex 3 Aeronautical communication

Annex 4 Fixed communication

Annex 5 Satellite radionavigation

Annex 7 Maritime communication

Broadcasting**1.1. Long-wave AM broadcasting transmitter**

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 148.5-283.5 kHz	
	4	Channel spacing	9 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	Geneva Agreement of 1975		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	
	13	References to documents	Geneva Agreement of 1975 ITU-R BS.639 EN 301 489-53 EN 301 489-1 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
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1.2. Medium-wave AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 526.5-1606.5 kHz	
	4	Channel spacing	9 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	Geneva Agreement of 1975	
I n f o r m a t i v e	12	Planned changes	Transition to digital technology in the long term	
	13	References to documents	Geneva Agreement of 1975 ITU-R BS.639 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

1.3. Short-wave (75 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 3950-4000 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-53 EN 301 489-1 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.4. Short-wave (59 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 5900-6200 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.5. Short-wave (41 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 7200-7300 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-53 EN 301 489-1 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.6. Short-wave (41 m) SSB broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 7300-7450 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.7. Short-wave (31 m) SSB broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 9400-9500 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.8. Short-wave (31 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 9500-9900 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.9. Short-wave (25 m) SSB broadcasting transmitter

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 11600-11650 kHz Tx 12050-12100 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.10. Short-wave (25 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 11650-12050 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.11. Short-wave (22 m) SSB broadcasting transmitter

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 13570-13600 kHz Tx 13800-13870 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.12. Short-wave (22 m) AM broadcasting transmitter

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 13600-13800 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.13. Short-wave (19 m) AM broadcasting transmitter

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 15100-15600 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.14. Short-wave (19 m) SSB broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 15600-15800 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.15. Short-wave (15 m) SSB broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 17480-17550 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.16. Short-wave (15 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 17550-17900 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.17. Short-wave (14 m) SSB broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial broadcasting	
	3	Radio frequency band	Tx 18900-19020 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	SSB	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.18. Short-wave (13 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 21450-21850 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.19. Short-wave (11 m) AM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	AM radio broadcasting	
	3	Radio frequency band	Tx 25670-26100 kHz	
	4	Channel spacing	5 kHz	
	5	Modulation / bandwidth used	AM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	Transition to digital technology in the long term	RR Res. 517 (Rev. WRC-15)
	13	References to documents	ITU-R BS.639 RR Res. 517 EN 301 489-1 EN 301 489-53 EN 302017 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

1.20. FM broadcasting transmitter

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	FM radio broadcasting	
	3	Radio frequency band	Tx 87.5-108 MHz	
	4	Channel spacing	100 kHz	
	5	Modulation / bandwidth used	FM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	Geneva Agreement of 1984	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	Geneva Agreement of 1984 EN 301 489-1 EN 301 489-53 EN 302018 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.21. DVB-T and DVB-T2 transmitter at VHF frequencies

No	Parameter	Description	Comments
1	Radio communication service	Broadcasting	
2	Application	Terrestrial digital television	DVB-T, DVB-T2
3	Radio frequency band	Tx 174-230 MHz	
4	Channel spacing	7 MHz	
5	Modulation / bandwidth used	QPSK QAM	
6	Duplex/simplex communication. Duplex gap	–	
7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
8	Channel usage conditions	Stipulated in the frequency authorisation	
9	Frequency authorisation regime	With frequency authorisation	
10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	Geneva Agreement of 2006	
12	Planned changes	–	
13	References to documents	Geneva Agreement of 2006 EN 301 489-1 EN 301 489-14 EN 302296 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14	Notification number	2023/0640/EE	
15	Notes	–	

1.22. T-DAB transmitter at VHF frequencies

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial digital audio broadcasting	
	3	Radio frequency band	Tx 174-240 MHz	
	4	Channel spacing	1.536 MHz	
	5	Modulation / bandwidth used	OFDM	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	Geneva Agreement of 2006 Wiesbaden 1995, rev. CO 07 agreement	The frequency band 174-230 MHz is subject to the Geneva 2006 agreement. The frequency band 230-240 MHz is subject to the Wiesbaden 1995, rev. CO 07 agreement	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	Wiesbaden 1995, rev. CO 07 agreement Geneva Agreement of 2006 EN 301 489-1 EN 301 489-53 EN 302077 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

1.23. DVB-T and DVB-T2 transmitter at UHF frequencies

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Broadcasting	
	2	Application	Terrestrial digital television	
	3	Radio frequency band	Tx 470-694 MHz	
	4	Channel spacing	8 MHz	
	5	Modulation / bandwidth used	QPSK QAM	
	6	Duplex/simplex communication. Duplex gap	-	
	7	Transmission power/power density	Maximum e.r.p. is stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	Geneva Agreement of 2006	
I n f o r m a t i v e	12	Planned changes	-	
	13	References to documents	Geneva Agreement of 2006 EN 301 489-1 EN 301 489-14 EN 302296 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	p a r t	15	Notes	-

Land mobile service**2.1. Land mobile communication simplex equipment in the 40 MHz band**

Normative part	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 37.5-37.6 MHz Tx/Rx 39.5-40.4 MHz Tx 48-54 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
Informative part	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 EN 300086 EN 300113 EN 300219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.2. Meteor communication equipment

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Meteor communication equipment	
	3	Radio frequency band	Tx/Rx 39-39.2 MHz	
	4	Channel spacing	25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	The e.r.p. of base stations and support stations is stipulated in the frequency authorisation Maximum permissible e.r.p. 50 W (mobile remote stations)	
	8	Channel usage conditions	In line with CEPT/ERC/REC/(00)04 Annex 3	
	9	Frequency authorisation regime	With frequency authorisation	The use remote mobile stations for which frequency authorisation has been issued in another country in accordance with CEPT/ERC/REC (00)04 is permitted.
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e p a r t	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC/(00)04 EN 300113 EN 301 489-1 EN 301 489-5 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	

2.3. Land mobile communication duplex equipment in the 70 MHz band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 75.2-77.7 MHz Tx/Rx 85-87.5 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (9.8 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.4. Land mobile communication simplex equipment in the 80 MHz band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 77.7-77.8 MHz Tx/Rx 84.6-85 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300 296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.5. Land mobile communication simplex equipment in the 160 MHz band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 146-146.8 MHz Tx/Rx 149.9-150.05 MHz Tx/Rx 154.5-154.6 MHz Tx/Rx 160.975-161.475 MHz Tx/Rx 165.2-165.225 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300 296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
15	Notes	–		

2.6. Land mobile communication duplex equipment in the 150 MHz band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 146.8-149.9 MHz Tx/Rx 150.05-151.4 MHz Tx/Rx 151.4-154.5 MHz Tx/Rx 154.65-156 MHz Tx/Rx 157.45-160.6 MHz Tx/Rx 162.05-165.2 MHz Tx/Rx 165.225-169.4 MHz Tx/Rx 169.825-174 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (4.6 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300 219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.7. Land mobile communication simplex equipment in the 150 MHz band

N o r m a t i v e P a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 150.9-154 MHz Tx/Rx 160 MHz Tx/Rx 167.75 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	The use of radio frequencies 150.9 MHz; 151.775 MHz; 151.8 MHz; 151.825 MHz; 151.875 MHz; 151.95 MHz; 152.025 MHz; 152.1 MHz; 152.125 MHz; 152.15 MHz; 152.375 MHz; 152.4 MHz; 152.675-153 MHz; 153.05 MHz; 153.1 MHz; 153.25 MHz; 153.5-154 MHz is allowed according to the technical conditions specified in the frequency authorisation effective on 1 January 2007.	
p a r t	13	References to documents	EN 300086 EN 300113 EN 300219 EN 300 296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.8. TETRA base station, repeater, gateway in the 380-385 Mhz / 390-395 MHz band

No	Parameter	Description	Comments
1	Radio communication service	Mobile communication	
2	Application	PMR/PAMR	
3	Radio frequency band	Rx 380-385 MHz Tx 390-395 MHz	TETRA system
4	Channel spacing	25 kHz	
5	Modulation / bandwidth used	$\pi/4$ -shifted DQPSK	
6	Duplex/simplex communication. Duplex gap	Duplex (10 MHz)	
7	Transmission power/power density	Maximum allowed nominal output power 40 W (base station) Maximum allowed nominal output power 30 W (repeater, gateway)	
8	Channel usage conditions	Stipulated in the frequency authorisation	
9	Frequency authorisation regime	With frequency authorisation	
10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–	
12	Planned changes	–	
13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(08)05 EN 301 489-1 EN 301 489-5 EN 302561 EN 50385 EN 50401 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14	Notification number	2023/0640/EE	
15	Notes	–	

2.9. TETRA base station, repeater, gateway in the 385-389.9 Mhz / 395-399.9 MHz band

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Mobile communication	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Rx 385-389.9 MHz Tx 395-399.9 MHz	
	4	Channel spacing	25 kHz	
	5	Modulation / bandwidth used	$\pi/4$ -shifted DQPSK	
	6	Duplex/simplex communication. Duplex gap	Duplex (10 MHz)	
	7	Transmission power/power density	Maximum allowed nominal output power 40 W (base station) Maximum allowed nominal output power 30 W (repeater, gateway)	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(08)05 CEPT/ERC T/R 25-08 EN 301 489-1 EN 301 489-5 EN 302561 EN 50385 EN 50401 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.10. Land mobile communication simplex equipment in the 390 MHz band

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Mobile communication	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 389.9-390 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 EN 300113 EN 300296 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
p a r t	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.11. Land mobile communication simplex equipment at the frequency 400 MHz

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Land mobile service	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 406.1-407.55 MHz Tx/Rx 408.1-408.65 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302296 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.12. Land mobile network base station in the 410-430 MHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Land mobile service	
	2	Application	Land mobile service	
	3	Radio frequency band	Tx/Rx 410-430 MHz	
	4	Channel spacing	Channel width 1.4 MHz Channel width 3 MHz Channel width 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 56 dBm	
	8	Channel usage conditions	In accordance with CEPT/ECC/DEC/(19)02	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	CEPT/ECC/DEC/(19)02	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(19)02 EN 300086 EN 300296 EN 301166 EN 301 908-1 EN 50360 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.13. Land mobile communication simplex equipment in the 440 MHz band

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	PMR/PAMR	
	3	Radio frequency band	Tx/Rx 440-442.5 MHz Tx/Rx 443-448 MHz Tx/Rx 448.975-450 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 303039 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
15	Notes	–		

2.14. On-site paging system unit

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communication	
	2	Application	Paging system	Local paging system
	3	Radio frequency band	Tx 450-460 MHz	
	4	Channel spacing	25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum e.r.p. 5 W (base stations) Maximum e.r.p. 0.05 W (pagers)	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC/T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300224 EN 301 489-1 EN 301 489-5 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
p a r t	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.15. Land mobile communication duplex equipment in the 460 MHz band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communication	
	2	Application	PMR/PAMR	Narrow-band analogue and digital PMR/PAMR systems
	3	Radio frequency band	Rx 450-452.5 MHz Rx 457.5-460 MHz Tx 460-462.5 MHz Tx 467.5-470 MHz	
	4	Channel spacing	Maximum 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (10 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to CEPT/ERC T/R 25-08, Annex 2
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e P a r t	12	Planned changes	In connection with the introduction of LTE in the same frequency band, the radio frequency band is 452,5–453 MHz / 462,5–463 MHz is permitted under the technical conditions specified in the current authorisation until 28 February 2023	
	13	References to documents	CEPT/ERC T/R 25-08 CEPT/ECC/DEC/(19)02 EN 300086 EN 300113 EN 300219 EN 300296 EN 300341 EN 300390 EN 301166 EN 301 489-1 EN 301 489-5 EN 302561 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.16. Land mobile network base station in the 450 MHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communication	
	2	Application	Land mobile service	
	3	Radio frequency band	Rx 452.5-457.5 MHz Tx 462.5-467.5 MHz	
	4	Channel spacing	Channel width 1.4 MHz Channel width 3 MHz Channel width 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (10 MHz)	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 56 dBm	The frequency authorisation may stipulate additional power restrictions.
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(19)02 EN 301 489-1 EN 301 489-50 EN 301 908-1 EN 301 908-14 EN 301 908-15 EN 301 908-18 ETSI TS 136 104 ETSI TS 136 106 ETSI TS 136 113 EN 50401 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.17. MFCN base station, repeater in the 700 MHz frequency band

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Rx 703-733 MHz Tx 758-788 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (55 MHz)	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 64 dBm/5 MHz per antenna	
	8	Channel usage conditions	In accordance with Commission Decision (EU) 2016/687	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
P a r t	13	References to documents	(EU) 2016/687 CEPT/ECC/DEC/(15)01 EN 301 489-1 EN 301 489-50 EN 301 908-14 EN 301 908-15 EN 301 908-18 EN 301 908-24 EN 50401 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.18. MFCN base station, repeater in the 800 MHz frequency band

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx 791-821 MHz Rx 832-862 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (41 MHz)	
	7	Transmission power/power density	Maximum allowed average uplink e.i.r.p. outside the block 49.5 dBm/5 MHz	
	8	Channel usage conditions	In accordance with Commission Decision 2010/267/EU	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	2010/267/EL CEPT/ECC/DEC/(09)03 EN 301 489-1 EN 301 489-50 EN 301 908-14 EN 301 908-15 EN 301 908-18 EN 301 908-24 EN 50401 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	
P a r t				

2.19. MFCN base station, repeater in the 900 MHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communication	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Rx 880-915 MHz Tx 925-960 MHz	
	4	Channel spacing	Channel raster 200 kHz (GSM, UMTS) Channel raster 100 kHz (LTE)	
	5	Modulation / bandwidth used	QPSK, 16QAM, 64QAM (UMTS) GMSK; 8-PSK (GSM) DPSK, 16QAM, 64QAM, 256QAM (LTE)	
	6	Duplex/simplex communication. Duplex gap	Duplex (45 MHz)	
	7	Transmission power/power density	Maximum allowed output power 120 W (base station)	
	8	Channel usage conditions	In accordance with Commission Decision (EU) 2022/173	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	(EU) 2022/173 CEPT/ECC/DEC/(06)13 EN 301 489-1 EN 301 489-50 EN 301502 EN 301 908-1 EN 301 908-3 EN 301 908-11 EN 301 908-14 EN 301 908-15 EN 301 908-18 EN 301 908-22 EN 301 908-24 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.20. MFCN base station in the 1.5 GHz frequency band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx 1432-1472 MHz Tx 1492-1512 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 68 dBm/5 MHz Maximum allowed in-block e.i.r.p. in the frequency band 1512-1517 MHz 58 dBm/5 MHz	The frequency authorisation may stipulate additional power restrictions. Out-of-block e.i.r.p. limits and requirements for coexistence with adjacent bands in accordance with Tables 1 to 5 of Decision (EU) 2018/661.
	8	Channel usage conditions	In accordance with Decisions (EU) 2015/750 and (EU) 2018/661	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	(EU) 2015/750 (EU) 2018/661 CEPT/ECC/DEC/(13)03 CEPT/ECC/DEC/(17)06 EN 301 489-1 EN 301 489-50 EN 301 908-1 EN 301 908-14 EN 301 908-15 EN 301 908-18 EN 301 908-18 EN 301 908-24 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.21. MFCN base station, repeater in the 1800 MHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communication	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Rx 1710-1785 MHz Tx 1805-1880 MHz	
	4	Channel spacing	Channel raster 200 kHz (GSM, UMTS) Channel raster 100 kHz (LTE)	
	5	Modulation / bandwidth used	QPSK, 16QAM, 64QAM (UMTS) GMSK; 8-PSK (GSM) DPSK, 16QAM, 64QAM, 256QAM (LTE)	
	6	Duplex/simplex communication. Duplex gap	Duplex (95 MHz)	
	7	Transmission power/power density	Maximum allowed output power 120 W (base station)	
	8	Channel usage conditions	In accordance with Commission Decision (EU) 2022/173	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	(EU) 2022/173 CEPT/ECC/DEC/(06)13 EN 301 489-1 EN 301 489-50 EN 301502 EN 301 908-1 EN 301 908-3 EN 301 908-11 EN 301 908-14 EN 301 908-15 EN 301 908-18 EN 301 908-22 EN 301 908-24 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.22. MFCN base station, repeater in the 1900 MHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Mobile communication	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx/Rx 1900.2-1920 MHz	
	4	Channel spacing	Channel raster 200 kHz	
	5	Modulation / bandwidth used	QPSK; 8-PSK; 16QAM; 64QAM	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Maximum allowed output power 120 W (base station)	Base station
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 301 489-50 EN 301 908-1 EN 301 908-18 EN 301 908-14 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
15	Notes	–		

2.23. MFCN base station, repeater in the 2100 MHz frequency band

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Mobile communication	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Rx 1920-1980 MHz Tx 2110-2170 MHz	
	4	Channel spacing	– Width of allocated blocks in 5 MHz-multiples	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (190 MHz)	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 65 dBm/5 MHz	The frequency authorisation may stipulate additional power restrictions.
	8	Channel usage conditions	In accordance with Commission Decisions 2012/688/EU and (EU) 2020/667	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	The general parameters set out in Annex B to Decision (EU) 2020/667 shall be applied from 1 January 2026 at the latest	
	13	References to documents	2012/688/EL (EU) 2020/667 CEP/ECC/DEC/(06)01 EN 301 489-1 EN 301 489-50 EN 301 908-1 EN 301 908-3 EN 301 908-11 EN 301 908-24 ETSI TS 138 104 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
P a r t	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.24. MFCN base station, repeater in the 2.3 GHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e p a r t	1	Radio communication service	Mobile communication	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx/Rx 2300-2390 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Maximum allowed in-block e.i.r.p. 68 dBm/5 MHz (in the 2300-2390 MHz frequency band) Use of power management for femto base stations	In-block e.i.r.p. limits have been provided per antenna.
	8	Channel usage conditions	In accordance with CEPT/ECC/DEC/(14)02	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(14)02 EN 301 489-1 EN 301 489-50 EN 301 908-14 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.25. MFCN base station, repeater in the 2.5 GHz frequency band

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Rx 2500-2570 MHz Tx/Rx 2570-2620 MHz Tx 2620-2690 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex 120 MHz	
	7	Transmission power/power density	For a passive antenna system (Non-AAS), the maximum permitted in-block e.i.r.p. per antenna is 68 dBm/5 MHz For an active antenna system (AAS), the maximum permitted in-block TRP per cell is 53 dBm/5 MHz to 60 dBm/5 MHz	In multi-sector base stations, the maximum radiated power limit applies to each sector. The frequency authorisation may stipulate additional power restrictions.
	8	Channel usage conditions	In accordance with Commission Decisions 2008/477/EC and (EU) 2020/636	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e P a r t	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	2008/477/EÜ (EU) 2020/636 CEPT/ECC/DEC/(05)05 EN 301 489-1 EN 301 489-50 EN 301 908-24 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	

2.26. MFCN base station, repeater in the 3.6 GHz frequency band

No	Parameter	Description	Comments	
N o r m a t i v e P a r t	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx/Rx 3410-3800 MHz	
	4	Channel spacing	Width of allocated frequency blocks is 5 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Use of power management for femto base stations Power restrictions are stipulated in the frequency authorisation	
	8	Channel usage conditions	In accordance with Commission Decisions 2008/411/EC, 2014/276/EU and (EU) 2019/235	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	In accordance with Commission Decisions 2008/411/EC, 2014/276/EU and (EU) 2019/235	
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	2008/411/EÜ 2014/276/EL (EU) 2019/235 CEPT/ECC/DEC/(11)06 EN 301 489-1 EN 301 489-50 EN 301 908-24 EN 50385 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

2.27. NPN base station, repeater in the 26 GHz frequency band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	Non-public networks (NPN)
	3	Radio frequency band	Tx/Rx 24.3-24.7 GHz	
	4	Channel spacing	Allocation of frequency blocks with a width of 200 MHz or multiples thereof	For more efficient use of the frequency band, the width of blocks in adjacent areas may be lower (50 MHz or 100 MHz or 150 MHz).
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Maximum total radiated power (TRP) of the base station in synchronised operation 4 dBm (measured bandwidth 50 MHz) Maximum out-of-band (at 23.6-24.0 GHz) TRP for base stations -33 dBW (measured bandwidth 200 MHz)	In accordance with Commission Decisions (EU) 2019/784 and (EU) 2020/590 The frequency authorisation may stipulate additional power restrictions.
	8	Channel usage conditions	In accordance with Commission Decisions (EU) 2019/784 and (EU) 2020/590	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	In accordance with Commission Decisions (EU) 2019/784 and (EU) 2020/590	
I n f o r m a t i v e p a r t	12	Planned changes	Maximum permissible out-of-band (at 23.6-24.0 GHz) radiated power (TRP) from 1 January 2024 -39 dBW (measured bandwidth 200 MHz)	In accordance with Commission Decision (EU) 2020/590
	13	References to documents	(EU) 2019/784 (EU) 2020/590 CEPT/ECC/DEC/(18)06 EN 301 489-1 EN 301 489-50 EN 301 908-24 EN 55035 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	

	15	Notes	-	
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2.28. MFCN base station, repeater in the 26 GHz frequency band

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communications other than mobile aeronautical communications	
	2	Application	Mobile/fixed communications networks (MFCN)	
	3	Radio frequency band	Tx/Rx 24.7-27.1 GHz	
	4	Channel spacing	Allocation of frequency blocks with a width of 200 MHz or multiples thereof	For more efficient use of the frequency band, the width of blocks in adjacent areas may be lower (50 MHz or 100 MHz or 150 MHz).
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Maximum total radiated power (TRP) of the base station in synchronised operation 4 dBm (measured bandwidth 50 MHz) Maximum out-of-band (at 23.6-24.0 GHz) TRP for base stations -33 dBW (measured bandwidth 200 MHz)	In accordance with Commission Decisions (EU) 2019/784 and (EU) 2020/590 The frequency authorisation may stipulate additional power restrictions.
	8	Channel usage conditions	In accordance with Commission Decisions (EU) 2019/784 and (EU) 2020/590	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e p a r t	12	Planned changes	Maximum permissible out-of-band (at 23.6-24.0 GHz) radiated power (TRP) from 1 January 2024 -39 dBW (measured bandwidth 200 MHz)
13		References to documents	(EU) 2019/784 (EU) 2020/590 CEPT/ECC/DEC/(18)06 EN 301 489-1 EN 301 489-50 EN 301 908-24 EN 55035 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	

	15	Notes	-	
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Aeronautical communication**3.1. Localizer LOC**

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	ILS	Localizer LOC
	3	Radio frequency band	Tx/Rx 108-111.975 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	16K0A 2K04A	Conforms to ICAO Convention Annex 10
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
	12	Planned changes	–	
	13	References to documents	Annex 10 to ICAO Convention, Vol. I and V ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. I Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.2. Ground-based augmentation system GBAS

N	No	Parameter	Description	Comments
m a t t i v e	1	Radio communication service	Aviation radio navigation	
	2	Application	GBAS	Ground based (satellite navigation) augmentation system
	3	Radio frequency band	Tx/Rx 108-117.975 MHz	
	4	Channel spacing	Channel distance 25 kHz	
	5	Modulation / bandwidth used	D8PSK 14K0G7DET	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	(EC) 552/2004 EN 303084 EN 301 489-1 EN 62368-1 CEPT/ERC/REC 74-01 Annex 10 to ICAO Convention, Vol. I and V ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. II EUROCAE ED-114B Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.3. VOR beacon

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Aviation radio navigation	
	2	Application	VOR	Non-directional radio beacon VOR DVOR CVOR
	3	Radio frequency band	Tx/Rx 108-111.975 MHz Tx/Rx 111.975-117.975 MHz	
	4	Channel spacing	Channel distance 50 kHz	
	5	Modulation / bandwidth used	AM FM 20K9	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	At radio frequencies 108.000-111.975 MHz the VOR azimuth beacon can only be used according to the conditions set out in Annex 10 to the ICAO Convention, Vol. V, Chapter 4 (4.2.1; 4.2.3.1).
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC 74-01 Annex 10 to ICAO Convention, Vol. I and V EUROCAE ED-52 ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. I Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

3.4. VHF radio communication (voice and data)

N o r m a t i v e P a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aeronautical mobile communication (R)	
	2	Application	Aeronautical communications	Flight safety, VDL
	3	Radio frequency band	Tx/Rx 117.975-137 MHz	Flight emergency and emergency communication frequency 121.5 MHz; rescue operations communication frequency 123.1 MHz; NATO common communication frequency for additional TWR/APP services 122.100 MHz; terrestrial data communication frequencies (VDL Mode 2 and Mode 4) 136.700-136.975 MHz; air-to-air communication frequency for long-range and oceanic flights outside the coverage of VHF ground stations 123.450 MHz
	4	Channel spacing	Channel width 8.33 kHz Channel width 25 kHz	
	5	Modulation / bandwidth used	6K80A3EJN (for AM 25 kHz) 5K00A3EJN (for 8.33 kHz) 13K0A2D (VHF DL) D8PSK (VDL Mode 2) GFSK (VDL Mode 4)	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	–	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None		
11	Basis for planning radio frequencies	–		
I n f o r m a t i	12	Planned changes	–	
	13	References to documents	(EC) 552/2004 CEPT/ERC/REC 74-01 EN 300 676-2 EN 301 489-1 EN 301 489-22 EN 301 841-3 EN 301 842-5 EN 302961	

v e p a r t			EN 62368-1 Annex 10 to ICAO Convention, Vol. III and V ICAO EUR Doc 011 Frequency Management Manual Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.5. GP beacon

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	ILS	Glide path beacon
	3	Radio frequency band	Tx/Rx 328.6-335.4 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	AM 300HA7N AM 32K3A7N	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. I Annex 10 to ICAO Convention, Volume I, Chapter III (3.1, see Ref. 1.1) Volume V Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.6. Aircraft distance measuring equipment (DME)

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	DME	TACAN system; GNSS (GPS, GALILEO); MTIDS; MIDS/JTIDS; UAT
	3	Radio frequency band	Tx/Rx 960-1215 MHz	GNSS frequencies – L5; E5, E5a, E5b; UAT frequency 978 MHz; monitoring frequencies 1030 MHz and 1090 MHz
	4	Channel spacing	Channel distance 1 MHz	
	5	Modulation / bandwidth used	Pulse modulation 650KM1W	
	6	Duplex/simplex communication. Duplex gap	Duplex (63 MHz)	Fixed channel is stipulated with the ICAO Convention Annex 10.
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	Annex 10 to ICAO Convention, Vol. I and V EUROCAE ED-57 STANAG 4175 CEPT/ERC/REC 74-01 ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. I ICAO Manual on Testing of Radio Navigation Aids, Doc 9861 (Universal Access Transceiver (UAT)) Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.7. Secondary surveillance radar SSR

N o r m a t i v e P a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	Aviation navigation	Secondary surveillance radar SSR, MSSR, ACAS, TCAS, ADS-B, MLAT/WAM
	3	Radio frequency band	Rx 1030 MHz Tx 1090 MHz	ADS-B only at 1090 MHz; MLAT/WAM generally passively operated at 1090 MHz and rarely actively on 1030 MHz; calibrations/synchronisations operating within MLAT 1090 MHz
	4	Channel spacing	–	
	5	Modulation / bandwidth used	Pulse modulation L9D Phase modulation M9D	
	6	Duplex/simplex communication. Duplex gap	Duplex (60 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 303 213-1 EN 303 213-2 EN 303 213-5-1 EN 303 213-5-2 EN 62368-1 Annex 10 to ICAO Convention, Vol. IV and V ICAO Manual on Testing of Radio Navigation Aids, DOC 8071 Volume III, DOC 9924, DOC 9684, DOC 9688, DOC 9863, DOC 1090 (ADS-B) Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.8. Primary radar

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Aviation radio navigation	
	2	Application	Aviation navigation	Primary radar (PSR)
	3	Radio frequency band	Tx/Rx 2700-2900 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	Pulse modulation P0N Phase modulation G0N	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC 74-01 ITU-R SM.329 ITU-R M.1177 Annex 10 to ICAO Convention, Volume V ICAO Manual on Testing of Radio Navigation Aids, DOC 8071 Vol III, DOC 9924 Radio frequency plan pursuant to § 9 (3) of the ECA	
p a r t	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.9. Microwave landing system

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	Aviation navigation	Landing system MLS
	3	Radio frequency band	Tx/Rx 5000-5150 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	DPSK	Conforms to the ICAO Convention Annex 10
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	Planned use of GALILEO	
	13	References to documents	Annex 10 to ICAO Convention, Vol. III and V ICAO Manual on Testing of Radio Navigation Aids, Doc 8071 Vol. I ICAO EUR Doc 011, DOC-012, DOC-016 RTCA DO-166 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.10. Surface movement radar SMR

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Aviation radio navigation	
	2	Application	Aviation navigation	Surface movement radar SMR
	3	Radio frequency band	Tx 9000-9500 MHz	
	4	Channel spacing	50 MHz	
	5	Modulation / bandwidth used	Pulse modulation P0N Phase modulation G0N	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	ITU-R SM.329 ITU-R SM.1541 EN 301 489-1 EN 303 213-1 EN 303 213-2 EN 303 213-3 EN 303 213-4-1 EN 303 213-4-2 EN 303 213-6-1 EN 303 213-7 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

3.11. Precision approach radar PAR

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Aviation radio navigation	
	2	Application	Aviation navigation	Precision approach radar PAR
	3	Radio frequency band	Tx/Rx 9000-9800 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	Pulse modulation P0N	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	EN 303 213-1 Annex 10 to ICAO Convention, Vol. IV and V ICAO Manual on Testing of Radio Navigation Aids, DOC 8071 Vol III, DOC 9924 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

Fixed communication**4.1. Radio modems**

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 430-432 MHz Tx/Rx 442.5-443 MHz Tx/Rx 445 MHz	
	4	Channel spacing	25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Simplex	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.2. Fixed radio lines at the frequency 1.4 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 1517-1518 MHz	
	4	Channel spacing	1 MHz 500 kHz 250 kHz 25 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.3. Fixed radio lines at the frequency 1.5 GHz

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 1518-1525 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
		11	Basis for planning radio frequencies	–
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.4. Fixed radio lines at the frequency 2.2 GHz

N o r m a t i v e	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 2075.25-2110 MHz Tx/Rx 2250.25-2290 MHz	
	4	Channel spacing	1.75 MHz 3.5 MHz 7 MHz 14 MHz	Channel distribution according to CEPT/ERC T/R 13-01 Annex C
P	5	Modulation / bandwidth used	–	
a	6	Duplex/simplex communication. Duplex gap	Duplex (175 MHz)	
r	7	Transmission power/power density	Stipulated in the frequency authorisation	
t	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I	12	Planned changes	–	
n	13	References to documents	CEPT/ERC T/R 13-01 (Annex C) EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
f	14	Notification number	2023/0640/EE	
o	15	Notes	–	
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4.5. Broadband wireless access network at the frequency 5.7 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	BWA	
	3	Radio frequency band	Tx/Rx 5725-5875 MHz	
	4	Channel spacing	10 MHz 20 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Maximum mean e.i.r.p. spectral density 23 dBm/MHz Maximum e.i.r.p. mean value 33 dBm (with 10 MHz channel spacing) Maximum e.i.r.p. mean value 36 dBm (with 20 MHz channel spacing)	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/REC/(06)04 EN 301 489-1 EN 301 489-17 EN 302502 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.6. Fixed radio lines at the frequency 5.9 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 5925-6425 MHz	
	4	Channel spacing	29.65 MHz	Channel allocation according to CEPT/ERC/REC 14-01 Annex I
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 14-01 Annex I EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	
P a r t				

4.7. Fixed radio lines at the frequency 6.5 MHz

N o r m a t i v e	No	Parameter	Description	Comments
	p a r t	1	Radio communication service	Fixed communication
2		Application	Fixed radio lines	
3		Radio frequency band	Tx/Rx 6425-7125 MHz	
4		Channel spacing	40 MHz 30 MHz 20 MHz	Channel allocation according to CEPT/ERC/REC 14-02
5		Modulation / bandwidth used	–	
6		Duplex/simplex communication. Duplex gap	Duplex (340 MHz)	
7		Transmission power/power density	Stipulated in the frequency authorisation	
8		Channel usage conditions	Stipulated in the frequency authorisation	
9		Frequency authorisation regime	With frequency authorisation	
10		Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11		Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC 14-02 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.8. Fixed radio lines at the frequency 7.1 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx 7125-7250 MHz Rx 7425-7725 MHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz	In accordance with ITU-R F.385, Figure 1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (161 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	In accordance with ITU-R F.385, Figure 1
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	ITU-R F.385 Figure 1 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	
P a r t				

4.9. Fixed radio lines at the frequency 7.7 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 7725-8275 MHz	
	4	Channel spacing	40 MHz 20 MHz 10 MHz 5 MHz	Channel allocation according to ITU-R F.386, Annex 4
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (310 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	ITU-R F.386 (Annex 4) EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.10. Fixed radio lines at the frequency 8 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 8275-8500 MHz	
	4	Channel spacing	28 MHz 14 MHz 7 MHz 56 MHz	Channel allocation according to ITU-R F.386, Annex 2
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (119 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	ITU-R F.386 (Annex 2) EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.11. Fixed radio lines at the frequency 10 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Rx 10.15-10.3 GHz Tx 10.5-10.65 GHz	
	4	Channel spacing	56 MHz 28 MHz 14 MHz	Channel allocation according to CEPT/ERC/REC 12-05
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (350 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 12-05 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	
P a r t				

4.12. BWA at the frequency 10 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	BWA	Wireless access networks
	3	Radio frequency band	Rx 10.15-10.3 GHz Tx 10.5-10.65 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz	Channel allocation according to CEPT/ERC/REC 12-05
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (350 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 12-05 EN 301 489-1 EN 301 489-4 EN 302 326-2 EN 302 326-3 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	
P a r t				

4.13. Low power fixed radio lines at the frequency 10 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Broadband data transmission systems	Only fixed radio networks
	3	Radio frequency band	Tx/Rx 10.3-10.5 GHz	
	4	Channel spacing	14 MHz 28 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (TDD)	
	7	Transmission power/power density	Maximum allowed e.i.r.p. 37 dBm	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	EN 301 489-1 EN 301 489-4 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.14. Fixed radio lines in the frequency band 10.7-11.7 GHz

N o r m a t i v e	No	Parameter	Description	Comments
p a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 10.7-11.7 GHz	
	4	Channel spacing	20 MHz 28 MHz 40 MHz 56 MHz 80 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (530 MHz – Annex A or 490 MHz – Annex B)	CEPT/ERC/REC 12-06 Annex A and Annex B
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 12-06 Annex A, Annex B ITU-R F.387 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
p a r t		15	Notes	–

4.15. Fixed radio lines at the frequency 13 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 12.75-13.25 GHz	
	4	Channel spacing	1.75 MHz 3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (266 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC 12-02 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	
P a r t				

4.16. Fixed radio lines at the frequency 15 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 14.5-14.865 GHz Tx/Rx 14.921-15.285 GHz Tx/Rx 15.341-15.35 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (420 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	Channel allocation according to ITU-R F.636
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
	12	Planned changes	–	
	13	References to documents	ITU-R F.636 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.17. Fixed radio lines at the frequency 18 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 17.7-19.7 GHz	
	4	Channel spacing	110 MHz 55 MHz 27.5 MHz 13.75 MHz 220 MHz	Channel allocation according to CEPT/ERC/REC 12-03, Annex 2
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (1010 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC 12-03 Annex 2 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.18. Fixed radio lines at the frequencies 21 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 21.4-22 GHz	
	4	Channel spacing	2.5 MHz 3.5 MHz	Channel allocation according to ITU-R F.637
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (according to ITU-R F.637)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	ITU-R F.637 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.19. Fixed radio lines at the frequency 23 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 22-22.6 GHz Tx/Rx 23-23.6 GHz	
	4	Channel spacing	56 MHz 28 MHz 14 MHz 7 MHz 3.5 MHz 112 MHz	Channel allocation according to CEPT/ERC T/R 13-02, Annex A.1.1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (1008 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 13-02 Annex A.1.1 ITU-R F.637 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.20. Fixed radio lines at the frequency 28 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 27.8285-28.4445 GHz Tx/Rx 28.9485-29.4525 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz 112 MHz	Channel allocation according to CEPT/ERC T/R 13-02, Annex 5
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (1008 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(05)01 CEPT/ERC T/R 13-02 Annex 5 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	
p a r t				

4.21. BWA at the frequency 28 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	BWA	
	3	Radio frequency band	Tx/Rx 27.8285-28.4445 GHz Tx/Rx 28.9485-29.4525 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz 112 MHz	Channel distribution according to CETP/ERC T/R13-02 Annex 5
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (1008 GHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/DEC/(05)01 CEPT/ERC T/R 13-02 Annex 5 EN 301 489-1 EN 301 489-4 EN 302 326-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.22. Fixed radio lines at the frequency 31 GHz

N o r m a t i v e	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	Point to multipoint networks are allowed
	3	Radio frequency band	Tx/Rx 31-31.3 GHz	
	4	Channel spacing	28 MHz 14 MHz 7 MHz 3.5 MHz	
p	5	Modulation / bandwidth used	–	
a	6	Duplex/simplex communication. Duplex gap	Duplex (140 MHz or TDD)	
r	7	Transmission power/power density	Stipulated in the frequency authorisation	
t	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I	12	Planned changes	–	
n	13	References to documents	CEPT/ECC/REC/(02)02 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
f	14	Notification number	2023/0640/EE	
o	15	Notes	–	
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4.23. Fixed radio lines at the frequency 32 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	High-density fixed service (HDFS). BWA application is also allowed
	3	Radio frequency band	Tx/Rx 31.8-33.4 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz 112 MHz	Channel allocation according to CEPT/ERC/REC 01(02) Annex 1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (812 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ERC/REC/(01)02 Annex 1 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 302 326-2 EN 302 326-3 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

4.24. Fixed radio lines at the frequency 38 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 37-39.5 GHz	
	4	Channel spacing	3.5 MHz 7 MHz 14 MHz 28 MHz 56 MHz 112 MHz	Channel allocation according to CEPT/ERC T/R 12-01, Annex 1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (1260 MHz)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ERC T/R 12-01 Annex 1 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
p a r t	15	Notes	–	

4.25. Fixed radio lines at the frequency 52 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 48.5-50.2 GHz Tx/Rx 50.9-52.6 GHz	
	4	Channel spacing	224 MHz 112 MHz 58 MHz 28 MHz 14 MHz 7 MHz 3.5 MHz	Channel allocation according to CEPT/ERC/REC 12-11
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (Duplex spacing in accordance with CEPT/ERC/REC 12-11)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	–	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e p a r t	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 12-11 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	

4.26. Fixed radio lines at the frequency 55 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 55.78-57 GHz	
	4	Channel spacing	112 MHz 56 MHz 28 MHz 14 MHz	Channel allocation according to CEPT/ERC/REC 12-12, Annex 1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (616 MHz or TDD)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e P a r t	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ERC/REC 12-12 Annex 1 EN 301 489-1 EN 301 489-4 EN 302 217-2 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	

4.27. Fixed radio lines at the frequency 80 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 71-76 GHz Tx/Rx 81-86 GHz	
	4	Channel spacing	Width of allocated frequency blocks is 250 MHz	Channel allocation according to CEPT/ECC/REC/(05)07
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (10 GHz or TDD)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	In accordance with CEPT/ECC/REC/(05)07
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	I n f o r m a t i v e	11	Basis for planning radio frequencies	–
12		Planned changes	–	
13		References to documents	CEPT/ECC/REC/(05)07 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
14		Notification number	2023/0640/EE	
15		Notes	–	
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4.28. Fixed radio lines at the frequency 100 GHz

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	
	3	Radio frequency band	Tx/Rx 92-94 GHz Tx/Rx 94.1-100 GHz Tx/Rx 102-109.5 GHz Tx/Rx 111.8-114.25 GHz	
	4	Channel spacing	Width of allocated frequency blocks is 250 MHz	Channel allocation according to CEPT/ECC/REC/(18)02, Annex 1
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (according to CEPT/ECC/REC/(18)02, Annex 2)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	In accordance with CEPT/ECC/REC/(18)02
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
	12	Planned changes	–	
I n f o r m a t i v e	13	References to documents	CEPT/ECC/REC/(18)02 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	
p a r t				

4.29. Fixed radio lines at the frequency 150 GHz

N o r m a t i v e	No	Parameter	Description	Comments
P a r t	1	Radio communication service	Fixed communication	
	2	Application	Fixed radio lines	Fixed radio networks
	3	Radio frequency band	Tx/Rx 130-134 GHz Tx/Rx 141-148.5 GHz Tx/Rx 151.5-164 GHz Tx/Rx 167-174.8 GHz	
	4	Channel spacing	Width of allocated frequency blocks is 250 MHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (according to CEPT/ECC/REC/(18)01, Annex 2)	
	7	Transmission power/power density	Stipulated in the frequency authorisation	
	8	Channel usage conditions	Stipulated in the frequency authorisation	In accordance with CEPT/ECC/REC/(18)01
	9	Frequency authorisation regime	With frequency authorisation	
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	None	
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	CEPT/ECC/REC/(18)01 EN 301 489-1 EN 301 489-4 EN 302 217-2 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	
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Satellite radio navigation**5.1. GNSS repeaters**

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Radio navigation satellite (space-to-Earth) (space-to-space)	
	2	Application	Satellite navigation system	GNSS repeater for use in structures according to CEPT/ECC/REC(10)02 Recommendation 4.
	3	Radio frequency band	Tx 1164-1300 MHz Tx/Rx 1559-1610 MHz	
	4	Channel spacing	–	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	–	
	7	Transmission power/power density	Stipulated in the frequency authorisation	In accordance with CEPT/EEC/REC/(10)02, Annex 1
	8	Channel usage conditions	In accordance with CEPT/ECC/REC/(10)02, Annexes 1 and 2	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Important requirements on the basis of § 120 ² (1) of the ECA	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/REC/(10)02 EN 301 489-1 EN 302645 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

5.2. GNSS pseudolites

N o r m a t i v e P a r t	No	Parameter	Description	Comments
	1	Radio communication service	Radio navigation satellite	
2	Application	Satellite navigation system	GNSS pseudolite for indoor use. GNSS pseudolites must use the special codes reserved by the respective GNSS system operator. In an airfield area, surveys should be conducted before the installation of a GNSS pseudolite to avoid causing interferences to GNSS receivers.	
3	Radio frequency band	Tx/Rx 1559-1610 MHz		
4	Channel spacing	–		
5	Modulation / bandwidth used	–		
6	Duplex/simplex communication. Duplex gap	–		
7	Transmission power/power density	Stipulated in the frequency authorisation	In accordance with CEPT/EEC/REC/(11)08, Annex	
8	Channel usage conditions	In accordance with CEPT/EEC/REC/(11)08, Annex		
9	Frequency authorisation regime	With frequency authorisation		
10	Important requirements on the basis of § 120 ² (1) of the ECA	None		
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e P a r t	12	Planned changes	–	
	13	References to documents	CEPT/ECC/REC/(11)08 EN 301 489-1 EN 62368-1 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

Maritime communication**7.1. Maritime communication VHF radio equipment on craft**

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Maritime mobile communication	
	2	Application	Maritime communication	VHF radiotelephone
	3	Radio frequency band	Tx/Rx 156-162.025 MHz	
	4	Channel spacing	25 kHz or 12.5 kHz	
	5	Modulation / bandwidth used	–	
	6	Duplex/simplex communication. Duplex gap	Duplex (and simplex)	In accordance with Annex 18 to the ITU Radio Regulations
	7	Transmission power/power density	Maximum allowed output power 25 W	
	8	Channel usage conditions	–	
	9	Frequency authorisation regime	With frequency authorisation	In accordance with Annex 18 to the ITU Radio Regulations
	10	Essential requirements under § 120 ² (1) of the Electronic Communications Act (ECA)	Yes	In accordance with Commission Decision 2013/638/EU
	11	Basis for planning radio frequencies	–	
I n f o r m a t i v e	12	Planned changes	–	
	13	References to documents	2013/638/EL RR App. 18 ITU-R M.825 ITU-R M.493 EN 301025 EN 301 843-1 EN 301 843-2 EN 62368-1 IMO Circular MSC/Circ-803 Radio frequency plan pursuant to § 9 (3) of the ECA	
p a r t	14	Notification number	2023/0640/EE	
	15	Notes	–	

7.2. Maritime communication UHF radio equipment on craft

N o r m a t i v e p a r t	No	Parameter	Description	Comments
	1	Radio communication service	Mobile communication	
	2	Application	Maritime communication	On-board communication equipment Ship stations (radiotelephone) on board a vessel
	3	Radio frequency band	Tx 457.5125-457.5875 MHz Tx/Rx 457.5125-457.5875 MHz Rx 467.5125-467.5875 MHz Tx/Rx 467.5125-467.5875 MHz	Operating frequencies and channels are shown in the table
	4	Channel spacing	25 kHz or 12.5 kHz (in analogue mode) 12.5 kHz or 6.25 kHz (in digital mode)	
	5	Modulation / bandwidth used	G3E (in analogue mode) 4FSK (in digital mode)	
	6	Duplex/simplex communication. Duplex gap	Duplex 10 MHz()	
	7	Transmission power/power density	Maximum allowed e.i.r.p. 2 W	
	8	Channel usage conditions	Stipulated in the frequency authorisation	
	9	Frequency authorisation regime	With frequency authorisation	
	10	Important requirements on the basis of § 120 ² (1) of the ECA	None	
11	Basis for planning radio frequencies	–		
I n f o r m a t i v e p a r t	12	Planned changes	–	
	13	References to documents	EN 300720 EN 301 843-1 EN 62368-1 ITU-R M.1174 Radio frequency plan pursuant to § 9 (3) of the ECA	
	14	Notification number	2023/0640/EE	
	15	Notes	–	

Table.

Channels and operating frequencies of on-board communication equipment

Lower channel					
25 kHz channel		12.5 kHz channel		6.25 kHz channel	
No	MHz	No	MHz	No	MHz

1	457.525	11	457.5250	102	457.515625
				111	457.521875
				112	457.528125
2	457.550	12	457.5375	121	457.534375
				122	457.540625
				13	457.5500
3	457.575	14	457.5625	141	457.559375
				142	457.565625
				15	457.5750
				151	457.571875
				152	457.578125
				161	457.584375

Upper channel					
25 kHz channel		12.5 kHz channel		6.25 kHz channel	
No	MHz	No	MHz	No	MHz

4	467.525	21	467.5250	202	467.515625
				211	467.521875
				212	467.528125
5	467.550	22	467.5375	221	467.534375
				222	467.540625
				23	467.5500
6	467.575	24	467.5625	231	467.546875
				232	467.553125
				241	467.559375
				242	467.565625
				251	467.571875
				252	467.578125
				261	467.584375