

RO-IR SRD-05

TECHNICAL REGULATION

for the radio interface

relating to devices intended for radio determination applications

(previous codification RO-IR 06)

1. Basic considerations

Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC was implemented in national legislation by Government Decision N° 740/2016 on making radio equipment available on the market, with subsequent amendments and completions.

This technical regulation contains the requirements for the exempted use of radio spectrum by devices intended for radio determination applications in the specified frequency bands and takes into account, in particular, compliance with Article 3(2) and Articles 6 to 8 of Directive 2014/53/EU.

This technical regulation does not exclude the obligation for radio equipment placed or made available on the Romanian market to comply with Directive 2014/53/EU.

By this regulation, the obligations arising from Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services are met by this regulation (OJ L 241, 17.9.2015, p. 1-15) have been fulfilled.

All Romanian technical regulations regarding radio interfaces notified according to Directive 2015/1535 will be published and available on the website of the National Authority for Administration and Regulation in Communications (ANCOM) at the following address: http://www.ancom.ro/reglementari-interfete_2723.

2. Specifications for the radio interface

Devices intended for radio-determination applications

Radio frequency band	Annex
100 Hz - 9 kHz	RO-IR SRD-05-01
9 - 148 kHz	RO-IR SRD-05-02
148 - 5,000 kHz	RO-IR SRD-05-03
5 - 30 MHz	RO-IR SRD-05-04
30 - 130 MHz	RO-IR SRD-05-05
2,400 - 2,483.5 MHz	RO-IR SRD-05-06
4,500 - 7,000 MHz	RO-IR SRD-05-07
6,000 - 8,500 MHz	RO-IR SRD-05-08
8.5 - 10.6 GHz	RO-IR SRD-05-09
9,200 - 9,500 MHz	RO-IR SRD-05-10
9,500 - 9,975 MHz	RO-IR SRD-05-11
10.5 - 10.6 GHz	RO-IR SRD-05-12
13.4 - 14 GHz	RO-IR SRD-05-13
17.1 - 17.3 GHz	RO-IR SRD-05-14
24.05 - 24.25 GHz	RO-IR SRD-05-15
24.05 - 26.5 GHz	RO-IR SRD-05-16
24.05 - 27 GHz	RO-IR SRD-05-17
57 - 64 GHz	RO-IR SRD-05-18a; RO-IR SRD-

	05-18b
75 - 85 GHz	RO-IR SRD-05-19a; RO-IR SRD-05-19b

For the purposes of this technical regulation, *proximity radio device (short-range - SRD)* means a radio device that provides unidirectional or bidirectional communication and that receives and/or emits signals over short range and low power. Included in the category of low-range devices are also radio-determination devices.

For the purposes of this technical regulation, *category of radio determination devices* includes radio devices used to determine the position, speed and / or other characteristics of an object or to obtain information on these parameters. Radio determination equipment typically conducts measurements to obtain such characteristics. Radio determination devices exclude any type of point-to-point or point-to-multipoint radio communication.

For the purposes of this technical regulation, *mean equivalent isotropically radiated power (e.i.r.p)* means the e.i.r.p. mediated during a transmission burst (*burst*) for positioning the power control to the highest level, with the transmitter having implemented power control.

For the purposes of this technical regulation, *Tank Level Probing Radar (TLPR)* means a specific type of radio determination application, which is used to measure the level of substances in tanks and is installed in metallic or reinforced concrete tanks or similar structures made of materials with comparable attenuation characteristics. The purpose of the tank is to contain a substance.

For the purposes of this technical regulation, *closed Nuclear Magnetic Resonance (NMR) sensors* are devices in which the investigational material/article is placed inside the NMR device enclosure. NMR techniques use nuclear magnetic resonance excitation and magnetic field response of an examined material / article to obtain information on material properties based on resonance frequency responses of isotopes of atoms. Nuclear magnetic resonance imaging and nuclear magnetic resonance tomography systems are excluded.

For the purposes of this technical regulation, *non-interference and non-protection* means that harmful interference to radio communication services is not permitted and that such devices cannot be claimed to be protected against interference from radio communication services.

The use of radio spectrum by proximity (short-range) radio devices shall only be permitted without interference and protection if such devices comply with the conditions specified in the Annexes below.

3. Document history:

Issue	Changes
Issue 1/2014	Notification number according to Directive 98/34/EC: 2014/602/RO.
Issue 2/2018 (06/08/2018)	<p>Update according to Commission Implementing Decision (EU) 2017/1483 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices and repealing Decision 2006/804/EC: RO-IR 06-01 ÷ RO-IR 06-04, RO-IR 06-09, RO-IR 06-11 ÷ RO-IR 06-14b;</p> <p>Update of the legal framework according to point 1 - 'Basic considerations' and reference documents (row 13); Formal changes according to TCAM-RSC model of November 2017.</p>
Issue 3/2020 (23/12/2020)	<p>Update according to Commission Implementing Decision (EU) 2019/1345 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices:</p> <ul style="list-style-type: none"> • Introduction/updating of some definitions and terms. <p>Update of the legal framework according to point 1 - 'Basic considerations' and reference documents (row 13).</p>
Issue 4/2022 (11/10/2022)	<p>Update according to Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices:</p> <ul style="list-style-type: none"> • Update reference documents (row 13) and definitions point 2.
Issue 5/2024 (.....)	<p>Update according to Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices:</p> <ul style="list-style-type: none"> • Introduction of four new harmonised frequency bands (9-148 kHz, 148-5,000 kHz, 5-30 MHz and 30-130 MHz) for Nuclear Magnetic Resonance (NMR) applications; • Introduction of the definition of NMR sensors; • Reference documents (line 13). <p>Update according to ERC Recommendation 70-03 on the use of proximity (short-range) radio devices (ERC/REC 70-03):</p> <ul style="list-style-type: none"> • Introduction of a new non-harmonised frequency band: 100 Hz – 9 kHz <p>Renumbering annexes.</p>

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-01	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range)/Devices intended for radio-determination applications (nuclear magnetic resonance NMR)	<i>For closed NMR applications</i>
	3	Frequency band	100 Hz - 9 kHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	46 dBμA/m at a distance of 10 m at a reference frequency of 100 Hz outside the Nuclear Magnetic Resonance (NMR) device. Magnetic field strength descending 10 dB/decade above 100 Hz.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-02	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range)/Devices intended for radio-determination applications (nuclear magnetic resonance NMR)	<i>For closed NMR applications</i>
	3	Frequency band	9 - 148 kHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	46 dBµA/m at a distance of 10 m at a reference frequency of 100 Hz outside the Nuclear Magnetic Resonance (NMR) device. Magnetic field strength descending 10 dB/decade above 100 Hz.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-03	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range)/Devices intended for radio-determination applications (nuclear magnetic resonance NMR)	<i>For closed NMR applications</i>
	3	Frequency band	148 - 5,000 kHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	- 15 dBμA/m at a distance of 10 m outside the Nuclear Magnetic Resonance (NMR) device	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-04	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range)/Devices intended for radio-determination applications (nuclear magnetic resonance NMR)	<i>For closed NMR applications</i>
	3	Frequency band	5 - 30 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	- 5 dB μ A/m at a distance of 10 m outside the Nuclear Magnetic Resonance (NMR) device	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-05	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range)/Devices intended for radio-determination applications (nuclear magnetic resonance NMR)	<i>For closed NMR applications</i>
	3	Frequency band	30 - 130 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	- 36 dBm effective radiated power (e.r.p.) outside the Nuclear Magnetic Resonance (NMR) device	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-06	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	2,400 - 2,483.5 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	25 mW equivalent isotropically radiated power (e.i.r.p.)	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices for radio determination applications	RO-IR SRD-05-07	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR)</i>
	3	Frequency band	4,500 - 7,000 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	24 dBm e.i.r.p.	<i>The power limit applies inside a closed tank and corresponds to a spectral density of - 41,3 dBm/MHz e.i.r.p. outside a 500 litre test tank.</i>
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 372; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-08	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions is only available to Level Probing Radar (TLPR). Established exclusion zones around radio astronomy sites must be obeyed.</i>
	3	Frequency band	6,000 – 8,500 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	7 dBm/50 MHz peak e.i.r.p. and - 33 dBm/MHz mean e.i.r.p.	
	8	Channel access and occupation rules	Automatic power control and antenna requirements as well as requirements on techniques to access spectrum and mitigate interference apply.	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured. Antenna requirements that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured. Automatic power control that provides an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured.</i>
	9	Authorisation regime	License exemption	

	N°	Parameter	Description	Remarks
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 729; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03; ECC/DEC/(11)02	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-09	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR)</i>
	3	Frequency band	8.5 - 10.6 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	30 dBm e.i.r.p.	<i>The power limit applies inside a closed tank and corresponds to a spectral density of -41.3 dBm/MHz e.i.r.p. outside a 500 litre test tank.</i>
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 372; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-10	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	9,200 – 9,500 MHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	25 mW e.i.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/602/RO	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-11	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	9,500 – 9,975 MHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	25 mW e.i.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/602/RO	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-12	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	10.5 - 10.6 GHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	500 mW e.i.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/602/RO	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-13	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	13.4 - 14 GHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	25 mW e.i.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/602/RO	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-14	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies to ground-based systems only.</i>
	3	Frequency band	17.1 - 17.3 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	26 dBm e.i.r.p.	
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-15	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	
	3	Frequency band	24.05 - 24.25 GHz	
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	100 mW e.i.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/602/RO	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-16	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions is only available to Level Probing Radar (TLPR). Established exclusion zones around radio astronomy sites must be obeyed.</i>
	3	Frequency band	24.05 - 26.5 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	26 dBm/50 MHz peak e.i.r.p. and - 14 dBm/MHz mean e.i.r.p.	
	8	Channel access and occupation rules	Automatic power control and antenna requirements as well as requirements on techniques to access spectrum and mitigate interference apply.	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured. Antenna requirements that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured. Automatic power control that provides an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least</i>

				<i>equivalent to these restrictions shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 729; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03; ECC/DEC/(11)02	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-17	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR)</i>
	3	Frequency band	24.05 - 27 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	43 dBm e.i.r.p.	<i>The power limit applies inside a closed tank and corresponds to a spectral density of -41.3 dBm/MHz e.i.r.p. outside a 500 litre test tank.</i>
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 372; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-18a	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR)</i>
	3	Frequency band	57 - 64 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	43 dBm e.i.r.p.	<i>The power limit applies inside a closed tank and corresponds to a spectral density of - 41,3 dBm/MHz e.i.r.p. outside a 500 litre test tank.</i>
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 372; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-18b	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR).</i>
	3	Frequency band	57 - 64 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	35 dBm/50 MHz peak e.i.r.p. and - 2 dBm/MHz mean e.i.r.p.	
	8	Channel access and occupation rules	Automatic power control and antenna requirements as well as requirements on techniques to access spectrum and mitigate interference apply.	<p><i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i></p> <p><i>Antenna requirements that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured.</i></p> <p><i>Automatic power control that provides an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured.</i></p>
	9	Authorisation regime	License exemption	

	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 729; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03; ECC/DEC/(11)02	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-19a	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions applies only to Tank Level Probing Radar (TLPR)</i>
	3	Frequency band	75 - 85 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	43 dBm e.i.r.p.	<i>The power limit applies inside a closed tank and corresponds to a spectral density of - 41,3 dBm/MHz e.i.r.p. outside a 500 litre test tank.</i>
	8	Channel access and occupation rules	Requirements on techniques to access spectrum and mitigate interference apply	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured.</i>
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 372; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1

ROMANIA	Specification on radio interface	SRD / Devices intended for radio determination applications	RO-IR SRD-05-19b	Issue 5/2024
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	N°	Parameter	Description	Remarks
Normative part	1	Radio communication service	Mobile	
	2	Application	Proximity radio devices (short-range) / Devices intended for radio-determination applications	<i>This set of usage conditions is only available to Level Probing Radar (TLPR). Established exclusion zones around radio astronomy sites must be obeyed.</i>
	3	Frequency band	75 - 85 GHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices)</i>
	4	Channelling (channel distribution)	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Emission power / Power density	34 dBm/50 MHz peak e.i.r.p. and - 3 dBm/MHz mean e.i.r.p.	
	8	Channel access and occupation rules	Automatic power control and antenna requirements as well as requirements on techniques to access spectrum and mitigate interference apply.	<i>Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these techniques shall be ensured. Antenna requirements that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured. Automatic power control that provides an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. If relevant restrictions are described in harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, performance at least equivalent to these restrictions shall be ensured.</i>

	N°	Parameter	Description	Remarks
	9	Authorisation regime	License exemption	
	10	Additional essential requirements (in accordance with Article 3(3) of 2014/53/EU Directive)	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference documents	EN 302 729; Commission Implementing Decision (EU) 2022/180 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices; ERC/REC 70-03; ECC/DEC/(11)02	
	14	Notification number	-	
	15	Comments	-	

F1- RTIR Issue:1; Revision:1