

RO-IR 02

TECHNICAL REGULATION

for the radio interface

concerning Tracking, Tracing and Data Acquisition Devices

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 No. 740/2016 on making available on the market of radio equipment with subsequent amendments and completions.

This technical regulation contains the requirements for the license exempted radio spectrum usage by the short-range devices, designated for tracking, tracing and data acquisition in the specified frequency bands and considers compliance, especially with the provisions of Article 3 Paragraph 2, and Articles 6-8 of Directive 2014/53/EU.

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

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 in this regulation (OJ L 241, 17.9.2015, pages 1-15).

All Romanian technical regulations for the radio interfaces notified under Directive (EU) 2015/1535 shall be published and made available on National Authority for Management and Regulation in Communications (ANCOM) web-site at: http://www.ancom.ro/reglementari-interfete_2723.

2. Radio Interface Specifications

Tracking, Tracing and Data Acquisition Devices

Frequency band	Annex
169.4 – 169.475 MHz	RO-IR 02-01
430 – 440 MHz	RO-IR 02-02
2 483.5 – 2 500 MHz	RO-IR 02-03a; RO-IR 02-03b

For the purpose of this technical regulation, *Short-Range Device (SRD)* means a radio device which provides unidirectional or bidirectional communication, and which receives and/or transmits signals over a short distance and at low power.

For the purpose of this technical regulation, *the metering device* category covers radio devices that are part of bidirectional radio communications systems which allow remote monitoring, measuring and data transmission at distance in smart grid infrastructures, such as electricity, gas and water.

For the purpose of this technical regulation, the category of *devices for obtaining medical data* covers radio devices ensuring data transmissions (not voice data) to and from the non-implantable medical devices, on the purpose of monitoring, diagnosing and treating patients in medical units or at their homes, as determined by the recommendations of the appropriately qualified medical practitioners.

For the purpose of this technical regulation, *Medical Body Area Network Systems (MBANS)*, are those systems used for the acquisition of medical data and are used to connect in a low-power network on a radio application several sensors and / or actuators carried on the body, together with the control device located on or near the human body.

For the purpose of this technical regulation, *the operating cycle* is defined as the ratio, expressed as a percentage, between $\Sigma(T_{on})$ and (T_{obs}) , where T_{on} is the operating time («on») of a single radio transmitter and T_{obs} is the observation period. T_{on} is measured in a frequency observation

band (Fobs). Unless otherwise specified in this technical regulation, Tobs represents an one hour uninterrupted period, and Fobs is the applicable frequency band specified in this technical regulation.

For the purpose of this technical regulation, *non-interference and non-protected* means that it is not allowed to cause any harmful interference to radio communications service and that it shall not be claimed the protection of these devices against harmful interference originating from radio communications services.

The use of radio spectrum by short-range devices is allowed on a non-interference and non-protected basis provided that such devices meet the conditions set out in the Annexes below.

3.Document history:

Edition	Changes
Edition 1/2014	Notification number according to Directive 98/34/EC: 2014/598/RO.
Edition 2/2018 (06.08.2018)	<p>Update according to Commission Implementing Decision (EU) 2017/1483 amending Decision 2006/771/EC on harmonizing the radio spectrum for the use of short range devices and repealing Decision 2006/804/EC: RO-IR 02-01 to which were added RO-IR 02-02a and RO-IR 02-02b (frequency band 2 483.5 – 2 500 MHz);</p> <p>Update of the legal framework according to Point 1 – „Basic considerations” and reference documents (row 13);</p> <p>Update according to the list of Class 1 radio equipment subclasses (January 2018 version) published according to Article 1 Paragraph 3 of Commission Decision 2000/299/EC 2000/299/EC (http://ec.europa.eu/docsroom/documents/26843): RO-IR 02-01;</p> <p>Formal changes according to TCAM-RSC pattern of November 2017.</p>
Edition 3/2020 (23.12.2020)	<p>Update of the legal framework according to Point 1 – „Basic considerations” and definitions at Point 2 - “Radio Interface Specifications”;</p> <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> <p>A new technical specification was added: RO-IR 02-02 (frequency band 430 – 440 MHz).</p> <p>Renumbering of the technical specifications.</p> <p>Update according to the list of Class 1 radio equipment subclasses (January 2020 version) published according to Article 1 Paragraph 3 of Commission Decision 2000/299/EC (https://ec.europa.eu/docsroom/documents/40361).</p>

ROMANIA	Radio Interface Specification	SRD / Short Range Devices for Tracking, Tracing and Data Acquisition	RO-IR 02-01	Edition 3/2020
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	Nr	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Measuring devices Remote meter reading	
	3	Frequency band	169.4 – 169.475 MHz	<i>Harmonised radio spectrum for use by short-range devices (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)</i>
	4	Channeling (channel distribution)	Max 50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	500 mW effective radiated power (e.r.p.)	
	8	Channel occupation and access rules	Operating cycle limit: 10%.	
	9	Authorization regime	License exemption	
	10	Additional essential requirements (According to Article 3 Paragraph 3 of 2014/53/EU Directive)	-	
	11	Assumptions on spectrum planning	-	
Informative Part	12	Planned changes	-	
	13	Reference	EN 300 220-4; ECC/DEC/(05)02; 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 ; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Short Range Devices for Tracking, Tracing and Data Acquisition	RO-IR 02-02	Edition 3/2020
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	Nr	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Devices used for the acquisition of medical data	<i>This set of usage conditions is available exclusively for ultra-low power wireless capsule (ULP-WMCE) medical endoscopy applications. Wireless capsule medical endoscopy is used to obtain medical data, namely images of the human digestive tract, intended for use in physician-patient scenarios.</i>
	3	Frequency band	430 – 440 MHz	<i>Harmonised radio spectrum for use by short-range devices (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)</i>
	4	Channeling (channel distribution)		
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	Power density of – 50 dBm/100 kHz effective radiated power (e.r.p.), without exceeding a total power of – 40 dBm/10 MHz (both limits apply to measurements performed outside the patient's body)	
	8	Channel occupation and access rules	-	
	9	Authorization regime	License exemption	
	10	Additional essential requirements (According to Article 3 Paragraph 3 of 2014/53/EU Directive)	-	
	11	Assumptions on spectrum planning	-	
Informative Part	12	Planned changes	-	
	13	Reference	EN 303 520; 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; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Short Range Devices for Tracking, Tracing and Data Acquisition	RO-IR 02-03a	Edition 3/2020
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	Nr	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Devices used for the acquisition of medical data	<i>This set of usage conditions applies only to Medical Body Area Network Systems (MBANS) used within medical units' premises.</i>
	3	Frequency band	2 483.5 – 2 500 MHz	<i>Harmonised radio spectrum for use by short-range devices (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)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	≤ 3 MHz	
	6	Direction/Separation	-	
	7	Transmit power / Power density	1 mW equivalent isotropic radiated power (e.i.r.p.)	
	8	Channel occupation and access rules	Techniques to access spectrum and mitigate interference that provide an appropriate performance level to comply with the essential requirements provisioned in Directive 2014/53/EU shall apply. If the relevant techniques are described in the harmonized standards (or parts thereof) the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, a performance at least equivalent to the performance of these techniques shall be ensured. In addition, a ≤ 10 % operating cycle applies.	
	9	Authorization regime	License exemption	
	10	Additional essential requirements (According to Article 3 Paragraph 3 of 2014/53/EU Directive)	-	
	11	Assumptions on spectrum planning	-	
Informative Part	12	Planned changes	-	
	13	Reference	EN 303 203; 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; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Short Range Devices for Tracking, Tracing and Data Acquisition	RO-IR 02-03b	Edition 3/2020
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	Nr	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Devices used for the acquisition of medical data	<i>This set of usage conditions applies only to Medical Body Area Network Systems (MBANS) used at patients' homes</i>
	3	Frequency band	2 483.5 – 2 500 MHz	<i>Harmonised radio spectrum for use by short-range devices (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)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	≤ 3 MHz	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.i.r.p.	
	8	Channel occupation and access rules	Techniques to access spectrum and mitigate interference that provide an appropriate performance level to comply with the essential requirements provisioned in Directive 2014/53/EU shall apply. If the relevant techniques are described in the harmonized standards (or parts thereof) the references of which have been published in the Official Journal of the European Union under Directive 2014/53/EU, a performance at least equivalent to the performance of these techniques shall be ensured. In addition, a ≤ 2 % operating cycle applies.	
	9	Authorization regime	License exemption	
	10	Additional essential requirements (According to Article 3 Paragraph 3 of 2014/53/EU Directive)	-	
	11	Assumptions on spectrum planning	-	
Informative Part	12	Planned changes	-	
	13	Reference	EN 303 203; 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; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1