

RO-IR MICRO

TECHNICAL REGULATION

for the radio interface

regarding radio microphones

(previous coding RO-IR 10)

1. Basic Considerations

Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization 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 use of radio microphones in the specified frequency bands and considers compliance, especially, with the provisions of Article 3 Paragraph 2 and Articles 6, 7 and 8 of Directive 2014/53/EU.

Nothing in this technical regulation shall preclude the obligation for 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, p. 1–15).

All the Romanian technical regulations for the radio interfaces notified under Directive (EU) 2015/1535 shall be published and shall be made available on National Authority for Management and Regulation in Communications (ANCOM) website at: <http://www.ancom.org.ro/reglementari-interfete> 2723.

2. Radio Interface Specifications

Radio microphones

Frequency band	Annex
29.7 – 30.3 MHz	RO-IR MICRO 01-1
30.5 – 32.15 MHz	RO-IR MICRO 01-2
32.45 – 33.1 MHz	RO-IR MICRO 01-3
33.6 – 34.975 MHz	RO-IR MICRO 01-4
37.5 – 40.02 MHz	RO-IR MICRO 01-5
40.66 – 41.015 MHz	RO-IR MICRO 01-6
44.5 – 45.2 MHz	RO-IR MICRO 01-7
863 – 865 MHz	RO-IR MICRO 02
174 – 216 MHz	RO-IR MICRO 03
470 – 574 MHz; 582 – 694 MHz	RO-IR MICRO 04
1785 – 1804.8 MHz	RO-IR MICRO 05
821.5 – 826 MHz	RO-IR MICRO 06
826 – 832 MHz	RO-IR MICRO 07

For the purpose of this technical regulation, a short-range device (SRD) means a radio device which provides either 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 category of *Audio Programme Making and Special Events* – PMSE devices covers radio devices used for transmission of analogue or digital audio signals between a limited number of transmitters and receivers, such as radio microphones, in-ear monitors or audio links, used mainly for the production of broadcast programmes or private or public social or cultural events.

For the purpose of this Technical Regulation, radio microphones are small, low power (typically 50 mW or less) transmitters designated to be worn on the body, or hand held, for the transmission of sound.

For the purposes of this technical regulation, *cordless* means a link between at least two devices that do not require a physical connection. The term "*cordless*" is also used to describe infra red and other non-RF "wireless" links, but in the context of the present document it is restricted to RF operating systems only.

For the purpose of this technical regulation, *non-interference and non-protected* means that no harmful interference may be caused to any radio communication service and that no claim may be made for protection of these devices against interference originating from radio communication services.

The use of radio spectrum by short-range devices is permitted on a non-interference and non-protected basis provided that such equipment meets the conditions set out in the Annex.

3. Document History:

Edition	Changes
Edition 1/2010	Notification number according to Directive 98/34/EC: 2010/764/RO.
Edition 2/2018 (14.11.2018)	<p>Update according to Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union:</p> <ul style="list-style-type: none"> - RO-IR 10-04 has changed (the frequency band has been restricted to 470-694 MHz). <p>Update according to ERC/REC 70-03 (version of 22 May 2018):</p> <ul style="list-style-type: none"> - RO-IR 10-06 (frequency band 823 – 826 MHz) and RO-IR 10-07 (frequency band 826 – 832 MHz) specifications have been added. <p>Update of the legal framework according to Point 1 – „Basic considerations and reference documents (line 13).</p> <p>Formal changes according to TCAM-RSC model of November 2017.</p>
Edition 3/2020 (16.06.2020)	<p>In the frequency band 470-694 MHz, the use of 630-638 MHz frequency band shall be operated subject to license authorization. Therefore, the technical specification for the RO-IR 10-04 radio interface shall include only 470 – 630 MHz and 638 – 694 MHz frequency bands.</p> <p>Update according to Commission Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union and ERC/REC 70-03 Recommendation (version of 07 June 2019):</p> <ul style="list-style-type: none"> - RO-IR 10-05 has changed (1785 – 1800 MHz frequency band has been expanded to 1785 – 18048 MHz); - The reference documents for RO-IR 10-05, RO-IR 10-06 and RO-IR 10-07 have been updated.

<p>Edition 4/2021 (27.10.2021)</p>	<p>Change of title of the technical specification for the RO-IR 10 radio interface according to Decision of the President of the National Authority for Management and Regulation in Communications of Romania no. 248/2021 amending and completing the Decision of the President of the National Authority for Management and Regulation in Communications of Romania no. 311/2016 on license exempt radio frequencies or radio frequency bands (RO-IR 10 is RO-IR MICRO);</p> <p>In the 470-694 MHz frequency band, the use of the 574-582 MHz band is subject to licensing. Therefore, the technical specification for the RO-IR MICRO 04 radio interface (previously the RO-IR 10-04 radio interface) will only contain the 470 – 574 MHz and 582 – 694 MHz frequency bands.</p> <p>Notification number according to EU Directive 2015/1535: 2021/462/RO</p>
<p>Edition 5/2025 (22.12.2025)</p>	<p>Update in accordance with Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union:</p> <ul style="list-style-type: none"> • Scope extension (from radio microphones to audio PMSE devices) for frequency bands: <ul style="list-style-type: none"> ○ 821.5 – 826 MHz (RO-IR MICRO 06); ○ 826 – 832 MHz (RO-IR MICRO 07); ○ 863 – 865 MHz (RO-IR MICRO 02); ○ 1785 – 1804.8 MHz (RO-IR MICRO 05); • Extension of the frequency band for RO-IR MICRO 06, from 823-826 MHz to 821.5-826 MHz; • Update of reference documents (line 13) and definitions point 2.

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-1	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	29.7 – 30.3 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW effective radiated power (e.r.p.)	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-2	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	30.5 – 32.15 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-3	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	32.45 – 33.1 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-4	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	33.6 – 34.975 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-5	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	37.5 – 40.02 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-6	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	40.66 – 41.015 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 01-7	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	44.5 – 45.2 MHz	<i>On a tuning range basis.</i>
	4	Channeling (channel distribution)	50 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 02	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Proximity radio device (short-range devices) / Audio PMSE devices	<i>This set of usage conditions is also available for personal cordless audio devices.</i>
	3	Frequency band	863 – 865 MHz	<i>Harmonised radio spectrum for use by short-range devices (Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	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 301 357; EN 300 422; Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 03	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	174 – 216 MHz	<i>In accordance with Annex 10 of ERC/REC 70-03 On a tuning range basis. Geographical restrictions for the sharing usage with the TV Broadcasting, and that in such cases it is necessary to contact the National Spectrum Management Authority.</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	50 mW e.r.p.	<i>In accordance with Annex 10 of ERC/REC 70-03.</i>
	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 300 422; ERC/REC 70-03	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 04	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Short-range devices / Radio microphones	
	3	Frequency band	470 – 574 MHz; 582 – 694 MHz	<i>On a tuning range basis. Geographical restrictions for the sharing usage with the TV Broadcasting, and that in such cases it is necessary to contact the National Spectrum Management Authority.</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	50 mW e.r.p.	<i>In accordance with Annex 10 of ERC/REC 70-03.</i>
	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 300 422; ERC/REC 70-03; Decision (EU) 2017/899 of the European Parliament and of the Council on the use of the 470-790 MHz frequency band in the Union	
	14	Notification number	2021/462/RO	
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 05	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Proximity radio device (short-range devices) / Audio PMSE devices	
	3	Frequency band	1785 – 1804.8 MHz	<i>Harmonised radio spectrum (Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	50 mW e.i.r.p. for body-worn devices or devices implementing the Spectrum Scanning Procedure (SSP). 20 mW e.i.r.p. for other devices.	
	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 300 422; ERC/REC 70-03; Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union	
	14	Notification number		
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 06	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Proximity radio device (short-range devices) / Audio PMSE devices	
	3	Frequency band	821.5 – 826 MHz	<i>Harmonised radio spectrum (Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	100 mW e.i.r.p. for body-worn devices 20 mW e.i.r.p. for other devices	
	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 300 422; ERC/REC 70-03; Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union	
	14	Notification number		
	15	Remarks		

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Radio microphones	RO-IR MICRO 07	Edition 5/2025
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	No.	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Proximity radio device (short-range devices) / Audio PMSE devices	
	3	Frequency band	826 – 832 MHz	<i>Harmonised radio spectrum (Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union)</i>
	4	Channeling (channel distribution)	-	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	100 mW e.i.r.p.	
	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 300 422; ERC/REC 70-03; Commission Implementing Decision (EU) 2025/105 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices and repealing Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union	
	14	Notification number		
	15	Remarks		

F1- RTIR Edition:1; Revision:1