

RO-IR 11

TECHNICAL REGULATION

for the radio interface

concerning radio frequency identification (RFID) applications

98/34/EC Notification number: 2014/606/RO

1. Basic considerations

The Radio Equipment and Telecommunications Terminal Equipment Directive 1999/5/EC (R&TTE Directive) was implemented in Romania (RO) by Government Decision No. 130/2015.

This technical regulation contains the necessary equipment parameters for the use of licence exempt radio frequency identification (RFID) devices in the specified frequency bands and considers especially compliance with Articles 3.2, 4.1, 6 and 7.2 of Directive 1999/5/EC.

Nothing in this Technical Regulation shall preclude the need for equipment placed on the market in Romania to comply with Directive 1999/5/EC.

The obligations arising from Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services (OJ L 204 p. 37), as amended by Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998 (OJ L 217 p. 18), have been met.

All Romanian Technical Regulations notified under Directive 1998/34/EC will be published and will be made available free of charge from the ANCOM web-site at:

http://www.ancom.org.ro/en/interface-regulations-_2723

2. Radio Interface Specifications

Radio frequency identification (RFID) applications

Frequency band	Annex
400 - 600 kHz	RO-IR 11-01
13 553 - 13 567 kHz	RO-IR 11-02
2 446 – 2 454 MHz	RO-IR 11-03a; RO-IR 11-03b
865 – 865.6 MHz	RO-IR 11-04
865.6 – 867.6 MHz	RO-IR 11-05
867.6 – 868 MHz	RO-IR 11-06

For the purpose of this technical regulation, *short-range device (SRD)* means radio transmitters which provide either unidirectional or bidirectional communication and which transmit over a short distance at low power.

The *radio frequency identification (RFID)* device category covers tag/interrogator based radio communications systems, consisting of radio devices (tags) attached to animate or inanimate items and of transmitter/receiver units (interrogators) which activate the tags and receive data back. Typical uses include the tracking and identification of items, such as for electronic article surveillance (EAS), and collecting and transmitting data relating to the items to which tags are attached, which may be either battery-less, battery assisted or battery powered. The responses from a tag are validated by its interrogator and passed to its host system.

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

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

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-01	Edition 1/ 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	400 - 600 kHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2013/752/EU amending Decision 2006/771/EC)</i>
	4	Channelling	-	
	5	Modulation / Occupied bandwidth	--	
	6	Direction / Separation	-	
	7	Transmit power / Power density	- 8 dBμA/m at 10 metres	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 300 330; Decision 2013/752/EU amending Decision 2006/771/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-02	Edition 1 / 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	13 553 - 13 567 kHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2013/752/EU amending Decision 2006/771/EC)</i>
	4	Channelling	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Transmit power / Power density	60 dB μ A/m at 10 metres	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 300 330; Decision 2013/752/EU amending Decision 2006/771/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-03a	Edition 1 / 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	2 446 – 2 454 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2013/752/EU amending Decision 2006/771/EC)</i>
	4	Channelling	-	
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Transmit power / Power density	≤ 500 mW equivalent isotropic radiated power (e.i.r.p.)	
	8	Channel access and occupation rules	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used.	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 300 440; EN 300 761; Decision 2013/752/EU amending Decision 2006/771/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-03b	Edition 1 / 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	2 446 – 2 454 MHz	
	4	Channelling	-	
	5	Modulation / Occupied bandwidth	--	
	6	Direction / Separation	-	
	7	Transmit power / Power density	> 500 mW to 4 W e.i.r.p.	<i>Power levels above 500 mW are restricted to be used inside the boundaries of a building and the duty cycle of all transmissions shall in this case be ≤15 % in any 200 ms period (30 ms on /170 ms off).</i>
	8	Channel access and occupation rules	Duty cycle: ≤ 15% FHSS (Frequency Hopping Spread Spectrum) techniques should be used	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 300 440; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-04	Edition 1/ 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	865 – 865.6 MHz Channel centre frequencies: 864.9 MHz + (0.2 MHz x channel number)	<i>Harmonised radio spectrum for use by radio frequency identification (RFID) devices (Decision 2006/804/EC)</i>
	4	Channelling	200 kHz	<i>Channel numbers 1 to 3</i>
	5	Modulation / Occupied bandwidth	-	
	6	Direction / Separation	-	
	7	Transmit power / Power density	100 mW effective radiated power (e.r.p.)	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 302 208; Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-05	Edition 1/ 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	865.6 – 867.6 MHz Channel centre frequencies: 864.9 MHz + (0.2 MHz x channel number)	<i>Harmonised radio spectrum for use by radio frequency identification (RFID) devices (Decision 2006/804/EC)</i>
	4	Channelling	200 kHz	<i>Channel numbers 4 to 13</i>
	5	Modulation / Occupied bandwidth	--	
	6	Direction / Separation	-	
	7	Transmit power / Power density	2 W e.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 302 208; Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	

ROMANIA	Radio Interface Specification	SRD / RFID	RO-IR 11-06	Edition 1/ 2014
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Radio frequency identification (RFID)	
	3	Frequency band	867.6 – 868 MHz Channel centre frequencies: 864.9 MHz + (0.2 MHz x channel number)	<i>Harmonised radio spectrum for use by radio frequency identification (RFID) devices (Decision 2006/804/EC)</i>
	4	Channelling	200 kHz	<i>Channel numbers 14 to 15</i>
	5	Modulation / Occupied bandwidth	--	
	6	Direction / Separation	-	
	7	Transmit power / Power density	500 mW e.r.p.	
	8	Channel access and occupation rules	-	
	9	Authorisation regime	Licence exemption	
	10	Additional essential requirements	-	
	11	Frequency planning assumptions	-	
Informative part	12	Planned changes	-	
	13	Reference	EN 302 208; Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	2014/606/RO	
	15	Remarks	-	