

## **RO-IR 07**

### **TECHNICAL REGULATION**

**for the radio interface  
concerning alarm systems**

## 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.

This technical regulation contains the requirements for the use of licence exempt short range devices intended for alarm systems including social alarm systems in the specified frequency bands and considers especially compliance 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 need for equipment placed 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 have been met (OJ L 241, 17.9.2015, p. 1–15).

All Romanian technical regulations for the radio interfaces notified under Directive 2015/1535 will be published and will be made available on National Authority for Management and Regulation in Communications of Romania (ANCOM) web-site at: [http://www.ancom.org.ro/reglementari-interfete\\_2723](http://www.ancom.org.ro/reglementari-interfete_2723)

## 2. Radio Interface Specifications

### Alarm Systems (low duty cycle devices/high reliability devices)

Frequency band	Annex
868.6 – 868.7 MHz	RO-IR 07-01
869.2 – 869.25 MHz	RO-IR 07-02
869.25 – 869.3 MHz	RO-IR 07-03
869.3 – 869.4 MHz	RO-IR 07-04
869.65 – 869.7 MHz	RO-IR 07-05

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.

For the purpose of this technical regulation, the *low usage device/high reliability device* category covers radio devices that rely on low overall spectrum usage and low frequency use spectrum access rules to ensure highly reliable spectrum access and transmissions in shared bands. Typical uses include *alarm systems* that use radio communication for indicating an alert condition at a distant location and *social alarm systems* that allow reliable communication for the persons in distress.

An *alarm system* is a device that uses radio communications to indicate an alert to a system or a person, as the primary functionality at a remote location when a problem or a specific situation occurs. Radio alarms include social alarm and alarms for security and safety.

*Social alarms devices* are radiocommunication systems that allow a reliable communication when people in danger within a limited area initiate a call for assistance. Typical uses of social alarms include helping old persons or persons with disabilities.

For the purpose of this technical regulation, the *cycle of use* is defined as the ratio expressed as a percentage, between  $\Sigma(Ton)/(Tobs)$ , where *Ton* is the operating time of a single radio transmitter and *Tobs* is the observation period. *Ton* 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 of this technical regulation.

For the purpose of this technical regulation, *non-interference and non-protected basis* means the interdiction 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 devices is allowed on a non-interference and non-protected basis provided that such devices meet the conditions set out in the Annexes.

### 3. Document history:

Edition	Changes
Edition 1/2014	Notification number according to Directive 98/34/EC: 2014/603/RO.
Edition 2/2018 (06.08.2018)	Update according to 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; Update of the legal framework according to Point 1 – „Basic considerations“; Formal changes according to TCAM-RSC model of November 2017.

ROMANIA	Radio Interface Specification	SRD / Alarm systems	RO-IR 07-01	Edition 2/2018
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	Nr	Parameter	Description	Comments
Normative part	1	<b>Radiocommunication Service</b>	Mobile	
	2	<b>Application</b>	Short Range Devices / Alarm systems	<i>This set of usage conditions is only available to alarm systems.</i>
	3	<b>Frequency band</b>	868.6 – 868.7 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC)</i>
	4	<b>Channeling (channel distribution)</b>	25 kHz The entire frequency band may also be used as a single channel for high-speed data transmission	
	5	<b>Modulation/Occupied bandwidth</b>	-	
	6	<b>Direction/Separation</b>	-	
	7	<b>Transmit power / Power density</b>	10 mW effective radiated power (e.r.p.)	
	8	<b>Channel occupation and access rules</b>	Duty cycle limit: 1%	
	9	<b>Authorisation regime</b>	Licence exemption	
	10	<b>Additional essential requirements (According to Article 3 Paragraph 3 of 2014/53/EU Directive)</b>	-	
	11	<b>Assumptions on spectrum planning</b>	-	
Informative part	12	<b>Planned changes</b>	-	
	13	<b>Reference</b>	EN 300 220-3-2; EN 303 406; Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC; ERC/REC 70-03	
	14	<b>Notification number</b>	-	
	15	<b>Remarks</b>	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Alarm systems	RO-IR 07-02	Edition 2/2018
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Alarm systems	<i>This set of usage conditions is only available to social alarms systems.</i>
	3	Frequency band	869.2 – 869.25 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC)</i>
	4	Channeling (channel distribution)	25 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	8	Channel occupation and access rules	Duty cycle limit: 0.1%	
	9	Authorisation regime	Licence 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 300 220-3-1; Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Alarm systems	RO-IR 07-03	Edition 2/2018
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Alarm systems	<i>This set of usage conditions is only available to alarm systems.</i>
	3	Frequency band	869.25 – 869.3 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC)</i>
	4	Channeling (channel distribution)	25 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	8	Channel occupation and access rules	Duty cycle limit: 0.1%	
	9	Authorisation regime	Licence 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 300 220-3-2; EN 303 406; Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Alarm systems	RO-IR 07-04	Edition 2/2018
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Alarm systems	<i>This set of usage conditions is only available to alarm systems.</i>
	3	Frequency band	869.3 – 869.4 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC)</i>
	4	Channeling (channel distribution)	25 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	10 mW e.r.p.	
	8	Channel occupation and access rules	Duty cycle limit: 1%	
	9	Authorisation regime	Licence 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 300 220-3-2; EN 303 406; Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1

ROMANIA	Radio Interface Specification	SRD / Alarm systems	RO-IR 07-05	Edition 2/2018
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	Nr	Parameter	Description	Comments
Normative part	1	Radiocommunication Service	Mobile	
	2	Application	Short Range Devices / Alarm systems	<i>This set of usage conditions is only available to alarm systems.</i>
	3	Frequency band	869.65 – 869.7 MHz	<i>Harmonised radio spectrum for use by short-range devices (Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC)</i>
	4	Channeling (channel distribution)	25 kHz	
	5	Modulation/Occupied bandwidth	-	
	6	Direction/Separation	-	
	7	Transmit power / Power density	25 mW e.r.p.	
	8	Channel occupation and access rules	Duty cycle limit: 10%	
	9	Authorisation regime	Licence 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 300 220-3-2; EN 303 406; Decision 2017/1483/EU amending Decision 2006/771/EC on the harmonization of radio frequencies spectrum for the use of short range devices and repealing Decision 2006/804/EC; ERC/REC 70-03	
	14	Notification number	-	
	15	Remarks	-	

F1- RTIR Edition:1; Revision:1