

RO-IR 17 (ITS)

TECHNICAL REGULATION

for the radio interface

concerning Intelligent Transport Systems (ITS)

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 intelligent transport systems in the specified frequency band, 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 that the radio equipment placed on the market or made available on the market in Romania shall comply with the 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 by 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: https://www.ancom.ro/reglementari-interfete_2723.

2. Radio Interface Specifications

Intelligent Transport Systems

Frequency band	Annex
5 875 – 5 925 MHz	RO-IR 17

For the purpose of this Technical Regulation, *Intelligent Transport Systems (ITS)* mean a series of systems and services based on Information and Communications technologies, including processing, control, positioning, communication and electronics functions, which are used in a road transport system, or in an urban railway transport system or both.

For the purpose of this technical regulation, *intelligent road transport systems* or *ITS for road transport* mean intelligent transport systems which are used in any type of road transport (including off-road) allowing safe communications between vehicles (V2V) and between infrastructure and vehicles (I2V). Also, ITS used for railway lines that are not separated from road or pedestrian traffic (such as trams and light railway) are also considered to be part of ITS for road transport.

For the purpose of this Technical Regulation, *intelligent transport systems for urban railway transport* or *ITS for urban railway transport* mean intelligent transport systems which are used for urban or suburban railway lines permanently guided by at least one control and management system and which are separated from road and pedestrian traffic.

For the purpose of this Technical Regulation, *mean equivalent isotropic radiated power (e.i.r.p.)* means e.i.r.p. during a transmission burst that corresponds to the maximum power.

The use of radio spectrum by *intelligent transport systems (ITS)* is allowed on license exempt conditions provided that such devices meet the conditions set out in the Annex below.

3. Document history:

Edition	Changes
Edition 1/2010	Notification number according to Directive 98/34/EC: 2010/657/RO
Edition 2/2018 (06.08.2018)	Update of the legal framework according to Point 1 – „Basic considerations”. 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 (http://ec.europa.eu/docsroom/documents/26843). Formal changes according to TCAM-RSC pattern of November 2017.
Edition 3/2020 (23.12.2020)	Update of the legal framework according to Point 1 – „Basic considerations”. Update according to Commission Implementing Decision (EU) 2020/1426 of 7 October 2020 on the harmonised use of radio spectrum in the 5875-5935 MHz frequency band for safety-related applications of intelligent transport systems (ITS) and repealing Decision 2008/671/EC: • Update of definitions at point 2 – „Radio Interface Specifications” • The frequency band 5875 - 5925 MHz changed.

ROMANIA	Radio Interface Specification	Intelligent Transport Systems (ITS)	RO-IR 17	Edition 3/2020
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	Nr	Parameter	Description	Comments
Normative Part	1	Radiocommunication Service	Mobile	
	2	Application	Safety-related intelligent transport systems (ITS) for road transport and urban railway transport	<i>Access of intelligent transport systems for road transport to the frequency range 5915 - 5925 MHz shall be limited to applications involving infrastructure-to-vehicle (I2V) connectivity only, coordinated, where appropriate, with intelligent transport systems for urban railway transport.</i> <i>Intelligent transport systems applications for road transport shall have priority below 5915 MHz, and intelligent transport systems applications for urban rail transport shall have priority above 5915 MHz, so that protection is afforded to the application having priority.</i>
	3	Frequency band	5 875 – 5 925 MHz	<i>Harmonised radio spectrum for use by intelligent transport systems for safety-related applications of road transport (Commission Decision (EU) 2020/1426 of 7 October 2020 on the harmonised use of radio spectrum in the 5875-5935 MHz frequency band for safety-related applications of intelligent transport systems (ITS) and repealing Decision 2008/671/EC)</i>
	4	Channeling (channel distribution)	The frequency arrangement is based on block sizes of 10 MHz, starting at the lower edge of the band, at 5875 MHz	<i>Intelligent transport systems applications for the road transport and urban railway transport shall use channels within the boundaries of each 10 MHz block.</i>
	5	Modulation/Occupied bandwidth	Channel bandwidth may be less than 10 MHz	
	6	Direction/Separation	-	
	7	Transmit power / Power density	Maximum spectral power density (mean e.i.r.p.): 23 dBm/MHz Maximum total transmit power (mean e.i.r.p.): 33 dBm with a transmit power control (TPC) range of 30 dB	
	8	Channel occupation and access rules	Techniques to access spectrum and mitigate interference that provide an appropriate performance level in accordance with the provisions of Directive 2014/53/EU of the European Parliament and of the Council shall apply. If the relevant techniques are described in the harmonized standards (or parts thereof) the references of which have been published in the <i>Official Journal of the European Union</i> under Directive 2014/53/EU, a performance at least equivalent to the performance associated to these techniques shall be ensured.	<i>Intelligent transport systems applications for the road transport and urban railway transport shall use channels within the boundaries of each 10 MHz block.</i>
	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	-	
12	12	Planned changes	-	

	13	Reference	EN 302 571; Commission Implementing Decision (EU) 2020/1426 of 7 October 2020 on the harmonised use of radio spectrum in the 5 875-5 935 MHz frequency band for safety-related applications of intelligent transport systems (ITS) and repealing Decision 2008/671/EC; ECC/DEC/(08)01	
	14	Notification number	-	
	15	Remarks	-	

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