

## **RO-IR UWB-04**

### **TECHNICAL REGULATION**

**for the radio interface**

**concerning automotive Short Range Radars (SRR)  
operating in the 24 GHz range radio spectrum band**

**98/34/EC Notification number: 2012/214/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Directive 1999/5/EC (R&TTE Directive) was implemented in Romania (RO) by Government Decision no. 88/2003, republished, repealed by Government Decision no. 130/2015.

In accordance with Articles 4.1 and 7.2 of Directive 1999/5/EC, this Technical Regulation contains the requirements for the Licence Exempt use of automotive short-range radar equipment operating in the 24 GHz range radio spectrum band.

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

### Automotive Short Range Radars (SRR)

Frequency band	Annex
21.65 - 26.65 GHz	RO-IR UWB-04

For the purpose of this Technical Regulation, *equipment using ultra-wideband (UWB) technology* means equipment incorporating, as an integral part or as an accessory, technology for short-range radiocommunication, involving the intentional generation and transmission of radio-frequency energy that spreads over a frequency range wider than 50 MHz, which may overlap several frequency bands allocated to radiocommunication services.

For the purpose of this Technical Regulation, *automotive short-range radar (SRR) equipment* means equipment providing road vehicle-based radar functions for collision mitigation and traffic safety applications;

For the purpose of this Technical Regulation, *24 GHz range radio spectrum band* means the 24.15 +/- 2.50 GHz frequency band;

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 automotive short-range radar equipment operating in the 24 GHz range radio spectrum band is allowed on a non-interference and non-protected basis provided that such equipment meets the conditions set out in the Annex.

ROMANIA	Radio Interface Specification	SRD / UWB applications	RO-IR UWB-04	Edition 1.1 / 2012
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	Nr	Parameter	Description	Comments
Normative part	1	<b>Radiocommunication Service</b>	Mobile	
	2	<b>Application</b>	Short Range Devices / UWB applications/ Automotive Short Range Radars (SRR)	
	3	<b>Frequency band</b>	21.65 - 26.65 GHz	<p><i>Harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment (Decision 2011/485/EU amending Decision 2005/50/EC).</i></p> <p><i>The 24 GHz range radio spectrum band shall remain so available until the date of 30 June 2013 for the frequency between 21.65 and 24.25 GHz and 1 January 2018 for the frequency between 24.25 and 26.65 GHz.</i></p> <p><i>However, the date of 1 January 2018 shall be extended by 4 years for automotive short-range radar equipment mounted on motor vehicles for which a type-approval application has been submitted pursuant to Article 6(6) of Directive 2007/46/EC of the European Parliament and of the Council and has been granted before 1 January 2018.</i></p>
	4	<b>Channelling</b>	-	
	5	<b>Modulation / Occupied bandwidth</b>	-	
	6	<b>Direction / Separation</b>	-	
	7	<b>Transmit power / Power density</b>	The 24 GHz range radio spectrum band shall be available for the ultra-wide band part of automotive short-range radar equipment with a maximum mean power density of – 41.3 dBm/MHz effective isotropic radiated power (e.i.r.p.) and peak power density of 0 dBm/50MHz e.i.r.p., except for frequencies below 22 GHz, where the maximum mean power density shall be limited to – 61.3 dBm/MHz e.i.r.p.	<p><i>The 24.05 to 24.25 GHz radio spectrum band is designated for the narrow-band emission mode/component, which may consist of an unmodulated carrier, with a maximum peak power of 20 dBm e.i.r.p. and a duty cycle limited to 10 % for peak emissions higher than – 10 dBm e.i.r.p.</i></p> <p><i>Emissions within the 23.6-24.0 GHz band that appear 30° or greater above the horizontal plane shall be attenuated by at least 25 dB for automotive short-range radar equipment placed on the market before 2010 and thereafter by at least 30 dB.</i></p>
	8	<b>Channel access and occupation rules</b>	-	
	9	<b>Authorisation regime</b>	Licence exemption	

	<b>10</b>	<b>Additional essential requirements</b>	-	
	<b>11</b>	<b>Frequency planning assumptions</b>	-	
<b>Informative part</b>	<b>12</b>	<b>Planned changes</b>	-	
	<b>13</b>	<b>Reference</b>	EN 302 288; Decision 2011/485/EU amending Decision 2005/50/EC; ECC/DEC/(04)10; ERC/REC 70-03	
	<b>14</b>	<b>Notification number</b>	2012/214/RO	
	<b>15</b>	<b>Remarks</b>	-	