

## FREQUENCY ALLOCATION TABLE

### 1. Inductive equipment

The operation of inductive equipment is based on data transfer over reactive magnetic or electric fields instead of free propagation of radio waves. Therefore a piece of inductive equipment is not such radio equipment as referred to in the Act of Radio Frequencies and Telecommunications Equipment. The frequency bands typically assigned for inductive equipment in Europe are listed in the ECC Recommendation ERC/REC 70-03 on the use of Short Range Devices ([www.ero.dk](http://www.ero.dk)). Inductive equipment complying with Recommendation ERC/REC/70-03 and European Commission Decision 2010/368/EU may be used in Finland. The use of other inductive equipment operating within the frequency range 9 kHz - 30 MHz and with field strength below the maximum values for field strength mentioned in the standard EN 300 330 is not restricted in Finland, either.

### 2. Ultra-wideband equipment (UWB) and wide-band data transmission equipment (WAS/RLAN) 57–66 GHz

The ultra-wideband equipment (UWB, Ultra Wide Band) operates in several sub-bands and, thus, has not been added to the Frequency Allocation Table. The frequency bands and air interfaces assigned for this equipment are listed below.

Equipment categories: Licence-exempt generic UWB equipment, building material analysis and material sensing equipment, tank level probing radars, level probing radars, GPR/WPR equipment subject to licence and wide-band data transmission equipment (WAS/RLAN) 57-66 GHz.

### GENERIC UWB EQUIPMENT

Frequency band	Conditions for use
6.0 - 8.5 GHz	Licence-exempt equipment, see Ficora Regulation 15. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. Fixed installed equipment in automotive and railway vehicles must employ transmit power control (TPC) or have a maximum spectral power density of -53.3 dBm/MHz EIRP. ECC Decision ECC/DEC/(06)04. Standards EN 302 065 and EN 302 500. European Commission Decisions 2007/131/EC and 2009/343/EC.
3.1 - 4.8 GHz	Licence-exempt equipment, see Ficora Regulation 15. Equipment using low duty cycle (LDC) or DAA mitigation technique. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. Fixed installed equipment in automotive and railway vehicles, using DAA mitigation technique, must employ transmit power control (TPC) or have a maximum spectral power density of -53.3 dBm/MHz EIRP. ECC Decision ECC/DEC/(06)12. Standard EN 302 065. European Commission Decisions 2007/131/EC and 2009/343/EC.
4.2 - 4.8 GHz	Licence-exempt equipment, see Ficora Regulation 15. New equipment to be taken into use on 31.12.2010 at the latest. Spectral power density of UWB transmission -41.3 dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. Fixed installed equipment in automotive and railway vehicles must employ transmit power control (TPC) or have a maximum spectral power density of -53.3 dBm/MHz EIRP. ECC Decision ECC/DEC/(06)04. Standard EN 302 065. European Commission Decisions 2007/131/EC and 2009/343/EC.
8.5 - 9.0 GHz	Licence-exempt equipment, see Ficora Regulation 15.

	<p>Equipment using DAA mitigation technique. Spectral power density of UWB transmission <math>-41.3</math> dBm/MHz EIRP. Fixed installed equipment only for indoor use and for use in automotive and railway vehicles. Fixed installed equipment in automotive and railway vehicles, using DAA mitigation technique, must employ transmit power control (TPC) or have a maximum spectral power density of <math>-53.3</math> dBm/MHz EIRP. ECC Decision ECC/DEC/(06)12. Standard EN 302 065. European Commission Decision 2009/343/EC.</p>
--	--

#### BUILDING MATERIAL ANALYSIS AND MATERIAL SENSING EQUIPMENT

Frequency band	Conditions for use
2.2 - 8.5 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15. Building material analysis and material sensing UWB equipment. Standards EN 302 435 and EN 302 498. ECC Decision ECC/DEC/(07)01. European Commission Decision 2009/343/EC.</p>

#### TANK LEVEL PROBING RADARS

Frequency band	Conditions for us
4.5 - 7.0 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Tank level probing radars. Spectral power density outside the tank <math>\leq -41.3</math> dBm/MHz EIRP. Effective radiated power inside the tank <math>\leq +24</math> dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.</p>
8.5 - 10.6 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Tank level probing radars. Spectral power density outside the tank <math>\leq -41.3</math> dBm/MHz EIRP. Effective radiated power inside the tank <math>\leq +30</math> dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.</p>
24.05 - 27.00 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Tank level probing radars. Spectral power density outside the tank <math>\leq -41.3</math> dBm/MHz EIRP. Effective radiated power inside the tank <math>\leq +43</math> dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.</p>
57 - 64 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Tank level probing radars. Spectral power density outside the tank <math>\leq -41.3</math> dBm/MHz EIRP. Effective radiated power inside the tank <math>\leq +43</math> dBm EIRP. Standard EN 302 372. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.</p>
75 - 85 GHz	<p>Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Tank level probing radars. Spectral power density outside the tank <math>\leq -41.3</math> dBm/MHz EIRP. Effective radiated power inside the tank <math>\leq +43</math> dBm EIRP.</p>

	Standard EN 302 372. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.
--	---

#### LEVEL PROBING RADARS

Frequency band	Conditions for use
6.0 - 8.5 GHz	Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Level probing radars Standard EN 302 729. ECC Decision ECC/DEC/(11)02.
24.05 - 26.50 GHz	Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Level probing radars Standard EN 302 729. ECC Decision ECC/DEC/(11)02.
57 - 64 GHz	Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Level probing radars Standard EN 302 729. ECC Decision ECC/DEC/(11)02.
75 - 85 GHz	Licence-exempt equipment, see Ficora Regulation 15 (Annex, item 10). Level probing radars Standard EN 302 729. ECC Decision ECC/DEC/(11)02.

#### GPR/WPR EQUIPMENT

Frequency bands	Conditions for use
30 - 12400 MHz	GPR/WPR equipment intended for professional use subject to licence, according to Decision ECC/DEC/(06)08. Standard EN 302 066.

#### WIDE-BAND DATA TRANSMISSION EQUIPMENT (WAS/RLAN) 57–66 GHz

Frequency bands	Conditions for use
57 - 66 GHz	Licence-exempt equipment, see Ficora Regulation 15. Effective radiated power $\leq$ 40 dBm EIRP, power spectral density of transmission has to be 13 dBm/MHz EIRP. Fixed outdoor installations not permitted. Standard EN 302 567. European Commission Decision 2006/771/EC, the valid technical Annex is in Decision 2010/368/EU.