



MALTA COMMUNICATIONS AUTHORITY


Sixteenth Schedule to Decision No. MCA/D-22-4662

Apparatus General Authorisation for Apparatus used for Radiodetermination Applications

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Revision History of the Sixteenth Schedule

Apparatus used for Radiodetermination Applications

Date	Comments
13/11/2023	Publication

**This Schedule shall be read and construed as one with
Part I and Part II of Decision No. MCA/D/22-4662**

**Adopted pursuant to Article 30A of the
Electronic Communications (Regulation) Act (Cap. 399)
establishing the radiocommunications apparatus
general authorisation**

Article 1 – Applicability

This apparatus general authorisation applies to any person installing or using apparatus intended to be used for radiodetermination applications or any apparatus intended to be used as a component part of that apparatus.

Article 2 – Interpretation

In this Schedule unless the context otherwise requires:

- (1) “radiodetermination applications” refers to applications used for determining the position, velocity and any other characteristics of an object, or for obtaining information relating to these parameters;
- (2) “enclosed Nuclear Magnetic Resonance sensors” or “enclosed NMR sensors” means enclosed devices where the material/object under investigation is put inside the enclosure of the NMR apparatus, using NMR techniques;
- (3) “NMR techniques” means techniques using nuclear magnetic resonance excitation and magnetic field strength response of a material/object under test to get information about material properties based on resonance frequency responses of isotopes of atoms, but exclude nuclear magnetic resonance imaging and magnetic resonance tomography systems; and
- (4) "Tank Level Probing Radar" or "TLPR" means a specific type of radiodetermination application, which is used for tank level measurements and is installed in metallic or reinforced concrete tanks, or similar structures made of material with comparable attenuation characteristics. The purpose of the tank is to contain a substance.

Article 3 – Minimum technical parameters

The minimum technical parameters of apparatus used for radiodetermination applications shall be those specified in the Annex to this Schedule.

**Annex to the Sixteenth Schedule
Minimum Technical Parameters for Apparatus used for
Radiodetermination Applications**

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
9-148 kHz	46 dB μ A/m at 10 m distance at a reference of 100 Hz, outside the NMR apparatus Magnetic field strength descending 10 dB/decade above 100 Hz		This set of usage conditions is only available for enclosed NMR applications.	90
148-5000 kHz	-15 dB μ A/m at 10 m distance outside the NMR apparatus		This set of usage conditions is only available for enclosed NMR applications.	91
5000-30000 kHz	-5 dB μ A/m at 10 m distance outside the NMR apparatus		This set of usage conditions is only available for enclosed NMR applications.	92
30-130 MHz	-36 dBm e.r.p. outside the NMR apparatus		This set of usage conditions is only available for enclosed NMR applications.	93
2400-2483.5 MHz	25 mW e.i.r.p.			57b

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
4500-7000 MHz	24 dBm e.i.r.p. (see note 1)	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to TLPR.	60
6000-8500 MHz	7 dBm/50 MHz peak e.i.r.p. -33 dBm/MHz mean e.i.r.p.	Automatic power control and antenna requirements as well as equivalent techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to Level Probing Radar.	63

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
8500-10600 MHz	30 dBm e.i.r.p.	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to TLPR.	64
13.4-14 GHz	25 mW e.i.r.p.			k
17.1 - 17.3 GHz	26 dBm e.i.r.p.	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to ground-based systems.	65

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
24.05-26.5 GHz	26 dBm/50 MHz peak e.i.r.p. -14 dBm/MHz mean e.i.r.p.	Automatic power control and antenna requirements as well as equivalent techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to Level Probing Radar.	67
24.05-27 GHz	43 dBm e.i.r.p. (see note 1)	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to TLPR.	68

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
57-64 GHz	43 dBm e.i.r.p. (see note 1)	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to TLPR.	74b
57-64 GHz	35 dBm/50 MHz peak e.i.r.p. -2 dBm/MHz mean e.i.r.p.	Automatic power control and antenna requirements as well as equivalent techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to Level Probing Radar.	74c

Frequency band	Transmit power limit/power density limit	Additional parameters	Other usage parameters	Frequency band reference (informative)
75-85 GHz	34 dBm/50 MHz peak e.i.r.p. -3 dBm/MHz mean e.i.r.p.	Automatic power control and antenna requirements as well as equivalent techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to Level Probing Radar.	78a
75-85 GHz	43 dBm e.i.r.p. (see note 1)	Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under the Directive 2014/53/EU must be used.	This set of usage conditions is only available to TLPR.	78b
Notes:				
¹ The power limit applies inside a closed tank and corresponds to a spectral density of -41.3 dBm/MHz e.i.r.p. outside a 500 litre test tank.				