

NATIONAL FREQUENCY ALLOCATION PLAN 2005

NATIONAL FREQUENCY ALLOCATION PLAN

1. INTRODUCTION

Law no. 5/2004 of 10 February established the legal regime applicable to electronic communications networks and services and to associated resources and services, defining the responsibilities of the ICP-Autoridade Nacional de Comunicações (ICP-ANACOM) in this area, in the process of transposing Directives 2002/19/EC, 2002/20/EC, 2002/21/EC and 2002/22/EC, all of the European Parliament and of the Council of 7 March 2002, and Directive 2002/77/EC of the Commission of 16 September 2002.

The term «electronic communications network» is understood as follows:

Transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by cable, radio, optical or other electromagnetic means, including satellite networks, fixed (circuit-switched or packet-switched, including internet) and land mobile networks, power line systems, when used to transmit signals, networks used for audio and television broadcasting, and cable television networks, irrespective of the type of information conveyed;

The term «electronic communications services» is understood as follows:

A service normally provided for remuneration which consists wholly or mainly of the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, without prejudice to the exclusion referred to in paragraph b) of section 1 of article 2 of Law no. 5/2004 of 10 February;

As stipulated in Article 15 of Law no. 5/2004 of 10 February, with respect to spectrum management it is incumbent upon ICP-ANACOM to plan out frequencies in compliance with the following criteria:

- a) Availability of radio spectrum;

- b) Guarantee of conditions of effective competition in the relevant markets;
- c) Effective and efficient use of frequencies.

ICP-ANACOM is responsible for allocating and assigning frequencies on a basis that must be objective, transparent, non-discriminatory and proportionate.

ICP-ANACOM shall promote harmonised usage of frequencies in the European Union in order to ensure the effective and efficient use thereof, in the scope of Decision no. 676/2002/EC of the European Parliament and of the Council of 7 March 2002, concerning a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision).

As stipulated in Article 16 of Law no. 5/2004 of 10 February, ICP-ANACOM must annually publish:

- ➡ the frequency bands and number of channels already allocated to undertakings providing publicly available electronic communications networks and services, including the allocation revision date;
- ➡ the reserved frequency bands and those available in the following year, in the scope of electronic communications networks and services, whether publicly available or not, specifying the cases where rights to use frequencies are required, as well as the respective allocation procedure;
- ➡ the frequencies whose usage rights are subject to transfer, pursuant to article 37 of Law no. 5/2004 of 10 February.

The frequencies allocated to the Armed Forces and to security forces and services are excluded from the above publicising requirement.

The transfer of title over frequency usage rights identified as such in this publication is permitted, applying in such cases the regime envisaged in article 37 of Law no. 5/2004 of 10 February.

Without jeopardising application of the principles and rules set out in the said article 37 of Law no. 5/2004 to other transfer cases that do not only involve title transfer, at present various possibilities are still being studied with respect to a general policy for the transfer of frequency usage rights.

Also, under the terms of article 31 of Law no. 5/2004 of 10 February, the provisions of the National Frequency Allocation Plan notwithstanding, ICP-ANACOM may proceed to publish duly grounded decisions limiting the allocation of usage rights.

The current document was prepared in this context; it contains the Frequency Allocation Table and the aforementioned data to publish by ICP-ANACOM regarding electronic communications networks and services, whether publicly available or not.

In duly justified exceptional situations there may be a need to change the information provided in this document.

2. NATIONAL FREQUENCY ALLOCATION PLAN

The new *National Frequency Allocation Plan* is a document comprising two chapters.

Chapter 1 – Frequency Allocation Table – presents a detailed view of the radio spectrum sub-divisions, for each frequency band breaking down the radiocommunication services according to the ITU-R Radio Regulation (RR) allocations applicable to Portugal, with indication of the services and systems used and planned for Portugal, without jeopardising future decisions that may be made by determination of the ICP-ANACOM Board of Directors.

Chapter 2 contains the publication of the frequency band uses and reservations, and is divided into three parts: A, B and C.

- A Publicly available electronic communications networks and services:** Frequency bands and number of channels used in the operation of publicly available electronic communications networks and services, licensed up to **31 October 2004**.
- B Frequency bands reserved and to be made available in 2005,** for the operation of electronic communications networks and services
 - B.1** publicly available
 - B.2** not publicly available
- C Spectrum uses exempt from radio licensing**
 - C.1** Network licence exemption
 - C.2** Station licence exemption

CHAPTER 1

FREQUENCY ALLOCATION TABLE

Chapter 1 – FREQUENCY ALLOCATION TABLE

1. INTRODUCTION

The *Frequency Allocation Table* is a document that provides a detailed view of the subdivisions of radio spectrum, with each frequency band broken down by radiocommunication services according to the allocations of Article 5 of the Radio Regulation applicable to Portugal.

The Radio Regulation (RR) is an ITU-published document resulting from agreements signed by the member States and is an international treaty to be obeyed by the countries belonging to that organization. The *Frequency Allocation Table* derives from this treaty, specifically its Article 5 containing the Frequency Allocation Table for the whole world, in which the spectrum allocated to a wide range of radiocommunication services is broken down.

The *Frequency Allocation Table* contained in Article 5, as well as all the other Articles, Appendices, Resolutions and Recommendations of the RR, may only be amended in World Radiocommunications Conferences (WRCs), held every two or three years.

Once changes have been made to the RR by World Radiocommunications Conferences, along with analysis and the consequent framing of market trends and evolution at national and European level, updates are made to the *Frequency Allocation Table*.

This *Frequency Allocation Table* also covers services and systems used and planned by Portugal, without jeopardizing future decisions that may be made by determination of the ICP-ANACOM Board of Directors.

Spectrum use should be based on publication of the frequency band usage and reservations established each year by the NFAP.

When the need to obtain usage rights is envisaged, and except in cases of tender or auction, the procedure is set out in the document “Procedures for the beginning of the provision of Electronic Communications Networks and Services”, available on the ANACOM website (<http://www.anacom.pt/template25.jsp?categoryId=113659>).

When the need to obtain usage rights is not envisaged, acquisition of a radio licence will suffice, as per the terms of article 12 of Decree-Law no. 151-A/2000 of 20 July.

When the acquisition of usage rights is not necessary and the frequency usage is for own use and is exempt from radio licence, no prior ICP-ANACOM act is needed to use the spectrum.

Chapter 1 – FREQUENCY ALLOCATION TABLE

2. FREQUENCY ALLOCATION TABLE

Column 1: FREQUENCY BANDS

Indicates the frequency band referred to by each line of the table.

Column 2: RR ALLOCATIONS (Art. 5) APPLICABLE TO PORTUGAL

Contains for each frequency band:

- Allocations of Art. 5 of the RR applicable to Portugal;
- Notes from Art. 5 applicable to Portugal.

Column 3: NATIONAL APPLICATIONS

Services/systems authorised in Portugal (highlighted in **bold** if used).

Column 4: NOTES

Planning used;

Relevant national and international standardsrules;

Band use conditioners;

Other pertinent information.

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
Below 9	(Not allocated) 5.53, 5.54		
9 - 14	RADIONAVIGATION	SRD - Inductive systems: car immobilisers(9-59,750 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
14 - 19,95	FIXED MARITIME MOBILE 5.57 5.56	SRD - Inductive systems: car immobilisers(9-59,750 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12 Government
19,95 - 20,05	STANDARD FREQUENCY AND TIME SIGNAL(20 kHz)	SRD - Inductive systems: car immobilisers(9-59,750 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12 Government
20,05 - 70	FIXED MARITIME MOBILE 5.57 5.56	SRD - Inductive systems: car immobilisers(9-59,750 kHz) (59,750-60,250 kHz) (60,250-70 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12 Government

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
70 - 72	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
72 - 84	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
84 - 86	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
86 - 90	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56	SRD - Inductive systems: car immobilisers(70-119kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
90 - 110	RADIONAVIGATION 5.62 Fixed 5.64	LORAN-C (100 kHz) SRD - Inductive systems: car immobilisers(70-119kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
110 - 112	FIXED MARITIME MOBILE RADIONAVIGATION 5.64	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
112 - 115	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
115 - 117,6	RADIONAVIGATION 5.60 Fixed Maritime Mobile 5.64	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
117,6 - 126	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	SRD - Inductive systems: car immobilisers(70-119 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
126 - 129	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilisers(119-135 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
129 - 130	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	SRD - Inductive systems: car immobilisers(119-135 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12
130 - 148,5	FIXED MARITIME MOBILE 5.64	SRD - Inductive systems: car immobilisers(119-135 kHz) SRD - Active medical implants(9-135 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)13 CEPT/ERC/REC 70-03 Annex 12 Government (137,8-148,5 kHz)
148,5 - 255	BROADCASTING		

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
255 - 283,5	BROADCASTING AERONAUTICAL RADIONAVIGATION	NDB – Aeronautical Radiobeacons	ICAO – (Annex 10)
283,5 - 315	AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73 5.74	NDB – Aeronautical Radiobeacons Differential GPS (285-325 kHz) NDB – Maritime Radiobeacons	ICAO – (Annex 10) GE-85 (Radiobeacons)
315 - 325	AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (Radiobeacons) 5.73	NDB – Aeronautical Radiobeacons Differential GPS (285-325 kHz)	ICAO – (Annex 10)
325 - 405	AERONAUTICAL RADIONAVIGATION	NDB and LOCATOR – Aeronautical Radiobeacons	ICAO – (Annex 10)
405 - 415	RADIONAVIGATION 5.76		
415 - 435	MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION	Maritime Mobile NDB and LOCATOR- Aeronautical Radiobeacons	GE-85 ICAO – (Annex 10)
435 - 495	MARITIME MOBILE 5.79, 5.79A Aeronautical radionavigation 5.82	Maritime Mobile NAVTEX – International System (490 kHz) SRD- Avalanche Victim Detection(457 kHz)	GE-85 ERC/REC 70-03 Annex 2 ECC/DEC(04)01 Government
495 - 505	MOBILE (distress and calling) 5.83	Mobile	RR Ap. S13 (RR 3010): 500 kHz

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
505 - 526,5	MARITIME MOBILE 5.79, 5.79A, 5.84 AERONAUTICAL RADIONAVIGATION	Maritime Mobile NAVTEX – International System (518 kHz) NDB – Aeronautical Radiobeacons (510-526,5 kHz)	GE-85 ICAO – (Annex 10)
526,5 - 1606,5	BROADCASTING	Sound broadcasting	GE-75
1606,5 - 1625	FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	Maritime Mobile	GE-85 Government
1625 - 1635	RADIOLOCATION		
1635 - 1800	FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	Maritime Mobile	GE-85 Government (1715-1800 kHz)
1800 - 1810	RADIOLOCATION		
1810 - 1850	AMATEUR 5.100	Amateur -(1830-1850 kHz)	Amateur national regulations
1850 - 2000	FIXED MOBILE except aeronautical mobile 5.92, 5.103		Government
2000 - 2025	FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103		Government

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2025 - 2045	FIXED MOBILE except aeronauticalmobile (R) Meteorological aids 5.104 5.92, 5.103		Government
2045 - 2160	FIXED MARITIME MOBILE LAND MOBILE 5.92	Maritime Mobile	GE-85 Government (2140-2160 kHz)
2160 - 2170	RADIOLOCATION		
2170 - 2173,5	MARITIME MOBILE		
2173,5 - 2190,5	MOBILE (distress and calling) 5.108, 5.109, 5.110, 5.111	Mobile(distress and calling)	RR Ap. 13: 2174,5 kHz; 2182 kHz e 2187,5 kHz
2190,5 - 2194	MARITIME MOBILE	Maritime Mobile	
2194 - 2300	FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103		Government
2300 - 2498	FIXED MOBILE except aeronauticalmobile (R) BROADCASTING 5.113 5.103		Government
2498 - 2501	STANDARD FREQUENCY AND TIME SIGNAL(2500 kHz)		
2501 - 2502	STANDARD FREQUENCY AND TIME SIGNAL Space research		

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2502 - 2625	FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103		Government
2625 - 2650	MARITIME MOBILE MARITIME RADIONAVIGATION 5.92		Government
2650 - 2850	FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103	Fixed Maritime Mobile	Government
2850 - 3025	AERONAUTICAL MOBILE (R) 5.111, 5.115	Aeronautical Mobile(R)	RR Ap.27
3025 - 3155	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
3155 - 3200	FIXED MOBILE except aeronautical mobile (R) 5.116	Fixed Mobile	Government
3200 - 3230	FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116	Fixed Mobile	
3230 - 3400	FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116	Fixed Mobile	Government (3375-3400 kHz)
3400 - 3500	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
3500 - 3800	AMATEUR FIXED MOBILE except aeronautical mobile 5.92	Amateur Fixed Mobile	Amateur national regulations
3800 - 3900	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed Aeronautical Mobile (OR) Land Mobile	 Government
3900 - 3950	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
3950 - 4000	FIXED BROADCASTING	Fixed	 Government
4000 - 4063	FIXED MARITIME MOBILE 5.127	Fixed	 Government
4063 - 4438	MARITIME MOBILE 5.79A, 5.109, 5.110, 5.130, 5.131, 5.132 5.129	Maritime Mobile NAVTEX – International System (4209,5 kHz)	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (4152-4172 kHz; 4221-4351 kHz)
4438 - 4650	FIXED MOBILE except aeronautical mobile (R)	Fixed Mobile	 Government
4650 - 4700	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
4700 - 4750	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
4750 - 4850	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 5.113	Fixed Aeronautical Mobile (OR)	Government
4850 - 4995	FIXED LAND MOBILE BROADCASTING 5.113	Fixed Land Mobile	Government
4995 - 5003	STANDARD FREQUENCY AND TIME SIGNAL(5000 kHz)		
5003 - 5005	STANDARD FREQUENCY AND TIME SIGNAL Space research		
5005 - 5060	FIXED BROADCASTING 5.113	Fixed	Government
5060 - 5250	FIXED Mobile except aeronautical mobile	Fixed	Government
5250 - 5450	FIXED MOBILE except aeronautical mobile	Fixed	Government
5450 - 5480	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed Aeronautical Mobile (OR)	RR Ap. 26 Government
5480 - 5680	AERONAUTICAL MOBILE (R) 5.111, 5.115	Aeronautical Mobile (R)	RR Ap. 27

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5680 - 5730	AERONAUTICAL MOBILE (OR) 5.111, 5.115	Aeronautical Mobile (OR)	RR Ap. 26 Government
5730 - 5900	FIXED LAND MOBILE	Fixed	Government
5900 - 5950	BROADCASTING 5.134 5.136		Extension band for HFBC, from 1.4.2007(RR Art 12)
5950 - 6200	BROADCASTING	Sound broadcasting	RR Art 12
6200 - 6525	MARITIME MOBILE 5.109, 5.110, 5.130, 5.132 5.137	Maritime Mobile	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (6233-6261 kHz; 6332,5-6501 kHz)
6525 - 6685	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
6685 - 6765	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
6765 - 7000	FIXED MOBILE except aeronautical mobile (R) Land Mobile 5.138, 5.138A	Fixed Land Mobile ISM – Industrial, scientific and medical applications (6765- 6795 kHz) SRD - Non-specific applications(6765-6795 kHz) SRD - Inductive applications (6765-6795 kHz)	From 29/3/2009 Until 29/3/2009 CEPT/ERC/REC 70-03 Annex 1 ERC/DEC(01)01 CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)14 Government (6795-7000 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7000 - 7100	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations
7100 – 7200	BROADCASTING 5.141C AMATEUR	Sound broadcasting	Abandonar em 29/3/2009
7200 – 7300	BROADCASTING	Sound broadcasting	RR Art 12
7300 - 7350	BROADCASTING 5.134 FIXED 5.143 Land Mobile 5.143	Sound broadcasting Fixed	Extension band for HFBC, from 1.4.2007 (RR Art 12)
7350 – 7450	BROADCASTING FIXED 5.143B Land Mobile 5.143B	Sound broadcasting Fixed SRD- Inductive applications (7400-8800 kHz)	RR Art 12 (usable only from 29/3/2009) CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)15
7450 - 8100	FIXED 5.143E MOBILE except aeronautical mobile (R) Land mobile 5.143E	Fixed SRD- Inductive applications (7400-8800 kHz)	Withdraw on 29/3/2009 Withdraw on 29/3/2009 CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)15 Government (7757-8100 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
8100 - 8195	FIXED MARITIME MOBILE	Fixed Maritime Mobile SRD- Inductive applications (7400-8800 kHz)	CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)15 Government
8195 - 8815	MARITIME MOBILE 5.109, 5.110, 5.132, 5.145 5.111	Maritime Mobile SRD- Inductive applications (7400-8800 kHz)	RR Ap. 13 RR Ap. 17 RR Ap. 25 CEPT/ERC/REC 70-03 Annex 9 ERC/DEC(01)15 Government (8300-8340 kHz; 8438-8707 kHz)
8815 - 8965	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
8965 - 9040	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
9040 - 9400	FIXED	Fixed	Government
9400 - 9500	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007(RR Art 12)
9500 - 9900	BROADCASTING 5.147	Sound broadcasting	RR Art 12
9900 - 9995	FIXED	Fixed	Government
9995 - 10003	STANDARD FREQUENCY AND TIME SIGNAL(10000 kHz) 5.111		
10003 - 10005	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
10005 - 10100	AERONAUTICAL MOBILE (R) 5.111	Aeronautical Mobile (R)	RR Ap. 27
10100 - 10150	FIXED Amateur	Fixed Amateur	Amateur national regulations
10150 - 11175	FIXED Mobile except aeronautical mobile (R)	Fixed	Government
11175 - 11275	AERONAUTICALMOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
11275 - 11400	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
11400 - 11600	FIXED	Fixed	Government
11600 - 11650	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007 (RR Art 12)
11650 - 12050	BROADCASTING 5.147	Sound broadcasting	RR Art 12
12050 - 12100	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007 (RR Art 12)
12100 - 12230	FIXED	Fixed	Government
12230 - 13200	MARITIME MOBILE 5.109, 5.110, 5.132, 5.145	Maritime Mobile	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (12368-12420 kHz; 12658,5-13077 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
13200 - 13260	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
13260 - 13360	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
13360 - 13410	FIXED RADIOASTRONOMY 5.149	Fixed	
13410 - 13570	FIXED Mobile except aeronautical mobile (R) 5.150	Fixed Mobile (MOV) ISM – Industrial, scientific and medical applications (13553-13567 kHz) SRD - Non-specific applications(13553-13567 kHz) SRD - Inductive applications (13553-13567 kHz)	CEPT/ERC/REC 70-03 Annex 1 ECC/DEC(01)01 CEPT/ERC/REC 70-03 Annex 9 ECC/DEC(01)14 Government (13410-13450 kHz; 13495-13515 kHz)
13570 - 13600	BROADCASTING 5.134 5.151		Extension band for HFBC, from 1.4.2007(RR Art 12)
13600 - 13800	BROADCASTING	Sound broadcasting	RR Art 12
13800 - 13870	BROADCASTING 5.134 5.151		Extension band for HFBC, from 1.4.2007 (RR Art 12)
13870 - 14000	FIXED Mobile except aeronautical mobile (R)	Fixed	Government (13870-13914 kHz)
14000 - 14250	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
14250 - 14350	AMATEUR	Amateur	Amateur national regulations
14350 - 14990	FIXED Mobile except aeronautical mobile (R)	Fixed	 Government (14604-14670 kHz)
14990 - 15005	STANDARD FREQUENCY AND TIME SIGNAL(15000 kHz) 5.111		
15005 - 15010	STANDARD FREQUENCY AND TIME SIGNAL Space research		
15010 - 15100	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
15100 - 15600	BROADCASTING	Sound broadcasting	RR Art. 12
15600 - 15800	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007 (RR Art. 12)
15800 - 16360	FIXED	Fixed	 Government (16180-16231 kHz)
16360 - 17410	MARITIME MOBILE 5.109, 5.110, 5.132, 5.145	Maritime Mobile	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (16549-16617 kHz; 16904,5- 17242 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
17410 - 17480	FIXED	Fixed	Government (17410-17452 kHz)
17480 - 17550	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007 (RR Art 12)
17550 - 17900	BROADCASTING	Sound broadcasting	RR Art. 12
17900 - 17970	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (R)	RR Ap. 27
17970 - 18030	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	RR Ap. 26 Government
18030 - 18052	FIXED	Fixed	
18052 - 18068	FIXED Space research		
18068 - 18168	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations
18168 - 18780	FIXED Mobile except aeronautical mobile	Fixed	Government (18249-18373 kHz)
18780 - 18900	MARITIME MOBILE		RR Ap. 17 Government (18846-18870 kHz)
18900 - 19020	BROADCASTING 5.134 5.146		Extension band for HFBC, from 1.4.2007 (RR Art 12)
19020 - 19680	FIXED	Fixed	Government (19020-19120 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
19680 - 19800	MARITIME MOBILE 5.132	Maritime Mobile	RR Ap. 17 Government (19705-19755 kHz)
19800 - 19990	FIXED	Fixed	
19990 - 19995	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		
19995 - 20010	STANDARD FREQUENCY AND TIME SIGNAL(20000 kHz) 5.111		
20010 - 21000	FIXED Mobile	Fixed Mobile	 Government (20442-20680 kHz)
21000 - 21450	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations
21450 - 21850	BROADCASTING	Sound broadcasting	RR Art. 12
21850 - 21870	FIXED	Fixed	
21870 - 21924	FIXED 5.155B		
21924 - 22000	AERONAUTICAL MOBILE (R)		RR Ap. 27
22000 - 22855	MARITIME MOBILE 5.132	Maritime Mobile	RR Ap. 17 RR Ap. 25 Government (22180-22240 kHz; 22445,5-22696 kHz)
22855 - 23000	FIXED	Fixed	 Government (22900-23000 kHz)

FREQUENCY BAND(kHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
23000 - 23200	FIXED Mobile except aeronautical mobile (R)	Fixed Mobile	
23200 - 23350	FIXED 5.156A AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR)	Government
23350 - 24000	FIXED MOBILE except aeronautical mobile 5.157	Fixed	
24000 - 24890	FIXED LAND MOBILE	Fixed	Government (24125-24325 kHz)
24890 - 24990	AMATEUR AMATEUR SATELLITE	Amateur	Amateur national regulations
24990 - 25005	STANDARD FREQUENCY AND TIME SIGNAL(25000 kHz)		
25005 - 25010	STANDARD FREQUENCY AND TIME SIGNAL Space research		
25010 - 25070	FIXED MOBILE except aeronautical mobile		
25070 - 25210	MARITIME MOBILE	Maritime Mobile	RR Ap. 17 RR Ap. 25 Government (25121-25161,25 kHz)
25210 - 25550	FIXED MOBILE except aeronautical mobile	Fixed	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
27,5 - 28	METEOROLOGICAL AIDS FIXED MOBILE	CT0 – Cordless telephones(27, 5375-27, 8375 MHz)	Government (27,85-28 MHz)
28 - 29,7	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations
29,7 - 30,005	FIXED MOBILE	Private Mobile Radio SRD – Short range and narrowband equipment for telecommand, telemetry, tele-alarm and data transmission, for use outside ISM bands(29,980 MHz; 29,990 MHz; 30,000 MHz)	40 MHz plan
30,005 - 30,01	SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	Private Mobile Radio	40 MHz plan

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
30,01 - 37,5	FIXED MOBILE	Private Mobile Radio CT0 – Cordless telephones (36.9875-37, 2875 MHz) SRD – Model control (34,995- 35,225 MHz) only for flying models SRD – Short range narrowband equipment for telecommand, telemetry, telealarm and data transmission, for use outside ISM bands (30,100 MHz)	40 MHz plan CEPT/ERC/REC 70-03 Annex 8 ERC/DEC(01)11 Government (30,0375-33,0875 MHz; 35,8625-36,9625 MHz; 37,3125- 39,7625 MHz)
37,5 - 38,25	FIXED MOBILE Radio astronomy 5.149	Private Mobile Radio	40 MHz plan Government
38,25 - 39,986	FIXED MOBILE	Private Mobile Radio	40 MHz plan Government (37,3125-39,7625 MHz)
39,986 - 40,02	FIXED MOBILE Space Research	Private Mobile Radio	40 MHz plan

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
40,02 - 40,98	FIXED MOBILE 5.150	Private Mobile Radio Private radio paging (40,680 MHz) ISM – Industrial, scientific and medical applications (40,66-40,7 MHz) SRD – Non-specific applications (40,66-40,7 MHz); SRD – Model control (40,665 MHz, 40,675 MHz, 40,685 MHz, 40,695 MHz)	40 MHz plan Local paging CEPT/ERC/REC 70-03 Annex 1, ERC/DEC(01)03 CEPT/ERC/REC 70-03 Annex 8 ERC/DEC(01)12
40,98 - 41,015	FIXED MOBILE Space Research	Private Mobile Radio	Government
41,015 - 44	FIXED MOBILE	Private Mobile Radio	Government
44 - 47	FIXED MOBILE Radiolocation 5.162A	Private Mobile Radio	Use limited to the 46-68 MHz band and only for wind profiler radars Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
47 - 68	BROADCASTING Radiolocation 5.162A	Analogue television broadcasting	Band I (47-68 MHz) (channels 2 to 4) ST-61 Use limited to the 46-68 MHz band and only for wind profiler radars Government (47,25-49,5 MHz; 50,5-51 MHz; 54-68 MHz)
68 - 74,8	FIXED MOBILE except aeronautical mobile 5.149	Private Mobile Radio	80 MHz plan Government (68,8875-69,8625 MHz; 73,3-74,1 MHz)
74,8 - 75,2	AERONAUTICAL RADIONAVIGATION 5.180	Aeronautical radionavigation aids -- ILS/markers beacons	ICAO – (Annex 10)
75,2 - 87,5	FIXED MOBILE except aeronautical mobile	Private Mobile Radio	80 MHz plan Government (75,2125-77,65 MHz; 79,4125-80,3875 MHz; 83,8250-84,6250 MHz; 85,7375-87,4875 MHz)
87,5 - 108	BROADCASTING	Sound broadcasting	Band II– FM GE-84
108 - 117,975	AERONAUTICAL RADIONAVIGATION 5.197A	Aeronautical radionavigation aids – VOR and ILS/localiser	ICAO – (Annex 10)
117,975 - 137	AERONAUTICAL MOBILE (R) 5.111, 5.198, 5.199, 5.200, 5.203	Aeronautical mobile (R)	ICAO – (Annex 10)

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
137 - 137,025	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.208	Mobile-Satellite (137-138 MHz)	
137,025 - 137,175	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-Satellite (space-to-Earth) 5.208A, 5.209 Mobile except aeronautical mobile (R) 5.208	METEOSAT – Meteorological satellites for low resolution picture transmission	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
137,175 - 137,825	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.208	METEOSAT – Meteorological satellites for low resolution picture transmission Automatic picture transmission (APT) (137,5-137,62 MHz) Mobile-satellite (137-138 MHz)	METEOSAT will replace APT system
137,825 - 138	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-satellite (space-to-Earth) 5.208A, 5.209 Mobile except aeronautical mobile (R) 5.208	METEOSAT - Meteorological satellites for low resolution picture transmission Mobile-satellite (137-138 MHz)	
138 - 143,6	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	Government
143,6 - 143,65	AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth)	Aeronautical mobile (OR)	Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
143,65 - 144	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR) (Government
144 - 146	AMATEUR AMATEUR-SATELLITE	Amateur (144-145,8 MHz) Amateur-satellite (145,8-146 MHz) POSAT-1 (145,925 MHz; 145,975 MHz)	Amateur national regulations
146 - 148	FIXED MOBILE except aeronautical mobile (R)	Fixed Mobile	Government (146,0125-148,400 MHz)
148 - 149,9	FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) 5.209 SPACE OPERATION (Earth-to-space) 5.218 5.219, 5.221	Private Mobile Radio Mobile-satellite (148-150,05 MHz) POSAT-1 (148,285 MHz;148,585 MHz)	160 MHz plan Low-Earth orbit satellite, subject to provision RR 4.4 Government (146,0125-148,400 MHz; 149,0125-149,8875 MHz)
149,9 - 150,05	MOBILE-SATELLITE (Earth-to-space) 5.209, 5.224A RADIONAVIGATION-SATELLITE 5.224B 5.220, 5.222, 5.223	Mobile-satellite (148-150,05 MHz)	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
150,05 - 153	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>RADIO-ASTRONOMY</p> <p>5.149</p>	<p>Private Mobile Radio</p> <p>SRD – Short range narrowband equipment for telecommand, telemetry, telealarm and data transmission (150,9375 MHz; 150,9500 MHz)</p>	<p>160 MHz plan</p> <p>Government (150,5375-150,8875; 151,2-151,9875 MHz)</p>
153 - 154	<p>FIXED</p> <p>MOBILE except aeronautical mobile (R)</p> <p>Meteorological aids</p>	<p>Private Mobile Radio</p>	<p>160 MHz plan</p> <p>Government (153,6125-154,650 MHz)</p>
154 - 156,7625	<p>FIXED</p> <p>MOBILE except aeronautical mobile (R)</p> <p>5.226, 5.227</p>	<p>Private Mobile Radio</p> <p>Maritime mobile networks (156-156,7625 MHz)</p> <p>Coast-to-ship communications, for differential GPS ; frequencies: 156,075 MHz (ship station) and 160,675 MHz (coast station)</p> <p>SRD – Short range narrowband equipment for telecommand, telemetry, telealarm and data transmission (155,5375 MHz; 155,5500 MHz)</p>	<p>160 MHz plan</p> <p>RR Ap. 18 RR Ap. 13: 156,525 MHz</p> <p>RR Ap. 18 – channel 61</p> <p>Government (153,6125-154,650 MHz; 155,1375-155,4875 MHz; 155,8-155,9875 MHz)</p>
156,7625 - 156,8375	<p>MARITIME MOBILE (distress and calling)</p> <p>5.111, 5.226</p>	<p>Maritime mobile</p>	<p>RR Ap. 18 RR Ap. 13: 156,8 MHz</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
156,8375 - 174	<p>FIXED</p> <p>MOBILE except aeronautical mobile (R)</p> <p>5.226</p>	<p>Private Mobile Radio</p> <p>Private radio paging (169,175 MHz)</p> <p>National radio paging (164,925 MHz; 167,200 MHz; 167,325 MHz; 167,375 MHz)</p> <p>Maritime mobile networks (156,8375-158,0125 MHz) (160,6125-162,6125)</p> <p>ERMES – Pan-European paging system (Frequency band: 169,4-169,8 MHz; 1st phase : 169,425 MHz; 169,475 MHz; 169,650 MHz; 169,750 MHz)</p>	<p>160 MHz plan</p> <p>Local paging</p> <p>National paging</p> <p>RR Ap. 18 and national planning</p> <p>ERC/DEC/(94)02 Directive 90/544/EEC CEPT Rec T/R 25-07</p>
174 - 223	BROADCASTING	<p>Analogue television broadcasting</p> <p>T-DAB – Sound broadcasting (219-230 MHz)</p> <p>SAP/SAB applications SRD - radiomicrophones (174-216 MHz)</p>	<p>Band III (174-216 MHz) (channels 5 to 10) ST-61</p> <p>Wiesbaden Agreement 1995 CEPT Rec T/R 52-02</p> <p>CEPT/ERC/REC 70-03 Annex 10</p>
223 - 230	<p>BROADCASTING</p> <p>Fixed</p> <p>Mobile</p>	T-DAB – Sound broadcasting (219-230 MHz)	<p>Wiesbaden Agreement 1995 CEPT Rec T/R 52-02</p> <p>Government (225-230 MHz)</p>
230 - 235	<p>FIXED</p> <p>MOBILE</p>		Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
235 - 267	FIXED MOBILE 5.111, 5.199, 5.254, 5.256		Government
267 - 272	FIXED MOBILE Space Operation (space-to-Earth) 5.254, 5.257		Government
272 - 273	SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254		Government
273 - 312	FIXED MOBILE 5.254		Government
312 - 315	FIXED MOBILE Mobile-satellite(Earth-to-space) 5.254, 5.255		Government
315 - 322	FIXED MOBILE 5.254		Government
322 - 328,6	FIXED MOBILE RADIO-ASTRONOMY 5.149		Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
328,6 - 335,4	AERONAUTICAL RADIONAVIGATION 5.258	Aeronautic radionavigation aid – ILS/glide path	ICAO – (Annex 10)
335,4 - 387	FIXED MOBILE 5.254	SIRESP (380-383 MHz)	383-385 MHz extension sub- band reserved for future SIRESP use Government
387 - 390	FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A, 5.254, 5.255		 Government
390 - 399,9	FIXED MOBILE 5.254	SIRESP (390-393 MHz)	393-395 MHz extension sub- band reserved for future SIRESP use Government
399,9 - 400,05	MOBILE-SATELLITE (Earth-to- space) 5.209, 5.224A RADIONAVIGATION- SATELLITE 5.222, 5.224B, 5.260 5.220		
400,05 - 400,15	STANDARD FREQUENCY AND TIME SIGNAL -- SATELLITE (400,1 MHz) 5.261		

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
400,15 - 401	<p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.209</p> <p>SPACE RESEARCH (space-to-Earth) 5.263</p> <p>Space operation (space-to-Earth) 5.264</p>		
401 - 402	<p>METEOROLOGICAL AIDS SERVICE</p> <p>SPACE OPERATION (space-to-Earth)</p> <p>EARTH EXPLORATION -- SATELLITE (Earth-to-space)</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p>	<p>DORIS System (401,25 MHz \pm 350 Hz)</p> <p>Data Collecting Platforms for meteorological service (401,9 MHz \pm 200 kHz)</p>	
402 - 403	<p>METEOROLOGICAL AIDS SERVICE</p> <p>EARTH EXPLORATION - SATELLITE (Earth-to-space)</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p>	<p>Data Collecting Platforms for meteorological service</p> <p>SRD – Active medical implants (402-405 MHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 12 ERC/DEC(01)17</p>
403 - 406	<p>METEOROLOGICAL AIDS</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p>	<p>Radiosondes (METAX)</p> <p>SRD – Active medical implants (402-405 MHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 12 ERC/DEC(01)17</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
406 - 406,1	MOBILE-SATELLITE (Earth-to-space) 5.266, 5.267	EPIRB COSPAS – SARSAT	RR Ap.13
406,1 - 410	FIXED MOBILE except aeronautical mobile RADIO-ASTRONOMY 5.149	Single channel links	Single channel links plan: simplex links Government (408,7875-409,9875 MHz)
410 - 420	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268	Single channel links TETRA	Single channel links plan: duplex links ERC/DEC(96)04 - Some channels in sub-band 413-417,6 MHz Government (417,5875-418,5875 MHz)
420 - 430	FIXED MOBILE except aeronautical mobile Radiolocation	Single channel links TETRA POSAT-1 (429,450 MHz; 429,520 MHz; 429,880 MHz; 429,950 MHz)	Single channel links plan: duplex links ERC/DEC(96)04 - Some channels in sub-band 423-427,6 MHz Low Earth orbit satellite, subject to provision RR 4.4 Government (427,5875-428,5875 MHz)
430 – 432	AMATEUR RADIOLOCATION	Amateur	Amateur national regulations

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
432 - 438	<p>AMATEUR</p> <p>Amateur-satellite 5.282</p> <p>RADIOLOCATION</p> <p>Earth exploration-satellite (active) 5.279A</p> <p>5.138, 5.280</p>	<p>Amateur (430-435 MHz)</p> <p>Amateur-satellite (435-438 MHz)</p> <p>ISM – Industrial, scientific and medical applications (433,05-434,79 MHz)</p> <p>SRD – Non-specific applications (433,05-434,79 MHz)</p>	<p>Amateur national regulations</p> <p>The amateur satellite uses secondary allocations in the 435-438 MHz band, according to RR provision 5.282</p> <p>CEPT/ERC/REC 70-03 Annex 1 ECC/DEC(04)02</p>
438 - 440	<p>AMATEUR</p> <p>RADIOLOCATION</p>	Amateur	Amateur national regulations
440 - 450	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>Radiolocation</p> <p>5.286</p>	<p>Private Mobile Radio</p> <p>PMR446 (446-446,1 MHz)</p>	<p>440-450 MHz plan</p> <p>ERC/DEC(98)25</p>
450 - 455	<p>FIXED</p> <p>MOBILE</p> <p>5.209, 5.286, 5.286A, 5.286B, 5.286C</p>	<p>Fixed – PMP applications (RAS 1000) (454,8185-457,4875 MHz; 464,8125-467,4875 MHz)</p> <p>Private Mobile Radio</p> <p>Trunking mobile service (assigned frequencies in the sub-band 450,0125-451,3875 MHz)</p> <p>CDMA 450 (453-457,45 MHz)</p> <p>TETRA Civil</p>	<p>450 MHz plan</p> <p>MPT 1327</p> <p>ECC/DEC/(04)06</p> <p>ERC/DEC/(96)04 Some channels in the band 450-470 MHz</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
455 - 456	<p>FIXED</p> <p>MOBILE</p> <p>5.209, 5.286A, 5.286B, 5.286C</p>	<p>Fixed – PMP applications (RAS 1000) (454,8185-457,4875 MHz; 464,8125-467,4875 MHz)</p> <p>Private Mobile Radio</p> <p>CDMA 450 (453-457,45 MHz)</p> <p>TETRA civil</p>	<p>450 MHz plan</p> <p>ECC/DEC/(04)06</p> <p>ERC/DEC/(96)04 Some channels in the band 450-470 MHz</p>
456 - 459	<p>FIXED</p> <p>MOBILE</p> <p>5.287</p>	<p>Fixed – PMP applications (RAS 1000) (454,8185-457,4875 MHz; 464,8125-467,4875 MHz)</p> <p>Private Mobile Radio</p> <p>Maritime on board communications (457,525 MHz; 457,5375 MHz; 457,550 MHz; 457,5625 MHz; 457,575 MHz)</p> <p>CDMA 450 (453 –457.45 MHz)</p> <p>TETRA civil</p> <p>SRD – Short range narrowband equipment for telecommand, telemetry, telealarm and data transmission (458,1125 MHz; 458,1250 MHz; 458,1375 MHz; 458,1500 MHz)</p>	<p>450 MHz plan</p> <p>ECC/DEC/(04)06</p> <p>ERC/DEC/(96)04 Some channels in the band 450-470 MHz</p> <p>Government (458,2125-459,3625 MHz)</p>
459 - 460	<p>FIXED</p> <p>MOBILE</p> <p>5.209, 5.286A, 5.286B, 5.286C</p>	<p>Private Mobile Radio</p> <p>Private radio paging (459,650 MHz)</p> <p>TETRA civil</p>	<p>450 MHz plan</p> <p>Local paging</p> <p>ERC/DEC/(96)04 Some channels in the band 450-470 MHz</p> <p>Government (458,2125-459,3625 MHz)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
460 - 470	<p>FIXED</p> <p>MOBILE</p> <p>Meteorological-satellite (space-to-Earth)</p> <p>5.287, 5.289</p>	<p>Fixed – PMP applications (RAS 1000) (454,8185-457,4875 MHz; 464,8125-467,4875 MHz)</p> <p>Private Mobile Radio</p> <p>Trunking mobile service (assigned frequencies in the sub-band 460,0125 – 461,3875 MHz)</p> <p>Private Radio paging (468,1125 MHz; 468,1250 MHz; 469,275 MHz)</p> <p>ECAR – Coverage equipment in restricted area (468,15 MHz; 468,1375 MHz)</p> <p>Maritime on board communications (467,525 MHz; 467,5375 MHz; 467,550 MHz; 467,5625 MHz; 467,575 MHz)</p> <p>CDMA 450 (463 –467.45 MHz)</p> <p>TETRA civil</p>	<p>450 MHz plan</p> <p>MPT 1327</p> <p>Local paging</p> <p>ECC/DEC/(04)06</p> <p>ERC/DEC/(96)04 Some channels in the band 450-470 MHz</p> <p>Government (468,2125-469,2125 MHz; 469,3625-469,5875 MHz)</p>
470 - 790	<p>BROADCASTING</p> <p>Land Mobile (5.296)</p> <p>5.149, 5.306, 5.311</p>	<p>Analogue television broadcasting</p> <p>DVB-T – Digital television broadcasting (470-582 MHz e 582-862 MHz)</p> <p>SAP/SAB applications SRD - (Radio microphones) (470-862 MHz)</p>	<p>Bands IV (470-582 MHz) and V (582-822 MHz) (channels 21 to 64) ST-61</p> <p>Band IV (some channels between 23 and 34) and Band V (some channels between 35 and 69)</p> <p>Ancillary to Broadcasting CEPT/ERC/REC 70-03 Annex 10</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
790 - 862	<p>FIXED</p> <p>BROADCASTING</p> <p>MOBILE except aeronautical mobile 5.316, 5.317A</p>	<p>Analogue television broadcasting</p> <p>DVB-T – Digital television broadcasting (582-862 MHz)</p> <p>SAP/SAB applications(Radio microphones) (470-862 MHz)</p>	<p>Band V (582-822 MHz) (channels 21 to 64)</p> <p>Band V (some channels between 35 and 69)</p>
862 - 890	<p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317A</p>	<p>SRD – Non-specific applications (868,0-868,6 MHz), (868,7-869,2 MHz), (869,40-869,65 MHz), (869,7-870 MHz)</p> <p>SRD – Alarms (868,6-868,7 MHz), (869,250-869,300 MHz), (869,650-869,700 MHz)</p> <p>SRD - Social alarms (869,2-869,25 MHz)</p> <p>SRD – Radio microphones (863-865 MHz)</p> <p>SRD – Wireless audio applications (863-865 MHz)</p>	<p>CEPT Rec T/R 75-02 (862-960 MHz)</p> <p>ERC/DEC/(97)02: GSM extension band (880-890/925-935 MHz)</p> <p>CEPT/ERC/REC 70-03 Annex 1 ERC/DEC/(01)04</p> <p>CEPT/ERC/REC 70-03 Annex 7 ERC/DEC/(01)09</p> <p>CEPT/ERC/REC 70-03 Annex 7 ERC/DEC/(97)06</p> <p>CEPT/ERC/REC 70-03 Annex 10</p> <p>CEPT/ERC/REC 70-03 Annex 13 ERC/DEC/(01)18</p> <p>Government (873-878 MHz)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
890 - 942	<p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317 A</p> <p>Radiolocation</p>	<p>GSM – Global system for mobile communications (890- 914 MHz/ 935-959 MHz)</p> <p>CT1 – Cordless telephones (914-915 MHz)</p>	<p>CEPT Rec T/R 75-02 (862-960 MHz)</p> <p>ERC/DEC/(94)01: 890-915/935- 960 MHz Directive 87/372/EEC CEPT Rec T/R 20-08</p> <p>ERC/DEC/(97)02: GSM extension band (880-890/925- 935 MHz)</p> <p>CEPT Rec. T/R 24-03 (914-915 MHz; 959-960 MHz) (until 2008)</p> <p>Government (918-923 MHz)</p>
942 - 960	<p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317A</p>	<p>GSM – Global system for mobile communications (890- 914 MHz/ 935-959 MHz)</p> <p>CT1 – Cordless telephones (959-960 MHz)</p>	<p>CEPT Rec T/R 75-02 (862-960 MHz)</p> <p>ERC/DEC/(94)01: 890-915/935- 960 MHz Directive 87/372/EEC CEPT Rec T/R 20-08</p> <p>CEPT Rec. T/R 24-03 (914-915 MHz; 959-960 MHz) (until 2008)</p>
960 – 1164	AERONAUTICAL RADIONAVIGATION 5.328	Flight safety, Navigation and information distribution systems – DME, TACAN, SSR	
1164 – 1215	<p>AERONAUTICAL RADIONAVIGATION 5.328</p> <p>RADIONAVIGATION- SATELLITE (space-to-Earth) (space-to-space) 5.328B</p> <p>5.328A</p>		

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1215 - 1240	<p>EARTH EXPLORATION - SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>RADIONAVIGATION- SATELLITE (space-to-Earth) 5.329, 5.329A (space-to-space) 5.328B</p> <p>SPACE RESEARCH (active)</p> <p>RADIONAVIGATION (5.331) 5.332</p>	GPS – Global Positioning System	
1240 – 1300	<p>EARTH EXPLORATION - SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>RADIONAVIGATION- SATELLITE (space-to-Earth) 5.329, 5.329A, (space-to-space) 5.328B</p> <p>SPACE RESEARCH (active)</p> <p>Amateur</p> <p>RADIONAVIGATION (5.331) 5.282, 5.332, 5.335A</p>	Amateur	Amateur national regulations
1300 - 1350	<p>AERONAUTICAL RADIONAVIGATION 5.337</p> <p>RADIOLOCATION</p> <p>RADIONAVIGATION- SATELLITE (Earth-to-space) 5.149, 5.337A</p>	Radars	
1350 – 1400	<p>FIXED</p> <p>MOBILE</p> <p>RADIOLOCATION 5.149, 5.339, 5.339A</p>	Fixed links	CEPT Rec T/R 13-01 Annex A (1350-1375 MHz) e Annex B (1375-1400 MHz)

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1400 - 1427	EARTH EXPLORATION - SATELLITE (passive) RADIO-ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
1427 - 1429	SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341	Fixed links	1,5 GHz band CEPT Rec T/R 13-01 Annex B (1427-1452 MHz)
1429 - 1452	FIXED MOBILE except aeronautical mobile 5.341, 5.339A	Fixed links	1,5 GHz band (1429-1525 MHz) (planning to withdraw) CEPT Rec T/R 13-01 Annex B (1427-1452 MHz)
1452 - 1492	FIXED MOBILE except aeronautical mobile Broadcasting 5.345, 5.347 Broadcasting-satellite 5.345, 5.347 5.341	Fixed links	1,5 GHz band (1429-1525 MHz) (planning to withdraw) T-DAB – Sound broadcasting (1452-1479.5 MHz) Primary statute from 1/4/2007 CEPT Rec T/R 52-02 Maastricht Agreement S-DAB: Sound BROADCASTING -satellite (RAD-S)(1479.5-1492 MHz) Primary statute from 1/4/2007 ECC/DEC(03)02

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1492 – 1518	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>5.341</p>	<p>Fixed links</p> <p>STL – Studio transmitter links (1517-1525 MHz)</p>	<p>1,5 GHz band (1429-1525 MHz) (planning to withdraw) CEPT Rec T/R 13-01 Annex A (1492-1517 MHz)</p>
1518 – 1525	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.348, 5.348C</p> <p>5.341</p>	<p>Fixed links</p> <p>STL – Studio transmitter links (1517-1525 MHz)</p>	<p>1,5 GHz band (1429-1525 MHz) (planning to withdraw)</p>
1525 - 1530	<p>SPACE OPERATION (space-to-Earth)</p> <p>Fixed</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351A</p> <p>Earth exploration - satellite</p> <p>Mobile except aeronautical mobile</p> <p>5.341, 5.351, 5.354</p>	<p>Mobile-satellite (1525-1544 MHz)</p>	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1530 - 1533	SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.351A, 5.353A Earth exploration - satellite Fixed Mobile except aeronautical mobile 5.341, 5.351, 5.354	Mobile-satellite (1525-1544 MHz)	
1533 - 1535	SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.351A, 5.353A Earth exploration-satellite Fixed Mobile except aeronautical mobile 5.341, 5.351, 5.354	Mobile-satellite (1525-1544 MHz)	
1535 - 1544	MOBILE-SATELLITE (space-to-Earth) 5.351 5.341, 5.351, 5.353A, 5.354	Mobile-satellite (1525-1544 MHz)	
1544 - 1545	MOBILE-SATELLITE (space-to-Earth) 5.351A 5.341, 5.354, 5.356	Distress and safety satellite systems, including GMDSS	Band limited to distress and safety systems
1545 - 1559	MOBILE-SATELLITE (space-to-Earth) 5.351A 5.341, 5.351, 5.354, 5.357, 5.357A	Maritime mobile-satellite Distress and safety satellite systems, including GMDSS	Band limited to distress and safety systems

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1559 - 1610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION- SATELLITE (space-to-Earth) 5.329A, (space-to-space) 5.328B 5.341	GPS – Global Positioning System	
1610 - 1610,6	MOBILE-SATELLITE (Earth-to- space) 5.351A AERONAUTICAL RADIONAVIGATION 5.341, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372	S-PCS (1610-1626,5 MHz)	ERC/DEC/(97)03
1610,6 - 1613,8	MOBILE-SATELLITE (Earth-to- space) 5.351A RADIO-ASTRONOMY AERONAUTICAL RADIONAVIGATION 5.149, 5.341, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372	S-PCS (1610-1626,5 MHz)	ERC/DEC/(97)03 Band important for radio- astronomy service in Europe
1613,8 - 1626,5	MOBILE-SATELLITE (Earth-to- space) 5.351A AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE(space-to- Earth) 5.341, 5.364, 5.365, 5.366, 5.367, 5.368, 5.371	S-PCS (1610-1626,5 MHz)	ERC/DEC/(97)03
1626,5 - 1631,5	MOBILE-SATELLITE (Earth-to- space) 5.351A 5.341, 5.351, 5.353A, 5.354	Maritime mobile-satellite	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1631,5 - 1636,5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.353A, 5.354, 5.374	Maritime mobile-satellite	
1636,5 - 1645,5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.353A, 5.354	Land mobile-satellite	
1645,5 - 1646,5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.354, 5.375	Distress and safety satellite systems, including GMDSS	Band limited to distress and safety systems
1646,5 - 1656,5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.354, 5.357A, 5.376	Mobile-satellite	
1656,5 - 1660	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.354, 5.359, 5.374	Mobile-satellite	
1660 - 1660,5	MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO-ASTRONOMY 5.149, 5.341, 5.351, 5.354, 5.376A	Mobile-satellite	Band important for radio-astronomy service in Europe
1660,5 – 1668	RADIO-ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149, 5.341, 5.379A		Band important for radio-astronomy service in Europe

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1668 – 1668,4	MOBILE-SATELLITE (Earth-to-space) 5.348C, 5.379B, 5.379C RADIO-ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149, 5.341, 5.379A, 5.379D		
1668,4 - 1670	METEOROLOGICAL AIDS FIXED MOBILE-SATELLITE (Earth-to-space) 5.348C, 5.379B, 5.379C MOBILE except aeronautical mobile RADIO-ASTRONOMY 5.149, 5.341, 5.379D, 5.379E		Band important for radio-astronomy service in Europe
1670 - 1675	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE 5.380 MOBILE-SATELLITE (Earth-to-space) 5.348C, 5.379B 5.341, 5.379D, 5.379E, 5.380A		ECC/DEC(02)07(for harmonised use 1670-1675 MHz and 1800-1805 MHz)
1675 - 1690	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341		Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1690 - 1700	<p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL- SATELLITE (space-to-Earth)</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p> <p>5.289, 5.341</p>	METEOSAT – Meteorological satellites for high-resolution picture transmission	
1700 - 1710	<p>FIXED</p> <p>METEOROLOGICAL- SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.289, 5.341</p>		
1710 - 1930	<p>FIXED</p> <p>MOBILE 5.380, 5.384A, 5.388A</p>	<p>DCS 1800 – Digital communications system (1710- 1785 MHz; 1805-1880 MHz)</p> <p>DECT – European wireless digital telecommunications system ; (1880-1900 MHz)</p> <p>IMT-2000 – International mobile telecommunications – 2000 ; (1900-1980 MHz / 2110- 2170 MHz)</p> <p>SRD - transmitting microphones (1785,7-1799,4 MHz)</p>	<p>ERC/DEC/(95)03 CEPT Rec T/R 22-07</p> <p>ERC/DEC/(94)03 Directive 91/287/EEC CEPT Rec T/R 22-02</p> <p>The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900- 1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p> <p>ECC/DEC(02)07(for harmonised use 1670-1675 MHz and 1800- 1805 MHz)</p> <p>CEPT/ERC/REC 70-03 Annex 10</p>
	5.149, 5.341, 5.385, 5.388		

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1930 – 1970	FIXED MOBILE 5.388A 5.388	IMT-2000 – International mobile telecommunications – 2000 ; (1900-1980 MHz / 2110-2170 MHz)	The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)
1970 - 1980	FIXED MOBILE 5.388A 5.388	IMT-2000 – International mobile telecommunications – 2000 ; (1900-1980 MHz / 2110-2170 MHz)	The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)
1980 - 2010	FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388, 5.389A	 S-PCS (1980-2010 MHz)	IMT-2000 – International mobile telecommunications – 2000 The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Satellite component: 1980-2010 MHz; 2170-2200 MHz) ERC/DEC/(97)03
2010 - 2025	FIXED MOBILE 5.388A 5.388		IMT-2000 – International mobile telecommunications – 2000 The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2025 - 2110	SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION - SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392	TCR – Tracking, control and ranging DORIS System (2036,25 MHz ± 400 Hz) Fixed links SAP/SAB applications (video links) (2070-2110 MHz)	2 GHz band CEPT Rec T/R 13-01 Annex C (2025-2110 MHz) CEPT/ERC/REC 25-10
2110 - 2120	FIXED MOBILE 5.388A SPACE RESEARCH (deep space) (Earth-to-space) 5.388	IMT-2000 – International mobile telecommunications – 2000	The 1885-2025 and 2110-2200 MHz bands designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)
2120 - 2170	FIXED MOBILE 5.388A 5.388	IMT-2000 – International mobile telecommunications – 2000	The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2170 - 2200	<p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351</p> <p>5.388, 5.389A</p>	S-PCS (2170-2200 MHz)	<p>IMT-2000 – International mobile telecommunications – 2000</p> <p>The bands 1885-2025 MHz and 2110-2200 MHz designated - WARC-1992</p> <p>ERC/DEC/(97)07</p> <p>(Satellite component: 1980-2010 MHz; 2170-2200 MHz)</p> <p>ERC/DEC/(97)03</p>
2200 - 2290	<p>SPACE OPERATION (space-to-Earth) (space-to-space)</p> <p>EARTH EXPLORATION - SATELLITE (space-to-Earth) (space-to-space)</p> <p>FIXED</p> <p>MOBILE 5.391</p> <p>SPACE RESEARCH (space-to-Earth) (space-to-space)</p> <p>5.392</p>	<p>TCR – Tracking, control and alignment (OE)</p> <p>Fixed links</p> <p>SAP/SAB applications (video links) (2245-2500 MHz)</p>	<p>2 GHz band</p> <p>CEPT Rec T/R 13-01 Annex C (2200-2290 MHz)</p> <p>CEPT/ERC/REC 25-10</p>
2290 - 2300	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (deep space) (space-to-Earth)</p>	SAP/SAB applications (video links) (2245-2500 MHz)	CEPT/ERC/REC 25-10
2300 - 2400	<p>FIXED</p> <p>MOBILE</p> <p>Amateur</p> <p>Radiolocation</p>	<p>Amateur</p> <p>SAP/SAB applications (video links) (2245-2500 MHz)</p>	<p>Amateur national regulations</p> <p>CEPT/ERC/REC 25-10</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2400 - 2450	<p>FIXED</p> <p>MOBILE</p> <p>Amateur</p> <p>Amateur-satellite 5.282</p> <p>Radio-location</p> <p>5.150</p>	<p>AMATEUR</p> <p>SAP/SAB applications (video links) (2245-2500 MHz)</p> <p>ISM – Industrial, scientific and medical applications (2400-2500 MHz)</p> <p>SRD – Non-specific applications (2400-2483,5 MHz)</p> <p>SRD - WLANs (2400-2483,5 MHz)</p> <p>SRD – Movement detection and alert applications (2400-2483,5 MHz)</p> <p>SRD - RFID (2446-2454 MHz)</p>	<p>Amateur national regulations</p> <p>CEPT/ERC/REC 25-10</p> <p>CEPT/ERC/REC 70-03 Annex 1 ERC/DEC(01)05</p> <p>CEPT/ERC/REC 70-03 Annex 3 ERC/DEC(01)07</p> <p>CEPT/ERC/REC 70-03 Annex 6 ERC/DEC(01)08</p> <p>CEPT/ERC/REC 70-03 Annex 11</p>
2450 - 2483,5	<p>FIXED</p> <p>MOBILE</p> <p>Radiolocation</p> <p>5.150</p>	<p>SAP/SAB applications (video links) (2245-2500 MHz)</p> <p>ISM – Industrial, scientific and medical applications (2400-2500 MHz)</p> <p>SRD – Non-specific applications (2400-2483,5 MHz)</p> <p>SRD - WLANs (2400-2483,5 MHz)</p> <p>SRD – Movement detection and alert applications (2400-2483,5 MHz)</p> <p>SRD - RFID (2446-2454 MHz)</p>	<p>CEPT/ERC/REC 25-10</p> <p>CEPT/ERC/REC 70-03 Annex 1, ERC/DEC(01)05</p> <p>CEPT/ERC/REC 70-03 Annex 3</p> <p>CEPT/ERC/REC 70-03 Annex 6 ERC/DEC(01)08</p> <p>CEPT/ERC/REC 70-03 Annex 11</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2483,5 - 2500	<p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351A</p> <p>Radiolocation</p> <p>5.150, 5.371, 5.398, 5.399, 5.402</p>	<p>S-PCS (2483,5-2500 MHz)</p> <p>SAP/SAB applications (video links) (2245-2500 MHz)</p> <p>ISM – Industrial, scientific and medical applications (2400-2500 MHz)</p>	<p>ERC/DEC/(97)03</p> <p>IMT-2000 : RES 225 (WRC 2000): Satellite component: 2483.5-2500 MHz)</p> <p>CEPT/ERC/REC 25-10</p>
2500 - 2520	<p>FIXED 5.409, 5.410, 5.411</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.403, 5.351A</p> <p>5.414</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Multipoint microwave distribution system (AZR and MDR)</p> <p>ECC/DEC(02)06 (2500-2692 MHz UMTS/IMT2000)</p> <p>Allocation of this band to satellite mobile service will be effected from 1.1.2005 (planning to withdraw - 31/12/2005)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2520 - 2655	<p>FIXED 5.409, 5.410, 5.411</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>BROADCASTING-SATELLITE 5.413, 5.416</p> <p>5.339, 5.403, 5.418B, 5.418Bbis, 5.418C, 5.418Cbis</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Multipoint microwave distribution system (AZR and MDR)</p> <p>ECC/DEC(02)06 (2500-2692 MHz UMTS/IMT2000)</p> <p>(planning to withdraw - 31/12/2005)</p>
2655 - 2670	<p>FIXED 5.409, 5.410, 5.411</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>BROADCASTING-SATELLITE 5.413, 5.416</p> <p>Earth exploration-satellite (passive)</p> <p>Radio astronomy</p> <p>Space research (passive)</p> <p>5.149, 5.420</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Multipoint microwave distribution system (AZR and MDR)</p> <p>(planning to withdraw - 31/12/2005)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2670 - 2690	<p>FIXED 5.409, 5.410, 5.411</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>MOBILE-SATELLITE (Earth-to-space) 5.351A</p> <p>Earth exploration-satellite (passive)</p> <p>Radio-astronomy</p> <p>Space research (passive)</p> <p>5.149, 5.419, 5.420</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Multipoint microwave distribution system (AZR and MDR)</p> <p>ECC/DEC(02)06 (2500-2692 MHz UMTS/IMT2000)</p> <p>(planning to withdraw - 31/12/2005)</p>
2690 - 2700	<p>EARTH EXPLORATION - SATELLITE (passive)</p> <p>RADIO-ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
2700 - 2900	<p>AERONAUTICAL RADIONAVIGATION 5.337</p> <p>METEOROLOGICAL AIDS 5.423</p> <p>Radiolocation</p>	<p>Navigation systems</p> <p>Meteorological radars (METAX)</p> <p>Radars</p>	
2900 - 3100	<p>RADIOLOCATION 5.424A</p> <p>RADIONAVIGATION 5.426</p> <p>5.425, 5.427</p>	Radars	
3100 - 3300	<p>RADIOLOCATION</p> <p>Earth exploration-satellite (active)</p> <p>Space research (active)</p> <p>5.149</p>	Radars	Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
3300 - 3400	RADIOLOCATION 5.149	Radars	Government
3400 - 3600	FIXED FIXED-SATELLITE (space-to-Earth) Mobile Radiolocation	FWA (1 bloc of 2x28 MHz in the 3400-3600 MHz sub-band)	CEPT Rec T/R 14-03, Annex B
3600 - 4200	FIXED FIXED-SATELLITE (space-to-Earth) Mobile	Fixed links FWA (3 blocs of 2x28 MHz in the 3600-3800 MHz sub-band) Fixed-satellite VSATs; SNGs; occasional carriers; permanent carriers	4 GHz band Rec ITU-R F 382 (3800-4200 MHz) CEPT/ERC/REC 12-08 Annex B (3600-3800 MHz)
4200 - 4400	AERONAUTICAL RADIONAVIGATION 5.438 5.440	Radars	
4400 - 4500	FIXED MOBILE		Government
4500 - 4800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE		RR Ap. 30B Government

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
4800 - 4990	FIXED MOBILE 5.442 Radio-astronomy 5.149, 5.339		Government
4990 - 5000	FIXED MOBILE except aeronautical mobile RADIO-ASTRONOMY Space research (passive) 5.149		Government
5000 – 5010	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) 5.367		Band reserved for the MLS system
5010 – 5030	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) 5.443B, (space-to-space) 5.328B 5.367		
5030 – 5150	AERONAUTICAL RADIONAVIGATION 5.367, 5.444, 5.444A		
5150 - 5250	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (space-to-Earth) 5.447A MOBILE except aeronautical mobile 5.446A, 5.446B 5.446, 5.447, 5.447B, 5.447C	SRD - WAS/RLAN (5150-5350 MHz)	CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5250 - 5255	<p>EARTH EXPLORATION - SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH 5.447D</p> <p>MOBILE except aeronautical mobile 5.446A, 5.447F</p> <p>5.448A</p>	<p>SRD - WAS/RLAN (5150-5350 MHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08</p> <p>Government</p>
5255 - 5350	<p>EARTH EXPLORATION - SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH (active)</p> <p>MOBILE except aeronautical mobile 5.446A, 5.447F</p> <p>5.448A</p>	<p>SRD - WAS/RLAN (5150-5350 MHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08</p> <p>Government</p>
5350 - 5460	<p>EARTH EXPLORATION - SATELLITE (active) 5.448B</p> <p>SPACE RESEARCH (active) 5.448C</p> <p>AERONAUTICAL RADIONAVIGATION 5.449</p> <p>RADIOLOCATION 5.448D</p>		
5460 - 5470	<p>RADIONAVIGATION 5.449</p> <p>EARTH EXPLORATION - SATELLITE (active)</p> <p>SPACE RESEARCH (active)</p> <p>RADIOLOCATION 5.448D</p> <p>5.448B</p>		

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5470 – 5570	MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A, 5.450A EARTH EXPLORATION - SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.450B 5.448B	Radars SRD – WAS/RLAN (5470-5725 MHz)	 CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08
5570 – 5650	MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A, 5.450A RADIOLOCATION 5.450B 5.452	Radars Meteorological radars (5600- 5650 MHz) SRD – WAS/RLAN (5470-5725 MHz)	 CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(99)23
5650-5670	RADIOLOCATION MOBILE except aeronautical mobile 5.446A, 5.450A Amateur Amateur-satellite 5.282 Space research (deep space)	Amateur SRD – WAS/RLAN (5470-5725 MHz)	Amateur national regulations CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08
5670 - 5725	RADIOLOCATION MOBILE except aeronautical mobile 5.446A, 5.450A Amateur Space research (deep space)	Amateur SRD – WAS/RLAN (5470-5725 MHz)	Amateur national regulations CEPT/ERC/REC 70-03 Annex 3 ERC/DEC/(04)08

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5725 - 5830	<p>FIXED-SATELLITE (Earth-to-space)</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>5.150</p>	<p>Fixed satellite</p> <p>Amateur</p> <p>ISM – Industrial, scientific and medical applications (5725-5875 MHz)</p> <p>SRD – Non-specific applications (5725-5875 MHz)</p> <p>SRD - RTTT (5795-5805 MHz), (5805-5815 MHz)</p>	<p>Amateur national regulations</p> <p>CEPT/ERC/REC 70-03 Annex 1 ERC/DEC(01)06</p> <p>CEPT/ERC/REC 70-03 Annex 5 ERC/DEC(02)01</p>
5830 - 5850	<p>FIXED-SATELLITE (Earth-to-space)</p> <p>RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-satellite (space-to-Earth)</p> <p>5.150</p>	<p>Fixed satellite</p> <p>Amateur</p> <p>ISM – Industrial, scientific and medical applications (5725-5875 MHz)</p> <p>SRD – Non-specific applications (5725-5875 MHz)</p>	<p>Amateur national regulations</p> <p>CEPT/ERC/REC 70-03 Annex 1 ERC/DEC(01)06</p>
5850 - 5925	<p>FIXED</p> <p>FIXED SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>5.150</p>	<p>Fixed satellite</p> <p>ISM – Industrial, scientific and medical applications (5725-5875 MHz)</p> <p>SRD – Non-specific applications (5725-5875 MHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 1 ERC/DEC(01)06</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5925 - 6700	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.457A</p> <p>MOBILE</p> <p>5.149, 5.440, 5.458</p>	<p>Fixed links</p> <p>Fixed-satellite: VSATs; SNGs; occasional carriers; permanent carriers</p>	<p>6 GHz band (Low) (5925-6425 MHz) (CEPT/ERC/REC T/R 14-01 Annex 1)</p> <p>6 GHz band (High) (6425-7110 MHz) (CEPT/ERC/REC T/R 14-02 Annex 1)</p>
6700 - 7075	<p>FIXED</p> <p>FIXED SATELLITE (Earth-to-space) (space-to-Earth) 5.441</p> <p>MOBILE</p> <p>5.458, 5.458A, 5.458B, 5.458C</p>	<p>Fixed links</p>	<p>6 GHz band (High) (6425-7110 MHz) (CEPT/ERC/REC T/R 14-02 Annex 1)</p>
7075 – 7145	<p>FIXED</p> <p>MOBILE</p> <p>5.458</p>	<p>Fixed links</p>	<p>6 GHz band (High) (6425-7110 MHz) (CEPT/ERC/REC T/R 14-02 Annex 1)</p> <p>Recommendation ITU-R F 385 (7110-7425 MHz) CEPT/ECC/REC 02-06 (7125-7425 MHz)</p>
7145 – 7235	<p>FIXED</p> <p>MOBILE</p> <p>SPACE RESEARCH (Earth-to-space) 5.460</p> <p>5.458</p>	<p>Fixed links</p>	<p>Recommendation ITU-R F 385 (7110-7425 MHz) CEPT/ECC/REC 02-06 (7125-7425 MHz)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7235 – 7250	FIXED MOBILE 5.458	Fixed links	Recommendation ITU-R F 385 (7110-7425 MHz) CEPT/ECC/REC 02-06 (7125-7425 MHz)
7250 - 7300	FIXED FIXED-SATELLITE (space-to- Earth) MOBILE 5.461	Fixed links Fixed-satellite	Recommendation ITU-R F 385-6 (7110-7425 MHz) CEPT/ECC/REC 02-06 (7125-7425 MHz) Government
7300 - 7450	FIXED FIXED-SATELLITE (space-to- Earth) MOBILE except aeronautical mobile 5.461	Fixed links Fixed-satellite	7 GHz band Recommendation ITU-R F 385(7110-7425 MHz) Recommendation ITU-R F 385 (7425-7725 MHz) CEPT/ECC/REC 02-06 (7125-7425 MHz) (7425-7725 MHz)
7450 - 7550	FIXED FIXED-SATELLITE (space-to- Earth) METEOROLOGICAL- SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461A	Fixed links Fixed-satellite Meteorological-satellite	7 GHz band Recommendation ITU-R F 385 (7425-7750 MHz) CEPT/ECC/REC 02-06 (7425-7725 MHz)

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7550 - 7750	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p>	<p>Fixed links</p> <p>Fixed-satellite</p>	<p>7 GHz band Recommendation ITU-R F 385 (7425-7750 MHz) CEPT/ECC/REC 02-06 (7425-7725 MHz) Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz)</p>
7750 - 7850	<p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B</p> <p>MOBILE except aeronautical mobile</p>	Fixed links	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz)</p>
7850 - 7900	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p>	Fixed links	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz)</p>
7900 - 8025	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>5.461</p>	<p>Fixed links</p> <p>Fixed satellite</p>	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz)</p> <p>Government (7975-8025 MHz)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
8025 - 8175	<p>EARTH EXPLORATION - SATELLITE (space-to-Earth)</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to- space)</p> <p>MOBILE 5.463</p> <p>5.462A</p>	<p>Fixed links</p> <p>Fixed satellite</p>	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz)</p>
8175 - 8215	<p>EARTH EXPLORATION - SATELLITE (space-to-Earth)</p> <p>FIXED</p> <p>FIXED SATELLITE (Earth-to- space)</p> <p>METEOROLOGICAL- SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p> <p>5.462A</p>	<p>Fixed links</p> <p>Fixed satellite</p> <p>Meteorological-satellite</p>	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz) Recommendation ITU-R F 386 (8200-8500 MHz)</p>
8215 - 8400	<p>EARTH EXPLORATION - SATELLITE (space-to-Earth)</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to- space)</p> <p>MOBILE 5.463</p> <p>5.462A</p>	<p>Fixed links</p> <p>Fixed-satellite</p>	<p>8 GHz band Recommendation ITU-R F 386 Annex 1 (7700-8300 MHz); Recommendation ITU-R F 386 (8200-8500 MHz)</p>

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
8400 - 8500	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to- Earth) 5.465	Fixed links	8 GHz band Recommendation ITU-R F 386 (8200-8500 MHz)
8500 - 8550	RADIOLOCATION		Government
8550 - 8650	EARTH EXPLORATION - SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.469A		Government
8650 - 8750	RADIOLOCATION		Government
8750 - 8850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470		Government
8850 - 9000	RADIOLOCATION MARITIME RADIONAVIGATION 5.472		Government
9000 - 9200	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	Radars	

FREQUENCY BAND (MHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
9200 - 9300	RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.474	Radars – SARTs SRD – Movement detection and alert applications (9200- 9500 MHz)	CEPT/ERC/REC 70-03 Annex 6
9300 - 9500	RADIONAVIGATION 5.476 Radiolocation 5.427, 5.474, 5.475	Radars – SARTs SRD – Movement detection and alert applications (9200- 9500 MHz)	CEPT/ERC/REC 70-03 Annex 6
9500 - 9800	EARTH EXPLORATION - SATELLITE (active) RADIOLOCATION RADIONAVEGAÇÃO SPACE RESEARCH (active) 5.476A	SRD – Movement detection and alert applications (9500- 9975 MHz)	CEPT/ERC/REC 70-03 Annex 6
9800 - 10000	RADIOLOCATION Fxed 5.479	SRD – Movement detection and alert applications (9500- 9975 MHz)	CEPT/ERC/REC 70-03 Annex 6

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
10 - 10,45	FIXED MOBILE RADIOLOCATION Amateur 5.479	Amateur SAP/SAB applications (video links) (10,0-10,45 GHz)	Amateur national regulations CEPT/ERC/REC 25-10
10,45 - 10,5	RADIOLOCATION Amateur Amateur-satellite	Amateur	Amateur national regulations
10,5 - 10,55	FIXED MOBILE Radiolocation	SAP/SAB applications (video links) (10,5-10,68 GHz)	CEPT/ERC/REC 25-10
10,55 - 10,6	FIXED MOBILE except aeronautic mobile Radiolocation	SAP/SAB applications (video links) (10,5-10,68 GHz)	CEPT/ERC/REC 25-10
10,6 - 10,68	EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149, 5.482	SAP/SAB applications (video links) (10,5-10,68 GHz)	CEPT/ERC/REC 25-10

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
10,68 - 10,7	EARTH EXPLORATION -- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
10,7 - 11,7	FIXED FIXED-SATELLITE (space-to-Earth) 5.441, 5.484A, (Earth-to-space) 5.484 MOBILE except aeronautical mobile	Fixed links Fixed-satellite : VSATs; SNGs; SITs EUTELTRACS – Land mobile satellite system for data communication (10,7-11,7 GHz)	11 GHz band CEPT/ERC/REC 12-06 Rec.3 (10,7-11,7 GHz) RR Ap. 30B: (10,7-10,95 GHz; 11,2-11,45 GHz) SNGs (10,95-11,2 GHz e 11,45-11,7 GHz) SITs: 10,7-12,75 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)
11,7 - 12,5	FIXED BROADCASTING BROADCASTING--SATELLITE MOBILE except aeronautical mobile 5.487, 5.487A, 5.492	Broadcasting--satellite SITs (5.492)	RR Ap. 30 e Ap. 30A SITs: 10,7-12,75 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)
12,5 - 12,75	FIXED-SATELLITE (space-to-Earth) 5.484A, (Earth-to-space) Fixed (5.495) Mobile except aeronautical mobile (5.495)	Fixed-satellite : VSATs; SNGs; SITs EUTELTRACS – Land mobile satellite system for data communication (12,5-12,75 GHz)	CEPT/ERC/REC 13-03 SITs: 10,7-12,75 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
12,75 - 13,25	<p>FIXED</p> <p>FIXED SATELLITE (Earth-to-space) 5.441</p> <p>MOBILE</p> <p>Space research (deep space) (space-to-Earth)</p>	<p>Fixed links</p> <p>Fixed satellite</p>	<p>13 GHz band Rec. ITU-R F 497-(12,75-13,25 GHz)</p> <p>RR Ap. 30B</p>
13,25 - 13,4	<p>EARTH EXPLORATION-SATELLITE (active)</p> <p>AERONAUTICAL RADIONAVIGATION 5.497</p> <p>SPACE RESEARCH (active) 5.498A</p>		
13,4 - 13,75	<p>EARTH EXPLORATION--SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH 5.501A</p> <p>Standard frequency and time signal-satellite (Earth-to-space)</p> <p>5.501B</p>	<p>SRD – Movement detection and alert applications (13,4-14 GHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 6</p> <p>Government</p>
13,75 - 14	<p>FIXED-SATELLITE (Earth-to-space) 5.484A</p> <p>RADIOLOCATION</p> <p>Standard frequency and time signal-satellite (Earth-to-space)</p> <p>Space research</p> <p>Earth exploration-satellite</p> <p>5.502, 5.503</p>	<p>SRD – Movement detection and alert applications (13,4-14 GHz)</p>	<p>CEPT/ERC/REC 70-03 Annex 6</p> <p>Government</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
14 - 14,25	<p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.506, 5. 457A, 5.506B</p> <p>RADIONAVIGATION 5.504</p> <p>Mobile-satellite (Earth-to-space) 5.506A</p> <p>Space research</p> <p>5.504A</p>	<p>Fixed-satellite : VSATs; SNGs</p> <p>EUTELTRACS – Land mobile satellite systems for data communication (14-14,25 GHz)</p>	CEPT/ERC/REC 13-03
14,25 - 14,3	<p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.506, 5.457A, 5.506B</p> <p>RADIONAVIGATION 5.504</p> <p>Mobile-satellite (Earth-to-space) 5.506A</p> <p>Space research</p> <p>5.504A</p>	Fixed-satellite : VSATs; SNGs	CEPT/ERC/REC 13-03
14,3 - 14,4	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.506, 5.457A, 5.506B</p> <p>MOBILE except aeronautical mobile</p> <p>Mobile-satellite (Earth-to-space) 5.506A</p> <p>Radionavigation-satellite 5.504A</p>	Fixed-satellite : VSATs; SNGs	CEPT/ERC/REC 13-03
14,4 - 14,47	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.457A, 5.484A, 5.506, 5.506B</p> <p>MOBILE except aeronautical mobile</p> <p>Mobile-satellite (Earth-to-space) 5.506A</p> <p>Space research (space-to-Earth)</p> <p>5.504A</p>	Fixed-satellite : VSATs; SNGs	CEPT/ERC/REC 13-03

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
14,47 - 14,5	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.457A, 5.484A, 5.506, 5.506B</p> <p>MOBILE except aeronautical mobile</p> <p>Mobile-satellite (Earth-to-space) 5.506A</p> <p>RADIO ASTRONOMY</p> <p>5.149, 5.504A</p>	Fixed-satellite : VSATs; SNGs	CEPT/ERC/REC 13-03
14,5 - 14,8	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.510</p> <p>MOBILE</p> <p>Space research</p>	Fixed links	<p>15 GHz band CEPT/ERC/REC 12-07 Annex A (14,5-14,62 GHz)</p> <p>Government (14,62-14,8 GHz)</p>
14,8 - 15,35	<p>FIXED</p> <p>MOBILE</p> <p>Space research</p> <p>5.339</p>	Fixed links	<p>15 GHz band CEPT/ERC/REC 12-07 Annex A (15,23-15,35 GHz)</p> <p>Government (14,8-15,23 MHz)</p>
15,35 - 15,4	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
15,4 - 15,43	AERONAUTICAL RADIONAVIGATION 5.511D		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
15,43 - 15,63	FIXED-SATELLITE (Earth-to-space) 5.511A AERONAUTICAL RADIONAVIGATION 5.511C		
15,63 - 15,7	AERONAUTICAL RADIONAVIGATION 5.511D		
15,7 - 16,6	RADIOLOCATION	Radars	Government
16,6 - 17,1	RADIOLOCATION Space research (deep space) (Earth-to-space)	Radars	Government
17,1 - 17,2	RADIOLOCATION	SRD - HIPERLANs (17,1-17,3 GHz)	CEPT/ERC/REC 70-03 Annex 3 CEPT Rec T/R 22-06 Government
17,2 - 17,3	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.513A	SRD - HIPERLANs (17,1-17,3 GHz)	CEPT/ERC/REC 70-03 Annex 3 CEPT Rec T/R 22-06 Government
17,3 - 17,7	FIXED-SATELLITE (Earth-to-space) 5.516, (space-to-Earth) 5.516A, 5.516B Radiolocation	Fixed-satellite : HDFSS	RR Ap. 30A: (17,3-18,1 GHz) HDFSS (space-to-Earth): 17,3-17,7 GHz (WRC-2003)

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
17,7 - 18,1	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516</p> <p>MOBILE</p>	<p>Fixed links</p> <p>Fixed-satellite</p>	<p>18 GHz band Rec. ITU-R F 595 (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A</p> <p>RR Ap. 30A: (17,3-18,1 GHz)</p>
18,1 - 18,4	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.520</p> <p>MOBILE</p> <p>5.519</p>	Fixed links	<p>18 GHz band Rec. ITU-R F 595 (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A</p>
18,4 - 18,6	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A</p> <p>MOBILE</p>	Fixed links	<p>18 GHz band Rec. ITU-R F 595 (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A</p>
18,6 - 18,8	<p>EARTH EXPLORATION--SATELLITE (passive)</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.522B</p> <p>MOBILE except aeronautical mobile</p> <p>Space research (passive)</p> <p>5.522A</p>	Fixed links	<p>18 GHz band Rec. ITU-R F 595- (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
18,8 - 19,3	FIXED FIXED-SATELLITE (space-to-Earth) 5.523A MOBILE	Fixed links	18 GHz band Rec. ITU-R F 595- (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A
19,3 - 19,7	FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B, 5.523C, 5.523D, 5.523E MOBILE	Fixed links	18 GHz band Rec. ITU-R F 595- (17,7-19,7 GHz) CEPT/ERC/REC 12-03 Annex A
19,7 - 20,1	FIXED-SATELLITE (space-to-Earth) 5.484A, 5.516B Mobile-satellite (space-to-Earth)	Fixed-satellite : HDFSS; SUTs	HDFSS (space-to-Earth) : 19,7-20,2 GHz (WRC-2003) SUTs: 19,7-20,2 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)
20,1 - 20,2	FIXED-SATELLITE (space-to-Earth) 5.484 A, 5.516B MOBILE-SATELLITE (space-to-Earth) 5.525, 5.526, 5.527,5.528	Fixed-satellite : HDFSS; SUTs	HDFSS (space-to-Earth) : 19,7-20,2 GHz (WRC-2003) SUTs: 19,7-20,2 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)
20,2 - 21,2	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard frequency and time signal (space-to-Earth)		Government
21,2 - 21,4	EARTH EXPLORATION--SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
21,4 - 22	FIXED MOBILE BROADCASTING-SATELLITE 5.530	SRR (21,65-26,65 GHz)	From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
22 - 22,21	FIXED MOBILE except aeronautical mobile 5.149	Fixed links SRR (21,65-26,65 GHz)	23 GHz band CEPT Rec T/R 13-02 Annex A (22-22,6 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
22,21 - 22,5	EARTH EXPLORATION-- SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149, 5.532	Fixed links SRR (21,65-26,65 GHz)	23 GHz band CEPT Rec T/R 13-02 Annex A (22-22,6 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
22,5 - 22,55	FIXED MOBILE	Fixed links SRR (21,65-26,65 GHz)	23 GHz band CEPT Rec T/R 13-02 Annex A (22-22,6 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
22,55 - 23,55	FIXED INTER-SATELLITE MOBILE 5.149	Fixed links SRR (21,65-26,65 GHz)	23 GHz band CEPT Rec T/R 13-02 Annex A (22-22,6 GHz; 23-23,6 GHz) From 1/7/2005 Decisão CE 17/1/2005 ECC/DEC(04)10
23,55 - 23,6	FIXED MOBILE	Fixed links SRR (21,65-26,65 GHz)	23 GHz band CEPT Rec T/R 13-02 Annex A (23-23,6 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
23,6 - 24	EARTH EXPLORATION-- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
24 - 24,05	AMATEUR AMATEUR-SATELLITE 5.150	Amateur ISM – Industrial, scientific and medical applications (24-24,25 GHz) SRD – Non-specific applications (24-24,25 GHz) SRR (21,65-26,65 GHz)	Amateur national regulations CEPT/ERC/REC 70-03 Annex 1 From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
24,05 - 24,25	RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150	Radars (RLC) Amateur ISM – Industrial, scientific and medical applications (24-24,25 GHz) SRD – Non-specific applications (24-24,25 GHz) SRD – Movement detection and alert applications (24,05-24,25 GHz) SRR (21,65-26,65 GHz)	Amateur national regulations CEPT/ERC/REC 70-03 Annex 1 CEPT/ERC/REC 70-03 Annex 6 From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
24,25 - 24,45	FIXED	SRR (2,65-26,65 GHz)	From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
24,45 - 24,75	FIXED INTER-SATELLITE	FWA (6 blocs of 2x56 MHz in the sub-band 24,5-26,5 GHz) SRR (21,65-26,65 GHz)	25 GHz band CEPT Rec T/R 13-02 Annex B (24,5-26,5 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10
24,75 - 25,25	FIXED	FWA (6 blocs of 2x56 MHz in the sub-band 24,5-26,5 GHz) SRR (21,65-26,65 GHz)	25 GHz band CEPT Rec T/R 13-02 Annex B (24,5-26,5 GHz) From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10 Government (25,242-25,25 GHz)

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
25,25 - 25,5	<p>FIXED</p> <p>INTER-SATELLITE 5.536</p> <p>MOBILE</p> <p>Standard frequency and time signal --satellite (Earth-to-space)</p>	<p>FWA (6 blocs of 2x56 MHz in the sub-band 24,5-26,5 GHz)</p> <p>SRR (21,65-26,65 GHz)</p>	<p>25 GHz band CEPT Rec T/R 13-02 Annex B (24,5-26,5 GHz)</p> <p>From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10</p> <p>Government (25,25-25,492 GHz)</p>
25,5 - 27	<p>EARTH EXPLORATION-- SATELLITE (space-to-Earth) 5.536A, 5.536B</p> <p>FIXED</p> <p>INTER-SATELLITE 5.536</p> <p>MOBILE</p> <p>SPACE RESEARCH (space-to- Earth) 5.536A</p> <p>Standard frequency and time signal--satellite (Earth-to-space)</p>	<p>FWA (6 blocs of 2x56 MHz in the sub-band 24,5-26,5 GHz)</p> <p>SRR (21,65-26,65 GHz)</p>	<p>25 GHz band CEPT Rec T/R 13-02 Annex B (24,5-26,5 GHz)</p> <p>From 1/7/2005 EC Decision of 17/1/2005 ECC/DEC(04)10</p> <p>Government (26,25-27 GHz)</p>
27 - 27,5	<p>FIXED</p> <p>INTER-SATELLITE 5.536</p> <p>MOBILE</p>		<p>Government</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
27,5 - 28,5	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.539, 5.516B</p> <p>MOBILE</p> <p>5.538, 5.540</p>	<p>FWA (2 blocs of 2x175 MHz na sub-band 27,5-29,5 GHz)</p> <p>Fixed-satellite : HDFSS</p>	<p>28 GHz band CEPT Rec T/R 13-02 Annex C (27,5-29,5 GHz)</p> <p>HDFSS (Earth-to-space) :27,5-27,82 GHz; 28,45-28,94 GHz (WRC-2003)</p>
28,5 - 29,1	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.523A, 5.539, 5.516B</p> <p>MOBILE Earth exploration-satellite (Earth-to-space) 5.541</p> <p>5.540</p>	<p>FWA (2 blocs of 2x175 MHz na sub-band 27,5-29,5 GHz)</p> <p>Fixed-satellite : HDFSS</p>	<p>28 GHz band CEPT Rec T/R 13-02 Annex C (27,5-29,5 GHz)</p> <p>HDFSS (Earth-to-space) :28,45-28,94 GHz (WRC-2003)</p>
29,1 - 29,5	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.516B, 5.523C, 5.523E, 5.535A, 5.539, 5.541A,</p> <p>MOBILE Earth exploration-satellite (Earth-to-space) 5.541</p> <p>5.540</p>	<p>FWA (2 blocs of 2x175 MHz na sub-band 27,5-29,5 GHz)</p> <p>Fixed-satellite : HDFSS</p>	<p>28 GHz band CEPT Rec T/R 13-02 Annex C (27,5-29,5 GHz)</p> <p>HDFSS (Earth-to-space) : 29,46-30 GHz (WRC-2003)</p>
29,5 - 29,9	<p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.516B, 5.539</p> <p>Earth exploration-satellite (Earth-to-space) 5.541</p> <p>Mobile-satellite (Earth-to-space)</p> <p>5.540</p>	<p>Fixed-satellite: HDFSS; SUTs; SITs</p>	<p>HDFSS (Earth-to-space) : 29,46-30 GHz (WRC-2003)</p> <p>SUTs: 19,7-20,2 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)</p> <p>SITs: 10,7-12,75 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
29,9 - 30	<p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.539, 5.516B</p> <p>MOBILE-satellite (Earth-to-space)</p> <p>Earth exploration-satellite (Earth-to-space) 5.541, 5.543</p> <p>5.525, 5.526, 5.527, 5.538, 5.540</p>	Fixed-satellite: HDFSS, SUTs , SITs	<p>HDFSS (Earth-to-space) : 29,46-30 GHz (WRC-2003)</p> <p>SUTs: 19,7-20,2 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)</p> <p>SITs: 10,7-12,75 GHz (space-to-Earth) ; 29,5-30,0 GHz (Earth-to-space)</p>
30 - 31	<p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE-satellite (Earth-to-space)</p> <p>Standard frequency and time signal-satellite (space-to-Earth)</p>		Government
31 - 31,3	<p>FIXED</p> <p>MOBILE</p> <p>Standard frequency and time signal -- satellite (space-to-Earth)</p> <p>Space research 5.544</p> <p>5.149</p>		
31,3 - 31,5	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
31,5 - 31,8	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) FIXED MOBILE except aeronautical mobile 5.149		
31,8 - 32	FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547, 5.548		
32 - 32,3	FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547, 5.548		
32,3 - 33	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547, 5.548		
33 - 33,4	FIXED 5.547A RADIONAVIGATION 5.547		
33,4 - 34,2	RADIOLOCATION		Government

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
34,2 - 34,7	RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space)		Government
34,7 - 35,2	RADIOLOCATION Space research		Government
35,2 - 35,5	METEOROLOGICAL AIDS RADIOLOCATION		Government
35,5 - 36	METEOROLOGICAL AIDS EARTH EXPLORATION - SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549A		Government
36 - 37	EARTH EXPLORATION - SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149		Government
37 - 37,5	FIXED MOBILE SPACE RESEARCH (space-to-Earth) 5.547	Fixed links	38 GHz band CEPT Rec T/R 12-01 (37-39,5 GHz)

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
37,5 - 38	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>Earth exploration-satellite (space-to-Earth)</p> <p>5.547</p>	Fixed links	<p>38 GHz band CEPT Rec T/R 12-01 (37-39,5 GHz)</p> <p>ERC/DEC(00)02 Non-co-ordinated earth stations cannot claim protection from fixed service</p>
38 - 39,5	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>Earth exploration-satellite (space-to-Earth)</p> <p>5.547</p>	Fixed links	<p>38 GHz band CEPT Rec T/R 12-01 (37-39,5 GHz)</p> <p>ERC/DEC(00)02 Non-co-ordinated earth stations cannot claim protection from fixed service</p>
39,5 - 40	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Earth exploration-satellite (space-to-Earth)</p> <p>5.547</p>		<p>ERC/DEC(00)02 Co-ordinated and non-co-ordinated earth stations</p> <p>Bands identified - WRC-2003 (39,5-40 GHz) for HDFSS (space-to-Earth)</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
40 - 40,5	<p>EARTH EXPLORATION - SATELLITE (Earth-to-space)</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to- Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to- Earth)</p> <p>SPACE RESEARCH (Earth-to- space)</p> <p>Earth exploration-satellite (space-to-Earth)</p>		<p>ERC/DEC(00)02 Co-ordinated and non-co-ordinated earth stations</p> <p>Bands identified - WRC-2003 (40-40,5 GHz) for HDFSS (space-to-Earth)</p>
40,5 - 41	<p>FIXED</p> <p>FIXED-SATELLITE (space-to- Earth)</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547</p>	<p>MWS applications, including MVDS (40,5-43,5 GHz)</p>	<p>ERC/DEC/(99)15 CEPT/ECC/REC 01-04</p> <p>ECC/DEC(02)04</p>
41 – 42.5	<p>FIXED</p> <p>FIXED-SATELLITE (space-to- Earth)</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547, 5.551H, 5.551I</p>	<p>MWS applications, including MVDS (40,5-43,5 GHz)</p>	<p>ERC/DEC/(99)15 CEPT/ECC/REC 01-04</p> <p>ECC/DEC (02)04</p>

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
42,5 - 43,5	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149, 5.547	MWS applications, including MVDS (40,5-43,5 GHz)	ERC/DEC/(99)15 CEPT/ECC/REC 01-04
43,5 - 47	MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		Government (43,5-45,5 GHz)
47 - 47,2	AMATEUR AMATEUR-SATELLITE	Amateur	Amateur national regulations
47,2 – 47,5	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A		
47,5 – 47,9	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B MOBILE		Bands identified - WRC-2003 (47,5-47,9 GHz) for HDFSS (space-to-Earth)
47,9 – 48,2	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
48,2 – 48,54	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B, 5.554A, 5.555A MOBILE		Bands identified - WRC-2003 (48,2-48,54 GHz) for HDFSS (space-to-Earth)
48,54 – 49,44	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149, 5.340, 5.555		
49,44 – 50,2	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B, 5.554A, 5.555A MOBILE		Bands identified - WRC-2003 (49,44-50,2 GHz) for HDFSS (space-to-Earth)
50,2 - 50,4	EARTH EXPLORATION - SATELLITE (passive) SPACE RESEARCH (passive) 5.340	Radiometers - Passive sensors (EXP-S)	
50,4 - 51,4	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-satellite (Earth-to-space)		
51,4 - 52,6	FIXED MOBILE 5.547, 5.556		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
52,6 - 54,25	EARTH EXPLORATION - SATELLITE (passive) SPACE RESEARCH (passive) 5.340, 5.556	Radiometers - Passive sensors ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
54,25 - 55,78	EARTH EXPLORATION - SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive)	Radiometers - Passive sensors	
55,78 - 56,9	EARTH EXPLORATION - SATELLITE (passive) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547	Radiometers - Passive sensors	
56,9 - 57	EARTH EXPLORATION - SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547	Radiometers - Passive sensors	
57 - 58,2	EARTH EXPLORATION - SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547	Radiometers - Passive sensors Fixed links	58 GHz band CEPT/ERC/REC 12-09 (57-59 GHz)

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
58,2 - 59	EARTH EXPLORATION - SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547, 5.556	Radiometers - Passive sensors Fixed links	58 GHz band CEPT/ERC/REC 12-09 (57-59 GHz)
59 - 59,3	EARTH EXPLORATION - SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (passive)		Government
59,3 - 64	FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138	ISM – Industrial, scientific and medical applications (61-61,5 GHz) SRD – Non-specific applications (61-61,5 GHz) SRD - RTTT (63-64 GHz)	CEPT/ERC/REC 70-03 Annex 1 CEPT/ERC/REC 70-03 Annex 5 ECC/DEC(02)01 Government (59,3-61 GHz)
64 - 65	FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547, 5.556		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
65 - 66	EARTH EXPLORATION - SATELLITE FIXED INTER-SATELLITE MOBILE except aeronautical mobile SPACE RESEARCH 5.547		
66 - 71	INTER-SATELLITE MOBILE 5.553, 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		
71 - 74	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		Government
74 - 76	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth) 5.559A, 5.561	Amateur (75,5-76 GHz)- (primary service until 2006)	Amateur national regulations

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
76 – 77,5	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149	Amateur SRR (77-81 GHz) SRD - RTTT (76-77 GHz)	Amateur national regulations EC Decision of 8/7/2004 ECC/DEC/(04)03 CEPT/ERC/REC 70-03 Annex 5 ECC/DEC(02)01 Government
77,5 – 78	AMATEUR AMATEUR-SATELLITE Radio astronomy Space research (space-to-Earth) 5.149	Amateur SRR (77-81 GHz)	Amateur national regulations EC Decision of 8/7/2004 ECC/DEC/(04)03 Government
78 - 79	RADIOLOCATION Amateur Amateur-satellite Radio astronomy Space research (space-to-Earth) 5.149, 5.560	Amateur SRR (77-81 GHz)	Amateur national regulations EC Decision of 8/7/2004 ECC/DEC/(04)03 Government

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
79 - 81	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149	Amateur SRR (77-81 GHz)	Amateur national regulations EC Decision of 8/7/2004 ECC/DEC/(04)03 Government
81 - 84	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space research (space-to-Earth) 5.149, 5.561A		Government
84 - 86	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149		
86 - 92	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
92 - 94	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		
94 - 94,1	EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562, 5.562A		
94,1 - 95	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		
95 - 100	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION - SATELLITE 5.149, 5.554		
100 - 102	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
102 - 105	FIXED MOBILE RADIO ASTRONOMY 5.149, 5.341		
105 – 109,5	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341		
109,5 – 111,8	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
111,8 - 114,25	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341		
114,25 - 116	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
116 - 119,98	EARTH EXPLORATION - SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
119,98 - 122,25	<p>EARTH EXPLORATION - SATELLITE (passive)</p> <p>INTER-SATELLITE 5.562C</p> <p>SPACE RESEARCH (passive)</p> <p>5.138, 5.341</p>	<p>ISM – Industrial, scientific and medical applications (122-123 GHz)</p> <p>SRD – Non-specific applications (122-123 GHz)</p>	CEPT/ERC/REC 70-03 Annex 1
122,25 – 123	<p>FIXED</p> <p>INTER-SATELLITE</p> <p>MOBILE 5.558</p> <p>Amateur</p> <p>5.138</p>	<p>ISM – Industrial, scientific and medical applications (122-123 GHz)</p> <p>SRD – Non-specific applications (122-123 GHz)</p>	CEPT/ERC/REC 70-03 Annex 1
123 – 130	<p>FIXED SATELLITE (space-to- Earth)</p> <p>MOBILE-SATELLITE (space-to- Earth)</p> <p>RADIONAVIGATION</p> <p>RADIONAVIGATION- SATELLITE</p> <p>Radio astromomy</p> <p>5.149, 5.554</p>		
130 - 134	<p>EARTH EXPLORATION - SATELLITE (active) 5.562E</p> <p>FIXED</p> <p>INTER-SATELLITE</p> <p>MOBILE 5.558</p> <p>RADIO ASTRONOMY</p> <p>5.149, 5.562A</p>		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
134 - 136	AMATEUR AMATEUR-SATELLITE Radio astronomy		
136 - 141	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149		
141 – 148,5	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		
148,5 – 151,5	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
151,5 – 155,5	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		
155,5 – 158,5	EARTH EXPLORATION - SATELLITE (passive) 5.562F FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.562G		Future use of passive sensors in this band

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
158,5 - 164	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		
164 - 167	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
167 – 174.5	FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149		
174,5 - 174,8	FIXED INTER-SATELLITE MOBILE 5.558		
174,8 - 182	EARTH EXPLORATION - SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)		
182 - 185	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
185 - 190	EARTH EXPLORATION - SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)		
190 – 191,8	EARTH EXPLORATION - SATELLITE (passive) SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
191,8 - 200	FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE 5.149, 5.341, 5.554		
200 - 209	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341, 5.563A	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
209 - 217	FIXED FIXED-SATELLITE (Earth-to- space) MOBILE RADIO ASTRONOMY 5.149, 5.341		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
217 - 226	FIXED FIXED SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341		
226 – 231,5	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	
231,5 - 232	FIXED MOBILE Radiolocation		
232 - 235	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation		
235 - 238	EARTH EXPLORATION - SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A, 5.563B		

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
238 - 240	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE		
240 - 241	FIXED MOBILE RADIOLOCATION		
241 - 248	RADIO ASTRONOMY RADIOLOCATION Amateur 5.138, 5.149	Amateur ISM – Industrial, scientific and medical applications (244-246 GHz) SRD – Non-specific applications (244-246 GHz)	Amateur national regulations CEPT/ERC/REC 70-03 Annex 1
248 - 250	AMATEUR AMATEUR SATELLITE Radio astronomy 5.149	Amateur	Amateur national regulations
250 - 252	EARTH EXPLORATION - SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.563A	ALL EMISSIONS ARE PROHIBITED IN THIS BAND	

FREQUENCY BAND (GHz)	RADIO REGULATION (ART. 5) ALLOCATIONS APPLICABLE TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
252 - 265	FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149, 5.554		
265 - 275	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A		
275 - 1000	(Not allocated) 5.565		

Chapter 1 – FREQUENCY ALLOCATION TABLE

3. DEFINITIONS

Allocation (of a frequency band):

Entry in the Frequency Allocation Table of a given frequency band for the purpose of its use by one or more terrestrial or space radiocommunication services or the radio astronomy service, under specified conditions. This term shall also applied to the frequency band concerned.

Allotment (of a radio frequency or radio frequency channel):

Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space radiocommunication service in one or more identified countries or geographical areas and under specified conditions.

Assignment (of a radio frequency or a radio frequency channel):

Authorisation given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions .

Radiocommunication Service:

Service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes.

Unless otherwise indicated, any radiocommunication service relates to terrestrial radiocommunication.

Fixed Service :

Radiocommunication service between specified fixed points.

Fixed Satellite Service:

Radiocommunication service between earth stations at given positions, when one or more satellites are used; in some cases this service includes satellite-to-satellites links, which may also be operated in the inter-satellite service; the fixed-satellite service may also include feeder links for other space radiocommunication services.

Inter-Satellite Service :

Radiocommunication service providing links between artificial satellites.

Space Operations Service :

Radiocommunication service concerned exclusively with the operation of spacecraft, in particular space tracking, space telemetry and space telecommand. These functions will normally be provided within the service in which the space station is operating.

Mobile Service:

Radiocommunication service between mobile and land stations, or between mobile stations (CV) .

Mobile-Satellite Service :

Radiocommunication service between mobile earth stations and one or more space stations, or between space stations used by this service, or between mobile earth stations by means of one or more space stations.

This service may also include feeder links necessary for its operation.

Land Mobile Service:

Mobile service between base stations and land mobile stations, or between land mobile stations.

Land Mobile Satellite Service :

Mobile-satellite service in which mobile earth stations are located on land.

Maritime Mobile Service:

Mobile service between coast stations and ship stations, or between ship stations or between associated on-board communication stations. Survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

Maritime Mobile-Satellite Service :

Mobile-satellite service in which mobile earth stations are located on board ships. Survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

Port Operations Service :

Maritime mobile service in or near a port, between coast stations and ship stations, or between ship stations, in which messages are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons.

Messages which are of a public correspondence nature shall be excluded from this service.

Ship Movement Service :

A safety service in the maritime mobile service other than a port operations service, between coast stations and ship stations, or between ship stations, in which messages are restricted to those relating to the movement of ships.

Messages which are of a public correspondence nature shall be excluded from this service.

Aeronautical Mobile Service :

Mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate. Emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

Aeronautical Mobile (R)* Service :

Aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

* (R): route.

Aeronautical Mobile (OR) Service :**

Aeronautical mobile service reserved for communications, relating to safety and regularity of flight, primarily along national or international civil air routes.

** (OR): off-route.

Aeronautical Mobile Satellite Service :

Mobile-satellite service in which mobile earth stations are located on board aircraft. Survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service

Aeronautical Mobile Satellite (R)* Service :

Aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

* (R): route.

Aeronautical Mobile Satellite (OR) Service:**

Aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.

** (OR): off-route.

Broadcasting Service:

Radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission (CS).

Broadcasting Satellite Service:

Radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public.

In the broadcasting satellite service, the term "direct reception" shall encompass both individual reception and community reception.

Radiodetermination Service):

Radiocommunication service for the purpose of radiodetermination.

Radiodetermination Satellite Service :

Radiocommunication service for the purpose of radiodetermination, involving the use of one or more space stations.

This service may also include feeder links necessary for its own operation.

Radionavigation Service :

Radiodetermination service for the purpose of radionavigation.

Radionavigation Satellite Service:

Radiodetermination satellite service used for the purpose of radionavigation.

This service may also include feeder links necessary for its operation.

Maritime Radionavigation Service:

Radionavigation service intended for the benefit and for the safe operation of ships.

Maritime Radionavigation Satellite Service:

Radionavigation-satellite service in which earth stations are located on board ships.

Aeronautical Radionavigation Service:

Radionavigation service intended for the benefit and for the safe operation of aircraft.

Aeronautical Radionavigation Satellite Service:

Radionavigation-satellite service in which earth stations are located on board aircraft.

Radiolocation Service :

Radiodetermination service for the purpose of radiolocation.

Radiolocation Satellite Service:

Radiodetermination satellite service used for the purpose of radiolocation.

This service may also include feeder links necessary for its operation.

Meteorological Aids Service (METAX):

Radiocommunication service used for meteorological, including hydrological, observations and exploration.

Earth Exploration Satellite Service :

Radiocommunication service between earth stations and one or more space stations, which may include links between space stations, in which:

- information relating to the characteristics of the Earth and its natural phenomena is obtained from active sensors or passive sensors located on Earth satellites;
- similar information is collected from airborne or Earth-based platforms;
- such information may be distributed to earth stations within the system concerned;
- platform interrogation may be included.

This service may also include feeder links necessary for its operation.

Meteorological Satellite Service:

Earth exploration satellite service for meteorological purposes.

Standard Frequency and Time Signal Service :

Radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals or both at the same time, of stated high precision, intended for general reception.

Standard Frequency and Time Signal Satellite Service :

Radiocommunication service using space stations on earth satellites for the same purposes as those of the standard frequency and time signal service.

This service may also include feeder links necessary for its operation.

Space Research Service (:

Radiocommunication service in which spacecraft or other objects in space are used for scientific or technical research purposes.

Amateur Service :

Radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.

Amateur Satellite Service:

Radiocommunication service using space stations on earth satellites for the same purposes as those of the amateur service.

Radio-Astronomy Service :

A service involving the use of radio astronomy.

Safety Service :

Any radiocommunication service used permanently or temporarily for the safeguarding of human life and property

.

Special Service:

Radiocommunication service not otherwise defined, carried on exclusively for specific needs of general utility and not open to public correspondence.

ISM (Industrial, Scientific and Medical) Applications:

Operation of equipment or appliances designed to generate and locally use radio energy for industrial, scientific, medical, domestic or similar purposes, excluding any telecommunication applications.

Chapter 1 – FREQUENCY ALLOCATION TABLE

4. ACRONYMS

APT	-	Automatic Picture Transmission
CB	-	Personal Radio Service – Citizen Band
CEPT	-	European Conference of European Postal and Telecommunications Administrations
CT0; CT1	-	Cordless Phones
C450	-	Public Analogue Land Mobile Cellular Communications Systems
DEC	-	Decision
DCP	-	Weather Data Collection Platform
DCS1800	-	Digital Cellular Telecommunications System in the 1800 MHz band
DECCA	-	LF Hyperbolic Radio-navigation System
DECT	-	Digital European Cordless Telecommunication System
DORIS	-	Doppler Orbitography and Radio-positioning Integrated by Satellite
DME	-	UHF Distance Measuring Equipment
DMO	-	Direct mode operation
DSRR	-	Digital Short Range Radio System

DVB-T	-	Terrestrial Digital Video Broadcasting System
ECA	-	European Common Frequency Allocation Table
ECC	-	Electronic Communications Committee
ENG	-	Electronic News Gathering
ERC	-	European Radiocommunications Committee
ERMES	-	European Radio Message System
ERO	-	European Radiocommunications Office
EUTELSAT	-	EUropean TELecomunications SATellite Organisation
EUTELTRACS-		EUTELsat Transport RAnging and Communication Services
FWA	-	Fixed Wireless Access
GE-75	-	Regional Administrative LF/MF Broadcasting Conference (Region 1 and 3) - Geneva, 1975
GE-84	-	Regional Administrative Radio Conference for Planning VHF Sound Broadcasting (Region 1 and part of Region 3) - Geneva, 1984
GE-85	-	Regional Administrative Radio Conference for Planning Maritime Radio-navigation Service (Radio-beacons) in the European Maritime Area - Geneva, 1985
GE-85	-	Regional Administrative Radio Conference for Planning MF Maritime Mobile and Aeronautical Radio-navigation Services (Region 1) - Geneva, 1985
GMDSS	-	Global Maritime Distress and Safety System
GNSS	-	Global Navigation by Satellite System

GPS	-	Global Positioning System
GSM	-	Global System for Mobile Communications
HAPS	-	High Altitude Platform Systems
HDFSS	-	High Density Fixed Satellite Service
HDTV	-	High Definition Television
HRPT	-	High Resolution Picture Transmission
ICAO	-	International Civil Aviation Organisation
ILS	-	Instrument Landing System
IMT-2000	-	International Mobile Telecommunications - 2000
INMARSAT	-	International MARitime SATellite Organisation
INTELSAT	-	International TELEcommunication SATellite Organisation
ISM	-	Industrial, Scientific and Medical applications
ITU	-	International Telecommunication Union
ITU-R	-	International Telecommunication Union - Radiocommunication Sector
LMS	-	Land Mobile Service Private Networks
LORAN-C	-	LOng RANge Navigation system
LRPT	-	Low Resolution Picture Transmission
METEOSAT	-	METEOrological SATellite
MLS	-	Microwave Landing System
MMS	-	Maritime Mobile Service

MVDS	-	Multipoint Video Distribution System
MWS	-	Multimedia Wireless System
NAVTEX	-	International NAVTEX (urgent navigation and weather warning system for ships) System
NDB	-	Non-Directional Radio Beacon)
NGSO	-	Non-geostationary Satellite Orbit
OMEGA	-	VLH Hyperbolic Radio-navigation System
PAMR	-	Public Access Mobile Radio (PMR)
PMR	-	Professional (Private) Mobile Radio (Private)
POSAT 1	-	(PORtuguese SATellite 1)
RLAN	-	Radio Local Area Network via Radio
RTI	-	Road Transport Information Systems
RTTT	-	Road Transport Telematic Systems
SAP/SAB	-	Services Programming Auxiliary to Program making services/Services Auxiliary to broadcasting auxiliary services
SCP	-	Public National Radio Paging
SCPP	-	Private Radio Paging
SMT	-	Private Mobile Radio
SNG	-	Satellite News Gathering
SRD	-	Short Range Devices
SRR	-	Short Range Radars

SSR	-	Secondary Surveillance Radar
ST-61	-	European Conference on broadcasting in metric and decimetric waves – Stockholm, 1961
STL	-	Studio/Transmitter Links
SIT	-	sSmall sSize Satellite Interactive Terminal
SUT	-	sSmall sSize Satellite User Terminal
TACAN	-	TACTical Air Navigation System
TETRA	-	Terrestrial Trunked Radio.
TCR	-	Tracking, Control and Ranging
T-DAB	-	Terrestrial Digital Audio Broadcasting
TFTS	-	Terrestrial Flight Telephone System
TRANSIT	-	Global Satellite Radio-Navigation System
UMTS/IMT2000		3rd generation mobile communications system
VOR	-	VHF Omnidirectional Radio range
VSAT	-	Very Small Aperture Terminal – satellite communication micro-station
WARC-92	-	World Administrative Radiocommunications Conference charged with studying frequency allocations in certain parts of the spectrum - Torremolinos, 1992
WAS/RLAN	-	Wireless Access Systems/ Radio Local Area Network
WRC-95	-	World Radiocommunications Conference – Geneva, 1995
WRC-97	-	World Radiocommunications Conference – Geneva, 1997

- WRC-2000** - World Radiocommunications Conference – Istanbul, 2000
- WRC-2003** - World Radiocommunications Conference – Geneva, 2003
- WBDTS** - Wide Band Data Transmission System

Chapter 1 – FREQUENCY ALLOCATION TABLE

5. RELEVANT DOCUMENTS FROM CEPT AND THE ITU

Decisions

ECC/DEC/(04)01	- Decision on SRDs for Detecting Avalanche Victims (457 kHz)
ECC/DEC/(04)02	- Decision on non-specific SRDs in the 433.050-434.790 MHz band
ECC/DEC/(04)03	- Decision on SRR in the 77-81GHz band
ECC/DEC/(04)06	- Decision on the introduction of PMR/PAMR broadband digital land mobile in the 400 MHz and 800/900 MHz bands
ECC/DEC/(04)08	- Decision on harmonised frequency bands for wireless access systems including RLANs
ECC/DEC/(04)10	- Decision on temporary introduction of SRR in the 24 GHz band
ECC/DEC/(03)02	- Designation of the 1479.5-1492 MHz band for use by S-DAB systems

ECC/DEC/(02)01	- RTTT
ECC/DEC/(02)03	- PMR/PAMR Nnarrow Bband digital land mobile PMR/PAMR
ECC/DEC/(02)04	- Terrestrial systems (fixed service/broadcasting service) and unnon-co-ordinated Eearth stations in theof fixed satellite service and broadcasting- satellite service (space to E-earth) in the band 40.5-42.5 GHz frequency band
ECC/DEC/(02)05	- Frequency bands for railways purposes– 876-880 MHz/921-925 MHz.
ECC/DEC/(02)06	- UMTS/IMT2000 in the band 2500-2690 MHz frequency band
ECC/DEC/(02)07	- Harmonised use of the 1670-1675/1800-1805 MHz band and withdrawal of ERC Decision ERC (92)01 of TFTS
ERC/DEC/(00)01	- Frequency bands for UMTS (extension of Decision ERC/DEC(97)07)
ERC/DEC/(00)02	- 37.5-40.5 GHz frequency band for fixed service and fixed satellite service
ERC/DEC/(00)07	- Sharing of the 17.7-19.7 GHz band by fixed service and fixed satellite service
ERC/DEC/(00)08	- Use of the 10.7-12.5 GHz band by fixed service and broadcasting satellite/fixed satellite service

ERC/DEC/(01)01	- Non-specific SRDs in the 6765-6795 kHz and 13.553-13.567 MHz frequency bands
ERC/DEC/(01)02	- Non-specific SRDs in the 26.957-27.283 MHz frequency band
ERC/DEC/(01)03	- Non-specific SRDs in the 40.660-40.700 MHz frequency band
ERC/DEC/(01)04	- Non-specific SRDs in the 868-868.6 MHz, 868.7-869.2 MHz, 869.4-869.65 MHz and 869.7-870 MHz frequency bands
ERC/DEC/(01)05	- Non-specific SRDs in the 2400-2483.5 MHz frequency band
ERC/DEC/(01)06	- Non-specific SRDs in the 5725-5875 MHz frequency band
ERC/DEC/(01)07	- SRDs for WLANs in the 2400-2483.5 MHz frequency band
ERC/DEC/(01)08	- SRDs for movement detection and warning alert in the 2400-2483.5 MHz frequency band
ERC/DEC/(01)09	- SRDs for alarms in the 868.6-868.7 MHz frequency band
ERC/DEC/(01)10	- SRDs for model control in the 29.995 MHz, 27.045 MHz, 27.095 MHz, 27.145 MHz and 27.195 MHz frequency bands
ERC/DEC/(01)11	- SRDs for airflying M-model control in the 34.995-35.225 MHz frequency band

- | | |
|-----------------------|--|
| ERC/DEC/(01)12 | - SRDs for model control in the 40.665 MHz, 40.675 MHz, 40.685 MHz and 40.695 MHz frequency bands |
| ERC/DEC/(01)17 | - SRDs for medical implants in the 402-405 MHz frequency band |
| ERC/DEC/(01)18 | - SRDs for wireless audio applications in the 863-865 MHz frequency band |
| ERC/DEC/(01)19 | - DMO frequencies for emergency services |
| ERC/DEC/(01)20 | - AGA (Air-Ground-Air) frequencies for emergency services |
| ERC/DEC/(01)21 | - DMO frequencies for digital land mobile systems |
| ERC/DEC/(94)01 | - Decision on frequency bands to be designated reserved for the co-ordinated introduction of the GSM digital pan-public European cellular land mobile communications system (GSM) |
| ERC/DEC/(94)02 | - Decision on frequency bands to be designated reserve for the co-ordinated introduction of the European radio messaging system (ERMES) |
| ERC/DEC/(94)03 | - Decision on the frequency band to be designated reserve for the co-ordinated introduction of the Digital European Cordless European wireless digital Telecommunications system (DECT). |
| ERC/DEC/(95)03 | - Decision on frequency bands to be designated reserve for the introduction of the DCS 1800 system |
| ERC/DEC/(96)01 | - Decision on the harmonised frequency band to be designated reserve for the introduction of Digital Land Mobile Services system for Emergency Services |

- | | |
|-----------------------|--|
| ERC/DEC/(96)04 | - Decision on frequency bands for the introduction of the trans-European trunked radio system (TETRA) |
| ERC/DEC/(96)06 | - Decision on harmonised frequency bands for social alarms |
| ERC/DEC/(97)02 | - Decision on the extendedsion frequency bands to be used for the European GSM digital Pan-European communications system |
| ERC/DEC/(97)03 | - Decision on the harmonised use of spectrum use for Satellite Ppersonal communications services by satellite (S-PCS) operating within in the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz bands |
| ERC/DEC/(97)04 | - Decision on temporary transitional measures arrangements for the fixed service and the mobile satellite service in the bands 1980-2010 MHz and 2170-2200 MHz bands in order to facilitate the harmonised introduction and development of satellite personal communications services by satellite |
| ERC/DEC/(97)06 | - Decision on the harmonised frequency band for Social Alarm Systems |
| ERC/DEC/(97)07 | - Decision on frequency bands for introduction of the Universal Mobile Telecommunications System (UMTS). |
| ERC/DEC/(98)25 | - Decision on the harmonised frequency band to reserve be designated for PMR 446 |
| ERC/DEC/(99)06 | - Decision on harmonised introduction of S-PCS < 1 GHz. |
| ERC/DEC/(99)15 | - Decision on the harmonised frequency band 40.5 – 43.5 GHz frequency band for introduction of multimedia wireless systems (MWS) including Multipoint Video Distribution Systems (MVDS). |

- ERC/DEC/(99)25** - Decision on harmonised utilisation of spectrum for terrestrial UMTS operating in the bands 1900-1980 MHz, 2010-2025 MHz and 2110-2170 MHz frequency bands

Recommendations

- CEPT/ECC/REC 01-04** - MWS in the 40.5-43.5 GHz frequency band
- CEPT/ECC/REC 02-06** - **Digital** Systems for fixed digital services systems operating in the frequency range 7125-8500 MHz syntony band
- CEPT/ECC/REC 02-02** - **Digital** Fixed digital service in the 31-31.3 GHz frequency band
- CEPT/ECC/REC 03-03** - Safeguard the s future user of terrestrial UMTS/IMT2000 in the 2.5 GHz band range with respect to regarding broadcasting satellite systems
- CEPT/ECC/REC 02-02** - **Digital** Fixed digital service in the 31-31.3 GHz frequency band
- CEPT/ERC/REC 00-05** - FWA in the 24.5-26.5 GHz frequency band
- CEPT/ERC/REC 01-01** - Border co-ordination ofin UMTS/IMT2000 systems
- CEPT/ERC/REC 12-02** - Frequency Radio frequency channel arrangements for digital terrestrial fixed terrestrial digital systems in the 12.75 – 13.25 GHz band
- CEPT/ERC/REC 12-03** - Frequency Radio frequency channel arrangements for digital terrestrial fixed terrestrial digital systems in the 17.7 – 19.7 GHz band

- CEPT/ERC/REC 12-05** - Frequency Radio frequency channel arrangements for digital terrestrial fixed terrestrial digital systems in the 10.0 – 10.68 GHz band

- CEPT/ERC/REC 12-06** - Frequency Radio frequency channel arrangements for digital terrestrial fixed terrestrial digital systems in the 10.7 – 11.7 GHz band

- CEPT/ERC/REC 12-07** - Harmonised radio frequency channel arrangements for fixed digital terrestrial fixed digital systems in the 15.23 – 15.35 GHz band

- CEPT/ERC/REC 12-08** - Harmonised radio frequency channel arrangements and block allocations of blocs to for low, medium and high capacity systems in the band 3600 – 4200 MHz band

- CEPT/ERC/REC 12-09** - Harmonised radio frequency channel arrangements for fixed digital terrestrial fixed terrestrial digital systems operating in the band 57-59 GHz band

- CEPT/ERC/REC 12-10** - Harmonised radio frequency channel arrangements for fixed digital terrestrial digital fixed systems in the 48.5-50.2 GHz band

- CEPT/ERC/REC 12-11** - Harmonised radio frequency channel arrangements for fixed digital terrestrial digital fixed systems in the 51.4-52.6 GHz band

- CEPT/ERC/REC 12-12** - Harmonised radio frequency channel arrangements for digital fixed terrestrial dfixedigital systems in the 55.78-57.0 GHz band

- CEPT/ERC/REC 13-03** - **Use of the band** 14.0 – 14.5 GHz band for Very Small Aperture Terminals (VSAT) and Satellite News Gathering (SNG).
- CEPT/ERC/REC 13-04** - FWA in the 3-29.5 GHz frequency band
- CEPT/ERC/REC 14-01** - Harmonised radio frequency channel arrangements in the 5925-6425 MHz band
- CEPT/ERC/REC 14-02** - Harmonised radio frequency channel arrangements in the 6425-7125 MHz band
- CEPT/ERC/REC 14-03** - radio Frequency channel arrangements for the 3400-3600 MHz band
- CEPT/ERC/REC 25-10** - Frequencies for ENG/OB video links
- CEPT/ERC/REC 62-01** - 135.7-137.8 kHz frequency band for amateur service
- CEPT/ERC/REC 62-02** - Civil and military airborne telemetry applications on board aircraft
- CEPT/ERC/REC 70-03** - relating to the use of Short range and low power devices (SRD)
- CEPT Rec. T/R 02-02** - Harmonised frequency band for emergency services
- CEPT Rec. T/R 12-01** - **Radio** Frequency channel arrangements for digital and analogue fixed service in the 37-39.5 GHz band
- CEPT Rec. T/R 13-01** - **Radio** Frequency channel arrangements for fixed service in the 1 - 3 GHz band
- CEPT Rec. T/R 13-02** - **Radio** Frequency channel arrangements for fixed service in the 22 – 29.5 GHz band
- CEPT Rec. T/R 22-01** - Preferred frequencies for railways

- CEPT Rec. T/R 22-03** - **Terrestrial** Fixed and mobile terrestrial systems in the 54.25-66 GHz band
- CEPT Rec. T/R 22-05** - Frequencies for mobile digital trunking systems
- CEPT Rec. T/R 22-06** - Harmonised frequency bands for European high-performance local area networks (HIPERLANs) in the 5 GHz and 17 GHz bands
- CEPT Rec. T/R 22-07** - Frequency bands for DCS 1800
- CEPT Rec. T/R 25-08** - Land mobile service in the 29.7-960 MHz band
- CEPT Rec. T/R 25-09** - Frequencies for railways in the 900 MHz band

ITU Documents

Recommendations

- Rec. ITU-R F.283** - Frequency arrangements for low and medium capacity analogue and digital radio-relay systems operating in the 2 GHz band.
- Rec. ITU-R F.382** - Frequency arrangements for radio-relay systems operating in the 2 and 4 GHz bands
- Rec. ITU-R F.383** - Frequency arrangements for high capacity radio-relay systems operating in the lower 6 GHz band
- Rec. ITU-R F.384** - Frequency arrangements for high capacity analogue and digital radio-relay systems operating in the upper 6 GHz band
- Rec. ITU-R F.385** - Frequency arrangements for low capacity analogue radio-relay systems operating in the 7 GHz band

Rec. ITU-R F.386 - Frequency arrangements for radio-relay systems operating in the
8 GHz band

- Rec. ITU-R F.387** - Frequency arrangements for radio-relay systems operating in the 11 GHz band
- Rec. ITU-R F.497** - Frequency arrangements for radio-relay systems operating in the 13 GHz band
- Rec. ITU-R F.595** - Frequency arrangements for radio-relay systems operating in the 18 GHz band
- Rec. ITU-R F.637**- Frequency arrangements for radio-relay systems operating in the 23 GHz band
- Rec. ITU-R F.746** - Frequency arrangements for radio-relay systems

CHAPTER 2

PUBLICATION OF AVAILABILITY AND USE OF FREQUENCY BANDS

Chapter 2 – PUBLICATION OF FREQUENCY BAND USES AND RESERVATIONS

- A. Publicly available electronic communications networks and services:**
Frequency bands and the number of channels used in the operation of publicly available electronic communications networks and services, licensed up to **31 October 2004** page 131
- B. Frequency bands reserved and to be made available in 2005** for the operation of electronic communications networks and services
- B.1** publicly available page 157
- B.2** not publicly available page 163
- C. Spectrum uses exempt from radio licensing**
- C.1** Network licence exemption page 174
- C.2** Station licence exemption page 177

- A. Publicly available electronic communications networks and services:**
Frequency bands and the number of channels used in the operation of publicly available electronic communications networks and services, licensed up to 31 October 2004.

The meanings of the terms and abbreviations used are as follows:

Entity: i.e., a company that provides publicly available electronic communications networks and services;

Usage rights: identification of the need to allocate usage rights according to article 16 of Law no. 5/2004 of 10 February;

Date of allocation revision: end date of concession contract or the frequency usage rights;

Shared use: use of a channel/frequency by more than one entity;

Exclusive use: use of a channel/frequency by one single entity;

Scope of use:

n – national scope: use of a channel/frequency at national territory level;

g – geographic delimitation: use of a channel/frequency in a given and well delimited area by radiocommunication stations, such as, for example, fixed stations, broadcasting stations and earth stations.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

FIXED SERVICE – POINT-to-POINT FIXED LINKS				
Entity	Frequency bands	Usage rights	No. of channels Shared Use	Scope of use
PT COMUNICAÇÕES	1,5 GHz (1429 - 1525 MHz) Rec. 746-A1	NO	1	g
	2 GHz (2025 - 2290 MHz) ERC/REC T/R 13-01 Annex C	NO	2	g
	4 GHz (3800 - 4200 MHz) Rec. ITU-R 382-6 Plan. Principal	NO	2	g
	6 GHz (5925 - 6425 MHz) ERC/REC 14-01 A1	NO	5	g
	6 GHz (6425 - 7110 MHz) ERC/REC 14-02 A1	NO	8	g
	7 GHz (7425 - 7750 MHz) Rec. ITU-R 385-6	NO	3	g
	8 GHz (7700-8300 MHz) Rec. ITU-R 386-5	NO	5	g
	8 GHz (8200-8500 MHz) Rec. ITU-R 386-6 A1	NO	2	g
	11 GHz (10,7 - 11,7 GHz) ERC/REC 12-06 Rec3	NO	11	g
	13 GHz (12,75 - 13,35 GHz) Rec. ITU-R 497-5	NO	8	g
	15 GHz (14,5 - 15,34 GHz) Rec. ITU-R 636-3	NO	1	g
	18 GHz (17,7 - 19,7 GHz) ERC/REC 12-03 Annex A	NO	12	g
	23 GHz (21,2 - 23,6 GHz) Rec. ITU-R 637-2	NO	3	g
VODAFONE TELECEL	6 GHz (6425 - 7110 MHz) ERC/REC 14-02 A1	NO	8	g
	7 GHz (7125 - 7425 MHz) ECC/REC 02-06 A1	NO	3	g
	11 GHz (10,7 - 11,7 GHz) ERC/REC 12-06 Rec3	NO	8	g
	13 GHz (12,75 - 13,35 GHz) Rec. ITU-R 497-5	NO	8	g
	15 GHz (14,5 - 15,35 GHz) ERC/REC 12-07	NO	6	g
	18 GHz (17,7 - 19,7 GHz) ERC/REC 12-03 Annex A	NO	19	g
	23 GHz (22-23,6 GHz) ERC/REC 13-02 Annex A	NO	14	g
	38 GHz (37 - 39,5 GHz) ERC/REC T/R 12-01	NO	16	g

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

FIXED SERVICE - POINT-to-POINT FIXED LINKS				
Entity	Frequency bands	Usage rights	No. of channels Shared use	Scope of use
CABOVISÃO – Televisão por Cabo, SA	18 GHz (17,7 - 19,7 GHz) ERC/REC 12-03 Annex A	NO	2	g
OPTIMUS	13 GHz (12,75 - 13,35 GHz) Rec. ITU-R 497-5	NO	2	g
	15 GHz (14,5 – 15,35 GHz) ERC/REC 12-07	NO	3	g
ONITELECOM	13 GHz (12,75 - 13,35 GHz) Rec. ITU-R 497-5	NO	2	g
	18 GHz (17,7 - 19,7 GHz) ERC/REC 12-03 Annex A	NO	6	g
	23 GHz (22-23,6 GHz) ERC/REC 13-02 Annex A	NO	6	g
	38 GHz (37 - 39,5 GHz) ERC/REC T/R 12-01	NO	16	g
NOVIS Telecom	13 GHz (12,75 - 13,35 GHz) Rec. ITU-R 497-5	NO	3	g
	18 GHz (17,7 - 19,7 GHz) ERC/REC 12-03 Annex A	NO	9	g
	38 GHz (37 - 39,5 GHz) ERC/REC T/R 12-01	NO	4	g
TVI	6 GHz (5925 – 6425 MHz) ERC/REC 14-01 A1	NO	1	g
	8 GHz (8200 - 8500 MHz) Rec. ITU-R 386-5	NO	3	g

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

FIXED SERVICE – TRANSPORTABLE LINKS				
Entity	Frequency bands	Usage rights	No. of channels Shared use	Scope of use
PT COMUNICAÇÕES	1,5 GHz (1429 – 1525 GHz) Rec. ITU-R 746-A1	NO	2	N
	15 GHz (14,5 – 15,35 GHz)	NO	4	N
	18 GHz (17,7 – 19,7 GHz) Plan. 10 MHz	NO	1	N
	18 GHz (17,7 – 19,7 GHz) Rec. ITU-R 595-4 Plan. 27,5 MHz	NO	5	N
VODAFONE TELECEL	18 GHz (17,7 – 19,7 GHz) Rec. ITU-R 595-4 Plan. 3,5 MHz	NO	1	N

FIXED SERVICE – MULTICHANNEL MULTIPOINT DISTRIBUTION SYSTEM (MMDS)					
Entity	Frequency bands	Date of allocation revision	Usage rights	No. of channels Shared use	Scope of use
CABO TV MADEIRENSE	2500 - 2690 MHz	19-05-2009	NO	(1)	G

FIXED SERVICE - POINT-MULTIPOINT FIXED LINKS				
Entity	Frequency bands	Usage rights	No. of channels Shared use	Scope of use
PT COMUNICAÇÕES	450/470 MHz	NO	57	G
	1356,5-1374,5 MHz	NO	9	G
	1498,5-1516,5 MHz			

(1) Band shared with other users.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

FIXED SERVICE - POINT-MULTIPOINT FIXED LINKS Fixed Wireless Access (FWA)					
Entity	Frequency bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
PT COMUNICAÇÕES	3410-3438 MHz 3510-3538 MHz CEPT/ERC/REC 14-03	(1)	YES	2x28 MHz	g
ONITELECOM	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	(1)	YES	2x 28 MHz (2)	g
NOVIS	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	(1)	YES	2x 28 MHz (2)	g
NOVIS	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	(1)	YES	2x 56 MHz	g
ONITELECOM	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	(1)	YES	2x 56 MHz	g
JAZZTEL	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	(1)	YES	2x 56 MHz	g
EASTÉCNICA IV	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	(1)	YES	2x 56 MHz	g
VODAFONE TELECEL	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	(1)	YES	2x 56 MHz	g
WTS	27,5-29,5 GHz CEPT ERC/REC 13-02 Annex C	(1)	YES	2x 175 MHz	g
BRAGATEL	27,5-29,5 GHz CEPT ERC/REC 13-02 Annex C	(1)	YES	2x 175 MHz	g

(1) Under revision due to the decisions of Administrative Rule no. 1062/2004 of 25 August.

(2) Band shared with other users

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

SOUND BROADCASTING SERVICE (RAD) MF (Hectometric Waves)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RDP – RADIODIFUSÃO PORTUGUESA , SA	526,5 - 1606,5 kHz	30-06-2014	YES	13	g
RADIO RENASCENÇA		01-06-2012	YES	7	g
RADIO COMERCIAL SA		01-06-2012	YES	5	g
RADIO ALTITUDE - Soc.Com. da Guarda, Lda		01-06-2009	YES	1	g
CLUBE ASAS DO ATLANTICO		01-06-2009	YES	1	g
RADIO CLUBE ANGRA		01-06-2009	YES	1	g
POSTO EMISSOR RADIODIFUS. FUNCHAL		01-06-2009	YES	1	g

SOUND BROADCASTING SERVICE (RAD) HF (Decametric waves)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
PROFUNK	5950 - 6200 kHz	11-07-2014	YES	(1)	(2)
	7100 - 7300 kHz				
	9500 - 9900 kHz				
	11650 - 12050 kHz				
	13600 - 13800 kHz				
	15100 - 15600 kHz				
	17550 - 17900 kHz				
	21450 - 21850 kHz				
RDP-RADIODIFUSÃO PORTUGUESA, SA	25670 - 26100 kHz	30-06-2014	YES	(1)	(2)
	5950 - 6200 kHz				
	7100 - 7300 kHz				
	9500 - 9900 kHz				
	11650 - 12050 kHz				
	13600 - 13800 kHz				
	15100 - 15600 kHz				
	17550 - 17900 kHz				
RÁDIO RENASCENÇA	21450 - 21850 kHz	01-06-2012	YES	(1)	(2)
	25670 - 26100 kHz				
	5950 - 6200 kHz				
	7100 - 7300 kHz				
	9500 - 9900 kHz				
	11650 - 12050 kHz				
	13600 - 13800 kHz				
	15100 - 15600 kHz				

⁽¹⁾ The number of channels varies by seasonal timetable. Bands shared with other users.

⁽²⁾ Not applicable.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL COVERAGE - Mainland					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RDP - RADIODIFUSAO PORTUGUESA SA	87,5 - 108 MHz	30-06-2014	YES	82	g
RADIO RENASCENCA		01-06-2012	YES	36	g
RADIO COMERCIAL SA		01-06-2012	YES	17	g

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL AND REGIONAL COVERAGES – Madeira					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RDP - RADIODIFUSAO PORTUGUESA SA	87,5 - 108 MHz	30-06-2014	YES	27	g

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL AND REGIONAL COVERAGES - Azores					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RDP - RADIODIFUSAO PORTUGUESA SA	87,5 - 108 MHz	30-06-2014	YES	28	G

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
REGIONAL COVERAGE ⁽¹⁾					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RADIOPRESS COMUNICAÇÃO RADIOFÓNICA	87,5 - 108 MHz	10-07-2014	YES	13	G
RADIO REGIONAL LISBOA SA		10-07-2014	YES	7	G

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
A FLOR DO ÉTER, RADIODIFUSÃO, LDA	87,5 – 108 MHz	30-03-2009	YES	1	g
A FOLHA CRL		09-05-2009 09-05-2009	YES	2	g
A VOZ DA PLANICIE CRL		22-05-2009	YES	1	g
A VOZ DO SORRAIA EMIS. REG. C CORUCHE		06-03-2009	YES	1	g
AGUIA AZUL CRL		09-05-2009	YES	1	g
ALCOOJOR COOP JORNAL RADIO ALCOCHETE CRL		12-06-2009	YES	1	g
ALFÂNDEGA FM-SOC. COMUNICAÇÃO, LDA		01-10-2011	YES	1	g
ANTENA DEZ RADIO SANTO ANTONIO LDA		12-06-2009	YES	1	g
ANTENA LIVRE DE GOUVEIA		12-06-2009	YES	1	g
ANTENA MINHO EMISSORA REG BRAGA LDA		09-05-2009	YES	1	g
ANTENA MIROBRIGA COOP SERVICOS CRL		22-05-2009	YES	1	g
ANTENA VAREIRA CRL		09-05-2009	YES	1	g
AO TOM DELA (RADIO) LDA		22-05-2009	YES	1	g
ASS ACADEMICA UNIVERSIDADE MINHO		09-05-2009	YES	1	g
ASS CULT DESPORT. RECREATIVA INES NEGRA		23-12-2009	YES	1	g
ASS CULT E RECREATIVA RADIO CONDESTAVEL		22-05-2009	YES	2	g
ASS CULTURAL RECREATIVA DE CARIA		06-03-2009	YES	1	g
ASS CULTURAL REGIONAL ZÉZERE		12-06-2009	YES	1	g
ASS CULTURAL TORRE DE MONCORVO		30-03-2009	YES	1	g
ASS HUM BOMB VOL VIDIGUEIRA		23-12-2009	YES	1	g
ASS PROM SOC CULT DESP FORNOS ALGODRES		23-12-2009	YES	1	g
ASS RADIO UNIVERSITARIA DA ALGARVE		22-05-2013	YES	1	g
ASS RECREATIVA E CULTURAL DA LOUSÃ		12-06-2009	YES	1	g
AUDISINTRA LDA		30-03-2009	YES	1	g
BAOBAD-COMUNICACIONES, SA		09-05-2009	YES	1	g
BASMINHO – PUBLICIDADE, LDA		06-03-2009	YES	1	g
BASTOMÉDIA-PRODUÇÕES DE RÁDIO E ESP., LDA		06-03-2009	YES	1	g
BENEDITA FM-PRODUÇÕES RADIOFÓNICAS,LDA		09-05-2009	YES	1	g
CASTELO DE LANHOSO 2-COM. SOCIAL, UN., LDA		22-05-2009	YES	1	g
CENTRO FORMACAO ASS DESENVOLVIMENTO		30-03-2009	YES	1	g
CINCIBERLANT		⁽²⁾	YES	1	g
CLUBE CULTURAL RADIO MARINHAIS		30-03-2009	YES	1	g
CÓCO-COMPANHIA DE COMUNICAÇÃO LDA		22-05-2009 06-03-2009 06-03-2009	YES	3	g
COMISSAO MELHORAMENTOS DE ESMORIZ		09-05-2009	YES	1	g
COOP CULTURAL PALA PINTA CRL		23-12-2009	YES	1	g
COOP INF E CULTURA PORTO DE MOS		30-03-2009	YES	1	g
COOP RADIO BANDARRA CRB CRL		30-03-2009	YES	1	g
COOP RADIO BOA NOVA CRL		30-03-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Has government authorisation.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
COOP RADIO EMISSORA ST ANTONIO DE VAGOS	87,5 – 108 MHz	12-06-2009	YES	1	g
COOPERATIVA CULTURAL VOZ DO MARAO CRL		09-05-2009	YES	1	g
COOPERAT. INFORM CULTURA RADIO VINHAIS		30-03-2009	YES	1	g
COOPERATIVA DE RADIO VOUZELA CRL		30-03-2009	YES	1	g
COOPERATIVA DE SANTO ANDRE CRL		12-06-2009	YES	1	g
COOPERATIVA RADIO VOZ DO NEIVA CRL		09-05-2009	YES	1	g
COOPERATIVA RADIODIFUSAO BRIGANTIA CRL		22-05-2009	YES	2	g
COOPERATIVA RADIODIF. DE MORTAGUA CRL		⁽²⁾	YES	1	g
CORAL RADIO ALTO AVE		30-03-2009	YES	1	g
CR-COMUNICAÇÃO REGIONAL LDA		23-12-2009	YES	1	g
CRISTINA MARIA SILVA REDE, UNIPessoal, LDA		22-05-2009	YES	1	g
DEFESA BEIRA SOCIEDADE NOTICIAS LDA		30-03-2009	YES	1	g
DIANA FM-RADIODIFUSÃO, UN.,LDA		09-05-2009	YES	1	g
DIFUSAO IDEIAS SOC RADIODIFUSAO LDA		09-05-2009	YES	1	g
DRUMS – COMUNICAÇÕES SONORAS, SA		30-03-2009	YES	1	g
ECOS DA RAIA PUBLICIDADE E RADIO LDA		30-03-2009	YES	1	g
EDICOES LINEAR CRL		09-05-2009	YES	1	g
EDITAVE COMUNIC PUBLICI. PROMOCOES LDA		09-05-2009	YES	2	g
EMISSORA REGIONAL DE AMARANTE		09-05-2009	YES	1	g
EMISSORA REGIONAL DE RESENDE		23-12-2009	YES	1	g
EMISSORA REGIONAL LEIRIA RADIO LIZ CRL		09-05-2009	YES	1	g
EMISSORA REGIONAL RADIO BATALHA CRL		06-03-2009	YES	1	g
EMITAMEGA EMISS. RADIOFON. TAMEGA LDA		09-05-2009	YES	1	g
EMPRESA DE DIFUSAO DE RADIO SA		09-05-2009 01-03-2011	YES	2	g
EMPRESA EDITORA CIDADE DE TOMAR LDA		09-05-2009 01-03-2011	YES	2	g
EMPRESA JORNAL O CORREIO DE FAFE LDA		09-05-2009	YES	1	g
EMPRESA RADIO CAVADO LDA		09-05-2009	YES	1	g
ERACA-EMPRESA DE RADIOD ALTO CAVADO, LDA		06-03-2009	YES	1	g
ERO- EMPRESA DE RADIODIFUSÃO DO OESTE		30-03-2009	YES	1	g
ESCOLA DE CONDUÇÃO CASTANHEIRENSE, LDA		01-03-2012	YES	1	g
EVb EMISSORA VOZ DA BAIARRADA CRL		12-05-2009	YES	1	g
FABRICA DA SE CATEDRAL DE FARO		22-05-2009	YES	1	g
FERCORBER-MADEIRAS E MATERIAIS DE CONSTRUÇÃO, LDA		⁽³⁾	YES	1	g
FERNANDO MOURA, UNIPessoal, LDA		11-02-2013	YES	1	g
FONOGRAFO PRODUÇÕES SOM IMAGEM SA		22-05-2009	YES	4	g
FORUM BOTICAS ASS RECREATIVA CULTURAL		23-12-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Awaits decision on licence (permit) renewal.

⁽³⁾ Awaits decision of the appeal presented before the court by the second place finisher in the public tender - the licence (permit) has yet to be issued by the AACS.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
FOZ DO MONDEGO-MEIOS DE RADIOD., LDA	87,5 – 108,0 MHz	09-05-2009	YES	1	G
FUNDACAO FREI PEDRO DA GUARDA		23-12-2009	YES	1	G
GUADISOM LDA		12-06-2009	YES	1	G
GRANADA FM-RÁDIO E JORNALISMO, UN., LDA		30-03-2009	YES	1	G
GRUPO ESTUDOS INVEST CIEN EXPERIMENTAIS		09-05-2009	YES	1	G
HORA H-AGENCIA COMUNICAÇÃO GLOBAL, LDA		30-03-2009	YES	1	G
HORIZONTES PLANOS, INF. E COMUNICAÇÃO LDA		01-03-2011	YES	1	g
INTERIOR NORTE RÁDIO, LDA		23-12-2009	YES	1	g
INFOR-BARROSO, INFORMAÇÃO, LDA		30-03-2009	YES	1	g
INFORADIO COMUNICACAO SOCIAL SA		12-06-2009	YES	1	g
INTERLOCAL-COMUNICAÇÃO, LDA		30-03-2009	YES	1	g
IRIS-SERVIÇO DE INF. RADIOF. INDEPEND, LDA		12-06-2009	YES	1	g
JANELA INDISCRETA SOC COMUNICACAO LDA		23-12-2009	YES	1	g
JORNAL DA TROFA LDA		09-05-2009	YES	1	g
JORNAL ESPOSENDE SOC EDITORA		23-12-2009	YES	1	g
JOSE SOARES SILVA LDA(R.REG SANJOANENSE)		19-02-2007	YES	1	g
LAGOANIMA-EMP. RADIOD. E COM. DE LAGOA, LDA		06-03-2009	YES	2	g
LAMEGRÁFICA-SOC. COMERC. E EDITORIAL, LDA		18-03-2013	YES	1	g
LEIRIMEDIA PRODUcoes E PUBLICIDADE LDA		09-05-2009	YES	1	g
LEZIRIA COMUNICACAO SOCIAL SA		09-05-2009	YES	1	g
LUSOCANAL-SOC. RADIODIFUSÃO, LDA		30-03-2009	YES	1	g
MAFRA FM COOP RADIODIFUSAO CRL		06-03-2009	YES	1	g
MAIORCA FM-PROD. RADIOF.. SOC. UN, LDA		09-05-2009	YES	1	g
MARGINAUDIO ACT RADIOFONICAS, SA		30-03-2009	YES	1	g
MEDIABORBA-SOC. DE COM. SOCIAL, LDA		06-03-2009	YES	1	g
MÉDIA CAPITAL RÁDIO –RADIODIFUSÃO, LDA		06-03-2009	YES	1	g
MEDIA ON-COM. SOCIAL, LDA		09-05-2009	YES	1	g
MEIA MARATONA INTERNACIONAL NAZARE ACD		12-06-2009	YES	1	g
MIRANDUM FM-SOC. COMUNICAÇÃO, LDA		01-12-2011	YES	1	g
MG-RADIO E COM. SOCIAL, LDA		22-05-2009	YES	1	g
MONSANTORÁDIO-RADIO CLUBE DE MONSANTO, UNIPessoal, LDA		12-06-2009	YES	2	g
MOVIFACE-MEIOS PUBLICITÁRIOS, LDA		09-05-2009	YES	1	g
NORTE RÁDIO E TELEVISÃO, LDA		01-03-2011 21-08-2011	YES	2	g
NOTIMAIA PUBLIC E COMUNICACAO SOCIAL LDA		09-05-2009 30-03-2009	YES	2	g
NOVA RÁDIO-A VOZ DE STO.TIRSO, LDA		09-05-2009	YES	1	g
NOVOS MARES-RADIODIFUSÃO, LDA		06-03-2009	YES	1	g
NUCLEO AMADOR DE INVESTIGACAO DE AFIFE		09-05-2009	YES	1	g
OFICINA DE VIDEO LDA		23-12-2009	YES	2	g
ORGANIZ. COOP INFORMATIVA MARCO CRL		30-03-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
PAJOVIR ESPECTAC. MARKETING PUBLICI., LDA	87,5 - 108 MHz	09-05-2009 30-03-2009	YES	3	G
PENALVA DE CASTELO FM-RADIOD. E PUBL., LDA		01-03-2011	YES	1	G
PENSE POSITIVO EDICAO DIST AUDIOVISUAIS		22-05-2009	YES	1	G
PFM-RADIODIFUSÃO, LDA		22-05-2009	YES	1	G
PICARRA COMPANHIA, LDA		09-05-2009	YES	1	G
POLIMEDIA LDA		23-12-2009	YES	1	G
PRC PRODUCOES RADIOFONICAS COIMBRA LDA		30-03-2009	YES	1	G
PRESEPIO DE PORTUGAL-COM. SOCIAL, UN., LDA		06-03-2009	YES	2	G
PUBLIÁREA-PUBLICAÇÕES E COMUNIC., LDA		06-03-2009	YES	1	G
PUBLICCELOS LDA		09-05-2009	YES	1	G
PUBLIDIFUSAO LDA ESTACAO ORBITAL		30-03-2009	YES	1	G
PUBLITABUA SERV EMP LDA		⁽²⁾	YES	1	G
R2000-COMUNICAÇÃO SOCIAL, LDA		09-05-2009	YES	2	G
R A PRODUCOES RADIOFONICAS LDA		09-05-2009	YES	1	G
R O EDICOES PUB LDA		30-03-2009	YES	1	G
RADIO 90 FM COIMBRA RADIODIFUSAO LDA		30-03-2009	YES	1	G
RADIALTITUDE-SOC. COMUN. GUARDA LDA		22-05-2009	YES	1	G
RÁDIO 100-SOC. PRODUÇÕES AUDIOVISUAIS		23-12-2009	YES	1	G
RÁDIO BONFIM-PRODUÇÕES AUDIOVISUAIS		06-03-2009	YES	1	G
RÁDIO ALQUEVA, LDA		01-03-2011	YES	1	g
RADIO ALTO MINHO LDA		09-05-2009	YES	2	g
RADIO ALVOR CRL		22-05-2009	YES	1	g
RADIO AMADOR DE CANAS DE SENHORIM CRL		30-03-2009	YES	1	g
RADIO ANSIAES CRL		23-12-2009	YES	1	g
RADIO ASSOC BOMB VOLUNTARIOS DE SINES		12-06-2009	YES	1	g
RADIO ATLANTICO SUL R P PUBLICIDADE LDA		⁽²⁾	YES	1	g
RADIO BAIÁ SOC RADIODIFUSAO LDA		09-05-2009	YES	1	g
RADIO BARCA CRL		30-03-2009	YES	1	g
RADIO BEIRA INTERIOR CRL		09-05-2009	YES	1	g
RADIO BRAGANÇA RBA CRL		22-05-2009	YES	2	g
RADIO CAMPANARIO VOZ DE VILA VICOSA CRL		30-03-2009	YES	1	g
RADIO CARDAL, LDA		09-05-2009	YES	1	g
RADIO CARTAXO CRL		06-03-2009	YES	1	g
RÁDIO CASTRENSE-SOC. UNIPessoal, LDA		06-03-2009	YES	1	g
RADIO CENTRAL DO VOUGA LDA		30-03-2009	YES	1	g
RADIO CIDADE DE RIO MAIOR, LDA		12-06-2009	YES	1	g
RADIO CIDADE HOJE CCF		09-05-2009	YES	1	g
RADIO CIDADE PROD AUDIOVISUAIS SA		30-03-2009	YES	1	g
RADIO CISTER CRL		09-05-2009	YES	1	g
RADIO CLUBE AGUIARENSE		30-03-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Awaits decision on licence (permit) renewal.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RADIO CLUBE ALVAIAZERE	87,5 - 108 MHz	23-12-2009	YES	1	G
RADIO CLUBE DE ARGANIL CRL		06-03-2009	YES	1	G
RADIO CLUBE DE ARMAMAR, PROD.RADIOF, LDA		23-12-2009	YES	1	G
RÁDIO CLUBE DE ALCOUTIM, LDA		01-02-2012	YES	1	G
RADIO CLUBE DA COVILHÃ, CRL		06-03-2009	YES	2	G
RADIO CLUBE DA FEIRA CRL		09-05-2009	YES	1	G
RADIO CLUBE DE GAIA SLRS LDA		30-03-2009	YES	1	g
RADIO CLUBE DE GONDOMAR LDA		09-05-2009	YES	1	g
RADIO CLUBE DE GRANDOLA CRL		06-03-2009	YES	1	g
RADIO CLUBE DE LAFOES CRL		30-03-2009	YES	1	g
RADIO CLUBE DE LOULE CRL		09-05-2009	YES	1	g
RADIO CLUBE DA LOURINHA CRL		06-03-2009	YES	1	g
RADIO CLUBE DE OUREM		30-03-2009	YES	1	g
RADIO CLUBE DA PAMPILHOSA CRL		12-06-2009	YES	1	g
RADIO CLUBE DE PENAFIEL CRL		30-03-2009	YES	1	g
RADIO CLUBE DE REDONDO CRL		30-03-2009	YES	1	g
RADIO CLUBE DE SINTRA TIPOG MEDINA LDA		30-03-2009	YES	1	g
RADIO CLUBE DO SUL CRL		09-05-2009	YES	1	g
RADIO CLUBE LAMEGO LDA		22-05-2009	YES	1	g
RADIO CLUBE POMBAL CRL		09-05-2009	YES	1	g
RADIO COMERCIAL DA LINHA LDA		30-03-2009	YES	1	g
RADIO COMERCIAL DE ALMEIRIM LDA		23-12-2009	YES	2	g
RADIO CONCELHO DE CANTANHEDE LDA		06-03-2009	YES	1	g
RADIO CORVAL, CRL		01-03-2011	YES	1	g
RADIO DESPERTAR VOZ DE ESTREMOZ CRL		06-03-2009	YES	1	g
RADIO DOURO NORTE RADIODIFUSÃO LDA		⁽²⁾	YES	1	g
RADIO DO SEIXAL LDA		09-05-2009	YES	1	g
RÁDIO DUEÇA, INFORMAÇÃO, LDA		30-03-2009	YES	1	g
RADIO ELMO CNEAJ		30-03-2009	YES	1	g
RÁDIO ESCOLA TRIÂNGULO PROFISSIONAL, LDA		30-11-2011	YES	1	g
RADIO ESCURO CRL		30-03-2009	YES	1	g
RADIO EUROPA CRL		09-05-2009	YES	1	g
RADIO FELGUEIRAS CRL		06-03-2009	YES	1	g
RADIO FESTIVAL DO NORTE LDA		06-03-2009	YES	1	g
RADIO FOIA CRL		30-03-2009	YES	1	g
RADIO FOZ DO AVE LDA		09-05-2009	YES	1	g
RADIO GILAO COOP RADIODIFUSAO CRL		22-05-2009	YES	2	g
RADIO GUADALUPE CRL		⁽²⁾	YES	1	g
RADIO HERTZ ASSOCIACAO CULT E RECREATIVA		09-05-2009	YES	1	g
RADIO HORIZONTE TEJO-RAD. COM E MEIOS, LDA		30-03-2009	YES	1	g
RADIO INDEPENDENTE AVEIRO CRL		09-05-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Awaits decision on licence (permit) renewal.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RADIO INDEPENDENTE PAIVENSE CRL	87,5 – 108 MHz	06-03-2009	YES	1	g
RADIO JORNAL CAMINHENSE LDA		12-06-2009	YES	1	g
RADIO JORNAL FUNDAO LDA		09-05-2009	YES	1	g
RADIO JORNAL SETUBAL LDA		09-05-2009	YES	1	g
RADIO JUVENTUDE CRL		09-05-2009	YES	1	g
RADIO LAROUÇO CRL		22-05-2009	YES	1	g
RADIO LIMITE DE CASTRO DAIRE CRL		06-03-2009	YES	3	g
RADIO LITORAL CENTRO EMP RAD LDA		23-12-2009	YES	1	g
RADIO LIVRE MACEDENSE CRL		06-03-2009	YES	1	g
RADIO MAIOR, PUBLICIDADE E COM.LDA		12-06-2009	YES	2	g
RADIO MAIS		30-03-2009	YES	1	g
RÁDIO MANTEIGAS-RADIODIFUSÃO E PUBL.		22-08-2011	YES	1	g
RÁDIO MÉRTOLA, LDA		22-06-2011	YES	1	g
RÁDIO METROPOLITANA, COMUN. SOCIAL, LDA		09-05-2009	YES	1	g
RADIO MIRASADO COOP CULT ANIM RADIOF CRL		06-03-2009	YES	1	g
RADIO MOLICEIRO COM SOCIAL LDA		09-05-2009	YES	1	g
RÁDIO NACIONAL-EMISSIONES RADIOFONICAS, LDA		09-05-2009	YES	1	g
RADIO NOVA CONTRASTA LDA		12-06-2009	YES	1	g
RADIO NOVA ERA SOC DE COMUNICACOES LDA		30-03-2009 09-05-2009	YES	2	g
RADIO NOVA LOURES		30-03-2009	YES	1	g
RADIO NOVA SIRS SOC IND RADIODIFUSAO LDA		06-03-2009	YES	1	g
RÁDIO OBJECTIVA, LDA		09-05-2009	YES	1	g
RADIO ONDA VIVA SA		09-05-2009	YES	1	g
RÁDIO OURIQUE, LDA		01-03-2011	YES	1	g
RÁDIO PAÇOS-COMUNICAÇÃO REGIONAL, LDA		30-03-2009	YES	1	g
RADIO PAL-SOC. UN, LDA		22-05-2009	YES	1	g
RADIO PAX		22-05-2009	YES	1	g
RADIO PERNES LDA		09-05-2009	YES	2	g
RADIO PIRANHA CRL		09-05-2009	YES	1	g
RADIO PLANALTO CRL		30-03-2009	YES	1	g
RADIO PORTALEGRE CRL		22-05-2009	YES	2	g
RADIO PRAIA CRL		⁽²⁾	YES	1	g
RADIO PROVINCIA LDA		06-03-2009	YES	1	g
RADIO RACAL EMP RADIODIF INFORMACAO LDA		30-03-2009	YES	1	g
RADIO REGIONAL AVEIRO		09-05-2009	YES	1	g
RADIO REGIONAL CENTRO LDA		23-12-2009	YES	1	g
RADIO REGIONAL DE AROUCA		23-12-2009	YES	1	g
RÁDIO RENASCENÇA, LDA		06-03-2009	YES	1	g
RADIO RIBA TAVORA		30-03-2009	YES	1	g
RÁDIO SABUGAL-PUBLIC. E RADIODIF., LDA		21-08-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Awaits decision on licence (permit) renewal.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use
RADIO SANTA MARIA CRL		09-05-2009	YES	1	G
RADIO SANTA MARTA LDA		30-03-2009	YES	1	G
RADIO SANTIAGO COOPERATIVA COM CULTURA		22-05-2009	YES	1	G
RADIO SANTIAGO EMP GRAF JOR COM GUIM LDA		30-03-2009	YES	1	g
RÁDIO SEM FRONTEIRAS, SA		30-03-2009	YES	1	g
RADIO SINGA CRL		06-03-2009	YES	1	g
RADIO SOBERANIA, EMPRESA DE RAD. LDA		22-05-2009	YES	1	g
RADIO TAGIDE CRL		09-05-2009	YES	1	g
RADIO TEMPOS LIVRES CRL		30-03-2009	YES	1	g
RÁDIOTORRES, LDA		30-03-2009	YES	1	g
RADIO UNIVERS. MARAO COOP RADIO CRL		09-05-2009	YES	1	g
RADIO URBANA CRL		09-05-2009	YES	1	g
RADIO VALDEVEZ ASS CULT DE RADIODIFUSAO		22-05-2009	YES	2	g
RADIO VIDA NOVA CRL		12-06-2009	YES	1	g
RADIO VIRIATO NODIGRAFICA LDA		09-05-2009	YES	1	g
RADIO VIZELA COOP RADIODIFUSAO CRL		23-12-2009	YES	1	g
RÁDIO VOZ DA RAIA-SOC. UN., LDA		30-03-2009	YES	1	g
RADIO VOZ DE ALCANENA		06-03-2009	YES	1	g
RADIO VOZ DE TABUACO CRL		30-03-2009	YES	1	g
RADIO VOZ DO MINHO LDA		⁽²⁾	YES	1	g
RADIO VOZ MANGUALDE		06-03-2009	YES	1	g
RADIO VOZ RIA EMISSORA C ESTARREJA CRL		30-03-2009	YES	1	g
RADIO VOZ SETUBAL LDA		09-05-2009	YES	1	g
RADIODIFUSAO PUBLIC ESPECTACULOS LDA		30-03-2009	YES	1	g
RADIOESTE COOP RADIODIFUSAO LOCAL CRL		09-05-2009	YES	1	g
RAIMUNDO-COMUNICAÇÕES INDEPENDENTES, RÁDIO E JORNAIS		09-05-2009	YES	2	g
RAJ RADIO ANTENA JOVEM CRL		⁽²⁾	YES	1	g
RADIBELI-PRODUÇÕES RADIOFÓNICAS,LDA		22-05-2009	YES	1	g
RC EMPRESA DE RADIODIFUSAO SA		09-05-2009 30-03-2009	YES	2	g
RCB RADIO COVA DA BEIRA CRL		09-05-2009	YES	2	g
RCC RADIO CULTURAL CERVEIRA		30-03-2009	YES	1	g
RCCI RADIO COM. CRIATIVIDADE IMAGEM LDA		09-05-2009	YES	1	g
RCM-RADIO CLUBE DE MEDA LDA		01-03-2011	YES	1	g
RDP – RADIODIFUSÃO PORTUGUESA SA		⁽³⁾	YES	1	g
REDE A EMISSORA REGIONAL DO SUL LDA		30-03-2009	YES	1	g
RGA RADIO GLOBO AZUL		06-03-2009	YES	1	g
RJTV-RÁDIO, JORNAIS E TELEVISÃO-MEIOS COM. AUDIV., UN., LDA		30-03-2009	YES	1	g
RPCS-SOURE FM-SOC. COM., UN., LDA		30-03-2009	YES	2	g
RR RADIO RESTAURACAO CRL		⁽²⁾	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Awaits decision on licence (permit) renewal.

⁽³⁾ Has government authorisation.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared Use	Scope of use
RSF, RADIODIFUSÃO, LDA	87,5 – 108 MHz	09-05-2009	YES	2	g
RTA SOC RADIODIF TELECOM ALBUFEIRA LDA		12-06-2009	YES	1	g
RTM-RÁDIO E TELEVISÃO DO MINHO, LDA		09-05-2009	YES	1	g
RTVA RADIOTELEVISAO ATLANTICO SA		22-05-2009	YES	1	g
RUC RADIO UNIVERSIDADE AAC		30-03-2009	YES	1	g
RVE-SOCIEDADE RADIOFÓNICA LDA		12-06-2009	YES	1	g
SALDIDA FM RADIO INFORM. CULTURA CRL		30-03-2009	YES	1	g
SANTA CASA MISERIC. DE CAMPO MAIOR		21-06-2011	YES	1	g
SER-SOC.ELVENSE RADIODIFUSÃO LDA		01-03-2011	YES	2	g
SINTONIZENOS COMUNICACAO SOCIAL LDA		09-05-2009	YES	1	g
SIRPA SOC IMPRENSA RADIO PARALELO LDA		09-05-2009	YES	1	g
SIT-SOC. DE INFORM. DE TRÁS-OS-MONTES		23-12-2009	YES	2	g
SOBRAL FM-SOC. COM., UN., LDA		30-03-2009	YES	1	g
SOC FRANCO-PORTUGUESA COMUNIC. SA		06-03-2009	YES	1	g
SOCIEDADE EDITORIAL BETICA LDA		30-03-3009	YES	1	g
SOCIROL SOC RADIODIFUSAO LIMIANA LDA		22-05-2009	YES	1	g
SOC. PAIVIMO-EMPEND. IMOBILIARIOS, LDA		09-05-2009	YES	1	g
SOM DO PINHAL 2 MULTIMÉDIA, UN., LDA		22-05-2009	YES	1	g
SONCENTRO EMISSORA RADIO LDA		23-12-2009	YES	1	g
SONS DE BOTÁREU-ACTIV. RÁDIO, UN., LDA		22-05-2009	YES	2	g
SRA-SOC. DE RADIODIFUSÃO DE ALBUFEIRA		12-06-2009	YES	1	g
SULEDITA, LDA		01-12-2011	YES	1	g
TAVIRADIO CRL		22-05-2009	YES	1	g
TLA-TELEFONIA LOCAL DE ALJUSTREL		01-03-2011	YES	1	g
TSF RADIO JORNAL LISBOA LDA		06-03-2009	YES	1	g
UNIRADIO UCRL		30-03-2009	YES	1	g
VDRF-ELECTRÓNICA, ÁUDIO E EQUIP. TELEC., LDA		06-03-2009	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Azores Autonomous Region					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared Use	Scope of use
ANTENA NOVE CRL	87,5 – 108 MHz	06-03-2009	YES	4	G
ATLANTIRÁDIO-SOC. DE RADIODIFUSÃO, LDA		06-03-2009	YES	3	g
BRUN PACHECO E FILHOS, LDA		22-06-2011	YES	1	g
CICLONE PUBLICACOES E DIFUSOES LDA		06-03-2009	YES	1	g
CLUBE ASAS ATLANTICO		⁽²⁾	YES	1	g
COOPERATIVA ECOS DO NORTE CRL		25-03-2009	YES	1	g
COOPERATIVA RADIODIFUSAO DO PICO CRL		06-03-2009	YES	3	g
COOPERATIVA RADIODIFUSAO RADIO CAIS		01-03-2011	YES	1	g
COSTA E OSÓRIO, LDA		22-06-2011	YES	1	g
ECOS DAS FLORES-ACTIV. RADIODIF., LDA		01-02-2011	YES	1	g
ESTADO MAIOR FORÇA AÉREA		⁽²⁾	YES	1	g
PACHECO E FREITAS, LDA		22-09-2011	YES	1	g
RÁDIO CANAL ABERTO, LDA			YES	1	g
RÁDIO CLUBE LAJES PICO-A VOZ DA MONTANHA, LDA		01-03-2011	YES	4	g
RADIO CLUBE ANGRA		06-03-2009	YES	1	g
RADIO ILHA LDA		06-03-2009	YES	2	g
RADIO INSULAR LDA		06-03-2009	YES	1	g
RADIO LUMENA VOZ DE S JORGE		06-03-2009	YES	2	g
RCA RADIO COMERCIAL DOS Acores LDA		06-03-2009	YES	1	g
SOC. RADIODIFUSÃO GRACIOSENSE, LDA		06-03-2009	YES	1	g
TOP RADIO LDA		06-03-2009	YES	2	g
UNITED STATES AIR FORCE		⁽²⁾	YES	1	g

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Has government authorisation.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
Usage –

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Madeira Autonomous Region					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared Use	Scope of use
ADENORMA-ASSOC. DESENVOLVIMENTO COSTA NORTE DA MADEIRA – IPSS	87,5 - 108 MHz	01-03-2011	YES	1	g
ASSOC. BOMBEIROS VOLUNT. DE SÃO VICENTE E PORTO MONIZ		01-03-2011	YES	2	g
BETAMAR, LDA		22-06-2009	YES	1	g
EMPRESA JORNAL DA MADEIRA LDA		06-03-2009	YES	1	g
NOTÍCIAS 2000-ACT. RADIOD. SONORA, LDA		06-03-2009	YES	1	g
POSTO EMISSOR DE RADIODIFUS. DO FUNCHAL		⁽²⁾	YES	1	g
RADIO CLUBE MADEIRA LDA		06-03-2009	YES	1	g
RADIURBE-PRODUÇÃO E COMÉRCIO DE PUBLICIDADE RÁDIO, LDA		21-08-2011	YES	4	g
RÁDIO GIRÃO-EMPRESA DE RADIODIFUSÃO E PUBLICIDADE, LDA		01-09-2011	YES	2	g
RAMOS, MARQUES E VASCONCELOS, LDA		06-03-2009 06-03-2009 06-03-2009 06-03-2009	YES	4	g
SPN – SOC. PRODUTORA DE NOTÍCIAS, LDA		06-03-2009	YES	1	g

TERRESTRIAL DIGITAL AUDIO BROADCASTING SERVICE					
(T-DAB)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Exclusive use	Scope of use
RDP – Radiodifusão Portuguesa, SA	224,880 - 226,416 MHz	08-06-2014	YES	1 ⁽³⁾	n

⁽¹⁾ The entities holding local and regional coverage sound broadcasting stations are authorised to practice their activity by a licence (permit) granted by public tender.

⁽²⁾ Has government authorisation.

⁽³⁾ A T-DAB channel enables six audio programmes to be broadcasted simultaneously.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

TELEVISION BROADCASTING SERVICE – ANALOGUE (RDTV)							
Entity		Frequency Bands	Allocation revision date	Usage rights	No. of channels Shared use	Scope of use	
RTP – Radiotelevisão Portuguesa, SA Public television service general concession contract dated 22/09/2003	RTP1	47 - 68 MHz	27-08-2019	YES	3	g	
		174 - 216 MHz			6	g	
		470 - 582 MHz			14	g	
		582 - 822 MHz			25	g	
	RTP AÇORES	174 - 216 MHz	27-08-2019	YES	6	g	
		470 - 582 MHz			2	g	
		582 - 822 MHz			7	g	
	RTP MADEIRA	174 - 216 MHz	27-08-2019	YES	6	g	
		470 - 582 MHz			2	g	
		582 - 822 MHz			5	g	
	RTP – Radiotelevisão Portuguesa, SA Public television service special concession contract dated 17/11/2003	A: 2	47 - 68 MHz	27-08-2011	YES	1	g
			174 - 216 MHz			1	g
470 - 582 MHz			14			g	
82 - 822 MHz			28			g	
SIC – Sociedade Independente de Comunicação, SA Resolution 6/92 (2 nd Series) of the Council of Ministers of 22.02.1992		174 - 216 MHz	22-02-2007	YES	1	g	
		470 - 582 MHz			11	g	
		582 - 822 MHz			26	g	
TVI Televisão Independente, SA Resolution 6/92 (2 nd Series) Of the Council of Ministers of 22.02.1992		470 - 582 MHz	22-02-2007	YES	12	g	
		582 - 822 MHz			23	g	

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Usage -

TRUNKING MOBILE SERVICE (analogue systems)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Exclusive use	Scope of use
RADIOMÓVEL	450/470 MHz ⁽¹⁾	-	-	66 ^{(2) (3)}	n
REPART	450/470 MHz ⁽¹⁾	21-3-2009	YES	20 ⁽²⁾	n

TRUNKING MOBILE SERVICE (CDMA)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Exclusive use	Scope of use
RADIOMÓVEL	453-457,45 MHz	- ^(*)	YES	1 ⁽⁴⁾	n
	463-467,45 MHz			1 ⁽⁵⁾	g

Terrestrial Trunked Radio (TETRA)						
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels/type of use		Scope of use
				shared	Exclusive	
RADIOMÓVEL	410/430 MHz	-	-	2 ^{(3) (6)}	15 ⁽³⁾	g
REPART	410/430 MHz	21-03-2009	YES	29 ⁽⁶⁾	--	g

⁽¹⁾ Planning with 12.5 kHz channel spacing.

⁽²⁾ The number of indicated channels is subject to variation depending on each operator's number of terminals.

⁽³⁾ The number of channels is still subject to revision per modification of the licence terms.

^(*) The licence is valid until 14-10-2008; ICP-ANACOM is reassessing Radiomóvel's use of the SMRP-CDMA system in the scope of its licence.

⁽⁴⁾ 1.25 MHz carrier.

⁽⁵⁾ 1.25 MHz carrier, whose use in the country's south (Alentejo and Algarve) can only occur after 2006.

⁽⁶⁾ Channels subject to restrictions in certain regions of the country.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

LAND MOBILE SERVICE - GSM (SMTP)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Exclusive use	Scope of use
OPTIMUS	GSM 900 890 - 914 MHz 935 – 959 MHz	20-11-2012	YES	39	N
	DCS 1800 1710 - 1785 MHz 1805 - 1880 MHz	20-11-2012	YES	30	N
VODAFONE TELECEL	GSM 900 890 - 914 MHz 935 – 959 MHz	18-10-2006	YES	40	N
	DCS 1800 1710 - 1785 MHz 1805 - 1880 MHz	18-10-2006	YES	30	N
TMN	GSM 900 890 - 914 MHz 935 - 959 MHz	16-03-2007	YES	40	N
	DCS 1800 1710 – 1785 MHz 1805 – 1880 MHz	16-03-2007	YES	30	N

LAND MOBILE SERVICE Universal Mobile Telecommunications System (UMTS)					
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels Exclusive use	Scope of use
VODAFONE TELECEL	1920-1980 MHz 2110-2170 MHz	11-01-2016	YES	2x 20 MHz	N
	1900-1920 MHz	11-01-2016	YES	1x 5 MHz	N
TMN	1920-1980 MHz 2110-2170 MHz	11-01-2016	YES	2x 20 MHz	n
	1900-1920 MHz	11-01-2016	YES	1x 5 MHz	n
OPTIMUS	1920-1980 MHz 2110-2170 MHz	11-01-2016	YES	2x 20 MHz	n
	1900-1920 MHz	11-01-2016	YES	1x 5 MHz	n

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

MARITIME MOBILE SERVICE(MMS)						
Entity	Frequency Bands	Allocation revision date	Usage rights	No. of channels/type of use		Scope of use
				shared	Exclusive	
PT COMUNICAÇÕES	2173,5 - 2190,5 kHz (Rescue and call)	20-03-2025 ⁽¹⁾	NO	1		(2)
	2190,5 - 2194 kHz				1	(2)
	2501 - 2850 kHz (Appendix 3 to Res. 704 of the RR)				7	(2)
	3500 - 3800 kHz (Appendix 3 to Res. 704 of the RR)				1	(2)
	4 MHz (Appendix S17 of the RR, part B, section I)				3	(2)
	4 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	6 MHz (Appendix S17 of the RR, part B, section I)				1	(2)
	6 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	8 MHz (Appendix S17 of the RR, part B, section I)				3	(2)
	8 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	12 MHz (Appendix S17 of the RR, part B, section I)				5	(2)
	12 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	16 MHz (Appendix S17 of the RR, part B, section I)				4	(2)
	16 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	18/19 MHz (Appendix S17 of the RR, part B, section I)				1	(2)
	18/19 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
	22 MHz (Appendix S17 of the RR, part B, section I)				3	(2)

⁽¹⁾ The provision of the Maritime Mobile Service, shall be ensured by the concessionaire on a transitional basis, up to the respective transfer to a different entity, according to article 3 of Decree-Law no. 31/2003 of 17 February.

⁽²⁾ Not applicable

22 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
25/26 MHz (Appendix S17 of the RR, part B, section II)				3	(2)
156/174 MHz (Appendix S18 of the RR)			2	6	(2)

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

FIXEDSATELLITE SERVICE (FSS)				
Entity	Frequency bands Connection type	Usage rights	No. of channels Shared use	Scope of use
PT COMUNICAÇÕES	5925 - 6475 MHz Uplink	NO	(1) (2)	g
	14 - 14,5 GHz Uplink		(1) (2)	g
	17,3 - 17,7 GHz Uplink		(3)	g
	3600 - 4200 MHz Downlink		(1) (2)	g
	10,95 - 11,2 GHz Downlink		(1) (2)	g
	11,45 - 11,7 GHz Downlink		(1) (2)	g
	12,5 - 12,75 GHz Downlink		(1) (2)	g
ONITELECOM	14 - 14,5 GHz Uplink	NO	(1) (2)	g
	3700 - 4200 MHz Downlink		(1) (2)	g
	10,95 - 11,2 GHz Downlink		(1) (2)	g
	11,45 - 11,7 GHz Downlink		(1) (2)	g
	12,5 - 12,75 GHz Downlink		(1) (2)	g
AVCOM	14 - 14,5 GHz Uplink	NO	(1) (2)	g
	10,95 - 11,2 GHz Downlink		(1) (2)	g
	11,45 - 11,7 GHz Downlink		(1) (2)	g
	12,5 - 12,75 GHz Downlink		(1) (2)	g

(1) Band shared with other users.

(2) Dynamic frequency management according to each application type.

(3) Exclusive for connection links of the broadcasting satellite service.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

FIXED-SATELLITE SERVICE (FSS) – (cont.)				
Entity	Frequency bands Connection type	Usage rights	No. of channels Shared use	Scope of use
PT PRIME – Soluções Empresariais de Telecomunicações e Sistemas, S.A	5925 - 6425 MHz Uplink	NO	(1) (2)	g
	14 – 14,5 GHz Uplink		(1) (2)	g
	3700 – 4200 MHz Downlink		(1) (2)	g
	10,95 – 11,2 GHz Downlink		(1) (2)	g
	11,45 – 11,7 GHz Downlink		(1) (2)	g
	12,5 – 12,75 GHz Downlink		(1) (2)	g
COMPENSA	5925 - 6425 MHz Uplink	NO	(1) (2)	g
	14 – 14,5 GHz Uplink		(1) (2)	g
	3700 – 4200 MHz Downlink		(1) (2)	g
	10,95 – 11,2 GHz Downlink		(1) (2)	g
	11,45 – 11,7 GHz Downlink		(1) (2)	g
	12,5 – 12,75 GHz Downlink		(1) (2)	g
KPNQWEST PORTUGAL- TELECOMUNICAÇÕES, LDA	14 – 14,5 GHz Uplink	NO	(1) (2)	g
	10,95 – 11,2 GHz Downlink		(1) (2)	g
	11,45 – 11,7 GHz Downlink		(1) (2)	g
	12,5 – 12,75 GHz Downlink		(1) (2)	g
TV CABO	12,75 – 13,25 GHz Uplink	NO	(1) (2)	g
EASTÉCNICA IV	14 – 14,5 GHz Uplink	NO	(1) (2)	g
	10,95 – 11,2 GHz Downlink		(1) (2)	g
	11,45 – 11,7 GHz Downlink		(1) (2)	g
	12,5 – 12,75 GHz Downlink		(1) (2)	g

(1) Band shared with other users.

(2) Dynamic frequency management according to each application type.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Usage -

MOBILE-SATELLITE SERVICE(MSS)				
Entity	Frequency bands Connection type	Usage rights	type of use Shared	Scope of use
PT Comunicações	1626,5 – 1645,5 MHz Uplink	NO	(*)	n
	1530 – 1544 MHz Downlink		(*)	n
SPACECHECKER, N.V.	1626,5 – 1645,5 MHz Uplink	NO	(*)	n
	1646,5 – 1660,5 MHz Uplink		(*)	n
	1525 – 1544 MHz Downlink		(*)	n
	1545 – 1559 MHz Downlink		(*)	n

SPACE OPERATIONS SERVICE (SO)				
Entity	Frequency bands Connection type	Usage rights	Shared Use	Scope of use
PT Comunicações	2080-2095 MHz Uplink	NO	(*)	g
	2260-2275 MHz Downlink		(*)	g

(*) According to currently valid legislation, these bands may be used by other users on a sharing basis.

B. Frequency bands reserved and to make available in 2005 for the operation of electronic communications networks and services

B.1 publicly available

The meanings of the terms and abbreviations used are as follows:

Need for usage rights: identification of the need to allocate usage rights according to article 16 of Law no. 5/2004 of 10 February;

Shared use: use of a channel/frequency by more than one entity;

Exclusive use: use of a channel/frequency by one single entity;

Scope of use:

n – national scope: use of a channel/frequency at national territory level;

g – geographic delimitation: use of a channel/frequency in a given and well delimited area by radiocommunication stations, such as, for example, fixed stations, broadcasting stations and earth stations.

Allocation procedure (full accessibility or selection method by competition or comparison)

**PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -**

FIXED SERVICE - POINT-to-POINT FIXED LINKS				
Frequency Bands	Need for usage rights	type of use shared	Scope of use	Allocation procedure
406,1-410 MHz	NO	(1) (2)	g	full accessibility
410-430 MHz	NO	(1)(3)	g	full accessibility
1350 – 1375 MHz 1492 – 1517 MHz CEPT ERC/REC 13-01 A	NO	(1)	g	full accessibility
1375 – 1400 MHz 1427 – 1452 MHz CEPT ERC/REC 13-01 B	NO	(1)	g	full accessibility
2025 – 2110 MHz 2200 – 2290 MHz CEPT ERC/REC 13-01 C	NO	(1)	g	full accessibility
4 GHz (3800 – 4200 MHz) CEPT ERC/REC 12-08 B1	NO	(1)	g	full accessibility
6 GHz (5925 – 6425 MHz) CEPT ERC/REC 14-01 A1	NO	(1)	g	full accessibility
6 GHz (6425 – 7110 MHz) CEPT ERC/REC14-02 A1	NO	(1)	g	full accessibility
7 GHz (7110 – 7425 MHz) Rec. ITU-R 385	NO	(1)	g	full accessibility
7 GHz (7125-7425 MHz) CEPT ECC/REC 02-06 A1	NO	(1)	g	full accessibility
7 GHz (7425 – 7750 MHz) Rec. ITU-R 385 A4	NO	(1)	g	full accessibility
7 GHz (7425-7725 MHz) CEPT ECC/REC 02-06 A1	NO	(1)	g	full accessibility
8 GHz (7700 – 8300 MHz) Rec. ITU-R 386 A1	NO	(1)	g	full accessibility
8 GHz (8200 – 8500 MHz) Rec. ITU-R 386	NO	(1)	g	full accessibility
11 GHz (10,7 – 11,7 GHz) ERC/REC 12-03 Rec3	NO	(1)	g	full accessibility
13 GHz (12,75 – 13,25 GHz) Rec. ITU-R 497	NO	(1)	g	full accessibility
15 GHz (14,5 – 15,35 GHz) ERC/REC 12-07	NO	(1)	g	full accessibility
18 GHz (17,7 – 19,7 GHz) ERC/REC 12-03 A	NO	(1)	g	full accessibility
23 GHz (22 – 23,6 GHz) ERC/REC 13-02 A	NO	(1)	g	full accessibility
32 GHz 31,8 – 33,4 GHz ERC/REC 01-02	NO	(1)	g	full accessibility
38 GHz 37 – 39,5 GHz CEPT Rec T/R 12-01	NO	(1)	g	full accessibility
58 GHz 57 – 59 GHz CEPT ERC/REC 12-09	NO	(1)	g	full accessibility

(1) Band shared with other users.

(2) Band with planning specific to 12.5 kHz and 25 kHz(simplex).

(3) Band with planning specific to 12.5 kHz and 25 kHz (duplex) and shared with land mobile service.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies –

FIXED SERVICE - POINT-MULTIPOINT FIXED LINKS				
Frequency Bands	Need for usage rights	No. of channels Shared use	Scope of use	Allocation procedure
1880-1900 MHz	NO	10 ⁽¹⁾	g	Full accessibility
40,5-43,5 GHz ERC/DEC 99(15)	YES		g	To be defined

FIXED SERVICE - POINT-MULTIPOINT FIXED LINKS Fixed Wireless Access (FWA)				
Frequency Bands	Need for usage rights	No. of channels Shared use	Scope of use	Allocation procedure
3400-3600 MHz CEPT/ERC/REC 14-03	YES	(2)	(2)	(2)
3600-3800 MHz CEPT ERC/REC 12-08 Annex B	YES	(2)	(2)	(2)
24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	YES	(2)	(2)	(2)
27,5-29,5 GHz CEPT ERC/REC 13-02 Annex C	YES	(2)	(2)	(2)

TERRESTRIAL DIGITAL AUDIO BROADCASTING SERVICE (T-DAB)				
Frequency Bands	Need for usage rights	No. of channels Exclusive use	Scope of use	Allocation procedure
219 - 230 MHz	YES	5	g	To be defined

⁽¹⁾ Dynamic band management.

⁽²⁾ Dependent on decisions deriving from application of Administrative Rule no. 1062/2004 of 25 August.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies –

TERRESTRIAL DIGITAL VIDEO BROADCASTING SERVICE (DVB-T)					
Frequency Bands	Need for usage rights	No. of channels/type of use		Scope of use	Allocation procedure
		shared	Exclusive		
Band IV 470 - 582 MHz	YES	(1)	(1)	(1)	(1)
Band V 582 - 862 MHz	YES	(1)	(1)		

PAN-EUROPEAN PUBLIC TERRESTRIAL PAGING SYSTEM Enhanced Radio Message System (ERMES)				
Frequency Bands	Need for usage rights	No. of channels Exclusive use	Scope of use	Allocation procedure
169,4125 - 169,8125 MHz	---	7	g	(2)

Terrestrial Trunked Radio (TETRA)				
Frequency Bands	Need for usage rights	No. of channels Exclusive use	Scope of use	Allocation procedure
410 - 430 MHz	YES	20 ⁽³⁾	g	To be defined

LAND MOBILE SERVICE – DCS 1800				
Frequency Bands	Need for usage rights	No. of channels Exclusive use	Scope of use	Allocation procedure
1710 - 1785 MHz 1805 - 1880 MHz	YES	150 ⁽⁴⁾	n	(5)

⁽¹⁾ Process under way to define the implementation model for digital television in Portugal.

⁽²⁾ A process is under way in the European Commission with a view to revoking Directive 90/544/EEC concerning ERMES.

⁽³⁾ These channels are also available for applications in electronic communications networks and services that are not publicly available, to be offered according to market needs.

⁽⁴⁾ Channels subject to restrictions in certain regions of the country.

⁽⁵⁾ Channels reserved for use by operators of services already licensed by ICP-ANACOM for publicly available land mobile service, in case of proven need.

**PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -**

FIXED-SATELLITE SERVICE (FSS)				
Frequency Bands	Need for usage rights	Type of use shared	Scope of use	Allocation process
3800 – 4200 MHz Downlink	NO	(1) (2)	g	Full accessibility
5725 - 5830 MHz Uplink	NO	(1) (2)	g	Full accessibility
5830 - 5850 MHz Uplink	NO	(1) (2)	g	Full accessibility
5850 - 5925 MHz Uplink	NO	(1) (2)	g	Full accessibility
5925 - 6425 MHz Uplink	NO	(1) (2)	g	Full accessibility
10,7 – 10,95 GHz ⁽³⁾ Downlink	NO	(1) (2)	g	Full accessibility
10,95 – 11,2 GHz Downlink	NO	(1) (2)	g	Full accessibility
11,2 – 11,45 GHz ⁽³⁾ Downlink	NO	(1) (2)	g	Full accessibility
11,45 – 11,7 GHz Downlink	NO	(1) (2)	g	Full accessibility
12,5 – 12,75 GHz Downlink	NO	(1) (2)	g	Full accessibility
12,75 – 13,25 GHz ⁽³⁾ Uplink	NO	(1) (2)	g	Full accessibility
14 - 14,5 GHz Uplink	NO	(1) (2)	g	Full accessibility
17,3 – 18,1 GHz ⁽⁴⁾ Uplink	NO	(1) (2)	g	Full accessibility
17,3 - 17,7 GHz ⁽⁵⁾ Downlink	NO	(1) (2)	g	Full accessibility
19,7 - 20,2 GHz ⁽⁵⁾ Downlink	NO	(1) (2)	g	Full accessibility
27,5 - 27,82 GHz ⁽⁵⁾ Uplink	NO	(1) (2)	g	Full accessibility
28,45 - 28,94 GHz ⁽⁵⁾ Uplink	NO	(1) (2)	g	Full accessibility
29,46 - 30,0 GHz ⁽⁵⁾ Uplink	NO	(1) (2)	g	Full accessibility

⁽¹⁾ Band shared with other users.

⁽²⁾ Dynamic frequency management according to each application type.

⁽³⁾ Appendix 30B.

⁽⁴⁾ Appendix 30A.

⁽⁵⁾ HDFSS.

**PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -**

BROADCASTING-SATELLITE SERVICE (BSS)				
Frequency bands Connection type	Need for usage rights	Type of use exclusive	Scope of use	Allocation procedure
11,7 – 12,5 GHz Downlink	NO	(1)	n	full accessibility

MOBILE-SATELLITE SERVICE (MSS)				
Frequency bands Connection type	Need for usage rights	Type of use shared	Scope of use	Allocation procedure
1530 - 1545 MHz Downlink	NO	(2)	n	full accessibility
1626,5 - 1646,5 MHz Uplink	NO	(2)	n	full accessibility
10,7 - 11,7 GHz (3) Downlink	NO	(2)	n	full accessibility
12,5 - 12,75 GHz (3) Downlink	NO	(2)	n	full accessibility
14,0 - 14,5 GHz (4) Uplink	NO	(2)	n	full accessibility

SATELLITE PERSONAL COMMUNICATIONS SERVICES (S-PCS)				
Frequency bands Connection type	Need for usage rights	Type of use shared	Scope of use	Allocation procedure
1610 - 1626,5 MHz Uplink/Downlink (5)	NO	(2)	n	full accessibility
1980 - 2010 MHz Uplink	NO	(2)	n	full accessibility
2170 - 2200 MHz Downlink	NO	(2)	n	full accessibility
2483,5 - 2500 MHz Downlink	NO	(2)	n	full accessibility

(1) Band exclusive for this service.

(2) Band shared with other users.

(3) EUTELTRACS.

(4) EUTELTRACS: 14-14,25 GHz.

(5) Uplink in CDMA and TDMA modes; downlink in TDMA mode.

B Frequency bands and channels reserved for 2005, for the operation of electronic communications networks and services

B.2 Not publicly available

The meanings of the terms and abbreviations used are as follows:

Need for usage rights: identification of the need to allocate usage rights according to article 16 of Law no. 5/2004 of 10 February;

Mode of operation: (*simplex, duplex or semi-duplex, when applicable*)

. *simplex*: mode of operation by which transmission is alternately possible in both directions of the telecommunication channel, using one or two frequencies

. *duplex*: mode of operation by which simultaneous transmission is possible in both directions of the telecommunication channel, using two frequencies

. *semi-duplex*: simplex mode of operation at one end of the telecommunication channel and duplex operation at the other, using two frequencies;

Channeling type: (*spacing between adjacent channels, when applicable*)

Shared use: use of a channel/frequency by more than one entity;

Exclusive use: use of a channel/frequency by one single entity;

Scope of use:

n – national scope: use of a channel/frequency at national territory level;

g – geographic delimitation: use of a channel/frequency in a given and well delimited area by radiocommunication stations, such as, for example, fixed stations, broadcasting stations and earth stations.

Allocation procedure (full accessibility)

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

FIXED SERVICE- DECAMETRIC WAVE LINKS (SFHF)				
Frequency Bands	Need for usage rights	Shared use	Scope of use	Allocation procedure
3200 – 3375 kHz	NO	(*)	g	full accessibility
6765 – 6795 kHz	NO	(*)	g	full accessibility
7350 – 7757 kHz	NO	(*)	g	full accessibility
13415 – 13495 kHz	NO	(*)	g	full accessibility
13515 – 13570 kHz	NO	(*)	g	full accessibility
13914 – 14000 kHz	NO	(*)	g	full accessibility
14350 – 14604 kHz	NO	(*)	g	full accessibility
14670 – 14990 kHz	NO	(*)	g	full accessibility
15800 – 16180 kHz	NO	(*)	g	full accessibility
16235-16360 kHz	NO	(*)	g	full accessibility
17452 – 17480 kHz	NO	(*)	g	full accessibility
18030 – 18052 kHz	NO	(*)	g	full accessibility
18168 – 18249 kHz	NO	(*)	g	full accessibility
18733 – 18780 kHz	NO	(*)	g	full accessibility
19120 – 19680 kHz	NO	(*)	g	full accessibility
19800 – 19990 kHz	NO	(*)	g	full accessibility
20010 – 20442 kHz	NO	(*)	g	full accessibility
20680 – 21000 kHz	NO	(*)	g	full accessibility
21850 – 21870 kHz	NO	(*)	g	full accessibility
22855 – 22900 kHz	NO	(*)	g	full accessibility
23350 – 24125 kHz	NO	(*)	g	full accessibility
24325 – 24890 kHz	NO	(*)	g	full accessibility
25210 – 25550 kHz	NO	(*)	g	full accessibility
26175 – 26870 kHz	NO	(*)	g	full accessibility
26957 – 27500 kHz	NO	(*)	g	full accessibility

(*) Band shared with other users.

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

FIXED SERVICE - POINT-to-POINT FIXED LINKS				
Frequency Bands	Need for usage rights	Shared use	Scope of use	Allocation procedure
406,1-410 MHz	NO	(1) (2)	g	full accessibility
410-430 MHz	NO	(2) (3)	g	full accessibility
1350 – 1375 MHz 1492 – 1517 MHz CEPT ERC/REC 13-01 A	NO	(2)	g	full accessibility
1375 – 1400 MHz 1427 – 1452 MHz CEPT ERC/REC 13-01 B	NO	(2)	g	full accessibility
2025 – 2110 MHz 2200 – 2290 MHz CEPT ERC/REC 13-01 C	NO	(2)	g	full accessibility
4 GHz (3800 – 4200 MHz) ERC/REC 12-08 B1	NO	(2)	g	full accessibility
6 GHz (5925 – 6425 MHz) ERC/REC 14-01 A1	NO	(2)	g	full accessibility
6 GHz (6425 – 7110 MHz) ERC/REC 14-02 A1	NO	(2)	g	full accessibility
7 GHz (7110 – 7425 MHz) Rec. ITU-R 385	NO	(2)	g	full accessibility
7 GHz (7125-7425 MHz) CEPT ECC/REC 02-06 A1	NO	(2)	g	full accessibility
7 GHz (7425-7725 MHz) CEPT ECC/REC 02-06 A1	NO	(2)	g	full accessibility
7 GHz (7425 – 7750 MHz) Rec. ITU-R 385	NO	(2)	g	full accessibility
8 GHz (7700 – 8300 MHz) Rec. ITU-R 386 A1	NO	(2)	g	full accessibility
8 GHz (8200 – 8500 MHz) Rec. ITU-R 386	NO	(2)	g	full accessibility
11 GHz (10,7 – 11,7 GHz) ERC/REC 12-03 Rec3	NO	(2)	g	full accessibility
13 GHz (12,75 – 13,25 GHz) Rec. ITU-R 497	NO	(2)	g	full accessibility
15 GHz 14,5 – 15,35 GHz CEPT ERC/REC 12-07	NO	(2)	g	full accessibility
18 GHz (17,7 – 19,7 GHz) ERC/REC 12-03 A	NO	(2)	g	full accessibility
23 GHz (22 – 23,6 GHz) CEPT ERC/REC 13-02 A	NO	(2)	g	full accessibility
32 GHz 31,8 – 33,4 GHz CEPT ERC/REC 01-02	NO	(2)	g	full accessibility
38 GHz 37 – 39,5 GHz CEPT Rec T/R 12-01	NO	(2)	g	full accessibility
58 GHz 57 – 59 GHz CEPT ERC/REC 12-09	NO	(2)	g	full accessibility

(1) Band with planning specific to 12.5 kHz and 25 kHz(simplex).

(2) Band shared with other users.

(3) Band with planning specific to 12.5 kHz and 25 kHz(duplex), and shared with land mobile service.

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

FIXED SERVICE – STUDIO-TRANSMITTER LINKS (STL)					
Frequency Bands	Need for usage rights	Type of channel	No. of channels Shared use	Scope of use	Allocation procedure
1517 – 1525 MHz	NO	100 kHz	80	g	full accessibility ⁽¹⁾
	NO	300 kHz	26	g	full accessibility ⁽¹⁾

BROADCASTING SERVICE – SAP/SAB video links ⁽²⁾					
Frequency Bands	Need for usage rights	Type of channel	No. of channels Shared use	Scope of use	Allocation procedure
2070-2110 MHz	NO	⁽³⁾	⁽⁴⁾	g	full accessibility
2245-2260 MHz	NO	⁽³⁾	⁽⁴⁾	g	full accessibility
2390-2500 MHz	NO	⁽³⁾	⁽⁴⁾	g	full accessibility
10-10.45 GHz	NO	⁽³⁾	⁽⁴⁾	g	full accessibility

Integrated Emergency and Security Network System					
Frequency Bands	Need for usage rights	Type of channel	No. of channels Exclusive use	Scope of use	Allocation procedure
380-383 MHz 390-393 MHz ⁽⁵⁾	NO	25 kHz	120	n	Council of Ministers Resolution no. 56/2003 of 8 April

⁽¹⁾ Limited to holders of sound broadcasting licence (permit).

⁽²⁾ SAP/SAB video links, particularly for wireless cameras, portable and mobile SAP/SAB video links and SAP/SAB point-point video links, used for direct transmission of events.

⁽³⁾ Depending on requests received.

⁽⁴⁾ Depending on channel type.

⁽⁵⁾ If necessary, the 383-385 MHz/393-395 MHz extension bands can be made available.

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

LAND MOBILE SERVICE (SMT)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	Shared use	Scope of use	Allocation procedure
29,7 - 41 MHz	NO	20 kHz simplex	(1)	g	full accessibility
		20 kHz semi-duplex	(1)	g	full accessibility
68 - 87,5 MHz	NO	12,5 kHz simplex	(1)	g	full accessibility
		12,5 kHz semi-duplex	(1)	g	full accessibility
148 - 174 MHz	NO	12,5 kHz simplex	(1)	g	full accessibility
		12,5 kHz semi-duplex	(1)	g	full accessibility
440 - 450 MHz	NO	12,5 kHz simplex	(1)	g	full accessibility
		12,5 kHz semi-duplex	(1)	g	full accessibility
450 - 470 MHz	NO	12,5 kHz simplex	(1)	g	full accessibility
		12,5 kHz semi-duplex	(1)	g	full accessibility

LAND MOBILE SERVICE – Systems using digital technology					
Frequency Bands	Need for usage rights	Type of channel	No. of channels Shared use	Scope of use	Allocation procedure
410 - 430 MHz	NO	25 kHz	20 ⁽²⁾	g	To be defined

⁽¹⁾ Band shared with other users.

⁽²⁾ These channels are also available for applications in publicly available electronic communications networks and services to be made available according to market needs.

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

MARITIME MOBILE SERVICE(MMS)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Type of operation: shared	Scope of use	Allocation procedure
156 – 174 MHz (Appendix 18 do RR)	NO	25 kHz simplex	26	g	full accessibility
	NO	25 kHz duplex	33	g	full accessibility

AERONAUTICAL MOBILE SERVICE (AMS)					
Frequency Bands	Need for usage rights	Type of channel	Shared use	Scope of use	Allocation procedure
3400 - 3500 kHz	NO	3 kHz	(1)	g	full accessibility
5480 - 5680 kHz	NO	3 kHz	(1)	g	full accessibility
8815 - 8965 kHz	NO	3 kHz	(1)	g	full accessibility
11275 - 11400 kHz	NO	3 kHz	(1)	g	full accessibility
13260 - 13360 kHz	NO	3 kHz	(1)	g	full accessibility
17900 - 17970 kHz	NO	3 kHz	(1)	g	full accessibility
117,975 - 137 MHz	NO	25 kHz	(1)	g	full accessibility
143,9 - 144 MHz ⁽²⁾	NO	12,5 kHz simplex	(1)	n	full accessibility

⁽¹⁾ Band shared with other users.

⁽²⁾ Sport or recreational free flight and engineless ultralight and hang glider.

**ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies -**

AERONAUTICAL RADIONAVIGATION SERVICE (ARS)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Shared use	Scope of use	Allocation process
255 - 283,5 kHz	NO	(1)	(2)	g	full accessibility
283,5 - 315 kHz	NO	(1)	(2)	g	full accessibility
315 - 325 kHz	NO	(1)	(2)	g	full accessibility
325 - 405 kHz	NO	(1)	(2)	g	full accessibility
415 - 435 kHz GE-85	NO	1 kHz	(2)	g	full accessibility
74,8 - 75,2 MHz	NO	(1)	1	g	full accessibility
108 - 117,975 MHz	NO	(1)	(2)	g	full accessibility
328,6 - 335,4 MHz	NO	(1)	(2)	g	full accessibility
960 – 1350 MHz	NO	(1)	(2)	g	full accessibility
2700 – 2900 MHz	NO	(1)	(2)	g	full accessibility
2900 – 3100 MHz	NO	(1)	(2)	g	full accessibility
4200 – 4400 MHz	NO	(1)	(2)	g	full accessibility
5000 – 5150 MHz	NO	(1)	(2)	g	full accessibility
5150 – 5250 MHz	NO	(1)	(2)	g	full accessibility
9000 – 9200 MHz	NO	(1)	(2)	g	full accessibility
9300 – 9500 MHz	NO	(1)	(2)	g	full accessibility
15,4 – 15,7 GHz	NO	(1)	(2)	g	full accessibility

(1) Not applicable

(2) Band shared with other users

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

MARITIME RADIONAVIGATION SERVICE (Q)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Shared use	Scope of use	Allocation procedure
283,5 - 315 kHz	NO	0,5 kHz	(2)	g	full accessibility
5470 - 5600 MHz	NO	(1)	(2)	g	full accessibility
5600 - 5650 MHz	NO	(1)	(2)	g	full accessibility
9300 - 9500 MHz	NO	(1)	(2)	g	full accessibility

RADIOLOCATION SERVICE (RS)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Type of operation: shared	Scope of use	Allocation procedure
2700 - 2900 MHz	NO	(1)	(2)	g	full accessibility
2900 - 3100 MHz	NO	(1)	(2)	g	full accessibility
5725 - 5830 MHz	NO	(1)	(2)	g	full accessibility
5830 - 5850 MHz	NO	(1)	(2)	g	full accessibility
59 - 64 GHz	NO	(1)	(2)	g	full accessibility

(1) Not applicable

(2) Band shared with other users

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies –

AUXILIARY WEATHER SERVICES					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Shared use	Scope of use	Allocation procedure
5600 - 5650 MHz	NO	⁽¹⁾	⁽²⁾	g	full accessibility

PERSONAL RADIO SERVICE – CITIZEN'S BAND (CB)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Shared use	Scope of use	Allocation procedure
26965 –27405 kHz	NO	10 kHz simplex	40	n	full accessibility

AMATEUR SERVICE (AM)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	Shared use	Scope of use	Allocation procedure
⁽³⁾	NO	⁽³⁾	YES	g	Full accessibility

⁽¹⁾ Not applicable.

⁽²⁾ Band shared with other users.

⁽³⁾ Frequency bands and transmission classes assigned in conformity with the terms established in Administrative Rule n.º 322/95, of April 17 .

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies -

FIXED-SATELLITE SERVICE (FSS)					
Frequency Bands	Need for usage rights	Type of channel	No. of channels Type of operation Shared	Scope of use	Allocation procedure
3800 – 4200 MHz Downlink	NO	(1)	(2)	g	full accessibility
5725 – 5830 MHz Uplink	NO	(1)	(2)	g	full accessibility
5830 – 5850 MHz Uplink	NO	(1)	(2)	g	full accessibility
5850 – 5925 MHz Uplink	NO	(1)	(2)	g	full accessibility
5925 – 6425 MHz Uplink	NO	(1)	(2)	g	full accessibility
7300 – 7450 MHz Downlink	NO	(1)	(2)	g	full accessibility
7450 – 7550 MHz Downlink	NO	(1)	(2)	g	full accessibility
8025 – 8175 MHz Uplink	NO	(1)	(2)	g	full accessibility
8175 – 8215 MHz Uplink	NO	(1)	(2)	g	full accessibility
8215 – 8400 MHz Uplink	NO	(1)	(2)	g	full accessibility
10,7 – 10,95 GHz ⁽³⁾ Downlink	NO	(1)	(2)	g	full accessibility
10,95 – 11,2 GHz Downlink	NO	(1)	(2)	g	full accessibility
11,2 – 11,45 GHz ⁽³⁾ Downlink	NO	(1)	(2)	g	full accessibility
11,45 – 11,7 GHz Downlink	NO	(1)	(2)	g	full accessibility
12,5 – 12,75 GHz Downlink	NO	(1)	(2)	g	full accessibility
12,75 – 13,25 GHz ⁽³⁾ Uplink	NO	(1)	(2)	g	full accessibility
14 - 14,5 GHz Uplink	NO	(1)	(2)	g	full accessibility
17,3 – 18,1 GHz ⁽⁴⁾ Uplink	NO	(1)	(2)	g	Full accessibility
17,3 - 17,7 GHz ⁽⁵⁾ Downlink	NO	(1)	(2)	g	Full accessibility
19,7 - 20,2 GHz ⁽⁵⁾ Downlink	NO	(1)	(2)	g	full accessibility
27,5 - 27,82 GHz ⁽⁵⁾ Uplink	NO	(1)	(2)	g	full accessibility
28,45 - 28,94 GHz ⁽⁵⁾ Uplink	NO	(1)	(2)	g	full accessibility
29,46 - 30,0 GHz ⁽⁵⁾ Uplink	NO	(1)	(2)	g	full accessibility

⁽¹⁾ Not applicable

⁽²⁾ Band shared with other users

⁽³⁾ Appendix 30B

⁽⁴⁾ Appendix 30A.

⁽⁵⁾ HDFSS.

ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES NOT PUBLICLY AVAILABLE
- Reserved Frequencies -

MOBILE-SATELLITE SERVICE(MSS)					
Frequency Bands	Need for usage rights	Type of channel Mode of operation	No. of channels Type of operation shared	Scope of use	Allocation procedure
1530-1545 MHz Downlink	NO	(1)	(2)	g	full accessibility
1626.5-1646,5 MHz Uplink	NO	(1)	(2)	g	full accessibility

⁽¹⁾ Not applicable.

⁽²⁾ Band shared with other users.

C- Radio licence exemption:

C.1 Network licence exemption.

NETWORK LICENCE EXEMPTION

C. Radio licence exemption

C.1 Network licence exemption

Under terms of paragraph a) of section 1 and of section 2 of article 9 of Decree-Law no. 151-A/2000 of 20 July, the following are exempt from network licences:

a. Private Radio Paging Networks with the following characteristics:

Station characterisation			
Frequency bands	Maximum power limits	Antenna type	channel spacing
40,680 MHz	5 W a.r.p.	External - base station Integral - portable	20 kHz
169,175 MHz	5 W a.r.p.	External - base station Integral - portable	25 kHz
468,1125 MHz	2 W a.r.p.	External - base station Integral - portable	12,5 kHz
468,1250 MHz	2 W a.r.p.	External - base station Integral - portable	
469,275 MHz	5 W a.r.p.	External - base station Integral - portable	25 kHz

NETWORK LICENCE EXEMPTION

b. Cordless telephones (CTs) with the following characteristics:

Station characterisation				
System Technology	Frequency bands	Maximum power limits	Antenna type	channel spacing
CT0 (analogue)	27,5375 - 27,8375 MHz	output power 10 mW	Integral or dedicated	25 kHz
	36,9875 - 37,2875 MHz			
CT1 (analogue) ^(*)	914 - 915 MHz		Integral	25 kHz
	959 - 960 MHz			
DECT (digital)	1880 -1900 MHz	250 mW	Integral or dedicated	1,728 MHz

^(*) In compliance with Decision ECC/DEC(01)01, adopted by the Portuguese Administration, these bands are no longer identified for this type of equipment; during a transition period the necessary steps will be taken to gradually reduce their use, with the aim of freeing up the frequency bands by the end of 2008.

C- Radio licence exemption:

C.2 Station licence exemption.

STATION LICENCE EXEMPTION

C- Radio licence exemption:

C.2 Station licence exemption

Under terms of paragraph b) of section 1 and of section 2 of article 9 of Decree-Law no. 151-A/2000 of 20 July, the following are exempt from station licence:

a) SRD – Short Range Devices

Such stations should operate on NON-interference and NON-protection basis with respect to licensed radiocommunications stations or networks.

SRD - Station characterisation					
Application	Frequency bands	Maximum power or field strength limits	Antenna type	channel spacing	Duty cycle
Non-specific ¹	6,765 - 6,795 MHz	42 dBµA/m at 10 m	Integral or dedicated	No spacing ³	
	13,553 - 13,567 MHz				
	26,957 - 27,283 MHz				
	26,957 - 27,283 MHz	10 mW e.r.p.			
	40,660 - 40,700 MHz				
	433,050 - 434,790 MHz ^{2, 3}				
	868,000 - 868,600 MHz	25 mW e.r.p.			< 1%
	868,700 - 869,200 MHz				< 0,1%
	869,400 - 869,650 MHz				25 kHz
	869,700 - 870,000 MHz	5 mW e.r.p.		No spacing	up to 100%
	2400 - 2483,5 MHz	10 mW e.i.r.p.			
	5725 - 5875 MHz	25 mW e.i.r.p.			
	24,00 - 24,25 GHz	100 mW e.i.r.p.			
	61,00 - 61,50 GHz				
	122 - 123 GHz				
	244 - 246 GHz				

¹ Video applications are only permitted above 2.4 GHz.

² Audio and voice signal are not permitted over this band.

³ In the 433.05-434.790 MHz band uses with 100% of duty cycle limited to 1 mW of e.r.p. and with channel spacing up to 25 kHz are also permitted. In the 434.04-434.790 MHz sub-band uses with 100% of duty cycle limited to 10 mW e.r.p. are also permitted.

STATION LICENCE EXEMPTION

SRD – Station characterisation (cont.)

SRD – Station characterisation (cont.)					
Application	Frequency bands	Maximum power or field strength limits	Antenna type	Channel spacing	Duty cycle
Radio Local Area networks (RLANs)	2400 - 2483,5 MHz	100 mW e.i.r.p. ⁴	Integral or dedicated	No spacing binary rhythm >250 kbps	
Wireless access systems/radio local area networks o (WAS/RLAN)	5150 - 5350 MHz ⁵	200 mW e.i.r.p. ⁶	Dedicated	No spacing	
	5470 - 5725 MHz ⁵	1 W e.i.r.p. ⁶			
	17,1 - 17,3 GHz	100 mW e.i.r.p.			
Railways Eurobalises	27,095 MHz	see figure 1		see figure 1	
Road Transport and Traffic Telematics	5797,5 MHz +/- 2,5 MHz	2 W e.i.r.p.	Integral or dedicated	5 MHz	
	5800 MHz +/- 5 MHz			10 MHz	
	5802,5 MHz +/- 2,5 MHz			5 MHz	
	63-64 GHz ⁷	to be defined	Integral or dedicated	No spacing	
	76-77 GHz ⁸	55 dBm pico			
Detecting movement and alert	2400 - 2483,5 MHz	25 mW e.i.r.p.	Integral or dedicated	No spacing	
	9200 - 9500 MHz				
	9500 - 9975 MHz				
	13,4 - 14,0 GHz				
	24,05 - 24,25 GHz	100 mW e.i.r.p.			

⁴ For systems that use direct sequence spread spectrum the maximum spectrum power density shall be limited to -20 dBW/1 MHz; for systems using frequency hopping spread spectrum the maximum spectrum power density shall be limited to -10 dBW/100 kHz.

⁵ The following mandatory features should be respected:

- a) in the 5150-5350 MHz band only "indoor" uses are permitted;
- b) transmitter power control (TPC) in the 5250-5350 MHz and 5470-5725 MHz bands to assure a mitigation factor of at least 3 dB in the maximum power allowed the systems, or, should the TPC not be in use, the maximum power permitted of the e.i.r.p. average and the correspondent maximum value of power density of the e.i.r.p. average should be reduced by 3 dB;
- c) dynamic frequency selection (DFS) associated with the channel selection mechanism to enable uniform spreading in the 5250-5350 MHz and 5450-5725 MHz bands;
- d) in the 5150-5250 MHz band the maximum power density value for the average e.i.r.p. should be limited to 0.25 mW/25 kHz for each 25 kHz;
- e) In the 5250-5350 MHz band the maximum power density for the average e.i.r.p. should be limited to 10mW/MHz for each 1 MHz;
- f) In the 5470-5725 MHz band the maximum power density for the average e.i.r.p. should be limited to 50mW/MHz for each 1 MHz.

⁶ Maximum mean e.i.r.p..

⁷ These systems, vehicle-vehicle or road-vehicle, are only exempt from licensing after determination of the power limits.

⁸ Vehicle and infrastructure radar systems.

STATION EXEMPTION LICENCE

SRD - Station characterisation (cont.)							
Application	Frequency bands	Maximum power or field strength limits	Antenna type	Channel spacing	Duty cycle		
Alarms in general	868,600 - 868,700 MHz	10 mW e.r.p.	Integral or dedicated	25 kHz ⁹	< 0,1%		
	869,250 - 869,300 MHz				< 10%		
		869,650 - 869,700 MHz			25 mW e.r.p.	< 0,1%	
Social alarms	869,200 - 869,250 MHz	10 mW e.r.p.					
Model control	26,995 MHz	100 mW e.r.p.	Dedicated	10 kHz			
	27,045 MHz						
	27,095 MHz						
	27,145 MHz						
	27,195 MHz						
	34,995 - 35,225 MHz ¹⁰						
	40,665 MHz						
	40,675 MHz						
	40,685 MHz						
40,695 MHz							
Inductive systems	9 - 59,750 kHz	72 dBµA/m at 10 m (at 30 kHz decrease of 3 dB/octave) ¹¹	Integral, dedicated or external	No spacing			
	59,750 - 60,250 kHz	42 dBµA/m at 10 m					
	60,250 - 70 kHz	69 dBµA/m at 10 m (at 30 kHz decrease of 3 dB/octave) ¹¹					
	70 - 119 kHz	42 dBµA/m at 10 m					
	119 - 135 kHz	66 dBµA/m at 10 m (at 30 kHz decrease of 3 dB/octave) ¹¹	Integral or dedicated				
	6,765 - 6,795 MHz	42 dBµA/m at 10 m See figure 2					
	7,400 – 8,800 MHz	9 dBµA/m at 10 m					
	13,553 - 13,567 MHz	42 dBµA/m at 10 m See figure 2					
	26,957 - 27,283 MHz	42 dBµA/m at 10 m					
Active medical implants	9-135 kHz	30 dB µA/m at 10 m	Integral or dedicated	No spacing	<10%		
	402 - 405 MHz	25µW e.r.p.		25 kHz			

⁹ The 868.6-868.7 MHz frequency band may also be used as 1 channel for high speed data transmissions.

¹⁰ Only for flying models

¹¹ In the case of type 1 and 2 loop antennas within an area between 0.05 m² and 0.16 m², the field strength is reduced by - 10 x log (area/0.16 m²). For an antenna area less than 0.05 m², the field strength is reduced by 10 dB.

STATION EXEMPTION LICENCE

SRD - Station characterisation (cont.)					
Application	Frequency bands	Maximum power or field strength limits	Antenna type	Channel spacing	Duty cycle
Avalanche victim detection	457 kHz	7 dB µA/m at 10 m	Integral or dedicated	Continuous wave (CW) – no modulation	up to 100%
radiomicrophones	174 - 216 MHz ¹²	10 mW e.r.p. ¹³	Integral	200 kHz	up to 100%
	470 - 862 MHz ¹²				
	863 - 865 MHz	10 mW e.r.p.			
	1785,7-1799,4 MHz	10 mW e.r.p. ¹³			
RFID – RF Identification Systems	2446-2454 MHz	500 mW	Integral or dedicated	No spacing	up to 100%
Wireless audio systems ¹⁴	863 - 865 MHz	10 mW e.r.p.	Integral	No spacing ¹⁵	up to 100%
	864,8 - 865 MHz	10 mW e.r.p.		50 kHz	up to 100%
Telecommand, telemetry, alarms and data transmission systems	29,980 MHz	100 mW e.r.p.	Integral or dedicated	10 kHz	
	29,990 MHz				
	30,000 MHz				
	30,100 MHz				
	150,9375 MHz	500 mW e.r.p.		12,5 kHz	
	150,9500 MHz				
	155,5375 MHz				
	155,5500 MHz				
	458,1125 MHz				
	458,1250 MHz				
	458,1375 MHz				
	458,1500 MHz				
SRR – Automotive short range radar systems	21,65-26,65 GHz (UWB component) ¹⁶	¹⁷	Integral	No spacing	
	24,05-24,25 GHz (narrowband emission mode/ component) ¹⁶	20 dBm e.i.r.p. peak	Integral	No spacing	¹⁸
	77-81 GHz	55 dBm e.i.r.p. peak ¹⁹	Integral	No spacing	

¹² Such equipment is exempt from radio licence, conditioned by the decisions to be made on digital television.

¹³ The maximum power limit for transmitting body-worn microphones is 50 mW e.r.p.

¹⁴ Narrowband analogue voice equipment should only use the band 864.8-865 MHz.

¹⁵ In analogue systems the maximum occupied bandwidth should not exceed 300 kHz.

¹⁶ Band available as of 1 July 2005.

¹⁷ Maximum mean power density of –41.3 dBm/MHz e.i.r.p. Peak power density of 0dBm/50 MHz e.i.r.p.

¹⁸ For peak emissions higher than –10 dBm e.i.r.p. duty cycle limited to 10%.

¹⁹ Maximum mean power density of –3 dBm/MHz e.i.r.p. Maximum mean power density outside a vehicle resulting from the operation of one SRR equipment shall not exceed –9 dBm/MHz e.i.r.p.

STATION LICENCE EXEMPTION

b) Transportable earth stations in the Fixed-Satellite service (FSS)

These stations shall operate on a non-interference and non-protection basis with respect to licensed radiocommunications stations or networks.

The use of such earth stations is only permitted at distances beyond 500 metres from the boundary fence of airports.

The use of earth stations with permanent fixed location is not covered by this exemption regime.

Station characterisation			
Earth station	Frequency band	Maximum power limits	Antenna type
"Satellite Interactive Terminal (SIT)"	10,70 - 12,75 GHz (space-to-Earth) 29,50 - 30,00 GHz (Earth-to-space)	Transmitter power < 2 W e.i.r.p. < 50 dBW	antenna diameter < 1,2 m
"Satellite User Terminal (SUT)"	19,70 - 20,20 GHz (space-to-Earth) 29,50 - 30,00 GHz (Earth-to-space)		antenna diameter < 1,8 m
"Very Small Aperture Terminal (VSAT)"	12,50 - 12,75 GHz (space-to-Earth) 14,00 - 14,25 GHz (Earth-to-space)		antenna diameter < 3,8 m
"Arcanet Suitcase Terminal"	11,45 - 11,70 GHz (space-to-Earth) 12,50 - 12,75 GHz (space-to-Earth) 14,00 - 14,25 GHz (Earth-to-space)		antenna diameter < 1,2 m

STATION LICENCE EXEMPTION

c)Earth stations in the Mobile-Satellite Service

Station characterisation		
Earth station	Frequency band	
Inmarsat-B	1525 - 1544 MHz (space-to-Earth) ²⁰	
Inmarsat-C		
Inmarsat-D		
Inmarsat-M	1545 - 1559 MHz (space-to-Earth) ²¹	
Inmarsat-M4		
Inmarsat-phone (mini M)		
EMS-PRODAT	1626,5 - 1645,5 MHz (Earth-to-space) ¹¹	
EMS-MSSAT		
Thuraya		
SpaceCheckers-SMS	1646,5 - 1660,5 MHz (Earth-to-space) ^{12, 22}	
Omnitracs-Eutelsat		
GMPCS ²⁴	1610 – 1626,5 MHz (Earth-to-space)	
	1980 – 2010 MHz (Earth-to-space)	
	2483,5 – 2500 MHz (space-to-Earth)	
	2170 – 2200 MHz (space-to-Earth)	
Mobile Earth Stations (MES) ORBCOM ²⁵	137- 138 MHz (space-to-Earth)	
	148 – 150,05 MHz (Earth-to-space)	

²⁰ In the 1530-1544 MHz and 1626.5-1645.5 MHz frequency bands, priority shall be given for distress, urgency and safety communications of GMDSS system.

²¹ In the 1545-1555 MHz and 1646.5-1656.5 MHz frequency bands, within the Aeronautical Mobile-Satellite Service, priority shall be given for distress, urgency, safety-related communications, as well as flight regularity and meteorological messages.

²² In the 1660-1660.5 MHz band the operation of these earth stations shall not cause harmful interference to stations in the radioastronomy service.

²³ In the 10.70-11.70 GHz and 12.50-12.75 GHz bands the operation of "Omnitracs-Eutelsat" earth stations shall not cause interference to stations in the fixed and fixed-satellite service.

²⁴ These stations must have set on the marcation described in figure 3.

²⁵ These stations shall not cause interference to nor claim protection from stations in the fixed, mobile and space operations services in the 148-149.9 MHz frequency band and from stations in the radionavigation satellite service in the 149.9-150.05 MHz frequency band.

STATION LICENC EXEMPTION

d) Land mobile service stations

PMR446 stations

Station characterisation			
Frequency band	Maximum power limits	Antenna type	channel spacing
446,00625 MHz	500 mW a.r.p.	integrated	12,5 kHz
446,01875 MHz			
446,03125 MHz			
446,04375 MHz			
446,05625 MHz			
446,06875 MHz			
446,08125 MHz			
446,09375 MHz			

Talk-Back

Station characterisation		
Frequencby band	Maximum radiated power limits	channel spacing
445,150 MHz	3W e.i.r.p.	25kHz
448,300 MHz		
448,325 MHz		
448,350 MHz		
448,375 MHz		
448,400 MHz		
448,425 MHz		
448,450 MHz		
448,475 MHz		

e) Receive-only radiocommunications stations

Station characterisation
<i>Encompasses the following receiving stations :</i> <ul style="list-style-type: none">• sound and television broadcasting• GPS• multiband, not associated in particular with any radiocommunications service ("scanners")

STATION LICENCE EXEMPTION

- FIGURES -

a) Eurobalises

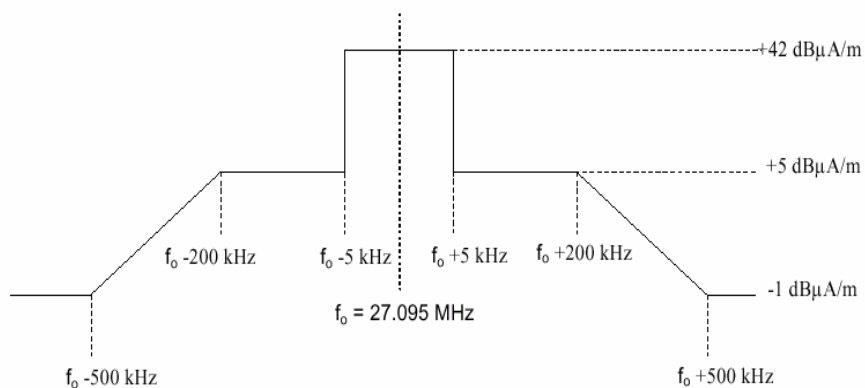


Figure 1 – Magnetic field strenght limits at 10 metres around the frequency
 $f_0 = 27,095 \text{ MHz}$

b) Inductive systems

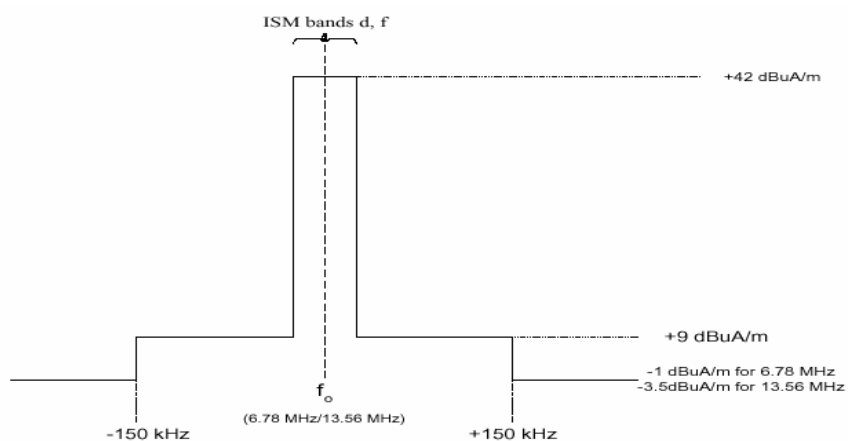


Figure 2 - Magnetic Field strength limits at 10 metres for the frequency bands
 $6,765 - 6,795 \text{ MHz}$ and $13,553 - 13,567 \text{ MHz}$

c) GMPCS mobile earth stations



Figure 3 – Marcation set in GMPCS stations

STATION LICENCE EXEMPTION

- DEFINITIONS -

SRD-Short Range Devices – The term Short Range Devices (SRDs) aims to encompass radio equipment which provide either uni-directional or bi-directional communications and which have low capacity of causing interference to other radio equipment. SRDs use either integral, dedicated or external antennas; all modulation types may be permitted as long as they comply with the provisions of the relevant standards. Given the wide range of services supplied by such devices, no description can be exhaustive.

Railway applications – Specific applications intended for use on railways, including automatic vehicle identification and balise (train control systems).

Road Transport and Traffic Telematics systems – Transportation communication support systems (data communication vehicles and between vehicles and infrastructure)

Movement detection and alert– Equipment for detecting Movement and Alert (low power radar systems for radiodetermination purposes: determination of position, velocity and/or other characteristics of an object, or the acquisition of information on those parameters).

Model control – Equipment to control the movement of models in the air, on land or over or under the water surface.

Inductive systems – Car immobilisers, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.

STATION LICENCE EXEMPTION

- DEFINITIONS -

RFID – RF Identification Systems – automatic article identification, asset tracking, alarm systems, waste management, personnel identification, access control, proximity sensors, anti-theft systems, location systems, data transfer to handheld and wireless control systems.

Ultra Low power Active medical implants – Instruments, apparatus, appliance, material or other article whether used alone or in combination for: diagnosis, prevention, monitoring, treatment or alleviation of disease or injury, investigation, replacement or modification of the anatomy or of a physiological procedure; control of conception.

Wireless audio systems – Cordless loudspeakers; cordless headphones; cordless headphones for portable use, such as portable CD, cassette or radio devices carried on a person; cordless headphones for use in a vehicle, for example for use with a radio or mobile telephone, etc.; in-ear monitoring for use in concerts or other types of stage production.

Effective radiated power (e.r.p.) – in a given direction – the product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.

Equivalent isotropically radiated power (e.i.r.p.) – in a given direction – the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (isotropic or absolute gain).

Mean equivalent isotropically radiated power (e.i.r.p.) – equivalent to average e.i.r.p. over the transmission burst, at the highest power control setting.

STATION LICENCE EXEMPTION

- DEFINITIONS -

Integral antenna – permanent fixed antenna designed to be an indispensable part of the equipment.

Dedicated antenna – movable antenna, indicated by the manufacturer, taking always as reference the maximum established e.i.r.p.

External antenna – antenna not specifically designed for a given station type.

Spread Spectrum– transmission technique in which the energy of a transmitted signal is spread throughout a relatively large portion of the frequency spectrum

Frequency hopping spread spectrum– spectral spread in which the transmitter signal occupies a number of frequencies in time, each for some period of time, referred to as dwell time..

Direct sequence spread spectrum – the technique of spread spectrum where a combination of data to be transmitted and a known code sequence is used to directly modulate a carrier.;

Duty cycle – Ratio, expressed as a percentage, of the maximum transmitter “on” time on one carrier frequency, relative to a one-hour period.

Harmful interference – any interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunication service that operates according to applicable national or community law.