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NATIONAL FREQUENCY ALLOCATION PLAN

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NATIONAL FREQUENCY ALLOCATION PLAN

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NATIONAL FREQUENCY ALLOCATION PLAN

INTRODUCTION

Law no. 5/2004 of 10 February established the legal regime applying to electronic communications networks and services and to associated resources and services. It defined the responsibilities of ICP-Autoridade Nacional de Comunicações (ICP-ANACOM) in this area, in connection with 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 12 September.

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

Transmission systems and, where applicable, switching or routing equipment and other resources making it possible to send signals by cable, radio, optical or other electromagnetic means, including satellite networks, fixed (circuit-switched or packet switched, including the 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 a price, which includes or is fully made up of sending signals through electronic communications networks, including telecommunications services and transmission services on 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.

In accordance with Article 15 of Law no. 5/2004, of 10 February, in the scope of spectrum management ICP-ANACOM is the entity who plans out frequencies in compliance with the following criteria:

- a) Availability of radio spectrum;
- b) Guarantee of effective competition in the relevant markets;
- c) Effective and efficient use of frequencies.

ICP-ANACOM is responsible for allocating and assigning frequencies according to objective, transparent, non-discriminatory and proportionate criteria.

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

In accordance with Article 16 of Law no. 5/2004 of 10 February, ICP-ANACOM must disclose on a yearly basis:

- The frequency bands and number of channels already allocated to companies providing publicly available electronic communications networks and services, including the revision date for the allocation;
- The reserved frequency bands and those to be made available in the following year, in the scope of (publicly available or not) electronic communications networks and services, specifying the cases where rights of frequency use are required, and the corresponding allocation procedure;
- The frequencies whose rights of use may be transferred, under the terms of 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 that disclosure.

The transfer of holdership of rights of frequency use identified as such in this document is permitted. In such cases the regime of article 37 of Law no. 5/2004 of 10 February applies.

Subject to the 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 the transfer of holdership, several possibilities are presently being studied for a general policy applying to the transfer of rights of frequency use.

Under the terms of article 31 of Law no. 5/2004, of 10 February, notwithstanding the terms of the National Frequency Allocation Plan, ICP-ANCOM may proceed to release duly supported decisions limiting the allocation of rights of use.

This was the framework in which this document was prepared. It contains the Frequency Allocation Table and the afore mentioned data to be disclosed by ICP-ANACOM regarding electronic communications networks and services, whether publicly available or not.

Under duly justified exceptional situations, some data contained in this document may be altered.

NATIONAL FREQUENCY ALLOCATION TABLE

The new *National Frequency Allocation Table* comprises two chapters.

The first chapter (Chapter 1), named Frequency Allocation Table, contains a detailed view of the radio spectrum subdivisions indicating for each frequency band all radiocommunication services therein, according to ITU-R Radio Regulations' (RR) allocations applying to Portugal, and the services and systems used and planned for Portugal, future decisions that may be made by determination of ICP-ANACOM's Board of Directors notwithstanding.

The second chapter (Chapter 2) contains the Publication of the frequency band uses and reservations. It 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 2005.

- B Frequency bands reserved and to be made available in 2006,** for the operation of electronic communications networks and services
 - B.1** publicly available
 - B.2** not available to the general public

- 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* provides a detailed view of the subdivisions of the radio spectrum indicating for each frequency band all radiocommunication services therein, according to the Radio Regulations' allocations applying to Portugal.

The Radio Regulations is a document published by ITU. It is the result of agreements signed by the Member States and is an international treaty to be obeyed by the countries belonging to this organization. The *Frequency Allocation Table* derives from this treaty, specifically its Article 5, which identifies the spectrum allocated to a wide range of radio services.

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

Following the changes made to the RR by World Radiocommunication Conferences, and the analysis and further framing of market evolution and trends at national and European levels, the *Frequency Allocation Table* is subject to updates.

This *Frequency Allocation Table* also covers services and systems used and planned for Portugal, although future decisions may be made by determination of ICP-ANACOM's Board of Directors.

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

When the need to obtain rights of use is foreseen, and except in the 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 at ANACOM's website (<http://www.anacom.pt/template25.jsp?categoryId=115580>).

When the need to obtain rights of use is not foreseen, it will be enough to obtain a radio licence, under the terms of article 12 of Decree-Law 151-A/2000 of 20 July.

When it is not necessary to obtain right of use and the frequency uses are for own use and exempt from radio licence, no prior ICP-ANACOM action is required for spectrum use.

Chapter 1 - FREQUENCY ALLOCATION TABLE

2. FREQUENCY ALLOCATION TABLE

Column 1: FREQUENCY BANDS

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

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

Contains for each frequency band:

- Allocations of RR's Art. 5 applying to Portugal
- Notes of Art. 5 applying to Portugal;

Column 3: NATIONAL APPLICATIONS

Authorized services / systems in Portugal (highlighted in **'bold'** if any use is being made).

Column 4: NOTES

Used plannings;
Relevant national and international standards;
Band use constraints;
Other relevant information.

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
Below 9	(Not allocated) 5.53, 5.54		
9 - 14	RADIONAVIGATION	SRD - Inductive systems: car immobilizers (9-59.750 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
14 - 19.95	FIXED MARITIME MOBILE 5.57 5.56	SRD - Inductive systems: car immobilizers (9-59.750 kHz) SRD - Wireless systems for medical applications (9-135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12 Government
19.95 - 20.05	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	SRD - Inductive systems: car immobilizers (9-59.750 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12 Government
20.05 - 70	FIXED MARITIME MOBILE 5.57 5.56	SRD - Inductive systems: car immobilizers (9-59.750 kHz) (59.750- 60.250 kHz) (60.250-70 kHz) SRD - Wireless systems for medical applications (9-135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12 Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
70 - 72	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
72 - 84	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
84 - 86	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
86 - 90	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56	SRD - Inductive systems: car immobilizers (70-119kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
90 - 110	RADIONAVIGATION 5.62 FIXED 5.64	LORAN-C System (RV) (100 kHz) SRD - Inductive systems: car immobilizers (70-119kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
110 - 112	FIXED MARITIME MOBILE RADIONAVIGATION 5.64	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
112 - 115	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
115 - 117.6	RADIONAVIGATION 5.60 FIXED MARITIME MOBILE 5.64	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
117.6 - 126	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	SRD - Inductive systems: car immobilizers (70-119 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
126 - 129	RADIONAVIGATION 5.60	SRD - Inductive systems: car immobilizers (119-135 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12
129 - 130	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	SRD - Inductive systems: car immobilizers (119-135 kHz) SRD - Wireless systems for medical applications (9- 135 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
130 - 148.5	FIXED MARITIME MOBILE 5.64	SRD - Inductive systems: car immobilizers (119-135 kHz) SRD - Wireless systems for medical applications (9- 135 kHz) Amateur (135.7-137.8 kHz)	ERC/REC 70-03 Annex 9 ERC/DEC/(01)13 ERC/REC 70-03 Annex 12 ERC/REC 62-01 Government (137.8-148.5 kHz)
148.5 - 255	BROADCASTING		
255 - 283.5	BROADCASTING AERONAUTICAL RADIONAVIGATION	NDB - Radio beacons (RVA)	ICAO - (Annex 10)
283.5 - 315	AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (Radio beacons) 5.73 5.74	NDB - Radio beacons (RVA) Differential GPS System (RV) (285-325 kHz) NDB - Radio beacons (RVM)	ICAO - (Annex 10) GE-85 (Radio beacons)
315 - 325	AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (Radio beacons) 5.73	NDB - Radio beacons (RVA) Differential GPS System (RV) (285-325 kHz)	ICAO - (Annex 10)
325 - 405	AERONAUTICAL RADIONAVIGATION	NDB and LOCATOR - Radio beacons (RVA)	ICAO - (Annex 10)
405 - 415	RADIONAVIGATION 5.76		
415 - 435	MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION	Maritime Mobile (MM) NDB and LOCATOR - Radio beacons (RVA)	GE-85 ICAO - (Annex 10)

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
435 - 495	MARITIME MOBILE 5.79, 5.79A AERONAUTICAL RADIONAVIGATION 5.82	Maritime mobile (MM) NAVTEX - International System (MM) (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 (MOV)	RR Ap. S13 (RR 3010): 500 kHz
505 - 526.5	MARITIME MOBILE 5.79, 5.79A, 5.84 AERONAUTICAL RADIONAVIGATION	Maritime mobile (MM) NAVTEX - International System (MM) (518 kHz) NDB - Radio beacons (RVA) (510-526.5 kHz)	GE-85 ICAO - (Annex 10)
526.5 - 1606.5	BROADCASTING	SOUND BROADCASTING (RAD)	GE-75
1606.5 - 1625	FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	Maritime mobile (MM)	GE-85 Government
1625 - 1635	RADIOLOCATION		
1635 - 1800	FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	Maritime mobile (MM)	GE-85 Government (1715-1800 kHz)
1800 - 1810	RADIOLOCATION		

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1810 - 1850	AMATEUR 5.100	Amateur (AM)-(1830-1850 kHz)	
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
2025 - 2045	FIXED MOBILE except aeronautical mobile (R) Meteorological aids 5.104 5.92, 5.103		Government
2045 - 2160	FIXED MARITIME MOBILE LAND MOBILE 5.92	Maritime mobile (MM)	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 (MM)	

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2194 - 2300	FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103		Government
2300 - 2498	FIXED MOBILE except aeronautical mobile (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		
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 (FIX) Maritime mobile (MOV)	Government
2850 - 3025	AERONAUTICAL MOBILE (R) 5.111, 5.115	Aeronautical mobile (MAR)	RR Ap.27
3025 - 3155	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
3155 - 3200	FIXED MOBILE except aeronautical mobile (R) 5.116	Fixed (FIX) Mobile (MOV)	Government
3200 - 3230	FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116	Fixed (FIX) Mobile (MOV)	
3230 - 3400	FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116	Fixed (FIX) Mobile (MOV)	Government (3375-3400 kHz)
3400 - 3500	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
3500 - 3800	AMATEUR FIXED MOBILE except aeronautical mobile 5.92	Amateur (AM) Fixed (FIX) Mobile (MOV)	
3800 - 3900	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed (FIX) Aeronautical mobile (MAOR) Land Mobile (MT)	Government
3900 - 3950	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
3950 - 4000	FIXED BROADCASTING	Fixed (FIX)	Government
4000 - 4063	FIXED MARITIME MOBILE 5.127	Fixed (FIX)	Government
4063 - 4438	MARITIME MOBILE 5.79A, 5.109, 5.110, 5.130, 5.131, 5.132 5.129	Maritime mobile (MM) NAVTEX - International System (MM) (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 (FIX) Mobile (MOV)	Government
4650 - 4700	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
4700 - 4750	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
4750 - 4850	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 5.113	Fixed (FIX) Aeronautical mobile (MAOR)	Government
4850 - 4995	FIXED LAND MOBILE BROADCASTING 5.113	Fixed (FIX) Land Mobile (MT)	Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 (FIX)	Government
5060 - 5250	FIXED MOBILE except aeronautical mobile	Fixed (FIX)	Government
5250 - 5450	FIXED MOBILE except aeronautical mobile	Fixed (FIX)	Government
5450 - 5480	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed (FIX) Aeronautical mobile (MAOR)	RR Ap. 26 Government
5480 - 5680	AERONAUTICAL MOBILE (R) 5.111, 5.115	Aeronautical mobile (MAR)	RR Ap. 27
5680 - 5730	AERONAUTICAL MOBILE (OR) 5.111, 5.115	Aeronautical mobile (MAOR)	RR Ap. 26 Government
5730 - 5900	FIXED LAND MOBILE	Fixed (FIX)	Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5900 - 5950	BROADCASTING 5.134 5.136		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
5950 - 6200	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12
6200 - 6525	MARITIME MOBILE 5.109, 5.110, 5.130, 5.132 5.137	Maritime Mobile (MM)	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (6233-6261 kHz; 6332.5-6501 kHz)
6525 - 6685	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
6685 - 6765	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
6765 - 7000	FIXED MOBILE except aeronautical mobile (R) LAND MOBILE 5.138, 5.138A	Fixed (FIX) Land Mobile (MT) ISM - Industrial, scientific and medical applications (6765-6795 kHz) SRD - Non-specific applications (6765-6795 kHz) SRD - Inductive applications (6765-6795 kHz)	As from 29/3/2009 Until 29/3/2009 ERC/REC 70-03 Annex 1 ERC/DEC/(01)01 ERC/REC 70-03 Annex 9 ERC/DEC/(01)14 Government (6795-7000 kHz)
7000 - 7100	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7100 - 7200	BROADCASTING 5.141C AMATEUR	Sound broadcasting (RAD) Amateur	To be abandoned on 29/3/2009 ECC/REC 05-05
7200 - 7300	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12
7300 - 7350	BROADCASTING 5.134 FIXED 5.143 Land Mobile 5.143	Sound broadcasting (RAD) Fixed (FIX)	Extension band for HFBC, as from 1/4/2007 (RR Art. 12)
7350 - 7450	BROADCASTING FIXED 5.143B Land Mobile 5.143B	Sound broadcasting (RAD) Fixed (FIX) SRD - Inductive applications (7400-8800 kHz)	RR Art. 12 (usable only as from 29/3/2009) 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 (FIX) SRD - Inductive applications (7400-8800 kHz)	To be abandoned on 29/3/2009 To be abandoned on 29/3/2009 ERC/REC 70-03 Annex 9 ERC/DEC/(01)15 Government (7757-8100 kHz)

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
8100 - 8195	FIXED MARITIME MOBILE	Fixed (FIX) Maritime mobile (MM) SRD - Inductive applications (7400-8800 kHz)	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 (MM) SRD - Inductive applications (7400-8800 kHz)	RR Ap. 13 RR Ap. 17 RR Ap. 25 ERC/REC 70-03 Annex 9 ERC/DEC/(01)15 Government (8300-8340 kHz; 8438-8707 kHz)
8815 - 8965	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
8965 - 9040	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
9040 - 9400	FIXED	Fixed (FIX)	Government
9400 - 9500	BROADCASTING 5.134 5.146		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
9500 - 9900	BROADCASTING 5.147	Sound broadcasting (RAD)	RR Art. 12
9900 - 9995	FIXED	Fixed (FIX)	Government
9995 - 10003	STANDARD FREQUENCY AND TIME SIGNAL (10000 kHz) 5.111		

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
10003 - 10005	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		
10005 - 10100	AERONAUTICAL MOBILE (R) 5.111	Aeronautical mobile (MAR)	RR Ap. 27
10100 - 10150	FIXED Amateur	Fixed (FIX) Amateur (AM)	
10150 - 11175	FIXED MOBILE except aeronautical mobile (R)	Fixed (FIX)	Government
11175 - 11275	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
11275 - 11400	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
11400 - 11600	FIXED	Fixed (FIX)	Government
11600 - 11650	BROADCASTING 5.134 5.146		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
11650 - 12050	BROADCASTING 5.147	Sound broadcasting (RAD)	RR Art. 12
12050 - 12100	BROADCASTING 5.134 5.146		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
12100 - 12230	FIXED	Fixed (FIX)	Government

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
12230 - 13200	MARITIME MOBILE 5.109, 5.110, 5.132, 5.145	Maritime mobile (MM)	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (12368-12420 kHz; 12658.5-13077 kHz)
13200 - 13260	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
13260 - 13360	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
13360 - 13410	FIXED RADIO ASTRONOMY 5.149	Fixed (FIX)	
13410 - 13570	FIXED Mobile except aeronautical mobile (R) 5.150	Fixed (FIX) Mobile (MOV) ISM - Industrial, scientific and medical applications (13553-13567 kHz) SRD - Non-specific applications (13553-13567 kHz) SRD - Inductive applications(13553-13567 kHz)	ERC/REC 70-03 Annex 1 ERC/DEC/(01)01 ERC/REC 70-03 Annex 9 ERC/DEC/(01)14 Government (13410-13450 kHz; 13495-13515 kHz)
13570 - 13600	BROADCASTING 5.134 5.151		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
13600 - 13800	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
13800 - 13870	BROADCASTING 5.134 5.151		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
13870 - 14000	FIXED MOBILE except aeronautical mobile (R)	Fixed (FIX)	Government (13870-13914 kHz)
14000 - 14250	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	
14250 - 14350	AMATEUR	Amateur (AM)	
14350 - 14990	FIXED MOBILE except aeronautical mobile (R)	Fixed (FIX)	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 (MAOR)	RR Ap. 26 Government
15100 - 15600	BROADCASTING	Sound broadcasting (RAD)	RR Art.. 12

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
15600 - 15800	BROADCASTING 5.134 5.146		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
15800 - 16360	FIXED	Fixed (FIX)	Government (16180-16231 kHz)
16360 - 17410	MARITIME MOBILE 5.109, 5.110, 5.132, 5.145	Maritime Mobile (MM)	RR Ap. 13 RR Ap. 17 RR Ap. 25 Government (16549-16617 kHz; 16904.5-17242 kHz)
17410 - 17480	FIXED	Fixed (FIX)	Government (17410-17452 kHz)
17480 - 17550	BROADCASTING 5.134 5.146		Extension band for HFBC, as from 1.4.2007 (RR Art. 12)
17550 - 17900	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12
17900 - 17970	AERONAUTICAL MOBILE (R)	Aeronautical mobile (MAR)	RR Ap. 27
17970 - 18030	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	RR Ap. 26 Government
18030 - 18052	FIXED	Fixed (FIX)	
18052 - 18068	FIXED Space research		
18068 - 18168	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
18168 - 18780	FIXED Mobile except AERONAUTICAL MOBILE	Fixed (FIX)	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, as from 1.4.2007 (RR Art. 12)
19020 - 19680	FIXED	Fixed (FIX)	Government (19020-19120 kHz)
19680 - 19800	MARITIME MOBILE 5.132	Maritime Mobile (MM)	RR Ap. 17 Government (19705-19755 kHz)
19800 - 19990	FIXED	Fixed (FIX)	
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 (FIX) Mobile (MOV)	Government (20442-20680 kHz)

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
21000 - 21450	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	
21450 - 21850	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12
21850 - 21870	FIXED	Fixed (FIX)	
21870 - 21924	FIXED 5.155B		
21924 - 22000	AERONAUTICAL MOBILE (R)		RR Ap. 27
22000 - 22855	MARITIME MOBILE 5.132	Maritime Mobile (MM)	RR Ap. 17 RR Ap. 25 Government (22180-22240 kHz; 22445.5-22696 kHz)
22855 - 23000	FIXED	Fixed (FIX)	Government (22900-23000 kHz)
23000 - 23200	FIXED Mobile except aeronautical mobile (R)	Fixed (FIX) Mobile (MOV)	
23200 - 23350	FIXED 5.156A AERONAUTICAL MOBILE (OR)	Aeronautical mobile (MAOR)	Government
23350 - 24000	FIXED Mobile except aeronautical mobile5.157	Fixed (FIX)	
24000 - 24890	FIXED LAND MOBILE	Fixed (FIX)	Government (24125-24325 kHz)

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
24890 - 24990	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	
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 (MM)	RR Ap. 17 RR Ap. 25 Government (25121-25161.25 kHz)
25210 - 25550	FIXED MOBILE except aeronautical mobile	FIXED (FIX)	
25550 - 25670	RADIO ASTRONOMY 5.149		
25670 - 26100	BROADCASTING	Sound broadcasting (RAD)	RR Art. 12
26100 - 26175	MARITIME MOBILE 5.132	Maritime Mobile (MM)	RR Ap. 17 Government (26122.5-26145 kHz)

FREQUENCY BAND (kHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
26175 - 27500	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>5.150</p>	<p>Fixed (FIX)</p> <p>Mobile (MOV)</p> <p>SCPP - Local Radio Paging (MOV) (27155 kHz; 27165 kHz; 27175 kHz; 27185 kHz; 27225 kHz)</p> <p>ISM - Industrial, scientific and medical applications (26957-27283 kHz)</p> <p>SRD - Non-specific applications (26957-27283 kHz)</p> <p>SRD - Railway applications (27095 kHz)</p> <p>SRD - Model control (26995 kHz 27045 kHz; 27095 kHz; 27145 kHz; 27195 kHz)</p> <p>SRD - Inductive applications (26957-27283 kHz)</p> <p>CB (26965-27405 kHz)</p>	<p>Local paging</p> <p>ERC/REC 70-03 Annex 1, ERC/DEC/(01)02</p> <p>ERC/REC 70-03 Annex 4,</p> <p>ERC/REC 70-03 Annex 8 ERC/DEC/(01)10</p> <p>ERC/REC 70-03 Annex 9 ERC/DEC/(01)16</p> <p>CEPT Rec. T/R 20-09</p> <p>Government (26870-26957 kHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
27.5 - 28	METEOROLOGICAL AIDS FIXED MOBILE	CT0 - Cordless telephones (27. 5375-27.8375 MHz) (MOV)	Government (27.85-28 MHz)
28 - 29.7	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	
29.7 - 30.005	FIXED MOBILE	SMT - Private mobile radio (MOV) SRD - Short range and narrowband equipment for telecommand, telemetry, telealarm and data transmission, for use outside ISM bands (29.980 MHz; 29.990 MHz; 30.000 MHz)	40 MHz plan
30.005 - 3.,01	SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	SMT - Private mobile radio (MOV)	40 MHz plan

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
30.01 - 37.5	FIXED MOBILE	SMT - Private mobile radio (MOV) CT0 - Cordless telephones (36.9875-37.2875 MHz) (MOV) SRD - Telecommand for flying models (34.995-35.225 MHz) SRD - Short range and narrowband equipment for telecommand, telemetry, telealarm and data transmission, for use outside ISM bands (30.100 MHz)	40 MHz plan 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	SMT - Private mobile radio (MOV)	40 MHz plan Government
38.25 - 39.986	FIXED MOBILE	SMT - Private mobile radio (MOV)	40 MHz plan Government (37.3125-39.7625 MHz)
39.986 - 40.02	FIXED MOBILE Space research	SMT - Private mobile radio (MOV)	40 MHz plan

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
40.02 - 40.98	FIXED MOBILE 5.150	SMT - Private mobile radio (MOV) SCPP - Private radio paging (MOV) (40.680 MHz) ISM - Industrial, scientific and medical applications (40.66-40.7 MHz) 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 ERC/REC 70-03 Annex 1, ERC/DEC/(01)03 ERC/REC 70-03 Annex 8 ERC/DEC/(01)12
40.98 - 41.015	FIXED MOBILE Space research	SMT - Private mobile radio (MOV)	Government
41.015 - 44	FIXED MOBILE	SMT - Private mobile radio (MOV)	Government
44 - 47	FIXED MOBILE Radiolocation 5.162A	SMT - Private mobile radio (MOV)	Use limited to the 46-68 MHz band and only for wind profile radars Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
47 - 68	BROADCASTING Radiolocation 5.162A	Analogue television broadcasting (RAD) Amateur (50-50.5 MHz)	Band I (47-68 MHz) (channels 2 a 4) ST-61 Use limited to the 46-68 MHz band and only for wind profile radars Government (47.25-49.5 MHz; 50.5-51 MHz; 54-68 MHz)
68 - 74.8	FIXED MOBILE except aeronautical mobile 5.149	SMT - Private mobile radio (MOV)	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 system marker beacons (RVA)	ICAO - (Annex 10)
75.2 - 87.5	FIXED MOBILE except aeronautical mobile	SMT - Private mobile radio (MOV)	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 (RAD) SRD - Cordless audio systems	Band II - FM GE-84 ERC/REC 70-03 (Annex 13)
108 - 117.975	AERONAUTICAL RADIONAVIGATION 5.197A	Aeronautical radionavigation aids - VOR and ILS systems localizer (RVA)	ICAO - (Annex 10)
117.975 - 137	AERONAUTICAL MOBILE (R) 5.111, 5.198, 5.199, 5.200, 5.203	Aeronautical mobile (MAR)	ICAO - (Annex 10)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (MV-S) (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 satellite for low resolution picture transmission - LRPT (MET-S) Mobile-satellite (MV-S) (137-138 MHz)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 satellite for low resolution picture transmission - LRPT (MET-S) Automatic picture transmission system - APT (MET-S) (137.5-137.62 MHz) Mobile-satellite (MV-S) (137-138 MHz)	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 satellite for low resolution picture transmission - LRPT (MET-S) Mobile-satellite (MV-S) (137-138 MHz)	
138 - 143.6	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR) (MAOR)	Government
143.6 - 143.65	AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth)	Aeronautical mobile (OR) (MAOR)	Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
143.65 - 144	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR) (MAOR)	Government
144 - 146	AMATEUR AMATEUR-SATELLITE	Amateur (AM) (144-145.8 MHz) Amateur-satellite (AM-S) (145.8-146 MHz) POSAT-1 (AM-S) (145.925 MHz; 145.975 MHz)	
146 - 148	FIXED MOBILE except aeronautical mobile (R)	Fixed (FIX) Mobile (MOV)	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	SMT - Private mobile radio (MOV) Mobile-satellite (MV-S) (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 (MV-S) (148-150.05 MHz)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
150.05 - 153	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	SMT - Private mobile radio (MOV) SRD - Short range and narrowband equipment for telecommand, telemetry, telealarm and data transmission (150.9375 MHz; 150.9500 MHz)	160 MHz plan Government (150.5375-150.8875; 151.2-151.9875 MHz)
153 - 154	FIXED MOBILE except aeronautical mobile (R) Meteorological aids	SMT - Private mobile radio (MOV)	160 MHz plan Government (153.6125-154.650 MHz)
154 - 156.7625	FIXED MOBILE except aeronautical mobile (R) 5.226, 5.227	SMT - Private mobile radio (MOV) SMM - Maritime mobile networks (156-156.7625 MHz) (MOV) Coast-to-ship communications for differential GPS (MOV); frequencies: 156.075 MHz (ship station) and 160.675 MHz (coast station) SRD - Short range and narrowband equipment for telecommand, telemetry, telealarm and data transmission (155.5375 MHz; 155.5500 MHz)	160 MHz plan RR Ap. 18 RR Ap. 13: 156.525 MHz RR Ap. 18 - channel 61 Government (153.6125-154.650 MHz; 155.1375-155.4875 MHz; 155.8-155.9875 MHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
156.7625 - 156.8375	MARITIME MOBILE (distress and calling) 5.111, 5.226	Maritime mobile (MM)	RR Ap. 18 RR Ap. 13: 156.8 MHz
156.8375 - 174	FIXED MOBILE except aeronautical mobile (R) 5.226	SMT - Private mobile radio (MOV) SCPP - Local radio paging (MOV) (169.175 MHz) SCP - National radio paging (MOV) (164.925 MHz; 167.200 MHz; 167.325 MHz; 167.375 MHz) SMM - Maritime mobile service networks (MOV) (156.8375-158.0125 MHz) (160.6125-162.6125 MHz) SRD - Alarms (169.4750-169.4875 MHz) SRD - Radio microphones (173.965-174.015 MHz)	160 MHz plan Local paging National paging RR Ap. 18 and national planning ERC/REC 70-03 Annex 7 ERC/REC 70-03 Annex 10
174 - 223	BROADCASTING	Analogue television broadcasting (RAD) T-DAB - Sound broadcasting (RAD) (219-230 MHz) SAP/SAB Applications SRD - Radio microphones (173.965-174.015 MHz; 174-216 MHz)	Band III (174-216 MHz) (channels 5 to 10) ST-61 Wiesbaden Agreement 1995 ERC/REC 70-03 Annex 10
223 - 230	BROADCASTING FIXED Mobile	T-DAB - Sound broadcasting (RAD) (219-230 MHz)	1995 Wiesbaden Agreement Government (225-230 MHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
230 - 235	FIXED MOBILE		Government
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

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
322 - 328.6	FIXED MOBILE RADIO ASTRONOMY 5.149		Government
328.6 - 335.4	AERONAUTICAL RADIONAVIGATION 5.258	Aeronautical radionavigation aid - ILS system glide path (RVA)	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 ERC/DEC/(01)19 (DMO) ERC/DEC/(01)20 (AGA) 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 ERC/DEC/(01)19 (DMO) ERC/DEC/(01)20 (AGA) Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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		
400.15 - 401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.209 SPACE RESEARCH (space-to-Earth) 5.263 SPACE OPERATION (space-to-Earth) 5.264		
401 - 402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) FIXED MOBILE except aeronautical mobile	DORIS System (401.25 MHz ± 350 Hz) DCP - Meteorological data collecting system (MET-S) (401.9 MHz ± 200 kHz)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
402 - 403	<p>METEOROLOGICAL AIDS</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>DCP - Meteorological data collecting system (MET-S) (401.9 MHz ± 200 kHz)</p> <p>SRD - Active medical implants (402-405 MHz)</p>	<p>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>Radio probes (METAX)</p> <p>SRD - Wireless systems for medical applications (402-405 MHz)</p>	<p>ERC/REC 70-03 Annex 12 ERC/DEC/(01)17</p>
406 - 406.1	<p>MOBILE-SATELLITE (Earth-to-space)</p> <p>5.266, 5.267</p>	<p>COSPAS - SARSAT low-power radio beacons (MV-S)</p>	<p>RR Ap.13</p>
406.1 - 410	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>RADIO ASTRONOMY</p> <p>5.149</p>	<p>Single channel links (FIX)</p>	<p>Simple channel links plan: Simplex links</p> <p>Government (408.7875-409.9875 MHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
410 - 420	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (space-to-space) 5.268</p>	<p>Simple channel links (FIX)</p> <p>TETRA</p>	<p>Simple channel links plan: Duplex links</p> <p>ERC/DEC/(96)04 - Some channels in the 413-417.6 MHz sub-band</p> <p>Government (417.5875-418.5875 MHz)</p>
420 - 430	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>Radiolocation</p>	<p>Simple channel links (FIX)</p> <p>TETRA</p> <p>POSAT-1 (429.450 MHz; 429.520 MHz; 429.880 MHz; 429.950 MHz)</p>	<p>Simple channel links plan: Duplex links</p> <p>ERC/DEC/(96)04 - Some channels in the 423-427.6 MHz sub-band</p> <p>Low-Earth orbit satellite, subject to provision RR 4.4</p> <p>Government (427.5875-428.5875 MHz)</p>
430 - 432	<p>AMATEUR</p> <p>RADIOLOCATION</p>	<p>Amateur (AM)</p>	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
432 - 438	AMATEUR Amateur-satellite 5.282 RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138, 5.280	Amateur (AM) (430-435 MHz) Amateur-satellite (AM-S) (435-438 MHz) ISM - Industrial, scientific and medical applications (433.05-434.79 MHz) Non-specific applications (433.05-434.79 MHz)	The amateur satellite uses secondary allocations in the 435-438 MHz band, according to provision RR 5.282 ERC/REC 70-03 Annex 1 ECC/DEC/(04)02
438 - 440	AMATEUR RADIOLOCATION	Amateur (AM)	
440 - 450	FIXED MOBILE except aeronautical mobile Radiolocation 5.286	SMT - Private mobile radio (MOV) Analogue PMR446 (446-446.1 MHz) Digital PMR446 (446.1-446.2 MHz)	440-450 MHz plan ERC/DEC/(98)25 ECC/DEC/(05)12

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
450 - 455	<p>FIXED</p> <p>MOBILE</p> <p>5.209, 5.286, 5.286A, 5.286B, 5.286C</p>	<p>Fixed (FIX) - PMP applications (RAS 1000) (454.8185-457.4875 MHz; 464.8125-467.4875 MHz)</p> <p>SMT - Private mobile radio (MOV)</p> <p>SMRP - Mobile trunking service (MOV) (frequencies assigned in the 450.0125-451.3875 MHz sub-band)</p> <p>CDMA 450 (453-457.45 MHz)</p> <p>TETRA</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 450-470 MHz band</p>
455 - 456	<p>FIXED</p> <p>MOBILE</p> <p>5.209, 5.286A, 5.286B, 5.286C</p>	<p>Fixed (FIX) - PMP applications (RAS 1000) (454.8185-457.4875 MHz; 464.8125-467.4875 MHz)</p> <p>SMT - Private mobile radio (MOV)</p> <p>CDMA 450 (453-457.45 MHz)</p> <p>TETRA</p>	<p>450 MHz plan</p> <p>ECC/DEC/(04)06</p> <p>ERC/DEC/(96)04 Some channels in the 450-470 MHz band</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
456 - 459	<p>FIXED</p> <p>MOBILE</p> <p>5.287</p>	<p>Fixed (FIX) - PMP applications (RAS 1000) (454.8185-457.4875 MHz; 464.8125-467.4875 MHz)</p> <p>SMT - Private mobile radio (MOV)</p> <p>Maritime on board communications (457.525 MHz; 457.5375 MHz; 457.550 MHz; 457.5625 MHz; 457.575 MHz) (MOV)</p> <p>CDMA 450 (453 -457.45 MHz)</p> <p>TETRA</p> <p>SRD - Short range and 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 450-470 MHz band</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>SMT - Private mobile radio (MOV)</p> <p>SCPP - Local paging (MOV) (459.650 MHz)</p> <p>TETRA</p>	<p>450 MHz plan</p> <p>Local paging</p> <p>ERC/DEC/(96)04 Some channels in the 450-470 MHz band</p> <p>Government (458.2125-459.3625 MHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (FIX) - PMP applications (RAS 1000) (454.8185-457.4875 MHz; 464.8125-467.4875 MHz)</p> <p>SMT - Private mobile radio (MOV)</p> <p>SMRP - Mobile trunking service (MOV) (frequencies assigned in the 460.0125 - 461.3875 MHz sub-band)</p> <p>SCPP - Local paging service (MOV) (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) (MOV)</p> <p>CDMA 450 (463 -467.45 MHz)</p> <p>TETRA</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 450-470 MHz band</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 (RAD)</p> <p>DVB-T - Digital television broadcasting (470-582 MHz and 582-862 MHz) (RAD)</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>Broadcasting aids ERC/REC 70-03 Annex 10</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (RAD)</p> <p>DVB-T - Digital television broadcasting (582-862 MHz) (RAD)</p> <p>SAP/SAB applications SRD - Radio microphones (470-862 MHz)</p>	<p>Band V (582-822 MHz) (channels 35 to 64)</p> <p>Band V (some channels between 35 and 69)</p> <p>ERC/REC 70-03 Annex 10</p>
862 - 890	<p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317A</p>	<p>SRD - Non-specific applications (863.0-870 MHz)</p> <p>SRD - Alarms (868.6-868.7 MHz), (869.250-869.400 MHz), (869.650-869.700 MHz)</p> <p>SRD - Community 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>SRD - RFID (865-868 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>ERC/REC 70-03 Annex 1 ERC/DEC/(01)04</p> <p>ERC/REC 70-03 Annex 7 ERC/DEC/(01)09</p> <p>ERC/REC 70-03 Annex 7 ERC/DEC/(97)06</p> <p>ERC/REC 70-03 Annex 10</p> <p>ERC/REC 70-03 Annex 13 ERC/DEC/(01)18</p> <p>ERC/REC 70-03 Annex 11</p> <p>Government (873-878 MHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (MOV) (890-914 MHz/ 935-959 MHz)</p> <p>CT1 - Cordless telephones (MOV) (914-915 MHz)</p>	<p>CEPT Rec. T/R 75-02 (862-960 MHz)</p> <p>ERC/DEC/(94)01</p> <p>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>(914-915 MHz; 959-960 MHz) ECC/DEC/(01)01 (to be abandoned 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 (MOV) (890-914 MHz/ 935-959 MHz)</p> <p>CT1 - Cordless telephones (MOV) (959-960 MHz)</p>	<p>CEPT Rec. T/R 75-02 (862-960 MHz)</p> <p>ERC/DEC/(94)01 Directive 87/372/EEC CEPT Rec. T/R 20-08</p> <p>(914-915 MHz; 959-960 MHz) ECC/DEC/(01)01 (to be abandoned until 2008)</p>
960 - 1164	<p>AERONAUTICAL RADIONAVIGATION 5.328</p>	<p>Navigation, safety and flight systems - DME, TACAN, SSR (RVA)</p>	
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)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1215 - 1240	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 5.329, 5.329A (space-to-space) 5.328B SPACE RESEARCH (active) RADIONAVIGATION (5.331) 5.332	GPS - Global Positioning System (RVA-S)	
1240 - 1300	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 5.329, 5.329A, (space-to-space) 5.328B SPACE RESEARCH (active) Amateur RADIONAVIGATION (5.331) 5.282, 5.332, 5.335A	Amateur (AM)	
1300 - 1350	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION-SATELLITE (Earth-to-space) 5.149, 5.337A	Radars (RVA; RLC)	
1350 - 1400	FIXED MOBILE RADIOLOCATION 5.149, 5.339, 5.339A	Fixed links (FIX)	CEPT Rec. T/R 13-01 Annex A (1350-1375 MHz) and Annex B (1375-1400 MHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1400 - 1427	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	USE OF THIS BAND IS STRICTLY FORBIDDEN	
1427 - 1429	SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341	Fixed links (FIX)	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 (FIX)	1.5 GHz band (1429-1525 MHz) (planning to be abandoned) 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, 5.347A 5.341	Fixed links (FIX)	1.5 GHz band (1429-1525 MHz) (planning to be abandoned) T-DAB - Sound broadcasting (RAD) (1452-1479.5 MHz) Primary statute as from 1/4/2007 2002 Maastricht Agreement S-DAB: Sound broadcasting-satellite (RAD-S) (1479.5-1492 MHz) Primary statute as from 1/4/2007 ECC/DEC/(03)02

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1492 - 1518	<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>5.341</p>	<p>Fixed links (FIX)</p> <p>STL - Studio transmitter links (FIX) (1517-1525 MHz)</p>	<p>1.5 GHz band (1429-1525 MHz) (planning to be abandoned) 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 (FIX)</p> <p>STL - Studio transmitter links (FIX) (1517-1525 MHz)</p>	<p>1.5 GHz band (1429-1525 MHz) (planning to be abandoned)</p>
1525 - 1530	<p>SPACE OPERATION (space-to-Earth)</p> <p>FIXED</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.347A, 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)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1530 - 1533	SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A, 5.353A Earth exploration satellite FIXED MOBILE except aeronautical mobile 5.341, 5.351, 5.354, 5.347A	Mobile-satellite (1525-1544 MHz)	
1533 - 1535	SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A, 5.353A Earth exploration - satellite FIXED MOBILE except aeronautical mobile 5.341, 5.351, 5.354, 5.347A	Mobile-satellite (1525-1544 MHz)	
1535 - 1544	MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351 5.341, 5.351, 5.353A, 5.354	Mobile-satellite (1525-1544 MHz)	
1544 - 1545	MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A 5.341, 5.354, 5.356	Distress and safety satellite systems, including GMDSS (MV-S)	Band limited to distress and safety systems
1545 - 1559	MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A 5.341, 5.351, 5.354, 5.357, 5.357A	Maritime mobile-satellite (MM-S) Distress and safety satellite systems, including GMDSS (MV-S)	Band limited to distress and safety systems

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1559 - 1610	<p>AERONAUTICAL RADIONAVIGATION</p> <p>RADIONAVIGATION-SATELLITE (space-to-Earth) 5.329A, (space-to-space) 5.328B</p> <p>5.341</p>	<p>GPS - Global Positioning System (RVA-S)</p>	
1610 - 1610.6	<p>MOBILE-SATELLITE (Earth-to-space) 5.351A</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.341, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372</p>	<p>S-PCS (1610-1626.5 MHz)</p>	<p>ERC/DEC/(97)03</p>
1610.6 - 1613.8	<p>MOBILE-SATELLITE (Earth-to-space) 5.351A</p> <p>RADIO ASTRONOMY</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.149, 5.341, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372</p>	<p>S-PCS (1610-1626.5 MHz)</p>	<p>ERC/DEC/(97)03</p> <p>Important band to the radio astronomy service in Europe</p>
1613.8 - 1626.5	<p>MOBILE-SATELLITE (Earth-to-space) 5.347A, 5.351A</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.341, 5.364, 5.365, 5.366, 5.367, 5.368, 5.371</p>	<p>S-PCS (1610-1626.5 MHz)</p>	<p>ERC/DEC/(97)03</p>
1626.5 - 1631.5	<p>MOBILE-SATELLITE (Earth-to-space) 5.351A</p> <p>5.341, 5.351, 5.353A, 5.354</p>	<p>Maritime mobile-satellite (MM-S)</p>	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (MM-S)	
1636.5 - 1645.5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.353A, 5.354	Land mobile-satellite (MT-S)	
1645.5 - 1646.5	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.354, 5.375	Distress and safety satellite systems, including GMDSS (MV-S)	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 (MV-S)	
1656.5 - 1660	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.354, 5.359, 5.374	Mobile-satellite (MV-S)	
1660 - 1660.5	MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149, 5.341, 5.351, 5.354, 5.376A	Mobile-satellite (MV-S)	Important band to the radio astronomy service in Europe
1660.5 - 1668	RADIO ASTRONOMY SPACE RESEARCH (passive) FIXED MOBILE except aeronautical mobile 5.149, 5.341, 5.379A		Important band to the radio astronomy service in Europe

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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		Important band to the radio astronomy service in Europe
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		Important band to the 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 harmonized use of the 1670-1675 MHz and 1800-1805 MHz bands) ECC/DEC/(04)08

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1675 - 1690	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341		Government
1690 - 1700	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) FIXED MOBILE except aeronautical mobile 5.289, 5.341	METEOSAT - Meteorological satellites for high resolution picture transmission - HRPT (MET-S)	
1700 - 1710	FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289, 5.341		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
1710 - 1930	<p>FIXED</p> <p>MOBILE 5.380, 5.384A, 5.388A</p> <p>5.149, 5.341, 5.385, 5.388</p>	<p>DCS 1800 - Digital communications system (1710-1785 MHz; 1805-1880 MHz)</p> <p>DECT - European digital wireless telecommunications system (MOV); (1880-1900 MHz)</p> <p>IMT-2000 - International mobile telecommunications - 2000 (MOV); (1900-1980 MHz / 2110-2170 MHz)</p> <p>SRD - Transmitter 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>Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p> <p>ECC/DEC(02)07 (for harmonized use of the 1670-1675 MHz and 1800-1805 MHz bands)</p> <p>ERC/REC 70-03 Annex 10</p>
1930 - 1970	<p>FIXED</p> <p>MOBILE 5.388A</p> <p>5.388</p>	<p>IMT-2000 - International mobile telecommunications- 2000 (MOV); (1900-1980 MHz / 2110-2170 MHz)</p>	<p>Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p>
1970 - 1980	<p>FIXED</p> <p>MOBILE 5.388A</p> <p>5.388</p>	<p>IMT-2000 - International mobile telecommunications- 2000 (MOV); (1900-1980 MHz / 2110-2170 MHz)</p>	<p>Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 (MOV) Bands 1885-2025 MHz and 2110-2200 MHz designated by 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 (MOV) Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)
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 (OE) DORIS system (2036.25 MHz ± 400 Hz) Fixed links (FIX) SAP/SAB applications (video links) (2070-2110 MHz)	2 GHz band CEPT Rec. T/R 13-01 Annex C (2025-2110 MHz) ERC/REC 25-10

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2110 - 2120	<p>FIXED</p> <p>MOBILE 5.388A</p> <p>SPACE RESEARCH (deep space) (Earth-to-space)</p> <p>5.388</p>	<p>IMT-2000 - International mobile telecommunications- 2000 (MOV)</p>	<p>Bands 1885-2025 MHz and 2110-2200MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p>
2120 - 2170	<p>FIXED</p> <p>MOBILE 5.388A</p> <p>5.388</p>	<p>IMT-2000 - International mobile telecommunications- 2000 (MOV)</p>	<p>Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Terrestrial component: 1900-1980 MHz; 2010-2025 MHz; 2110-2170 MHz)</p>
2170 - 2200	<p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351</p> <p>5.388, 5.389A</p>	<p>S-PCS (2170-2200 MHz)</p>	<p>IMT-2000 - International mobile telecommunications- 2000 (MOV) Bands 1885-2025 MHz and 2110-2200 MHz designated by WARC-1992 ERC/DEC/(97)07 (Satellite component: 1980-2010 MHz; 2170-2200 MHz)</p> <p>ERC/DEC/(97)03</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2200 - 2290	SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392	TCR - Tracking, control and ranging (OE) Fixed links (FIX) SAP/SAB applications (video links) (2245-2500 MHz)	2 GHz band CEPT Rec. T/R 13-01 Annex C (2200-2290 MHz) ERC/REC 25-10
2290 - 2300	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	SAP/SAB applications (video links) (2245-2500 MHz)	ERC/REC 25-10
2300 - 2400	FIXED MOBILE Amateur Radiolocation	Amateur SAP/SAB applications (video links) (2245-2500 MHz)	ERC/REC 25-10

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2400 - 2450	FIXED MOBILE Amateur Amateur-satellite 5.282 Radiolocation 5.150	Amateur SAP/SAB applications (video links) (2245-2500 MHz) ISM - Industrial, scientific and medical applications (2400-2500 MHz) Non-specific applications (2400-2483.5 MHz) SRD - WLANs (2400-2483.5 MHz) SRD - Movement detection and alert applications (2400-2483.5 MHz) SRD - RFID (2446-2454 MHz)	ERC/REC 25-10 ERC/REC 70-03 Annex 1 ERC/DEC/(01)05 ERC/REC 70-03 Annex 3 ERC/DEC/(01)07 ERC/REC 70-03 Annex 6 ERC/DEC/(01)08 ERC/REC 70-03 Annex 11
2450 - 2483.5	FIXED MOBILE Radiolocation 5.150	SAP/SAB applications (video links) (2245-2500 MHz) ISM - Industrial, scientific and medical applications (2400-2500 MHz) Non-specific applications (2400-2483.5 MHz) SRD - WLANs (2400-2483.5 MHz) SRD - Movement detection and alert applications (2400-2483.5 MHz) SRD - RFID (2446-2454 MHz) SRD - Railway applications (2446-2454 MHz)	ERC/REC 25-10 ERC/REC 70-03 Annex 1, ERC/DEC/(01)05 ERC/REC 70-03 Annex 3 ERC/DEC/(01)07 ERC/REC 70-03 Annex 6 ERC/DEC/(01)08 ERC/REC 70-03 Annex 11 ERC/REC 70-03 Annex 4

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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>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>Microwave multipoint distribution system (MDR)</p> <p>ECC/DEC/(02)06 (2500-2690 MHz UMTS/IMT2000)</p> <p>(Planning to be abandoned until 31.12.2006)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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, 5.417C, 5.417D, 5.418B, 5.418C</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Microwave multipoint distribution system (MDR)</p> <p>ECC/DEC/(02)06 (2500-2690 MHz UMTS/IMT2000)</p> <p>(Planning to be abandoned until 31.12.2006)</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, 5.347A, 5.420</p>	<p>MMDS (2500-2690 MHz)</p> <p>SAP/SAB applications (video links) (2500-2690 MHz)</p>	<p>Microwave multipoint distribution system (MDR)</p> <p>ECC/DEC/(02)06 (2500-2690 MHz UMTS/IMT2000)</p> <p>(Planning to be abandoned until 31.12.2006)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
2670 - 2690	FIXED 5.409, 5.410, 5.411 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) 5.351A Earth exploration - satellite (passive) Radio astronomy Space research (passive) 5.149, 5.347A, 5.419, 5.420	MMDS (2500-2690 MHz) SAP/SAB applications (video links) (2500-2690 MHz)	Microwave multipoint distribution system (MDR) ECC/DEC(02)06 (2500-2690 MHz UMTS/IMT2000) (Planning to be abandoned until 31.12.2006)
2690 - 2700	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	USE OF THIS BAND IS STRICTLY FORBIDDEN	
2700 - 2900	AERONAUTICAL RADIONAVIGATION 5.337 METEOROLOGICAL AIDS 5.423 Radiolocation	Navigation systems (RVA) Meteorological radars (METAX) Radars (RVA, RLC)	
2900 - 3100	RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425, 5.427	Radars (RVA, RLC)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
3100 - 3300	RADIOLOCATION Earth exploration - satellite (active) Space research (active) 5.149	Radars (RLC)	Government
3300 - 3400	RADIOLOCATION 5.149	Radars (RLC)	Government
3400 - 3600	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation	FWA (1 2x28 MHz block 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 (FIX) FWA (3 2x28 MHz blocks in the 3600-3800 MHz sub-Band) Fixed-satellite (FIX-S) VSATs; SNGs	4 GHz band Recommendation ITU-R F. 382 (3800-4200 MHz) ERC/REC 12-08 Annex B (3600-3800 MHz)
4200 - 4400	AERONAUTICAL RADIONAVIGATION 5.438 5.440	Radars (RVA)	
4400 - 4500	FIXED MOBILE		Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
4500 - 4800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE		RR Ap. 30B Government
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		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5150 - 5250	<p>AERONAUTICAL RADIONAVIGATION</p> <p>FIXED-SATELLITE (space-to-Earth) 5.447A</p> <p>MOBILE except aeronautical mobile 5.446A, 5.446B</p> <p>5.446, 5.447, 5.447B, 5.447C</p>	<p>SRD - WAS/RLAN (5150-5350 MHz)</p>	<p>Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/DEC/(04)08</p>
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>Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/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>Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/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>		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5460 - 5470	RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.448D 5.448B		
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 (RVM) SRD - WAS/RLAN (5470-5725 MHz)	Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/DEC/(04)08
5570 - 5650	MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A, 5.450A RADIOLOCATION 5.450B 5.452	Radars (RVM) Meteorological radars (5600-5650 MHz) SRD - WAS/RLAN (5470-5725 MHz)	Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/DEC/(04)08
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)	Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/DEC/(04)08

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5670 - 5725	RADIOLOCATION MOBILE except aeronautical mobile 5.446A, 5.450A Amateur Space research (deep space)	Amateur SRD - WAS/RLAN (5470-5725 MHz)	Decision 2005/513/EC of 11 July 2005 ERC/REC 70-03 Annex 3 ECC/DEC/(04)08
5725 - 5830	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur 5.150	Fixed-satellite (FIX-S) Amateur (AM) ISM - Industrial, scientific and medical applications (5725-5875 MHz) Non-specific applications (5725-5875 MHz) SRD - RTTT (5795-5815 MHz),	ERC/REC 70-03 Annex 1 ERC/DEC/(01)06 ERC/REC 70-03 Annex 5 ECC/DEC/(02)01
5830 - 5850	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150	Fixed-satellite (FIX-S) Amateur (AM) ISM - Industrial, scientific and medical applications (5725-5875 MHz) Non-specific applications (5725-5875 MHz)	ERC/REC 70-03 Annex 1 ERC/DEC/(01)06

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
5850 - 5925	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.150	Fixed-satellite (FIX-S) ISM - Industrial, scientific and medical applications (5725-5875 MHz) SRD - Non-specific applications (5725-5875 MHz)	ERC/REC 70-03 Annex 1 ERC/DEC/(01)06
5925 - 6700	FIXED FIXED-SATELLITE (Earth-to-space) 5.457A MOBILE 5.149, 5.440, 5.458	Fixed links (FIX) Fixed-satellite (FIX-S): VSATs; SNGs	(Low) 6 GHz band ERC/REC 14-01 Annex 1 (5925-6425 MHz) (High) 6 GHz band ERC/REC 14-02 Annex 1 (6425-7125 MHz)
6700 - 7075	FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE 5.458, 5.458A, 5.458B, 5.458C	Fixed links (FIX)	(High) 6 GHz band ERC/REC 14-02 Annex 1 (6425-7125 MHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7075 - 7145	FIXED MOBILE 5.458	Fixed links (FIX)	(High) 6 GHz band ERC/REC 14-02 Annex 1 (6425-7125 MHz) Recommendation ITU-R F.385 (7110-7425 MHz) ECC/REC 02-06 (7125-7425 MHz)
7145 - 7235	FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458	Fixed links (FIX)	Recommendation ITU-R F.385 (7110-7425 MHz) ECC/REC 02-06 (7125-7425 MHz)
7235 - 7250	FIXED MOBILE 5.458	Fixed links (FIX)	Recommendation ITU-R F.385 (7110-7425 MHz) ECC/REC 02-06 (7125-7425 MHz)
7250 - 7300	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.461	Fixed links (FIX) Fixed-satellite (FIX-S)	Recommendation ITU-R F.385 (7110-7425 MHz) ECC/REC 02-06 (7125-7425 MHz) Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7300 - 7450	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.461</p>	<p>Fixed links (FIX)</p> <p>Fixed-satellite (FIX-S)</p>	<p>7 GHz band Recommendation ITU-R F.385 (7110-7425 MHz; 7425-7725 MHz) ECC/REC 02-06 (7125-7425 MHz; 7425-7725 MHz)</p>
7450 - 7550	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.461A</p>	<p>Fixed links (FIX)</p> <p>Fixed-satellite (FIX-S)</p> <p>METEOROLOGICAL-SATELLITE (MET-S)</p>	<p>7 GHz band Recommendation ITU-R F.385 (7425-7750 MHz) ECC/REC 02-06 (7425-7725 MHz)</p>
7550 - 7750	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p>	<p>Fixed links (FIX)</p> <p>Fixed-satellite (FIX-S)</p>	<p>7 GHz band Recommendation ITU-R F.385 (7425-7750 MHz) ECC/REC 02-06 (7425-7725 MHz)</p> <p>8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
7750 - 7850	FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile	Fixed links (FIX)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz)
7850 - 7900	FIXED MOBILE except aeronautical mobile	Fixed links (FIX)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz)
7900 - 8025	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.461	Fixed links (FIX) Fixed-satellite (FIX-S)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz) Government (7975-8025 MHz)
8025 - 8175	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A	Fixed links (FIX) Fixed-satellite (FIX-S)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
8175 - 8215	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A	Fixed links (FIX) Fixed-satellite (FIX-S) METEOROLOGICAL-SATELLITE (MET-S)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz) Recommendation ITU-R F.386 (8200-8500 MHz)
8215 - 8400	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A	Fixed links (FIX) Fixed-satellite (FIX-S)	8 GHz band Recommendation ITU-R F.386 Annex 1 (7700-8300 MHz); Recommendation ITU-R F.386 (8200-8500 MHz)
8400 - 8500	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465	Fixed links (FIX)	8 GHz band Recommendation ITU-R F.386 (8200-8500 MHz)
8500 - 8550	RADIOLOCATION		Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 (RVA, RLC)	
9200 - 9300	RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.474	Radars (RVM, RLC) - SARTs SRD - Movement detection and alert applications (9200-9500 MHz)	ERC/REC 70-03 Annex 6

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
9300 - 9500	RADIONAVIGATION 5.476 Radiolocation 5.427, 5.474, 5.475	Radars (RVA, RLC) - SARTs SRD - Movement detection and alert applications (9200-9500 MHz)	ERC/REC 70-03 Annex 6
9500 - 9800	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) 5.476A	SRD - Movement detection and alert applications (9500-9975 MHz)	ERC/REC 70-03 Annex 6
9800 - 10000	RADIOLOCATION FIXED 5.479	SRD - Movement detection and alert applications (9500-9975 MHz)	ERC/REC 70-03 Annex 6

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
10 - 10.45	FIXED MOBILE RADIOLOCATION Amateur 5.479	Amateur (AM) SAP/SAB applications (video links) (10.0-10.45 GHz)	ERC/REC 25-10
10.45 - 10.5	RADIOLOCATION Amateur Amateur-satellite	Amateur (AM)	
10.5 - 10.55	FIXED MOBILE Radiolocation	SAP/SAB applications (video links) (10.5-10.68 GHz)	ERC/REC 25-10
10.55 - 10.6	FIXED MOBILE except aeronautical mobile Radiolocation	SAP/SAB applications (video links) (10.5-10.68 GHz)	ERC/REC 25-10

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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)	ERC/REC 25-10
10.68 - 10.7	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	USE OF THIS BAND IS STRICTLY FORBIDDEN	
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 (FIX) Fixed-satellite (FIX-S): VSATs; SNGs; SITs; AESs EUTELTRACS - Land mobile satellite data communications system (10.7-11.7 GHz)	11 GHz BAND 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 and 11.45-11.7 GHz) SITs: 10.7-12.75 GHz (space-to-Earth); 29.5-30.0 GHz (Earth-to-space) AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
11.7 - 12.5	FIXED BROADCASTING BROADCASTING-SATELLITE MOBILE except aeronautical mobile 5.487, 5.487A, 5.492	BROADCASTING-SATELLITE (RAD-S) 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 (FIX-S): VSATs; SNGs; SITs; AESs EUTELTRACS - Land mobile-satellite data communications system (12.5-12.75 GHz)	ERC/REC 13-03 SITs: 10.7-12.75 GHz (space-to-Earth); 29.5-30.0 GHz (Earth-to-space) AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)
12.75 - 13.25	FIXED FIXED-SATELLITE (Earth-to-space) 5.441 MOBILE Space research (deep space) (space-to-Earth)	Fixed links (FIX) Fixed-satellite (FIX-S)	13 GHz band Recommendation ITU-R F.497 (12.75-13.25 GHz) RR Ap. 30B
13.25 - 13.4	EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
13.4 - 13.75	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.501A Standard frequency and time signal - satellite (Earth-to-space) 5.501B	SRD - Movement detection and alert applications (13.4-14 GHz)	ERC/REC 70-03 Annex 6 Government
13.75 - 14	FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Standard frequency and time signal - satellite (Earth-to-space) Space research EARTH EXPLORATION-SATELLITE 5.502, 5.503	SRD - Movement detection and alert applications (13.4-14 GHz)	ERC/REC 70-03 Annex 6 Government
14 - 14.25	FIXED-SATELLITE (Earth-to-space) 5.484A, 5.506, 5. 457A, 5.506B RADIONAVIGATION 5.504 MOBILE-SATELLITE (Earth-to-space) 5.506A Space research 5.504A	Fixed-satellite (FIX-S): VSATs; SNGs AESs EUTELTRACS - Land mobile-satellite data communications system (14-14.25 GHz)	ERC/REC 13-03 AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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>	<p>Fixed-satellite (FIX-S): VSATs; SNGs</p> <p>AESs</p>	<p>ERC/REC 13-03</p> <p>AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)</p>
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>	<p>Fixed-satellite (FIX-S): VSATs; SNGs</p> <p>AESs</p>	<p>ERC/REC 13-03</p> <p>AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)</p>
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>	<p>Fixed-satellite (FIX-S): VSATs; SNGs</p> <p>AESs</p>	<p>ERC/REC 13-03</p> <p>AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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>	<p>Fixed-satellite (FIX-S): VSATs; SNGs</p> <p>AESs</p>	<p>ERC/REC 13-03</p> <p>AESs: 10.7-11.7 GHz (space-to-Earth); 12.5-12.75 GHz (space-to-Earth); 14-14.5 GHz (Earth-to-space)</p>
14.5 - 14.8	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.510</p> <p>MOBILE</p> <p>Space research</p>	<p>Fixed links (FIX)</p>	<p>15 GHz band 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>	<p>Fixed links (FIX)</p>	<p>15 GHz band ERC/REC 12-07 Annex A (15.23-15.35 GHz)</p> <p>Government (14.8-15.23 GHz)</p>
15.35 - 15.4	<p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340</p>	<p>USE OF THIS BAND IS STRICTLY FORBIDDEN</p>	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
15.4 - 15.43	AERONAUTICAL RADIONAVIGATION 5.511D		
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 (RLC)	Government
16.6 - 17.1	RADIOLOCATION Space research (deep space) (Earth-to-space)	Radars (RLC)	Government
17.1 - 17.2	RADIOLOCATION	SRD - HIPERLANs (17.1-17.3 GHz)	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)	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 (FIX-S): HDFSS	RR Ap. 30A: (17.3-18.1 GHz) HDFSS (space-to-Earth): 17.3-17.7 GHz (WRC-2003)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (FIX)</p> <p>Fixed-satellite (FIX-S)</p>	<p>18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)</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>	<p>Fixed links (FIX)</p>	<p>18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)</p>
18.4 - 18.6	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.484A</p> <p>MOBILE</p>	<p>Fixed links (FIX)</p>	<p>18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)</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>	<p>Fixed links (FIX)</p>	<p>18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
18.8 - 19.3	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.523A</p> <p>MOBILE</p>	Fixed links (FIX)	18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)
19.3 - 19.7	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B, 5.523C, 5.523D, 5.523E</p> <p>MOBILE</p>	Fixed links (FIX)	18 GHz band ERC/REC 12-03 Annex A (17.7-19.7 GHz)
19.7 - 20.1	<p>FIXED-SATELLITE (space-to-Earth) 5.484A, 5.516B</p> <p>MOBILE-SATELLITE (space-to-Earth)</p>	Fixed-satellite (FIX-S): 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	<p>FIXED-SATELLITE (space-to-Earth) 5.484 A, 5.516B</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.525, 5.526, 5.527,5.528</p>	Fixed-satellite (FIX-S): 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	<p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Standard frequency and time signal (space-to-Earth)</p>		Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
21.2 - 21.4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)		
21.4 - 22	FIXED MOBILE BROADCASTING-SATELLITE 5.347A, 5.530	SRR (21.65-26.65 GHz)	Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
22 - 22.21	FIXED MOBILE except aeronautical mobile 5.149	Fixed links (FIX) SRR (21.65-26.65 GHz)	23 GHz band CEPT Rec. T/R 13-02 Annex A (22-22.6 GHz) Decision 2005/50/EC of 17 January 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 (FIX) SRR (21.65-26.65 GHz)	23 GHz band CEPT Rec. T/R 13-02 Annex A (22-22.6 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
22.5 - 22.55	FIXED MOBILE	Fixed links (FIX) SRR (21.65-26.65 GHz)	23 GHz band CEPT Rec. T/R 13-02 Annex A (22-22.6 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
22.55 - 23.55	FIXED INTER-SATELLITE MOBILE 5.149	Fixed links (FIX) 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) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
23.55 - 23.6	FIXED MOBILE	Fixed links (FIX) SRR (21.65-26.65 GHz)	23 GHz band CEPT Rec. T/R 13-02 Annex A (23-23.6 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
23.6 - 24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
24 - 24.05	AMATEUR AMATEUR-SATELLITE 5.150	Amateur (AM) ISM - Industrial, scientific and medical applications (24-24.25 GHz) SRD - Non-specific applications (24-24.25 GHz) SRR (21.65-26.65 GHz)	ERC/REC 70-03 Annex 1 Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
24.05 - 24.25	RADIOLOCATION Amateur Earth exploration - satellite (active) 5.150	Radars (RLC) Amateur (AM) 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)	ERC/REC 70-03 Annex 1 ERC/REC 70-03 Annex 6 Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
24.25 - 24.45	FIXED	SRR (21.65-26.65 GHz)	Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
24.45 - 24.75	FIXED INTER-SATELLITE	FWA (6 2x56 MHz blocks in the 24.5-26.5 GHz sub-band) SRR (21.65-26.65 GHz)	25 GHz band CEPT Rec. T/R 13-02 Annex B (24.5-26.5 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10
24.75 - 25.25	FIXED	FWA (6 2x56 MHz blocks in the 24.5-26.5 GHz sub-band) SRR (21.65-26.65 GHz)	25 GHz band CEPT Rec. T/R 13-02 Annex B (24.5-26.5 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10 Government (25.242-25.25 GHz)
25.25 - 25.5	FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal - satellite (Earth-to-space)	FWA (6 2x56 MHz blocks in the 24.5-26.5 GHz sub-band) SRR (21.65-26.65 GHz)	25 GHz band CEPT Rec. T/R 13-02 Annex B (24.5-26.5 GHz) Decision 2005/50/EC of 17 January 2005 ECC/DEC/(04)10 Government (25.25-25.492 GHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 2x56 MHz blocks in the 24.5-26.5 GHz sub-band)</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>Decision 2005/50/EC of 17 January 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>
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 2x175 MHz blocks in the 27.5-29.5 GHz band)</p> <p>Fixed-satellite (FIX-S): 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>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
28.5 - 29.1	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.484A, 5.523A, 5.539, 5.516B</p> <p>MOBILE</p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space) 5.541</p> <p>5.540</p>	<p>FWA (2 2x175 MHz blocks in the 27.5-29.5 GHz band)</p> <p>Fixed-satellite (FIX-S): 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</p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space) 5.541</p> <p>5.540</p>	<p>FWA (2 2x175 MHz blocks in the 27.5-29.5 GHz band)</p> <p>Fixed-satellite (FIX-S): 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 ((FIX-S): 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 (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (FIX-S): HDFSS, SUTs, SITs	HDFSS (Earth-to-space): 29.46-30 GHz (WRC-2003) SUTs: 19.7-20.2 GHz (space-to-Earth); 29.5-30.0 GHz (Earth-to-space) SITs: 10.7-12.75 GHz (space-to-Earth); 29.5-30.0 GHz (Earth-to-space)
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>	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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 (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
37 - 37.5	FIXED MOBILE SPACE RESEARCH (space-to-Earth) 5.547	Fixed links (FIX)	38 GHz band CEPT Rec. T/R 12-01 (37-39.5 GHz)
37.5 - 38	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth exploration - satellite (space-to-Earth) 5.547	Fixed links (FIX)	38 GHz band CEPT Rec. T/R 12-01 (37-39.5 GHz) ERC/DEC/(00)02 Non-coordinated Earth stations cannot claim protection from the fixed service
38 - 39.5	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration - satellite (space-to-Earth) 5.547	Fixed links (FIX)	38 GHz band CEPT Rec. T/R 12-01 (37-39.5 GHz) ERC/DEC/(00)02 Non-coordinated Earth stations cannot claim protection from the fixed service

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 Non-coordinated and coordinated Earth stations</p> <p>Bands identified by WRC-2003 (39.5-40 GHz) for HDFSS (space-to-Earth)</p>
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 Non-coordinated and coordinated Earth stations</p> <p>Bands identified by WRC-2003 (40-40.5 GHz) for HDFSS (space-to-Earth)</p>

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
40.5 - 41	FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE MOBILE 5.547	MWS applications, including MVDS (40.5-43.5 GHz)	ERC/DEC/(99)15 ECC/REC 01-04 ECC/DEC/(02)04
41 - 42.5	FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE MOBILE 5.547, 5.551H, 5.551I	MWS applications, including MVDS (40.5-43.5 GHz)	ERC/DEC/(99)15 ECC/REC 01-04 ECC/DEC/(02)04
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 ECC/REC 01-04
43.5 - 47	MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		Government (43.5-45.5 GHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
47 - 47.2	AMATEUR AMATEUR-SATELLITE	Amateur (AM)	
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, 5.554A MOBILE		Bands identified by WRC-2003 (47.5-47.9 GHz) for HDFSS (space-to-Earth)
47.9 - 48.2	FIXED FIXED-SATELLITE (Earth-to-space) 5.552, 5.554A MOBILE 5.552A		
48.2 - 48.54	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B, 5.554A, 5.555B MOBILE		Bands identified by 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		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
49.44 - 50.2	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B, 5.554A, 5.555B MOBILE		Bands identified by 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		
52.6 - 54.25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340, 5.556	Radiometers - Passive sensors (EXP-S) USE OF THIS BAND IS STRICTLY FORBIDDEN	
54.25 - 55.78	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive)	Radiometers - Passive sensors (EXP-S)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 (EXP-S)	
56.9 - 57	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547	Radiometers - Passive sensors (EXP-S)	
57 - 58.2	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547	Radiometers - Passive sensors (EXP-S) Fixed links (FIX)	58 GHz band ERC/REC 12-09 (57-59 GHz)
58.2 - 59	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547, 5.556	Radiometers - Passive sensors (EXP-S) Fixed links (FIX)	58 GHz band ERC/REC 12-09 (57-59 GHz)

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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)	ERC/REC 70-03 Annex 1 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 (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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)	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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)	Decision 2004/545/EC of 8 July 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)	Decision 2004/545/EC of 8 July 2004 ECC/DEC/(04)03 Government
78 - 79	RADIOLOCATION Amador Amateur-satellite Radio astronomy Space research (space-to-Earth) 5.149, 5.560	Amateur SRR (77-81 GHz)	Decision 2004/545/EC of 8 July 2004 ECC/DEC/(04)03 Government

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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)	Decision 2004/545/EC of 8 July 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	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING 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		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
100 - 102	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	USE OF THIS BAND IS STRICTLY FORBIDDEN	
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	
111.8 - 114.25	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
114.25 - 116	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	USE OF THIS BAND IS STRICTLY FORBIDDEN	
116 - 119.98	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341		
119.98 - 122.25	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138, 5.341	ISM - Industrial, scientific and medical applications (122-123 GHz) SRD - Non-specific applications (122-123 GHz)	ERC/REC 70-03 Annex 1
122.25 - 123	FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138	ISM - Industrial, scientific and medical applications (122-123 GHz) Non-specific applications (122-123 GHz)	ERC/REC 70-03 Annex 1

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
123 - 130	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio astronomy 5.149, 5.554		
130 - 134	EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149, 5.562A		
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		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
148.5 - 151.5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	USE OF THIS BAND IS STRICTLY FORBIDDEN	
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
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	
209 - 217	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149, 5.341		
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	USE OF THIS BAND IS STRICTLY FORBIDDEN	

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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		
238 - 240	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE		
240 - 241	FIXED MOBILE RADIOLOCATION		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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)	ERC/REC 70-03 Annex 1
248 - 250	AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149	Amateur (AM)	
250 - 252	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.563A	USE OF THIS BAND IS STRICTLY FORBIDDEN	
252 - 265	FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149, 5.554		

FREQUENCY BAND (MHz)	ALLOCATIONS BY THE RADIO REGULATIONS - ARTº 5 - APPLYING TO PORTUGAL	NATIONAL APPLICATIONS	NOTES
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 Earth or space radiocommunication services, or by the radio astronomy service, under specified conditions. This term also applies to the frequency band referred to.

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

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

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

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

Radio communication Service:

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

Unless otherwise stated, any radiocommunication service refers to terrestrial radiocommunication.

Fixed Service (FIX):

Radiocommunication service between specific fixed points.

Fixed Satellite Service (FIX-S):

Radiocommunication service between Earth stations at given fixed positions, when one or more satellites are used; in some cases this service includes satellite-to-satellite links,

which may also be operated by the inter-satellite service; the fixed-satellite service may also include feeder links for other space radiocommunication services.

Inter-Satellite Service (INT-S):

Radiocommunication service providing links between artificial Earth satellites.

Space Operation Service (OE):

Radiocommunication service concerned exclusively with the operation of spacecrafts, 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 (MOV):

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

Mobile-Satellite Service (MV-S):

Radiocommunication Service between mobile Earth stations and one or several space stations, or among space stations that are used by this service, or among mobile Earth stations using one or several space stations.

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

Land Mobile Service (MT):

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

Land Mobile-Satellite Service (MT-S):

Mobile-Satellite service which mobile Earth stations are located on land.

Maritime Mobile Service (MM):

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 radio beacon stations may also participate in this service.

Maritime Mobile-Satellite Service (MM-S):

Mobile-Satellite service in which mobile Earth stations are located on ships. Survival craft stations and emergency position-indicating radio beacon stations may also participate in this service.

Port Operations Service (OP):

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 cases, to the safety of people.

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

Ship Movement Service (ONS):

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

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

Aeronautical Mobile Service (MA):

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

Aeronautical Mobile Service (R)* (MAR):

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 Service (OR) (MAOR):**

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

** (OR): off-route.

Aeronautical Mobile-Satellite Service (MA-S):

Mobile-Satellite Service in which mobile Earth stations are located on aircrafts. Survival craft stations and emergency position-indicating radio beacon stations may also participate in this service.

Aeronautical Mobile-Satellite Service (R)* (MAR-S):

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 Service (OR) (MAO-S):**

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 (RAD):

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

Broadcasting Satellite Service (RAD-S):

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 phrase “direct reception” encompasses both individual and community reception.

Radio Determination Service (RDT):

Radiocommunication service used for radio determination.

Radio determination Satellite Service (RDT-S):

Radiocommunication service used for radio determination involving the use of one or more space stations.

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

Radionavigation Service (RV):

Radio determination service used for radionavigation.

Radionavigation Satellite Service (RV-S):

Radio determination satellite service used for radionavigation.

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

Maritime Radionavigation Service (RVM):

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

Maritime Radionavigation Satellite Service (RVM-S):

Radionavigation satellite service in which Earth stations are located on ships.

Aeronautical Radionavigation Service (RVA):

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

Aeronautical Radionavigation Satellite Service (RVA-S):

Radionavigation satellite service in which Earth stations are located on aircrafts.

Radiolocation Service (RLC):

Radio determination service for radiolocation.

Radiolocation Satellite Service (RLC-S):

Radio determination service for radiolocation.

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

Meteorological Aids Service (METAX):

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

Earth Exploration Satellite Service (EXP-S):

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 same system.
- 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 (INVES):

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

Amateur Service (AM):

Radiocommunication service for individual training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

Amateur satellite Service (AM-S):

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

Radio Astronomy Service (RAST):

A service involving the use of radio astronomy.

Safety Service (SEG):

Any radiocommunication service permanently or temporarily used for the safeguarding of human life and property (CV).

Special Service (ESP):

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

AES	-	Aircraft Earth Station
APT	-	Automatic Picture Transmission system
CB	-	Personal Radio Service - Citizen Band
CEPT	-	European Conference of Postal and Telecommunications Administrations
CTO; CT1	-	Cordless Telephones
C450	-	Public Analogue Land Mobile Cellular Communication systems
DEC	-	Decision
DCP	-	Data Collection Platform
DCS 1800	-	Digital Cellular Telecommunications Systems in the 1800 MHz band
DECCA	-	LF Hyperbolic Radionavigation 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
DVB-T	-	Terrestrial Digital Video Broadcasting system
ECA	-	European Common Allocation table
ECC	-	Electronic Communications Committee
ENG	-	Electronic News Gathering
ENG/OB	-	Electronic News Gathering / Outside Broadcasting
ERC	-	European Radiocommunications Committee
ERO	-	European Radiocommunications Office

EUTELSAT	-	EUropean TELecommunications SATellite Organisation
EUTELTRACS-		EUTELsat Transport RAnging and Communication Services
FWA	-	Fixed Wireless Access
GE-75	-	Regional Administrative LF/MF Broadcasting Conference (Regions 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	-	(Radio beacons) Regional Administrative Radio Conference for planning maritime radionavigation (radio beacons) in the European maritime area - Geneva, 1985
GE-85	-	Regional Administrative Radio Conference for planning MF maritime mobile service and aeronautical radionavigation (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
HIPERLAN	-	High PErformance Radio Local Area Networks
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
LORAN-C	-	LOng RANge Navigation system
LRPT	-	Low Resolution Picture Transmission
METEOSAT	-	METEORological SATellite
MLS	-	Microwave Landing System
MVDS	-	Multipoint Video Distribution System
MWS	-	Multimedia Wireless System
NAVTEX	-	International NAVTEX System, for the telegraphy of urgent navigation and meteorological alert.
NDB	-	Non-Directional radio Beacon
NGSO	-	Non-geostationary Satellite Orbit
OMEGA	-	VLF Hyperbolic Radionavigation System
PAMR	-	Public Access Mobile Radio (PMR)
PMR	-	Professional Mobile Radio (Private)
POSAT 1	-	POrtuguese SATellite 1
RLAN	-	Radio Local Area Network
RTI	-	Road Transport Information Systems
RTTT	-	Road Transport Telematics systems
SAP/SAB	-	Services Ancillary to Programme Making / Services Ancillary to Broadcasting
SCP	-	Public National Radio Paging
SCPP	-	Private Radio Paging
SMM	-	Private Networks in the Maritime Mobile Service
SMRP	-	National Mobile trunking Service
SMT	-	Private Networks in the Land Mobile Service

SNG	-	Satellite News Gathering
SRD	-	Short Range Device
SRR	-	Short Range Radar
SSR	-	Secondary Surveillance Radar
ST-61	-	European Conference on broadcasting in metric and decimetric waves - Stockholm, 1961
STL	-	Studio Transmitter Links
SIT	-	Satellite Interactive Terminals
SUT	-	Satellite User Terminals
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	-	Radionavigation Satellite System
UMTS/IMT2000		3rd generation mobile communications system
VOR	-	VHF Omnidirectional Radio range
VSAT	-	Very Small Aperture Terminals - satellite communication microstations
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
WLAN	-	Wireless 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, ITU AND THE EU

ITU Documents

CEPT/ECC Decisions

- ECC/DEC/(05)12** - Decision on frequency harmonization, technical characteristics, individual licence exemption, and free circulation and use of PMR446 digital applications operating in the 446.1-446.2 MHz frequency band.
- 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 77-81 GHz 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 harmonized 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** - Coordinated introduction of Road Transport Traffic Telematics (RTTT).

ECC/DEC/(02)04 - Terrestrial systems (fixed service/broadcasting service) and non-Co-ordinated Earth stations in the fixed satellite service and in the broadcasting satellite service (space-to-Earth) in the 40.5-42.5 GHz frequency band.

ECC/DEC/(02)06 - UMTS/IMT2000 in the 2500-2690 MHz frequency band.

ECC/DEC/(02)07 - Harmonized use of the 1670-1675/1800-1805 MHz band and withdrawal of ERC Decision ERC (92)01 on the TFTS.

CEPT/ERC Decisions

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 e 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 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 and 27.195 MHz frequency bands

- ERC/DEC/(01)11** - SRDs for air 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)13** - SRDs for inductive applications in the 9-59.75 kHz, 59.75-60.25 kHz, 60.25-70 kHz, 70-119 kHz and 119-135 kHz frequency bands.
- ERC/DEC/(01)14** - SRDs for inductive applications in the 6765-6795 kHz and 13.553-13.567 MHz frequency bands.
- ERC/DEC/(01)15** - SRDs for inductive applications in the 7400-8800 kHz frequency band.
- ERC/DEC/(01)16** - SRDs for inductive applications in the 26.957-27.283 MHz frequency band.
- 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/(00)02** - 37.5-40.5 GHz frequency band for the fixed service and the fixed satellite service.
- ERC/DEC/(99)15** - Decision on the 40.5-43.5 GHz harmonized frequency band for introduction of multimedia wireless systems (MWS) including Multipoint Video Distribution Systems (MVDS)

- ERC/DEC/(98)25** - Decision on the harmonized frequency band to be designated for PMR 446.
- ERC/DEC/(97)02** - Decision on the extended frequency bands to be used for the European GSM digital communications system.
- ERC/DEC/(97)03** - Decision on the harmonised use of spectrum for satellite personal communications services (S-PCS) operating in the 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz frequency bands
- 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/(96)04** - Decision on frequency bands for the introduction of the trans-European trunked radio system (TETRA).
- ERC/DEC/(95)03** - Decision on frequency bands to be designated reserve for the introduction of the DCS 1800 system.
- ERC/DEC/(94)01** - Decision on frequency bands to be reserved for the coordinated introduction of the European GSM digital cellular land mobile communications system (GSM).
- ERC/DEC/(94)03** - Decision on the frequency band to reserve for the coordinated introduction of the European Digital Cordless Telecommunications system (DECT).

CEPT/ECC Recommendations

- ECC/REC 01-04** - MWS in the 40.5-43.5 GHz frequency band.
- ECC/REC 02-06** - Digital Systems for fixed digital services operating in the frequency range 7125-8500 MHz synchrony band.
- ECC/REC 05-05** - Anticipated access by the amateur service to the 7100-7200 kHz frequency band.

CEPT/ERC Recommendations

- ERC/REC 00-05** - FWA in the 24.5-26.5 GHz frequency band.
- ERC/REC 01-01** - Border coordination of UMTS/IMT2000 systems.
- ERC/REC 12-02** - Frequency plannings for digital terrestrial fixed systems in the 12.75-13.25 GHz frequency band.
- ERC/REC 12-03** - Frequency plannings for digital terrestrial fixed systems in the 17.7-19.7 GHz frequency band.
- ERC/REC 12-06** - Frequency plannings for digital terrestrial fixed systems in the 10.7-11.7 GHz frequency band.
- ERC/REC 12-07** - Frequency plannings for digital terrestrial fixed systems in the 15.23-15.35 GHz frequency band.
- ERC/REC 12-08** - Harmonized radio frequency channel plannings and block allocations for low, medium and high capacity systems in the 3600-4200 MHz frequency band.
- ERC/REC 12-09** - Harmonized radio frequency channel plannings for fixed terrestrial digital systems operating in the 57-59 GHz frequency band.
- ERC/REC 13-03** - 14.0 - 14.5 GHz band for VSAT and SNG.
- ERC/REC 14-01** - Harmonized radio frequency plannings in the 6425-7125 MHz band.
- ERC/REC 14-02** - Harmonized radio frequency plannings in the 6425-7125 MHz band.
- ERC/REC 14-03** - Radio frequency plannings for the 3400-3600 MHz band.
- ERC/REC 25-10** - Frequencies for ENG/OB video links.
- ERC/REC 62-01** - 135.7-137.8 KHz frequency band for amateur service
- ERC/REC 70-03** - Short Range and Low Power devices (SRD).
- CEPT Rec. T/R 12-01** - Frequency plannings for digital and analogue fixed service in the 37-39.5 GHz band.
- CEPT Rec. T/R 13-01** - Frequency plannings for fixed service in the 1-3 GHz band.
- CEPT Rec. T/R 13-02** - Frequency plannings for fixed service in the 22-29.5 GHz band.

- CEPT Rec. T/R 20-08** - Frequency plannings and frequency coordination for the GSM system.
- CEPT Rec. T/R 20-09** - PR27 equipment for the provision of voice in the 27 MHz frequency band.
- CEPT Rec. T/R 22-02** - Frequencies for DECT systems.
- CEPT Rec. T/R 22-06** - Harmonized frequency bands for HIPERLANs in the 5 GHz and 17 GHz bands.
- CEPT Rec. T/R 22-07** - Frequency bands for DCS 1800.
- CEPT Rec. T/R 75-02** - Use of frequencies in the 862-960 MHz band by the mobile service except aeronautical mobile.

ITU Documents

Recommendations

- Rec. ITU-R F.382** - Frequency plannings for radio-relay systems operating in the 2 and 4 GHz bands.
- Rec. ITU-R F.385** - Frequency plannings 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.497** - Frequency arrangements for radio-relay systems operating in the 13 GHz band.

EU Documents

Decisions

- 2005/513/EC** - Commission Decision of 11 July 2005 on the harmonized use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs).

2005/50/EC

- Commission Decision of 17 January 2005, on the harmonization of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community.

2004/545/EC

- Commission Decision of 8 July on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community

CHAPTER 2

**PUBLICATION OF FREQUENCY BAND USES AND
RESERVATIONS**

Chapter 2 - PUBLICATIONS OF FREQUENCY BAND USES AND RESERVATIONS

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 up to 31 October 2005	page 142
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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 up to **31 October 2005**

The terms and abbreviations that are used mean the following:

Entity, i.e., companies that provide publicly available electronic communications networks and services

Rights of use: identification of the need to allocate rights of frequency use, according to article 16 of Law no. 5/2004 of 10 February

Date of allocation revision: ending date of the concession contract or of the rights of frequency use

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 in the national territory

g - geographical scope: use of a channel/frequency on a given, well determined area by radiocommunication stations, such as fixed stations, broadcasting stations and Earth stations.

**PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Uses -**

FIXED SERVICE - POINT-to-POINT LINKS				
Entity	Frequency Bands	Required rights of use	No. of Shared Use channels	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. UIT-R 382-6 Main Plan.	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. UIT-R 385-6	NO	3	G
	8 GHz (7700-8300 MHz) Rec. UIT-R 386-5	NO	5	G
	8 GHz (8200-8500 MHz) Rec. UIT-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. UIT-R 497-5	NO	8	G
	15 GHz (14.5 - 15.34 GHz) Rec. UIT-R 636-3	NO	1	G
	18 GHz (17.7 - 19.7 GHz) ERC/REC 12-03 Annex A	NO	10	G
	23 GHz (21.2 - 23.6 GHz) Rec. UIT-R 637-2	NO	3	G
VODAFONE PORTUGAL	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. UIT-R 497-5	NO	8	G
	15 GHz (14.5 - 15.35 GHz) ERC/REC 12-07	NO	5	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
- Uses -

FIXED SERVICE - POINT-to-POINT LINKS				
Entity	Frequency Bands	Required rights of use	No. of Shared Use channels	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. UIT-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. UIT-R 497-5	NO	3	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	7	G
	38 GHz (37 - 39.5 GHz) ERC/REC T/R 12-01	NO	17	G
NOVIS Telecom	13 GHz (12.75 - 13.35 GHz) Rec. UIT-R 497-5	NO	3	G
	18 GHz (17.7 - 19.7 GHz) ERC/REC 12-03 Annex A	NO	11	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. UIT-R 386-5	NO	3	g

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Uses -

FIXED SERVICE - TRANSPORTABLE LINKS				
Entity	Frequency Bands	Required rights of use	No. of Shared Use channels	Scope of use
PT COMUNICAÇÕES	1.5 GHz (1429 - 1525 GHz) Rec. UIT-R 746-A1	NO	2	n
	15 GHz (14.5 - 15.35 GHz)	NO	4	n
	18 GHz (17.7 - 19.7 GHz) 10 MHz Plan.	NO	2	n
	18 GHz (17.7 - 19.7 GHz) Rec. UIT-R 595-4 27.5 MHz Plan.	NO	5	n
VODAFONE PORTUGAL	18 GHz (17.7 - 19.7 GHz) Rec. UIT-R 595-4 3.5 MHz Plan.	NO	1	n

FIXED SERVICE - MULTICHANNEL MULTIMPOINT DISTRIBUTION SYSTEM (MMDS)					
Entity	Frequency Band	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
CABO TV MADEIRENSE	2500 - 2690 MHz	19-05-2009	NO	(1)	g

FIXED SERVICE - POINT-to-POINT LINKS				
Entity	Frequency Bands	Required rights of use	No. of Shared Use channels	Scope of use
PT COMUNICAÇÕES	450/470 MHz ⁽²⁾	NO	57	g
	1356.5-1374.5 MHz 1498.5-1516.5 MHz	NO	9	g

⁽¹⁾ Band shared with other users.

⁽²⁾ Radio licence in force until 31 December 2006.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Uses -

FIXED SERVICE - POINT-to-POINT LINKS Fixed Wireless Access (FWA) ⁽¹⁾					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
PT COMUNICAÇÕES	3410-3438 MHz 3510-3538 MHz CEPT/ERC/REC 14-03	(2)	YES	2x28 MHz	g
ONITELECOM ⁽³⁾	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	(2)	YES	2x 28 MHz ⁽⁴⁾	g
NOVIS	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	(2)	YES	2x 28 MHz ⁽⁴⁾	g
NOVIS	24.5-26.5 GHz CEPT ERC/REC 13-02 Annex B	(2)	YES	2x 56 MHz	g
ONITELECOM	24.5-26.5 GHz CEPT ERC/REC 13-02 Annex B	(2)	YES	2x 56 MHz	g
AR TELECOM	24.5-26.5 GHz CEPT ERC/REC 13-02 Annex B	(2)	YES	2x 56 MHz	g
BROADNET PORTUGAL, S.A.	24.5-26.5 GHz CEPT ERC/REC 13-02 Annex B	(2)	YES	2x 56 MHz	g
VODAFONE PORTUGAL	24.5-26.5 GHz CEPT ERC/REC 13-02 Annex B	(2)	YES	2x 56 MHz	g
WTS	27.5-29.5 GHz CEPT ERC/REC 13-02 Annex C	(2)	YES	2x 175 MHz	g
BRAGATEL ⁽⁵⁾	27.5-29.5 GHz CEPT ERC/REC 13-02 Annex C	(2)	YES	2x 175 MHz	g

⁽¹⁾ Undergoing process of resizing of the rights of use of FWA frequencies, further to which the current table will be updated.

⁽²⁾ Under revision due to the decisions of Administrative Rule no. 1062/2004 of 25 August.

⁽³⁾ In 21.11.2003 the cancellation of licence ICP-01/99-FWA was requested.

⁽⁴⁾ Band shared with other users.

⁽⁵⁾ Requested retroactive cancellation of licence ICP-11/99-FWA.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD) MF (Hectometric Waves)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RDP - BROADCASTING PORTUGUESA , SA	526.5 - 1606.5 kHz	30-06-2014	YES	13	g
RÁDIO RENASCENÇA, LDA		01-06-2012	YES	7	g
RÁDIO COMERCIAL, SA		01-06-2012	YES	5	g
RADIALTITUDE - SOC.COMUNICAÇÃO, LDA		01-06-2009	YES	1	g
CLUBE ASAS DO ATLANTICO		01-06-2009	YES	1	g
RÁDIO CLUBE ANGRA		01-06-2009	YES	1	g
POSTO EMISSOR RÁDIOD..FUNCHAL, LDA		01-06-2009	YES	1	g

SOUND BROADCASTING SERVICE (RAD) HF (Decametric)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	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				
25670 - 26100 kHz					
RDP-BROADCASTING PORTUGUESA, SA	5950 - 6200 kHz	30-06-2014	YES	(1)	(2)
	7100 - 7300 kHz				
	9500 - 9900 kHz				
	11650 - 12050 kHz				
	13600 - 13800 kHz				
	15100 - 15600 kHz				
	17550 - 17900 kHz				
	21450 - 21850 kHz				
25670 - 26100 kHz					
RÁDIO RENASCENÇA, LDA	5950 - 6200 kHz	01-06-2012	YES	(1)	(2)
	7100 - 7300 kHz				
	9500 - 9900 kHz				
	11650 - 12050 kHz				
	13600 - 13800 kHz				
	15100 - 15600 kHz				
	17550 - 17900 kHz				
	21450 - 21850 kHz				
25670 - 26100 kHz					

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

(2) Not applicable.

ICP-ANACOM

Autoridade Nacional de Comunicações

**National Frequency Allocation Plan
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PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL COVERAGE - Mainland Territory					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RDP - RÁDIODIFUSAO PORTUGUESA,SA	87.5 - 108 MHz	30-06-2014	YES	84	g
RÁDIO RENASCENÇA, LDA		01-06-2012	YES	37	g
RÁDIO COMERCIAL,SA		01-06-2012	YES	17	g

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL AND REGIONAL COVERAGE - Autonomous Region of Madeira					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RDP - RÁDIODIFUSÃO PORTUGUESA, SA	87.5 - 108 MHz	30-06-2014	YES	27	g

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
NATIONAL AND REGIONAL COVERAGE - Autonomous Region of the Azores					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RDP - RÁDIODIFUSÃO PORTUGUESA SA	87.5 - 108 MHz	30-06-2014	YES	32	g

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
COBERTURA REGIONAL ⁽¹⁾					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RÁDIOPRESS-COM. E BROADCASTING, LDA	87.5 - 108 MHz	10-07-2014	YES	13	g
RÁDIO REGIONAL LISBOA, SA		10-07-2014	YES	7	g

(1) Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
A FLOR DO ÉTER, BROADCASTING, 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 PLANÍCIE CRL		22-05-2009	YES	1	g
A VOZ DO SORRAIA EMIS. REG. C CORUCHE		06-03-2009	YES	1	g
ÁGUIA AZUL, CRL		09-05-2009	YES	1	g
ALCOOJOR COOP JORNAL RÁDIOF. ALCOCHETE ,CRL		12-06-2009	YES	1	g
ALFÂNDEGA FM-SOC. COMUNICAÇÃO, LDA		01-10-2011	YES	1	g
ANTENA DEZ RÁDIO 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 MIRÓBRIGA COOP SERVICOS, CRL		22-05-2009	YES	1	g
ANTENA VAREIRA, CRL		09-05-2009	YES	1	g
AO TOM DELA (RÁDIO) LDA		22-05-2009	YES	1	g
ASS ACADEMICA UNIVERSIDADE MINHO		09-05-2009	YES	1	g
ASS CULT DESPORT. RECREATIVA INÊS NEGRA		23-12-2009	YES	1	g
ASS CULT E RECREATIVA RÁDIO CONDESTÁVEL		22-05-2009	YES	2	g
ASS CULTURAL RECREATIVA DE CARIA		06-03-2009	YES	1	g
ASS CULTURAL REGIONAL ZÊZERE		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 RÁDIO UNIVERSITARIA DO 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-COMUNICAÇÕES E PUBLICAÇÕES, 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	2	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 RÁDIO MARINHAIS		30-03-2009	YES	1	g
CÔCO-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 MÓS	30-03-2009	YES	1	g	
COOP RÁDIO BANDARRA CRB, CRL	30-03-2009	YES	1	g	
COOP RÁDIO BOA NOVA, CRL	30-03-2009	YES	1	g	

⁽¹⁾ Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

⁽²⁾ No licence (permit) granted. With Government authorization.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
COOP RÁDIO 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
COOP.. INFORM CULTURA RÁDIO VINHAIS		30-03-2009	YES	1	g
COOPERATIVA DE RÁDIO VOUZELA, CRL		30-03-2009	YES	1	g
COOPERATIVA DE SANTO ANDRÉ, CRL		12-06-2009	YES	1	g
COOPERATIVA RÁDIO 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 RÁDIO 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 NOTÍCIAS, LDA		30-03-2009	YES	1	g
DIANA FM-BROADCASTING, UN.,LDA		09-05-2009	YES	1	g
DIFUSÃO 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 RÁDIO, LDA		30-03-2009	YES	1	g
EDICOES LINEAR, CRL		09-05-2009	YES	1	g
EDITAVE COMUNIC PUBLIC. PROMOÇÕES, 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 RÁDIO LIZ, CRL		09-05-2009	YES	1	g
EMISSORA REGIONAL RÁDIO BATALHA, CRL		06-03-2009	YES	1	g
EMITÂMEGA EMISS. RADIOFON. TÂMEGA,LDA		09-05-2009	YES	1	g
EMPRESA DE DIFUSÃO DE RÁDIO, 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 RÁDIO CÁVADO, LDA		09-05-2009	YES	1	g
ÉRACA-EMPRESA DE RADIOD ALTO CÁVADO, LDA		06-03-2009	YES	1	g
ÉRO- EMPRESA DE BROADCASTING DO OESTE, LDA		30-03-2009	YES	1	g
ESCOLA DE CONDUÇÃO CASTANHEIRENSE, LDA		01-03-2012	YES	1	g
EVb EMISSORA VOZ DA BAIRRADA, CRL	12-05-2009	YES	1	g	
FABRICA DA SÉ 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	
FONÓGRAFO PRODUÇÕES SOM IMAGEM, SA	22-05-2009	YES	4	g	

(1) Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the 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 runner up in the public tender – the licence (permit) has yet to be issued by AACS.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
FORUM BOTICAS ASS RECREATIVA CULTURAL	87.5 - 108 MHz	23-12-2009	YES	1	g
FOZ DO MONDEGO-MEIOS DE RADIOD., LDA		09-05-2009	YES	1	g
FUNDAÇÃO 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 CIENC 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	2	g
INTERIOR NORTE RÁDIO, LDA		23-12-2009	YES	1	g
INFOR-BARROSO, INFORMAÇÃO, LDA		30-03-2009	YES	1	g
INFORÁDIO COMUNICAÇÃO 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 COMUNICAÇÃO, LDA		23-12-2009	YES	1	g
JORNAL DA TROFA, LDA		09-05-2009	YES	1	g
JORNAL ESPOSENDE SOC EDITORA, LDA		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 PRODUÇÕES E PUBLICIDADE, LDA		09-05-2009	YES	1	g
LEZÍRIA COMUNICACAO SOCIAL, SA		09-05-2009	YES	1	g
LUSOCANAL-SOC. BROADCASTING, LDA		30-03-2009	YES	1	g
MAFRA FM COOP RÁDIODIFUSÃO, CRL		06-03-2009	YES	1	g
MAIORCA FM-PROD. RADIOF.. SOC. UN, LDA		09-05-2009	YES	1	g
MARGINÁUDIO ACT RADIOFÓNICAS, SA		30-03-2009	YES	1	g
MEDIABORBA-SOC. DE COM. SOCIAL, 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-RÁDIO E COM. SOCIAL, LDA		22-05-2009	YES	1	g
MONSANTORÁDIO-RÁDIO 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 COM. 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-BROADCASTING, LDA		06-03-2009	YES	1	g
NUCLEO AMADOR DE INVEST. 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⁾ Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	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, LDA		22-05-2009	YES	1	g
PFM-BROADCASTING, LDA		22-05-2009	YES	1	g
PIÇARRA E COMPANHIA, LDA		09-05-2009	YES	1	g
POLIMÉDIA, LDA		23-12-2009	YES	1	g
PRC PRODUCOES RADIOFÓNICAS COIMBRA, LDA		30-03-2009	YES	1	g
PRESÉPIO DE PORTUGAL-COM. SOCIAL, UN., LDA		06-03-2009	YES	2	g
PUBLIÁREA-PUBLIKAÇÕES E COMUNIC., LDA		06-03-2009	YES	1	g
PUBLICCELOS, LDA		09-05-2009	YES	1	g
PUBLIDIFUSÃO LDA ESTAÇÃO ORBITAL		30-03-2009	YES	1	g
PUBLITÁBUA SERV EMPRESAS, LDA		⁽²⁾	YES	1	g
R2000-COMUNICAÇÃO SOCIAL, LDA		09-05-2009	YES	2	g
R A PRODUCOES RADIOFÓNICAS, LDA		09-05-2009	YES	1	g
R O EDIÇÕES E PUBL, LDA		30-03-2009	YES	1	g
RADIALTITUDE-SOC. COMUN. LDA		22-05-2009	YES	1	g
RÁDIO 90 FM COIMBRA RADIODIFUSAO, LDA		30-03-2009	YES	1	g
RÁDIO 100-SOC. PRODUÇÕES AUDIOVISUAIS, LDA		23-12-2009	YES	1	g
RÁDIO BONFIM-PRODUÇÕES AUDIOVISUAIS, LDA		06-03-2009	YES	1	g
RÁDIO ALQUEVA, LDA		01-03-2011	YES	1	g
RÁDIO ALTO MINHO, LDA		09-05-2009	YES	2	g
RÁDIO ALVOR, CRL		22-05-2009	YES	1	g
RÁDIO AMADOR DE CANAS DE SENHORIM, CRL		30-03-2009	YES	1	g
RÁDIO ANSIÃES, CRL		23-12-2009	YES	1	g
RÁDIO ASSOC BOMB VOLUNTARIOS DE SINES		12-06-2009	YES	1	g
RÁDIO ATLANTICO SUL R P PUBLICIDADE, LDA		⁽²⁾	YES	1	g
RÁDIO BAÍA SOC RADIODIFUSAO, LDA		09-05-2009	YES	1	g
RÁDIO BARCA, CRL		30-03-2009	YES	1	g
RÁDIO BEIRA INTERIOR, CRL		09-05-2009	YES	1	g
RÁDIO BRAGANÇANA RBA, CRL		22-05-2009	YES	2	g
RÁDIO CAMPANÁRIO VOZ DE VILA VIÇOSA, CRL		30-03-2009	YES	1	g
RÁDIO CARDAL, LDA		09-05-2009	YES	1	g
RÁDIO CARTAXO, CRL		06-03-2009	YES	1	g
RÁDIO CASTRENSE-SOC. UNIPESSOAL, LDA		06-03-2009	YES	1	g
RÁDIO CENTRAL DO VOUGA LDA		30-03-2009	YES	1	g
RÁDIO CIDADE DE RIO MAIOR, LDA		12-06-2009	YES	1	g
RÁDIO CIDADE HOJE CCF		09-05-2009	YES	1	g
RÁDIO CIDADE PROD AUDIOVISUAIS, SA		30-03-2009	YES	1	g

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⁽²⁾ Awaits decision regarding the licence (permit) renewal.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RÁDIO CISTER, CRL	87.5 - 108 MHz	09-05-2009	YES	1	g
RÁDIO CLUBE AGUIARENSE		30-03-2009	YES	1	g
RÁDIO CLUBE ALVAIÁZERE, LDA		23-12-2009	YES	1	g
RÁDIO CLUBE DE ARGANIL, CRL		06-03-2009	YES	2	g
RÁDIO C. DE ARMAMAR, PROD.RADIOF, LDA		23-12-2009	YES	1	g
RÁDIO CLUBE DE ALCOUTIM, LDA		01-02-2012	YES	1	g
RÁDIO CLUBE DA COVILHÃ, CRL		06-03-2009	YES	2	g
RÁDIO CLUBE DA FEIRA, CRL		09-05-2009	YES	1	g
RÁDIO CLUBE DE GAIA SLRS, LDA		30-03-2009	YES	1	g
RÁDIO CLUBE DE GONDOMAR, LDA		09-05-2009	YES	1	g
RÁDIO CLUBE DE GRANDOLA, CRL		06-03-2009	YES	1	g
RÁDIO CLUBE DE LAFÕES, CRL		30-03-2009	YES	1	g
RÁDIO CLUBE DE LOULÉ, CRL		09-05-2009	YES	1	g
RÁDIO CLUBE DA LOURINHÃ, CRL		06-03-2009	YES	1	g
RÁDIO CLUBE DE OURÉM		30-03-2009	YES	1	g
RÁDIO CLUBE DA PAMPILHOSA CRL		12-06-2009	YES	1	g
RÁDIO CLUBE DE PENAFIEL, CRL		30-03-2009	YES	1	g
RÁDIO CLUBE DE REDONDO, CRL		30-03-2009	YES	1	g
RÁDIO CLUBE DE SINTRA TIPOG MEDINA, LDA		30-03-2009	YES	1	g
RÁDIO CLUBE DO SUL, CRL		09-05-2009	YES	1	g
RÁDIO CLUBE LAMEGO, LDA		22-05-2009	YES	2	g
RÁDIO CLUBE POMBAL, CRL		09-05-2009	YES	1	g
RÁDIO COMERCIAL DA LINHA, LDA		30-03-2009	YES	1	g
RÁDIO COMERCIAL DE ALMEIRIM, LDA		23-12-2009	YES	2	g
RÁDIO CONCELHO DE CANTANHEDE, LDA		06-03-2009	YES	1	g
RÁDIO CORVAL, CRL		01-03-2011	YES	1	g
RÁDIO DESPERTAR VOZ DE ESTREMOZ, CRL		06-03-2009	YES	1	g
RÁDIO DOURO NORTE BROADCASTING, LDA		(2)	YES	1	g
RÁDIO DO SEIXAL, LDA		09-05-2009	YES	1	g
RÁDIO DUEÇA, INFORMAÇÃO, LDA		30-03-2009	YES	1	g
RÁDIO ELMO, LDA		30-03-2009	YES	1	g
RÁDIO ESCOLA TRIÂNG. PROFISSIONAL, LDA		30-11-2011	YES	1	g
RÁDIO ESCURO, CRL		30-03-2009	YES	1	g
RÁDIO EUROPA, CRL		09-05-2009	YES	1	g
RÁDIO FELGUEIRAS, CRL		06-03-2009	YES	1	g
RÁDIO FESTIVAL DO NORTE, LDA		06-03-2009	YES	1	g
RÁDIO FÓIA, CRL		30-03-2009	YES	1	g
RÁDIO FOZ DO AVE, LDA		09-05-2009	YES	1	g
RÁDIO GILÃO COOP RADIODIFUSAO, CRL		22-05-2009	YES	2	g
RÁDIO GUADALUPE, CRL		(2)	YES	1	g
RÁDIO HERTZ ASSOCIACAO CULT E RECREATIVA	09-05-2009	YES	1	g	

(1) Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

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

RÁDIO HORIZONTE TEJO-RAD. COM E MEIOS, LDA	30-03-2009	YES	1	g
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PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RÁDIO INDEPENDENTE AVEIRO, CRL	87.5 - 108 MHz	09-05-2009	YES	1	g
RÁDIO INDEPENDENTE PAIVENSE, CRL		06-03-2009	YES	1	g
RÁDIO JORNAL CAMINHENSE, LDA		12-06-2009	YES	1	g
RÁDIO JORNAL FUNDÃO, LDA		09-05-2009	YES	1	g
RÁDIO JORNAL SETÚBAL, LDA		09-05-2009	YES	1	g
RÁDIO JUVENTUDE, CRL		09-05-2009	YES	1	g
RÁDIO LAROUÇO, CRL		22-05-2009	YES	1	g
RÁDIO LIMITE DE CASTRO DAIRE, CRL		06-03-2009	YES	3	g
RÁDIO LITORAL CENTRO EMP RAD, LDA		23-12-2009	YES	1	g
RÁDIO LIVRE MACEDENSE, CRL		06-03-2009	YES	1	g
RÁDIO MAIOR, PUBLICIDADE E COM. LDA		12-06-2009	YES	2	g
RÁDIO MAIS		30-03-2009	YES	1	g
RÁDIO MANTEIGAS-BROADCASTING E PUBL., LDA		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
RÁDIO MIRASADO COOP CULT ANIM RÁDIOF CRL		06-03-2009	YES	1	g
RÁDIO MOLICEIRO COM SOCIAL, LDA		09-05-2009	YES	1	g
RÁDIO NACIONAL-EMISSIONES RADIOFÓNICAS, LDA		09-05-2009	YES	1	g
RÁDIO NOVA CONTRASTA, LDA		12-06-2009	YES	1	g
RÁDIO NOVA ERA SOC DE COMUNICAÇÕES LDA		30-03-2009 09-05-2009	YES	2	g
RÁDIO NOVA LOURES		30-03-2009	YES	1	g
RÁDIO NOVA SIRS SOC IND RADIODIFUSAO, LDA		06-03-2009	YES	1	g
RÁDIO OBJECTIVA, LDA		09-05-2009	YES	1	g
RÁDIO 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
RÁDIO PAL-SOC. UN, LDA		22-05-2009	YES	1	g
RÁDIO PAX		22-05-2009	YES	1	g
RÁDIO PERNES, LDA		09-05-2009	YES	2	g
RÁDIO PLANALTO, CRL		30-03-2009	YES	1	g
RÁDIO PORTALEGRE, CRL		22-05-2009	YES	2	g
RÁDIO PRAIA, CRL		(2)	YES	1	g
RÁDIO PROVINCIA, LDA		06-03-2009	YES	1	g
RÁDIO RACAL EMP RÁDIOFIF INFORMACAO, LDA		30-03-2009	YES	3	g
RÁDIO REGIONAL AVEIRO	09-05-2009	YES	1	g	
RÁDIO REGIONAL CENTRO, LDA	23-12-2009	YES	1	g	
RÁDIO REGIONAL DE AROUCA	23-12-2009	YES	1	g	
RÁDIO RENASCENÇA, LDA	06-03-2009	YES	1	g	
RÁDIO RIBA TAVORA, CRL	30-03-2009	YES	1	g	
RÁDIO SABUGAL-PUBLIC. E RADIODIF., LDA	21-08-2009	YES	1	g	

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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RÁDIO SANTA MARIA, CRL	87.5 - 108 MHz	09-05-2009	YES	1	g
RÁDIO SANTA MARTA, LDA		30-03-2009	YES	1	g
RÁDIO SANTIAGO COOPERATIVA COM CULTURA		22-05-2009	YES	1	g
RÁDIO SANTIAGO EMP GRAF JOR COM GUIM, LDA		30-03-2009	YES	1	g
RÁDIO SEM FRONTEIRAS, SA		30-03-2009	YES	1	g
RÁDIO SINGA, CRL		06-03-2009	YES	1	g
RÁDIO SOBERANIA, EMPRESA DE RAD. LDA		22-05-2009	YES	1	g
RÁDIO TAGIDE, CRL		09-05-2009	YES	1	g
RÁDIO TEMPOS LIVRES, CRL		30-03-2009	YES	1	g
RÁDIOTORRES, LDA		30-03-2009	YES	1	g
RÁDIO UNIVERS. MARAO COOP RÁDIO CRL		09-05-2009	YES	1	g
RÁDIO URBANA, CRL		09-05-2009	YES	1	g
RÁDIO VALDEVEZ ASS CULT DE RADIODIFUSAO		22-05-2009	YES	2	g
RÁDIO VIDA NOVA, CRL		12-06-2009	YES	1	g
RÁDIO VIRIATO NODIGRAFICA, LDA		09-05-2009	YES	1	g
RÁDIO VIZELA COOP RADIODIFUSAO, CRL		23-12-2009	YES	1	g
RÁDIO VOZ DA RAIA-SOC. UN., LDA		30-03-2009	YES	1	g
RÁDIO VOZ DE ALCANENA		06-03-2009	YES	1	g
RÁDIO VOZ DE TABUAÇO, CRL		30-03-2009	YES	1	g
RÁDIO VOZ DO MINHO, LDA		(2)	YES	1	g
RÁDIO VOZ MANGUALDE		06-03-2009	YES	1	g
RÁDIO VOZ RIA EMISSORA C ESTARREJA, CRL		30-03-2009	YES	1	g
RÁDIO VOZ SETÚBAL, LDA		09-05-2009	YES	1	g
RÁDIO XXI, LDA		06-03-2009	YES	1	g
RÁDIODIFUSAO PUBLIC ESPECTACULOS, LDA		30-03-2009	YES	1	g
RÁDIOESTE COOP RÁDIODIFUSAO LOCAL, CRL		09-05-2009	YES	1	g
RAIMUNDO-COMUNICAÇÕES INDEPENDENTES, RÁDIO E JORNAIS, LDA		09-05-2009	YES	2	g
RAJ RÁDIO ANTENA JOVEM, CRL		(2)	YES	1	g
RADIBELI-PRODUÇÕES RÁDIOFÓNICAS, LDA		22-05-2009	YES	1	g
RC EMPRESA DE RADIODIFUSAO, SA		09-05-2009 30-03-2009	YES	2	g
RCB RÁDIO COVA DA BEIRA, CRL		09-05-2009	YES	2	g
RCC RÁDIO CULTURAL CERVEIRA		30-03-2009	YES	1	g
RCCI RÁDIO COM. CRIATIVIDADE IMAGEM, LDA	09-05-2009	YES	1	g	
RCM-RÁDIO CLUBE DE MEDA, LDA	01-03-2011	YES	1	g	
RDP - BROADCASTING PORTUGUESA, SA	(3)	YES	1	g	
REDE A EMISSORA REGIONAL DO SUL, LDA	30-03-2009	YES	1	g	
RGA RÁDIO GLOBO AZUL, LDA	06-03-2009	YES	1	g	

(1) Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

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

(3) With Government authorization.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Mainland Portugal					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RJTV-RÁDIO, JORNAIS E TELEVISÃO-MEIOS COM. AUDIV., UN., LDA	87.5 - 108 MHz	30-03-2009	YES	1	g
RPCS-SOURE FM-SOC. COM., UN., LDA		30-03-2009	YES	2	g
RR RÁDIO RESTAURACAO, CRL		⁽²⁾	YES	1	g
RSF, BROADCASTING, LDA		09-05-2009	YES	2	g
RTA SOC RÁDIODIF TELECOM ALBUFEIRA, LDA		12-06-2009	YES	1	g
RTM-RÁDIO E TELEVISÃO DO MINHO, LDA		09-05-2009	YES	1	g
RTVA RÁDIOTELEVISAO ATLANTICO, SA		22-05-2009	YES	1	g
RUC RÁDIO UNIVERSIDADE AAC		30-03-2009	YES	1	g
RVE-SOCIEDADE RADIOFÓNICA, LDA		12-06-2009	YES	1	g
SALDIDA FM RÁDIO INFORM. CULTURACRL		30-03-2009	YES	1	g
SANTA CASA MISERIC. DE CAMPO MAIOR		21-06-2011	YES	1	g
SER-SOC.ELVENSE BROADCASTING, LDA		01-03-2011	YES	2	g
SINTONIZENOS COMUNICACAO SOCIAL, LDA		09-05-2009	YES	1	g
SIRPA SOC IMPRENSA RÁDIO PARALELO, LDA		09-05-2009	YES	1	g
SIT-SOC. DE INFORM. DE TRÁS-OS-MONTES, LDA		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 BÉTICA, LDA		30-03-3009	YES	1	g
SOCIROL SOC RÁDIODIFUSAO LIMIANA, LDA		22-05-2009	YES	1	g
SOC. PAIVIMO-EMPRED. IMOBILIARIOS, LDA		09-05-2009	YES	1	g
SOM DO PINHAL 2 MULTIMÉDIA, UN., LDA		22-05-2009	YES	1	g
SONCENTRO EMISSORA RÁDIO, LDA		23-12-2009	YES	1	g
SONS DE BOTÁREU-ACTIV. RÁDIO, UN., LDA		22-05-2009	YES	2	g
SRA-SOC. DE BROADCASTING DE ALBUFEIRA, LDA		12-06-2009	YES	1	g
SULEDITA, LDA		01-12-2011	YES	1	g
TAVIRÁDIO, CRL		22-05-2009	YES	2	g
TLA-TELEFONIA LOCAL DE ALJUSTREL, CRL		01-03-2011	YES	1	g
TSF RÁDIO JORNAL LISBOA, LDA		06-03-2009	YES	1	g
UNIRÁDIO, UCRL		30-03-2009	YES	1	g
VDRF-ELECTRÓNICA, ÁUDIO E EQUIP. TELEC., LDA		06-03-2009	YES	1	g

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PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Autonomous Region of the Azores					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
ANTENA NOVE, CRL	87.5 - 108 MHz	06-03-2009	YES	4	g
ATLANTIRÁDIO-SOC. DE BROADCASTING, LDA		06-03-2009	YES	3	g
BRUN PACHECO E FILHOS, LDA		22-06-2011	YES	1	g
CICLONE PUBLICAÇÕES E DIFUSÕES, LDA		06-03-2009	YES	1	g
CLUBE ASAS ATLÂNTICO		⁽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 RÁDIO CAIS, CRL		01-03-2011	YES	1	g
COSTA E OSÓRIO, LDA		22-06-2011	YES	1	g
ECOS DAS FLORES-ACTIV. RÁDIODIF., 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
RÁDIO CLUBE ANGRA		06-03-2009	YES	1	g
RÁDIO ILHA, LDA		06-03-2009	YES	2	g
RÁDIO INSULAR, LDA		06-03-2009	YES	1	g
RÁDIO LUMENA VOZ DE S JORGE		06-03-2009	YES	2	g
RCA RÁDIO COMERCIAL DOS AÇORES, LDA		06-03-2009	YES	1	g
SOC. BROADCASTING GRACIOSENSE, LDA		06-03-2009	YES	1	g
TOP RÁDIO, LDA	06-03-2009	YES	2	g	
UNITED STATES AIR FORCE	⁽²⁾	YES	1	g	

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⁽²⁾ With Government authorization.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Uses -

SOUND BROADCASTING SERVICE (RAD)					
VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ - Autonomous Regions of Madeira					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	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 RADIOD. DO FUNCHAL		⁽²⁾	YES	1	g
RÁDIO 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 BROADCASTING 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					
Terrestrial Digital Audio Broadcasting (T-DAB)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RDP - BROADCASTING PORTUGUESA, SA	224.880 - 226.16 MHz	08-06-2014	YES	1 ⁽³⁾	n

⁽¹⁾ Entities with local and regional coverage sound broadcasting stations are authorized to operate under the terms of the licence (permit) granted by public tender.

⁽²⁾ With Government authorization.

⁽³⁾ A T-DAB channel allows six simultaneous audio broadcasts.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
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TELEVISION BROADCASTING SERVICE - ANALOGUE (RDTV)						
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use	
RÁDIO E TELEVISÃO DE PORTUGAL, SGPS SA Public television service's general concession contract of 22/09/2003	RTP1	27-08-2019	YES	3	g	
				6	g	
				14	g	
				27	g	
	RTP AÇORES	27-08-2019	YES	6	g	
				4	g	
				7	g	
	RTP MADEIRA	27-08-2019	YES	6	g	
				2	g	
5				g		
RÁDIO E TELEVISÃO DE PORTUGAL, SGPS SA Public television service's special concession contract 17/11/2003	A:2	27-08-2011	YES	1	g	
				1	g	
				14	g	
				28	g	
SIC - SOCIEDADE INDEPENDENTE DE COMUNICAÇÃO, SA Resolution 6/92 (2nd Series) of the Council of Ministers of 22.02.1992	174 - 216 MHz 470 - 582 MHz 582 - 822 MHz	22-02-2007	YES	1	g	
				12	g	
				26	g	
TVI TELEVISÃO INDEPENDENTE, SA Resolution 6/92 (2nd Series) of the Council of Ministers of 22.02.1992	470 - 582 MHz 582 - 822 MHz	22-02-2007	YES	12	g	
				24	g	

BROADCASTING SERVICE - SAP/SAB video links						
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use	Entity
RÁDIO E TELEVISÃO DE PORTUGAL, SGPS SA	2260-2230 MHz	07-06-2009	NO	7 ⁽¹⁾	-	n
	2500-2690 MHz	31-12-2006	NO	-	4 ⁽²⁾	n
	10.5-10.68 GHz	07-06-2009	NO	2 ⁽³⁾	-	n
SIC-SOCIEDADE INDEPENDENTE DE COMUNICAÇÃO, SA	2360-2390 MHz	07-06-2009	NO	3 ⁽¹⁾	-	n
	10.5-10.68 GHz	07-06-2009	NO	2 ⁽³⁾	-	n
TVI-TELEVISÃO INDEPENDENTE, SA	2330-2360 MHz	07-06-2009	NO	3 ⁽¹⁾	-	n
	10.5-10.68 GHz	07-06-2009	NO	2 ⁽³⁾	-	n

⁽¹⁾ 10 MHz channels.

⁽²⁾ 14 MHz channels.

⁽³⁾ 28 MHz channels.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
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MOBILE TRUNKING SERVICE (analogue systems)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RADIOMOBILE	450/470 MHz ⁽¹⁾	-	(2)	54 ⁽³⁾⁽⁴⁾	n
REPART	450/470 MHz ⁽¹⁾	21-3-2009	YES	32 ⁽³⁾	n

MOBILE TRUNKING SERVICE (CDMA)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
RADIOMOBILE	453-457.45 MHz	(5)	(2)	1 ⁽⁶⁾	N
	463-467.45 MHz			1 ⁽⁷⁾	g

Terrestrial Trunked Radio (TETRA)						
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels		Scope of use
				Shares	Exclusive	
RADIOMOBILE	410/430 MHz	-	(2)	4 ^{(4) (8)}	13 ⁽⁴⁾	g
REPART	410/430 MHz	21-03-2009	YES	29 ⁽⁸⁾	-	g

⁽¹⁾ Planning using a 12.5 kHz channel spacing.

⁽²⁾ Radiomóvel maintains the right of frequency use for the provision of mobile trunking service, with analogue, TETRA and CDMA technologies. ICP-ANACOM is currently evaluating the use of the assigned frequencies.

⁽³⁾ The stated number of channels is subject to variation depending on each operator's number of terminals.

⁽⁴⁾ The number of channels is still subject to revision depending on the revision of the licence terms.

⁽⁵⁾ The licence is valid until 14-10-2008, and ICP-ANACOM is reevaluating the use of the SMRP-CDMA system by Radiomóvel, in the scope of its licence.

⁽⁶⁾ 1.25 MHz carrier.

⁽⁷⁾ 1.25 MHz carrier which use in the South of the country (Alentejo e Algarve) can only take place after 2006.

⁽⁸⁾ Channels subject to restrictions in certain regions of the country.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
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LAND MOBILE SERVICE - GSM (SMTP)					
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels	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 PORTUGAL ⁽¹⁾	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	Date of allocation revision	Required rights of use	No. of Shared Use channels	Scope of use
VODAFONE PORTUGAL	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

⁽¹⁾ Request sent to ICP-ANACOM for the renewal of the rights of use. A public consultation was launched and ended on 15 de September 2005. Awaits final decision.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
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SERVIÇO MARÍTIMO MÓVEL (SMM)						
Entity	Frequency Bands	Date of allocation revision	Required rights of use	No. of Shared Use channels		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)

⁽¹⁾ The provision of the Maritime Mobile Service shall be ensured by the concessionaire on a transitional basis, up to its transfer to another 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 I)		3	(2)
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
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FIXED SATELLITE SERVICE (SFS)				
Entity	Frequency Bands Type of Link	Required rights of use	No. of Shared Use channels	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

(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
- Uses -

FIXED SATELLITE SERVICE (SFS) - (cont.)				
Entity	Frequency Bands Type of Link	Date of allocation revision	Required rights of use	No. of Shared Use channels
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
AT & T - Serviços de Telecomunicações, Sociedade Unipessoal, Lda.	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
	13.75 - 14 GHz Uplink		(1) (2)	
BROADNET PORTUGAL, S.A.	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
- Uses -

MOBILE-SATELLITE SERVICE (SMS)				
Entity	Frequency Band Type of Link	Required rights of use	Type of Shared Use	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 OPERATION SERVICE (OE)				
Entity	Frequency Band Type of Link	Required rights of use	Shared Use	Scope of use
PT Comunicações	2080-2095 MHz Uplink	NO	(*)	g
	2260-2275 MHz Downlink		(*)	g

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

B. Frequency bands reserved and to be made available in 2006, for the operation of electronic communications networks and services

B.1 publicly available.

The terms and abbreviations used mean the following:

Required rights of use: identification of the need to allocate rights of use, 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 the national territory

g - geographical scope: use of a channel/frequency on a given, well determined area, by radiocommunication stations such as 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 LINKS				
Frequency Band	Required rights of use	Type of Shared Use	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. UIT-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. UIT-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. UIT-R 386 A1	NO	(1)	g	full accessibility
8 GHz (8200 - 8500 MHz) Rec. UIT-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 (12.5 - 13.25 GHz) Rec. UIT-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 specific planning at 12.5 kHz and 25 kHz (simplex).

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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

FIXED SERVICE - POINT-to-POINT LINKS				
Frequency Band	Required rights of use	No. of Shared Use channels	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 LINKS Fixed Wireless Access (FWA)				
Frequency Band	Required rights of use	No. of Shared Use channels	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 x 392 MHz 2 x 448 MHz 2 x 588 MHz 2 x 672 MHz 2 x 672 MHz 2 x 672 MHz 2 x 672 MHz 2 x 616 MHz	(2) Area 1 Area 2 Area 3 Area 4 Area 5 Area 6 Area 7 Area 8 Area 9	(2)
27.5-29.5 GHz CEPT ERC/REC 13-02 Annex C	YES	(2)	(2)	(2)

TERRESTRIAL DIGITAL AUDIO BROADCASTING Terrestrial Digital Audio Broadcasting (T-DAB)				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
219 - 230 MHz	YES	5	g	To be defined

⁽¹⁾ Dynamic band management.

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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

TERRESTRIAL DIGITAL TELEVISION BROADCASTING SERVICE Terrestrial Digital Video Broadcasting (DVB-T)					
Frequency Band	Required rights of use	No. of Shared Use channels		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)		

Terrestrial Trunked Radio (TETRA)				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
410 - 430 MHz	YES	20	g	To be defined

LAND MOBILE SERVICE - GSM extension bands				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
880 - 890 MHz 925 - 935 MHz	YES	50	n	(3)

LAND MOBILE SERVICE - GSM 1800				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
1710 - 1785 MHz 1805 - 1880 MHz	YES	150	n	(3)

(1) The process to define the implementation model of Digital Television in Portugal is undergoing.

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

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

FIXED SATELLITE SERVICE (SFS)				
Frequency Band	Required rights of use	No. of Shared Use channels	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
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				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
11.7 - 12.5 GHz Downlink	NO	(1)	n	full accessibility

MOBILE-SATELLITE SERVICE (SMS)				
Frequency Band	Required rights of use	No. of Shared Use channels	Scope of Use	Allocation procedure
137 - 138 MHz Downlink	NO	(2)	n	full accessibility
148 - 150.05 MHz Uplink	NO	(2)	n	full accessibility
1525 - 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 Satellite Personal Communications Services (S-PCS)				
Frequency Band	Required rights of use	No. of Shared Use channels	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 mode; Downlink in TDMA mode.

B Frequency bands and channels reserved for 2006, for the operation of electronic communications networks and services

B.2 Not available to the general public

The terms and abbreviations used mean the following:

Required rights of use: identification of the need to allocate rights of use according to article 16 of Law no. 5/2004 of 10 February

Exploration mode: (*simplex, duplex or semi-duplex, when applicable*)

. *simplex*: operation mode in which it is possible to alternately transmit in both directions in the telecommunication channel, using one or two frequencies

. *duplex*: operation mode in which it is possible to simultaneously transmit in both directions in the telecommunication channel, using two frequencies

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

Type of channel: (*spacing between adjacent channels, when applicable*)

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

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

Scope of use:

n - national scope: use of a frequency/channel in the national territory

g - geographical scope: use of a frequency/channel on a given, well determined area by radiocommunication stations, such as fixed stations, broadcasting stations and Earth stations.

Allocation procedure (full accessibility)

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

- Reserved Frequencies -

FIXED SERVICE - DECAMETRIC WAVE LINKS (SFHF)				
Frequency Band	Required rights of use	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.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

FIXED SERVICE - POINT-to-POINT LINKS				
Frequency Band	Required rights of use	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. UIT-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. UIT-R 385	NO	(2)	g	full accessibility
8 GHz (7700 - 8300 MHz) Rec. UIT-R 386 A1	NO	(2)	g	full accessibility
8 GHz (8200 - 8500 MHz) Rec. UIT-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. UIT-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

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

(2) Bands shared with other users.

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

58 GHz 57 - 59 GHz CEPT ERC/REC 12-09	NO	(2)	g	full accessibility
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PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

FIXED SERVICE - STUDIO TRANSMITTER LINK Studio Transmitter Link (STL)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	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 Band	Required rights of use	Type of channel	No. of Shared Use channels	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 Band	Required rights of use	Type of channel	No. of Shared Use channels	Scope of Use	Allocation procedure
380-383 MHz 390-393 MHz ⁽⁵⁾	NO	25 kHz	120	n	Resolution of the Council of Ministers 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-to-point video links used for live transmission of events.

⁽³⁾ Depending on request received.

⁽⁴⁾ Depending on type of channel.

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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

LAND MOBILE SERVICE (SMT)					
Frequency Band	Required rights of use	Type of channel Exploration Mode	No. of Shared Use channels	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 Band	Required rights of use	Type of channel	No. of Shared Use channels	Scope of Use	Allocation procedure
410 - 430 MHz	NO	25 kHz	50	g	full accessibility

⁽¹⁾ Band shared with other users.

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

MARITIME MOBILE SERVICE (SMM)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	Scope of Use	Allocation procedure
156 - 174 MHz (Appendix 18 of the RR)	NO	25 kHz simplex	26	g	full accessibility
	NO	25 kHz duplex	33	g	full accessibility

AERONAUTICAL MOBILE SERVICE (SMA)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	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 and recreational free flight and engineless ultralights and hang gliders.

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

AERONAUTICAL RADIONAVIGATION SERVICE (SRA)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	Scope of Use	Allocation procedure
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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

MARITIME RADIONAVIGATION SERVICE (SRM)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	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 (SR)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	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

PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES
- Reserved Frequencies -

METEOROLOGICAL AID SERVICE					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	Scope of Use	Allocation procedure
5600 - 5650 MHz	NO	(1)	(2)	g	full accessibility

PERSONAL RADIO SERVICE - CITIZEN BAND (CB)					
Frequency Band	Required rights of use	Type of channel Exploration Mode	No. of Shared Use channels	Scope of Use	Allocation procedure
26965 - 27405 kHz	NO	10 kHz Simplex	40	n	full accessibility

AMATEUR SERVICE (AM)					
Frequency Band	Required rights of use	Type of channel Exploration Mode	No. of Shared Use channels	Scope of Use	Allocation procedure
(3)	NO	(3)	YES	g	(3)
135.7 - 137.8 kHz	NO	(1)	YES	g	Category A
7100 - 7200 kHz	NO	(1)	YES	g	Category A
50 - 50.5 MHz	NO	(1)	YES	g	Category A

AMATEUR-SATELLITE SERVICE (AM-S)					
Frequency Band	Required rights of use	Type of channel Exploration Mode	No. of Shared Use channels	Scope of Use	Allocation procedure
(3)	NO	(3)	YES	g	(3)

(1) Not applicable.

(2) Band shared with other users.

(3) Frequency bands and transmission classes assigned in accordance with the terms of Administrative Rule no. 322/95 of 17 April.

(3) Frequency bands and transmission classes assigned in accordance with the terms of Administrative Rule no. 322/95 of 17 April.

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

FIXED SATELLITE SERVICE (SFS)					
Frequency Band	Required rights of use	Type of channel	No. of Shared Use channels	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.

C- Radio licence exemption:

C.1 Network licence exemption.

NETWOTK LICENCE EXEMPTION

C. Radio licence exemption

C.1 Network licence exemption

Follows a list of frequency bands reserved / in use, as well as their conditions of use.

Under the terms of paragraph a) of no. 1 and no. 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 network, with the following characteristics:

Station characterization			
Frequency Band	Maximum power limits	Antenna type	Channel spacing
40.680 MHz	5 W e.m.r.p.	External - base stations Integra - portable	20 kHz
169.175 MHz	5 W e.m.r.p.	External - base stations Integra - portable	25 kHz
468.1125 MHz	2 W e.m.r.p.	External - base stations Integra - portable	12.5 kHz
468.1250 MHz	2 W e.m.r.p.	External - base stations Integra - portable	
469.275 MHz	5 W e.m.r.p.	External - base stations Integra - portable	25 kHz

NETWORK LICENCE EXEMPTION

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

Station characterization				
System Technology	Frequency Band	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 the frequency bands by the end of 2008.

C- Radio licence exemption:

C.2 Station licence exemption.

STATION LICENCE EXEMPTION

C- Stations licence exemption:

C.2 Station licence exemption

Follows a list of frequency bands reserved / in use, as well as their conditions of use.

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

a) SRD - Short Range Devices

These stations should operate on a non-interference and non-protection base regarding licensed radiocommunications stations or networks.

STATION LICENCE EXEMPTION

SRD - Station characterization							
Application	Frequency Band	Maximum power or field strength limits	Antenna type	Channel spacing	Duty Cycle		
General use ¹	6.765 - 6.795 MHz	42 dB μ A/m a 10 m	Integral or dedicated	No spacing	< 10% up to 100%		
	13.553 - 13.567 MHz						
	26.957 - 27.283 MHz						
	26.957 - 27.283 MHz	10 mW e.m.r.p.					
	40.660 - 40.700 MHz						
	433.050 - 434.790 MHz ²	1 mW e.m.r.p. ³				≤ 25 kHz	up to 100%
	434.040 - 434.790 MHz ²	10 mW e.m.r.p.					
	863 -870 MHz ^{2 4}	≤ 25 mW e.m.r.p.				≤ 100 kHz ⁵	≤ 0.1% or LBT ⁶
		≤ 25 mW e.m.r.p. ⁴ -4.5 dBm/100 kHz ⁷				No spacing	≤ 0.1% or LBT ^{4, 6}
	≤ 25 mW e.m.r.p.	≤ 100 kHz ^{5, 8}				≤ 0.1% or LBT ⁶	
		868.000 - 868.600 MHz ²		25 mW e.m.r.p.	No spacing	< 1%	
	868.700 - 869.200 MHz ²	500 mW e.m.r.p.		25 kHz	< 0.1%		
	869.400 - 869.650 MHz ²						
	869.700 - 870.000 MHz	5 mW e.m.r.p.		No spacing	< 10%		
	2400 - 2483.5 MHz	10 mW e.i.r.p.			up to 100%		
	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							

Radio local area networks (RLANs)

2400 - 2483.5 MHz

100 mW e.i.r.p.⁹

Integral or dedicated

No spacing
Binary rhythm > 250 kbps

¹ Video applications are only allowed above the 2.4 GHz band.

² Audio and voice signal applications are not allowed in this band.

³ The power density for modulations with bandwidths above 250 kHz is limited to -13 dBm/10 kHz.

⁴ For broadband modulations other than FHSS and DSSS with bandwidths between 200 kHz and 3 MHz, the duty cycle can be increased up to 1% if the band is limited to 865-868 MHz and the power below 10 mW e.m.r.p.

⁵ The preferential spacing is 100 kHz, allowing 50 kHz and 25 kHz subdivisions.

⁶ Duty cycle may be 1% if the band is limited to 865-868 MHz.

⁷ The power density may be increased up to 6.2 dBm/100 kHz and 0.8 dBm/100 kHz, if the band is limited to 865-868 MHz and 865-870 MHz, respectively.

⁸ For narrow band modulations with bandwidth from 50 to 200 kHz the band is limited to 865.5-867.5 MHz.

⁹ For systems that use direct sequence spectrum spreading techniques, the value of the maximum power spectrum density should be limited to -20 dBW/1 MHz; for systems that use frequency leap spectrum spreading techniques, the value of the maximum power spectrum density should be limited to -10 dBW/100 kHz.

STATION LICENCE EXEMPTION

SRD - Station characterization (cont.)					
Application	Frequency Band	Maximum power or field strength limits	Antenna type	Channel spacing	Duty Cycle
Wireless access systems / Radio local area networks (WAS/RLAN)	5150 - 5350 MHz ^{10, 11}	200 mW e.i.r.p. ¹²	Dedicated	no spacing	
	5470 - 5725 MHz ¹¹	1 W e.i.r.p. ¹²			
	17.1 - 17.3 GHz	100 mW e.i.r.p.			
Railway applications	2446 - 2454 MHz ¹³	500 mW e.i.r.p.	Integral	no spacing	
	27.095 MHz	see figure 1	Dedicated	see figure 1	
Road transport and traffic telematics	5795 - 5805 MHz	2 W e.i.r.p.	Integral or dedicated	14	
	5805 - 5815 MHz ¹⁵			14	
	63-64 GHz ¹⁶	To be defined	Integral or dedicated	no spacing	
	76-77 GHz ¹⁷	55 dBm peak			
Movement detection 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.			

¹⁰ In accordance with Commission Decision 2005/513/CE of 11 July 2005

¹¹ The following conditions should be respected:

a) In the 5150-5350 MHz only indoor uses are allowed

b) Transmitter power control (TPC) in the 5250-5350 MHz and 5470-5725 MHz band, to ensure an attenuating factor of at least 3 dB in the maximum power allowed by the systems, or, in case the TPC is not operating, the maximum power allowed for the average e.i.r.p. and the corresponding power density maximum value should be reduced in 3 dB.

c) Dynamic frequency selection (DFS) associated with the channel selection mechanism for a uniform spreading in the 5250-5350 MHz and 5470-5725 MHz bands.

d) In the 5150-5250 MHz band, the maximum value of power density 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 value of 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 value of power density for the average e.i.r.p. should be limited to 50mW/MHz, for each 1 MHz.

¹² Maximum value of the average e.i.r.p.

¹³ Transmission only in the presence of trains.

¹⁴ Frequencies: 5797.5 MHz, 5802.5 MHz, 5807.5 MHz and 5812.5 MHz are used with a 5 MHz channel spacing. 5800 MHz and 5810 MHz frequencies are used with a 10 MHz channel spacing.

¹⁵ Requires individual licence.

¹⁶ These systems, vehicle-vehicle or road-vehicle, will only be exempt of licensing after the definitions of power limits.

¹⁷ Vehicle and infrastructure radar system.

STATION LICENCE EXEMPTION

SRD - Station characterization (cont.)					
Application	Frequency Band	Maximum power or field strength limits	Antenna type	Channel spacing	Duty Cycle
Alarms in general	868.600 - 868.700 MHz	10 mW e.m.r.p.	Integral or dedicated	25 kHz ¹⁸	< 0.1%
	869.250 - 869.300 MHz				< 10%
	869.650 - 869.700 MHz	25 mW e.m.r.p.			< 10%
	869300 - 869.400 MHz	10 mW e.m.r.p.			< 0.1%
Social alarms	869.200 - 869.250 MHz	10 mW e.m.r.p.			12.5 kHz
	169.4750 - 169.4875 MHz	10 mW e.m.r.p.			
Model control	26.995 MHz	100 mW e.m.r.p.	Dedicated	10 kHz	
	27.045 MHz				
	27.095 MHz				
	27.145 MHz				
	27.195 MHz				
	34.995 - 35.225 MHz ¹⁹				
	40.665 MHz				
	40.675 MHz				
	40.685 MHz				
	40.695 MHz				

¹⁸ The 868.6-868.7 MHz frequency band may also be used as one channel for high speed data transmissions.

¹⁹ Frequencies exclusive for flying models.

STATION LICENCE EXEMPTION

SRD - Station characterization (cont.)					
Application	Frequency Band	Maximum power or field strength limits	Antenna type	Channel spacing	Duty Cycle
Inductive systems	9 - 59.750 kHz	72 dB μ A/m a 10 m (at 30 kHz decrease of 3 dB/octave) ²⁰	Integral, dedicated or external	No spacing	
	59.750 - 60.250 kHz	42 dB μ A/m a 10 m			
	60.250 - 70 kHz	69 dB μ A/m a 10 m (at 30 kHz decrease of 3 dB/octave) ¹⁹			
	70 - 119 kHz	42 dB μ A/m a 10 m			
	119 - 135 kHz	66 dB μ A/m a 10 m (at 30 kHz decrease of 3 dB/octave) ¹⁹			
	6.765 - 6.795 MHz	42 dB μ A/m a 10 m See figure 2	Integral or dedicated		
	7.400 - 8.800 MHz	9 dB μ A/m a 10 m			
	13.553 - 13.567 MHz	42 dB μ A/m a 10 m See figure 2			
	13.553 - 13.567 MHz	60 dB μ A/m a 10 m ²¹ See figure 2			
	26.957 - 27.283 MHz	42 dB μ A/m a 10 m			
Wireless systems for medical applications	9-135 kHz	30 dB μ A/m a 10 m	Integral or dedicated	No spacing	<10%
	315 -600 kHz ²²	-5 dB μ A/m a 10 m		25 kHz	
	402 - 405 MHz	25 μ W e.m.r.p.			
Avalanche victim detection	457 kHz	7 dB μ A/m a 10 m	Integral or dedicated	Continuous wave (CW) - no modulation	up to 100%
Radio microphones	173.965 - 174.015 MHz	2 mW e.m.r.p.	Integral	50 kHz	up to 100%
	174 - 216 MHz ²³	10 mW e.m.r.p. ²⁴		200 kHz	
	470 - 862 MHz ²⁴				
	863 - 865 MHz	10 mW e.m.r.p.			
	1785.7 - 1799.4 MHz	10 mW e.m.r.p. ²⁴			

²⁰ In the case of type 1 and 2 loop antennas, within an area between 0.05 m² and 0.16 m², the field intensity is reduced by 10 x log (area/0.16 m²). For an antenna area below m² 0.05 the field intensity is reduced by 10 dB.

²¹ For RFID and EAS (Electronic Article Surveillance) exclusive use.

²² Applications for veterinary implants.

²³ This equipment is exempt from radio licensing, conditioned by the decisions to be made on digital television.

²⁴ The maximum power limit for transmitting body-worn microphones is 50 mW e.m.r.p.

STATION LICENCE EXEMPTION

SRD - Station characterization (cont.)					
Application	Frequency Band	Maximum power or field strength limits	Antenna type	Channel spacing	Duty Cycle
RFID - RF Identification Systems	2446-2454 MHz	500 mW	Integral or dedicated	No spacing	up to 100%
	865 - 868 MHz	100 mW e.m.r.p.		200 kHz	LBT
	865.6 - 867.6 MHz	2 W e.m.r.p.			
	865.6 - 868 MHz	500 mW e.m.r.p.			
Wireless audio systems ²⁵	87.5 - 108 MHz	50 nW e.m.r.p.	Integral	200 kHz	up to 100%
	863 - 865 MHz	10 mW e.m.r.p.		No spacing ²⁶	
	864.8 - 865 MHz	10 mW e.m.r.p.		50 kHz	
Telecommand, telemetry, alarm and data transmission systems	29.980 MHz	100 mW e.m.r.p.	Integral or dedicated	10 kHz	
	29.990 MHz				
	30.000 MHz				
	30.100 MHz				
	150.9375 MHz	500 mW e.m.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				
24.05-24.25 GHz ²⁹		20 dBm e.i.r.p. peak	Integral	No spacing	³⁰
77-81 GHz		55 dBm e.i.r.p. peak ³¹	Integral	No spacing	

²⁵ Narrow band analogue voice equipment is limited to the 864.8-865 MHz band.

²⁶ In analogue systems, the used bandwidth cannot exceed 300 kHz.

²⁷ According to Commission Decision 2005/50/EC of 17 January 2005.

²⁸ The maximum average power density will be -41.3 dBm/MHz e.i.r.p. Peak power density value should not exceed 0dBm/50 MHz e.i.r.p.

²⁹ According to Commission Decision 2004/545/EC of 8 July 2004.

³⁰ For peak powers over -10 dBm e.i.r.p. and duty cycle < 10%.

³¹ Maximum average power density will be -3 dBm/MHz e.i.r.p. Maximum average power density outside a vehicle resulting from the operation of a short range radar should not exceed -9 dBm/MHz e.i.r.p..

STATION LICENCE EXEMPTION

b) Earth stations in the Fixed Satellite Service (SFS)

These stations should operate on a non-interference and non-protection basis regarding licensed radiocommunications stations or networks.

The use of this kind of Earth stations is only allowed at distances beyond 500 metres from airport boundaries.

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

Station characterization			
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 characterization	
Earth station	Frequency Band
Inmarsat-B	1525 - 1544 MHz (space-to-Earth) ³²
Inmarsat-C	
Inmarsat-D	
Inmarsat-M	1545 - 1559 MHz (space-to-Earth) ³³
Inmarsat-M4	
Inmarsat-phone (mini M)	1626.5 - 1645.5 MHz (Earth-to-space) ¹¹
EMS-PRODAT	
EMS-MSSAT	
Thuraya	1646.5 - 1660.5 MHz (Earth-to-space) ^{12, 34}
SpaceCheckers-SMS	
Omnitracs-Eutelsat	10.70 - 11.70 GHz (space-to-Earth) ³⁵
	12.50 - 12.75 GHz (space-to-Earth) ¹⁴
	14.00 - 14.25 GHz (Earth-to-space)
GMPCS ³⁶	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 ³⁷	137- 138 MHz (space-to-Earth)
	148 - 150.05 MHz (Earth-to-space)

³² In the 1530-1544 MHz and 1626.5-1645.5 MHz frequency bands, priority is given to distress, urgency and safety communications in the scope of the GMDSS (Global Maritime Distress and Safety System) system.

³³ In the 1545 - 1559 MHz and 1646.5-1656.5 MHz frequency bands, priority is given, in the scope of the Aeronautical Mobile-Satellite Service, to distress, urgency and safety communications, as well as to communication regarding flights safety and regularity and meteorology.

³⁴ In the 1660 – 1660.5 MHz frequency band, the operation of these Earth stations cannot cause any harmful interference to the stations of the radio astronomy service.

³⁵ In the 10.70-11.70 GHz and 12.50-12.75 GHz frequency bands, the operation of “Omnitracs-Eutelsat” Earth stations cannot cause any harmful interference to the stations of the fixed service or of the fixed satellite service.

³⁶ These stations must be marked as described in figure 3.

³⁷ These stations should not cause interference or require protection from stations of the fixed, mobile and space operation services in the 148-149.9 MHz frequency band, nor from stations of the radionavigation satellite service in the 149.9-150.05 MHz frequency band.

STATION LICENCE EXEMPTION

d) Land Mobile Service Stations

PMR446 stations

Station characterization			
Frequency Band	Maximum power limits	Antenna type	Channel spacing
446.00625 MHz	500 mW e.m.r.p.	Integral	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 characterization		
Frequency 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		

STATION LICENCE EXEMPTION

e) Receiver-only radiocommunications stations

Station characterization
<p>Encompasses the following receiving stations::</p> <ul style="list-style-type: none">• Sound and television broadcasting• GPS• multiband, not particularly associated to any radiocommunications services (scanners)• satellite radiocommunications in the frequency bands: 3.4-4.2 GHz; 10.7-12.75 GHz; 17.7-20.2 GHz.

STATION LICENCE EXEMPTION

- FIGURES -

a) Euro beacons

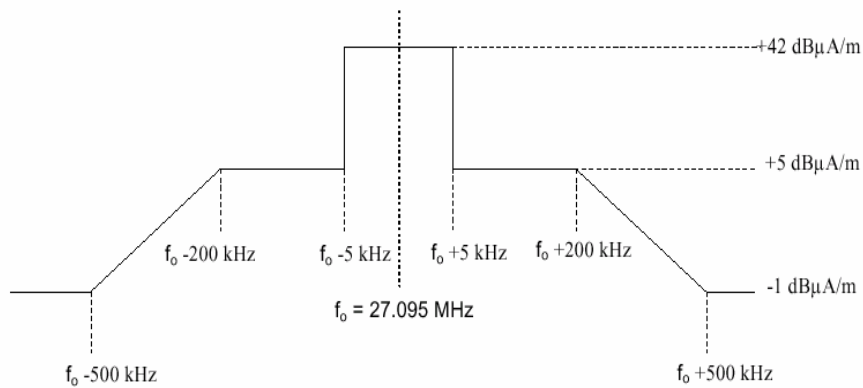


Figure 1 - Field intensity limits at 10 metres around the frequency
 $f_0 = 27.095$ MHz

b) Inductive systems

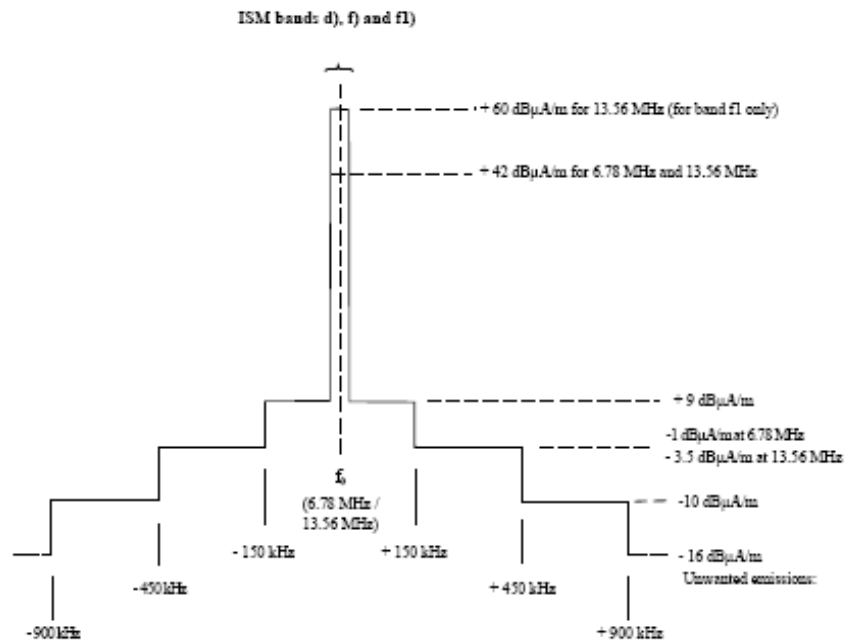


Figure 2 - Field intensity limits 10 metres away for the frequency bands
6.765 - 6.795 MHz and 13.553 - 13.567 MHz

c) GMPCS mobile Earth stations



Figure 3 - Marking of GMPCS stations

STATION LICENCE EXEMPTION

- DEFINITIONS -

SRD - Short Range Devices - The term Short Range Devices (SRDs) encompasses radio transmitters that establish either unidirectional or bidirectional communications and with low probability of causing harmful interferences to other radio equipment. SRDs use either integral, dedicated or external antennas, and all modulation types may be permitted, as long as they comply with the relevant standards. Given the wide range of services provided by this kind of equipment, no description can be exhaustive.

Railway applications - Specific applications for railways, including automatic vehicle identification and beacons (train control systems).

Road transport telematics systems - Transport-supporting communication systems (mobile data links between vehicles and between vehicles and the infrastructure).

Movement detection and alert - Equipment for detecting movement and alarm equipment (low power radar systems for radio determination purposes: determination of position, velocity and/or other characteristics of an object, or the acquisition of information on those parameters)

Model control - Equipment for controlling the movement of models in the air, on the ground and on or under water.

Inductive systems - Car immobilizers, animal identification, alarm systems, cable detection, waste management, staff identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer for handheld equipment, automatic article identification, wireless control systems and automatic road tolls.

STATION LICENCE EXEMPTION

- DEFINITIONS -

RFID - Radio Frequency Identification Systems - automatic article identification, asset tracking, alarm systems, waste management, staff identification, access control, proximity sensors, anti-theft systems, tracking systems, data transfer for handheld equipment, wireless control systems.

Ultra low power active medical implants - Instruments, apparatus, appliance, material or other articles, whether used alone or in combination for: diagnosis, prevention, monitoring, treatment or alleviation of disease or injury, investigation, replacement or modification of anatomy or of a physiological process; control of conception.

LBT - Listen Before Talk. Monitoring of the channel before transmission.

Wireless audio systems - Cordless loudspeakers; cordless headphones; cordless headphones for portable use, such as portable CD readers, cassette or radio players; cordless headphones for use in vehicles, for example for radio or telephone use, etc; earphone monitoring for use in concerts or other type of stage production.

Effective monopole-radiated power (e.m.r.p.) - in a given direction - the power supplied to the antenna multiplied by 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 power supplied to the antenna multiplied by its gain regarding an isotropic antenna in a given direction (isotropic or absolute gain).

Average equivalent isotropically radiated power (e.i.r.p) - equivalent to average e.i.r.p. over a data transmission burst, when power control is set at its maximum.

STATION LICENCE EXEMPTION

- DEFINITIONS -

Integrated 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 e.i.r.p. limit established.

External antenna - antenna not specifically designed for given stations type.

Spectrum spreading - transmission technique in which the signal occupies a much larger bandwidth than the minimum necessary to send data.

Spectrum spreading with frequency hopping - spectrum spreading technique in which data is sent through several channels on a pseudo-random way.

Spectrum spreading with direct spectrum - spectrum spreading technique in which data is combined with a pseudo-random code.

Duty cycle - Ratio of the maximum time during which an equipment is active with one or more carriers, regarding a one-hour period.

Harmful interference - any interference which compromises the operation of a radionavigation service or any other safety services, or which seriously harms, obstructs, or repeatedly interrupts a radiocommunications service that operates according to the applying community or national law.