

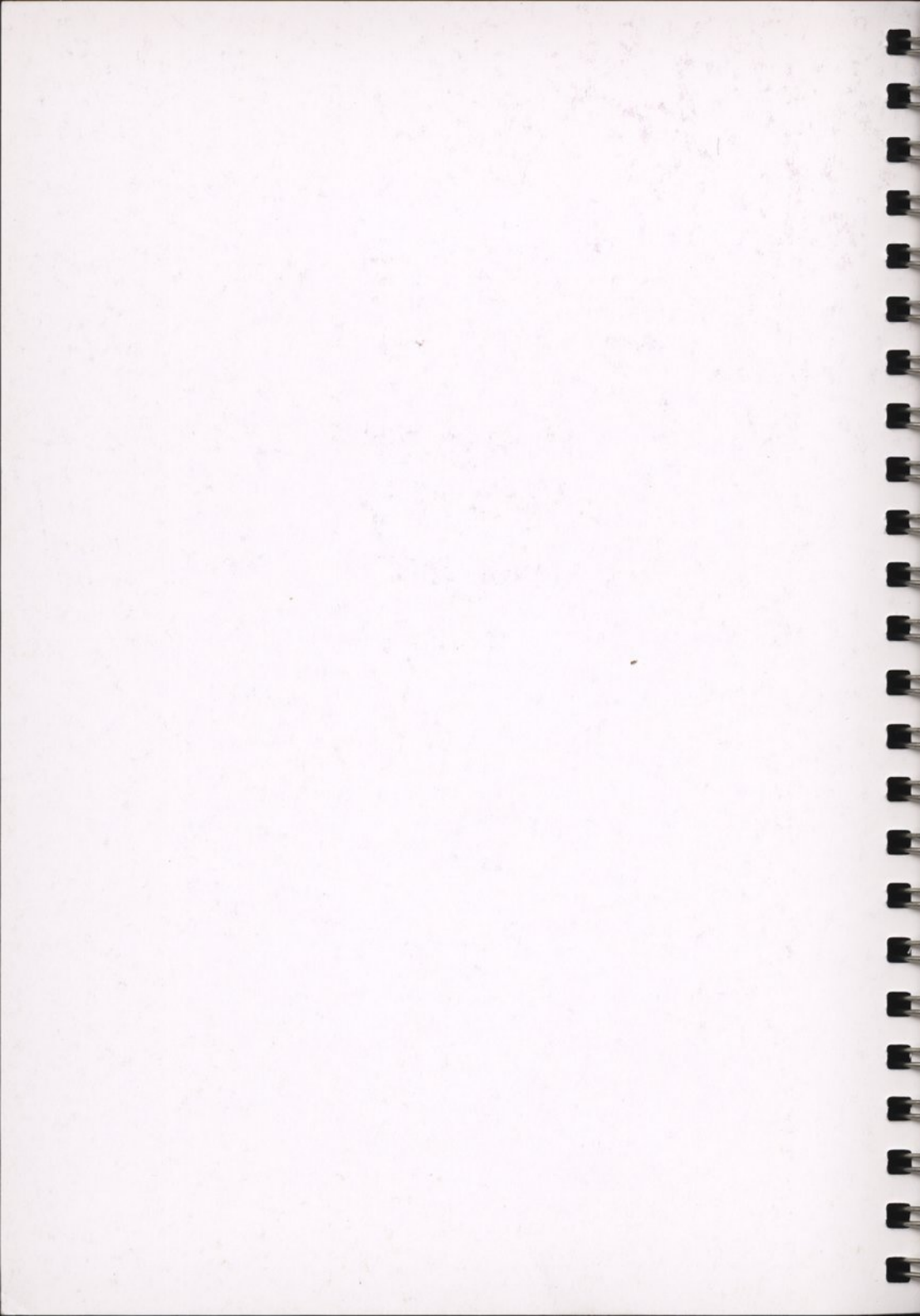
PORTUGUESE FREQUENCY ALLOCATION TABLE
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PORTUGUESE FREQUENCY

Allocation Table



Instituto das
Comunicações de
Portugal



Portuguese Frequency Allocation Table

Portuguese
Frequency
Allocation
Table

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October 1997

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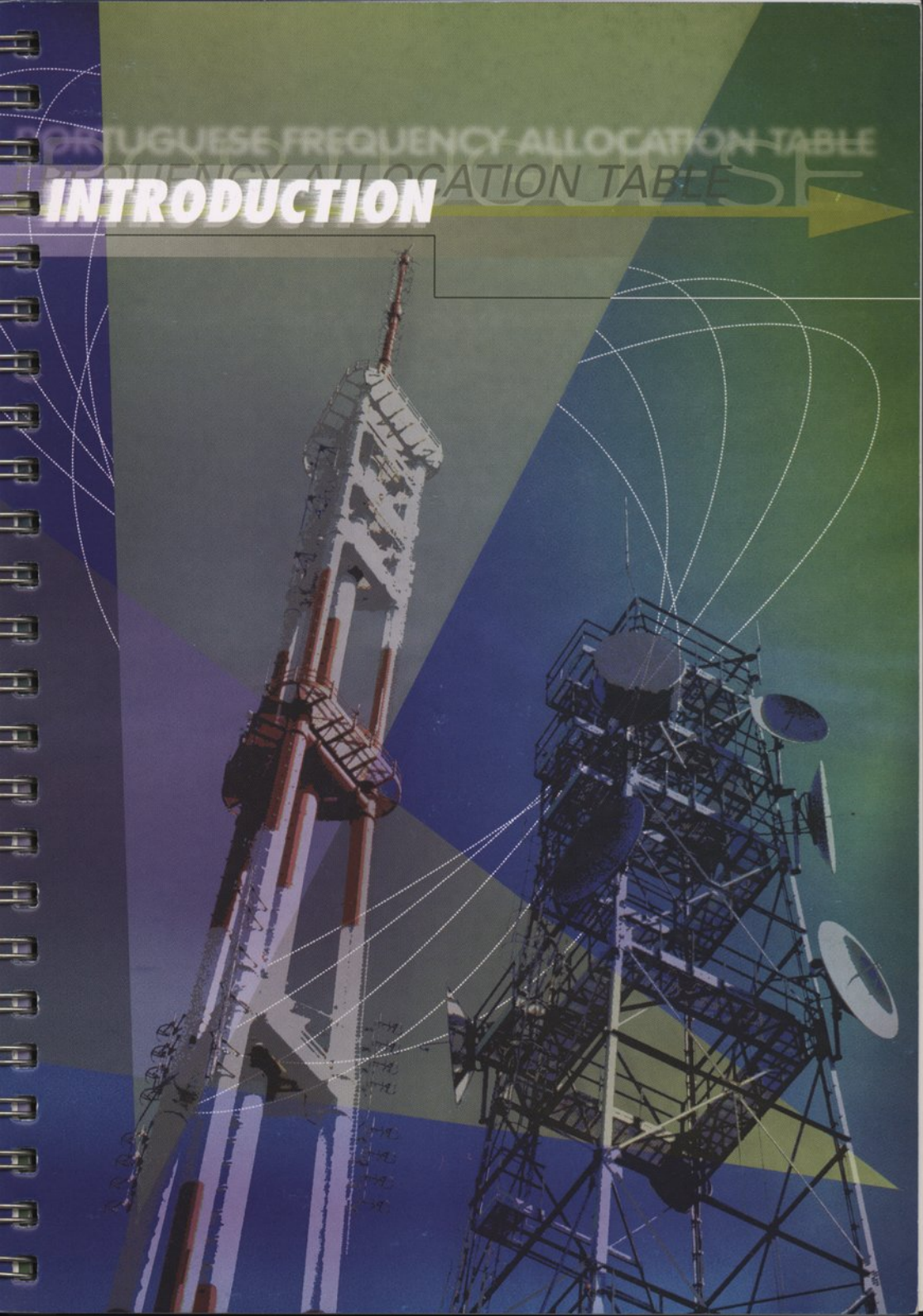
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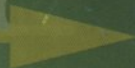
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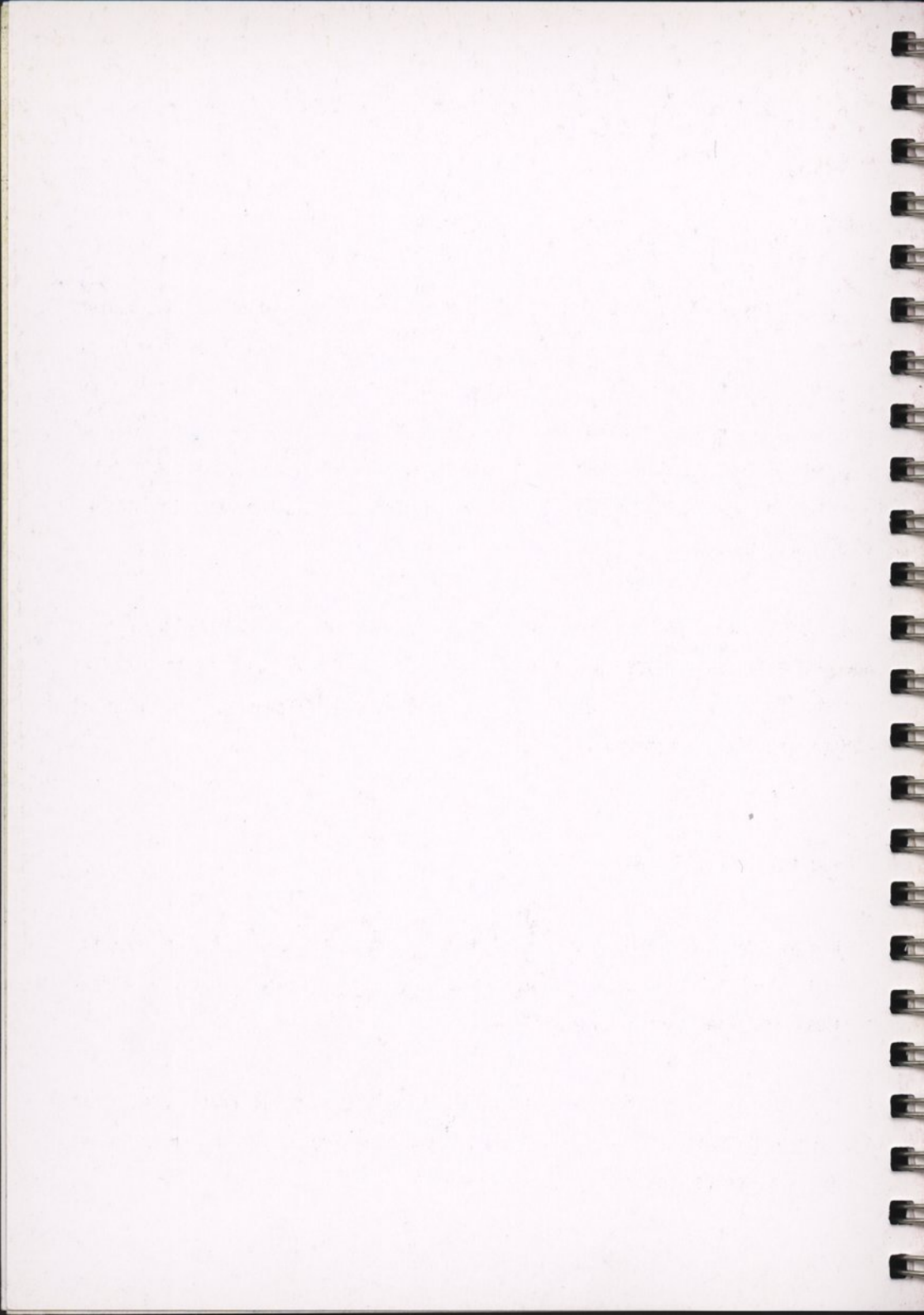
Table 1



PORTUGUESE FREQUENCY ALLOCATION TABLE

INTRODUCTION





1. INTRODUCTION

INSTITUTO DAS COMUNICAÇÕES DE PORTUGAL

In Portugal, responsibility for the management of the spectrum is entrusted by law to Instituto das Comunicações de Portugal, the authority that controls Portuguese communications, under the auspices of the Ministry of Equipment, Planning and Territory Administration. Within this context, the ICP is responsible, for the allocation of frequency bands to services and the assignment of frequencies to radio stations and for the supervision of the use thereof. This function covers all public and private bodies, whether they are telecommunications operators, broadcasters or private users of radio networks.

In the special case of use for military and associated purposes the management of parts of the spectrum has been delegated to the Estado Maior General das Forças Armadas (EMGFA). Licensing and supervision of ship stations is the responsibility of the Office of the Director General of Shipping and Maritime Transport.

FREQUENCY MANAGEMENT

Frequency management can be defined as a series of technical and administrative procedures, the purpose of which is to ensure that the operation of radio stations by the various radiocommunications services does not cause *interference problems*.

Given the growth of services that use the radio spectrum, it is currently almost impossible to grant exclusive frequency bands to a single radiocommunications service. The various allocations are therefore made on a shared basis, in terms of time or frequency.

The regulatory procedures adopted by a country for application within its borders are determined by the country itself; nevertheless the provisions of international conventions, in this case emanating from the International Telecommunications Union (ITU), must be taken into consideration.

THE INTERNATIONAL TELECOMMUNICATIONS UNION

The International Telecommunications Union has, since 1947, acted as a specialised United Nations agency in the telecommunications field, and is the highest level body able to make Agreements between States.

The Agreements made in the area of radiocommunications are contained in a document entitled Radio Regulations (RR). Portugal, as a Member of the ITU, has, in a spirit of international co-operation, undertaken to apply the provisions thereof within its territory as well as in its dealings with other Member countries.

THE RADIO REGULATIONS

The Radio Regulations establish the rules to be observed when the spectrum or the geostationary orbit of satellites are used, and establish the rights and duties arising from each use thereof. The contents of the RR are a result of decisions taken by the WORLD RADIOCOMMUNICATIONS CONFERENCES, which are open to the Governments of all countries that belong to the ITU.

The "FREQUENCY ALLOCATION TABLE" is to be found in Article S5 of the Simplified RR and describes the services that can be used in each one of the three Regions of the world by frequency band. The Portuguese Table described herein is the result of the application of Article S5 to the specific Portuguese case.

The definitions are to be found in Article S1* of the Simplified RR.

* Come into force on 1 June 1998.

THE PORTUGUESE FREQUENCY ALLOCATION TABLE

This document is the first version of the "Portuguese Frequency Allocation Table", the purpose of which is to clarify the use of the spectrum in Portugal and the way in which International Agreements are implemented in our country.

The World Administrative Radiocommunications Conference (WARC-92) which took place under the auspices of the ITU in Torremolinos, in February 1992, amended Article 8 of the RR. This amendment includes the allocation of frequencies to new services and systems, e.g. broadcasting satellite sound, high definition television and mobile satellite services, and in the long term implies the transfer of services in some of the current frequency bands, so that spectrum can be made available for the introduction of new services.

The World Radiocommunications Conference held in 1995 (WRC-95) focused on two very important topics: (i) analysis and partial approval of the work developed by the *Voluntary Group of Experts* (VGE), bearing in mind the simplification through the proposed modifications to the entire Radio Regulations, and (ii) many questions related to Mobile Satellite Services.

The use of the radio spectrum is therefore constantly developing, with modifications being expected in the short/medium term to enable the implementation of new systems and technologies in line with commercial requirements. This Table will be, for the reasons stated, regularly updated, and will be useful to the public in general in the understanding of the spectrum usage.

It should be noted that any use of the spectrum, even if in line with this "Portuguese Frequency Allocation Table", must have the prior approval of the ICP.

THE NORTHWESTERN FREEDOM OF INFORMATION ACT
The Freedom of Information Act (FOIA) is a federal law that gives citizens the right to access records held by federal agencies. It was enacted in 1966 and is one of the most important laws in the area of government transparency.

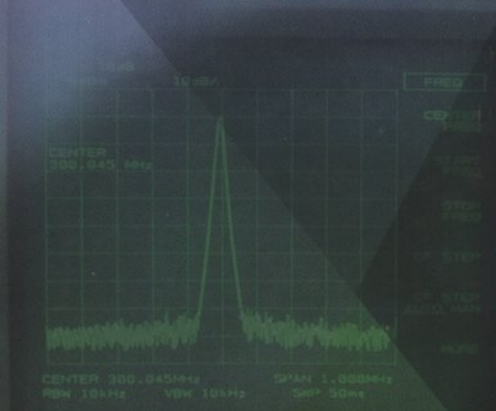
FOIA is a federal law that gives citizens the right to access records held by federal agencies. It was enacted in 1966 and is one of the most important laws in the area of government transparency. The law is designed to ensure that the government is accountable to the public and that citizens have the right to know what their government is doing. It covers all federal agencies, including the executive, legislative, and judicial branches.

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PORTUGUESE FREQUENCY ALLOCATION TABLE

DEFINITIONS



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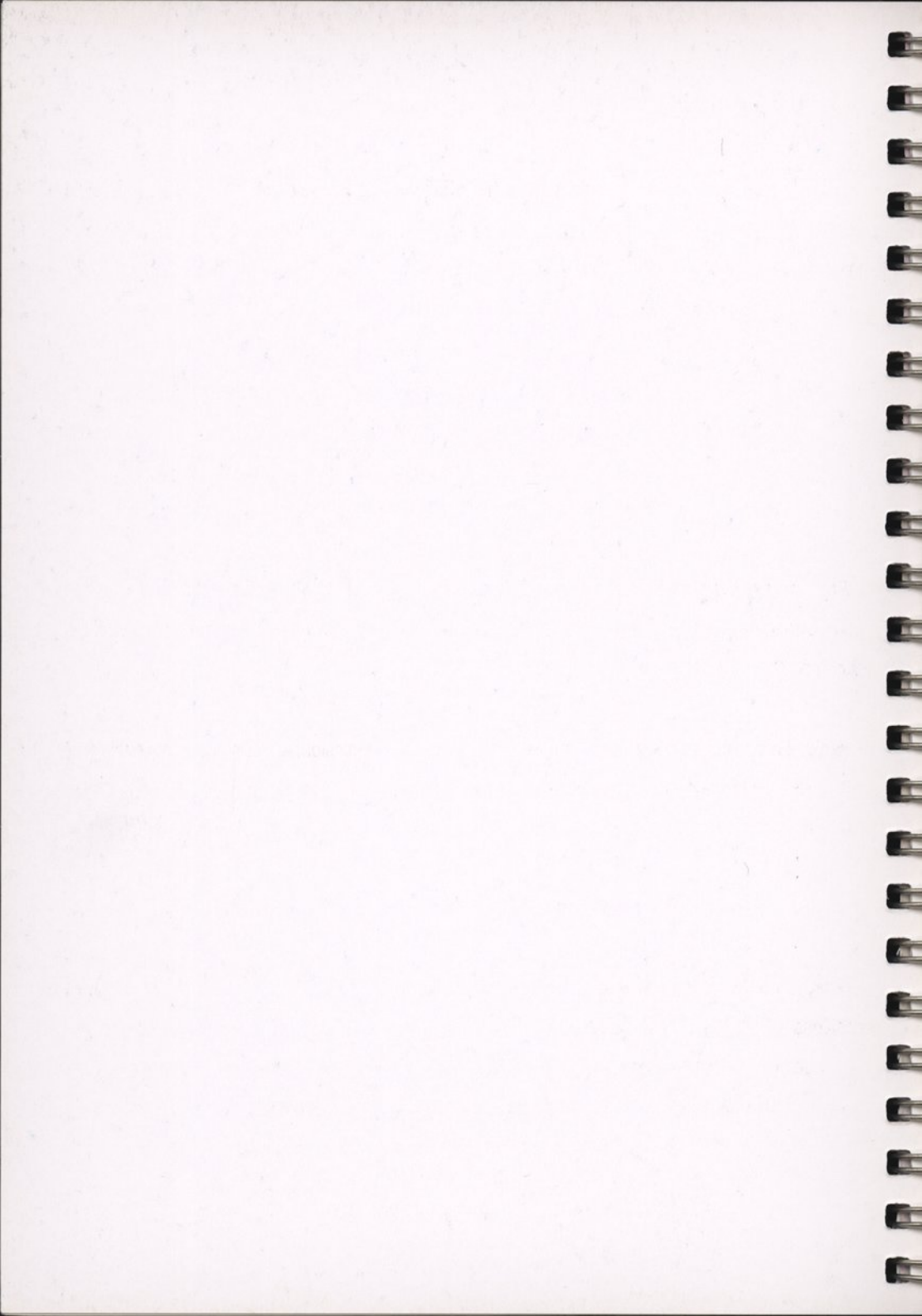
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OUTPUT

FREQUENCY

SPAN

AMPLITUDE



2. DEFINITIONS

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

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

- **Assignment (of a radio frequency or radio frequency channel):** Authorization given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions.

- **Radiocommunication Service:** A service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes.

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

- **Fixed Service (FIX):** A radiocommunication service between specified fixed points.

- **Fixed-Satellite Service (FIX-S):** A radiocommunication service between earth stations at given positions, when one or more satellites are used; the given position may be a specified fixed point or any fixed point within specified areas; in some cases this service includes satellite-to-satellite links, which may also be operated in the inter-satellite service; the fixed-satellite service may also include feeder links for other space radiocommunication services.

- **Aeronautical Fixed Service (FIXAR):** A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.

- **Inter-Satellite Service (INT-S):** A radiocommunication service providing links between artificial satellites.

- **Space Operation Service (OE):** A radiocommunication service concerned exclusively with the operation of spacecraft, in particular space tracking, space telemetry and space telecommand. These functions will normally be provided within the service in which the space station is operating.

- **Mobile Service (MOV):** A radiocommunication service between mobile and land stations, or between mobile stations (CV).

- **Mobile-Satellite Service (MV-S):** A radiocommunication service between mobile earth stations and one or more space stations, or between space stations used by this service, or between mobile earth stations by means of one or more space stations. This service may also include feeder links necessary for its operation.

- **Land Mobile Service (MT):** A mobile service between base stations and land mobile stations, or between land mobile stations.

- **Land Mobile-Satellite Service (MT-S):** A mobile-satellite service in which mobile earth stations are located on land.

- **Maritime Mobile Service (MM):** A mobile service between coast stations and ship stations, or between ship stations, or between associated on-board communication stations; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- **Maritime Mobile-Satellite Service (MM-S):** A mobile-satellite service in which mobile earth stations are located on board ships; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- **Port Operations Service (OP):** A maritime mobile service in or near a port, between coast stations and ship stations, or between ship stations, in which messages are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons. Messages which are of a public correspondence nature shall be excluded from this service.

- **Ship Movement Service (ONS):** A safety service in the maritime mobile service other than a port operations service, between coast stations and ship stations, or between ship stations, in which messages are restricted to those relating to the movement of ships. Messages which are of a public correspondence nature shall be excluded from this service.

- **Aeronautical Mobile Service (MA):** A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

- **Aeronautical Mobile (R)* Service (MAR):** An aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

- **Aeronautical Mobile (OR)** Service (MAOR):** An aeronautical mobile service intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.

* (R): route.

** (OR): off-route.

- **Aeronautical Mobile-Satellite Service (MA-S):** A mobile-satellite service in which mobile earth stations are located on board aircraft; survival craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

- **Aeronautical Mobile-Satellite (R)* Service (MAR-S):** An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

- **Aeronautical Mobile-Satellite (OR)** Service (MAO-S):** An aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.

- **Broadcasting Service (RAD):** A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission (CS).

- **Broadcasting-Satellite Service (RAD-S):** A radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public. In the broadcasting-satellite service, the term "direct reception" shall encompass both individual reception and community reception.

- **Radiodetermination Service (RDT):** A radiocommunication service for the purpose of radiodetermination.

- **Radiodetermination-Satellite Service (RDT-S):** A radiocommunication service for the purpose of radiodetermination involving the use of one or more space stations.

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

* (R): route.

** (OR): off-route.

- **Radionavigation Service (RV):** A radiodetermination service for the purpose of radionavigation.

- **Radionavigation-Satellite Service (RV-S):** A radiodetermination-satellite service used for the purpose of radionavigation.

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

- **Maritime Radionavigation Service (RVM):** A radionavigation service intended for the benefit and for the safe operation of ships.

- **Maritime Radionavigation-Satellite Service (RVM-S):** A radionavigation-satellite service in which earth stations are located on board ships.

- **Aeronautical Radionavigation Service (RVA):** A radionavigation service intended for the benefit and for the safe operation of aircraft.

- **Aeronautical Radionavigation-Satellite Service (RVA-S):** A radionavigation-satellite service in which earth stations are located on board aircraft.

- **Radiolocation Service (RLC):** A radiodetermination service for the purpose of radiolocation.

- **Radiolocation-Satellite Service (RLC-S):** A radiodetermination-satellite service used for the purpose of radiolocation.

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

- **Meteorological Aids Service (METAX):** A radiocommunication service used for meteorological, including hydrological, observations and exploration.

- **Earth Exploration-Satellite Service (EXP-S):** A 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, including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites;
- similar information is collected from airborne or Earth-based platforms;
- such information may be distributed to earth stations within the system concerned;
- platform interrogation may be included.

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

- **Meteorological-Satellite Service (MET-S):** An earth exploration-satellite service for meteorological purposes.

- **Standard Frequency and Time Signal Service (FPH):** A radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.

- **Standard Frequency and Time Signal-Satellite Service (FPH-S):** A 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):** A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes.

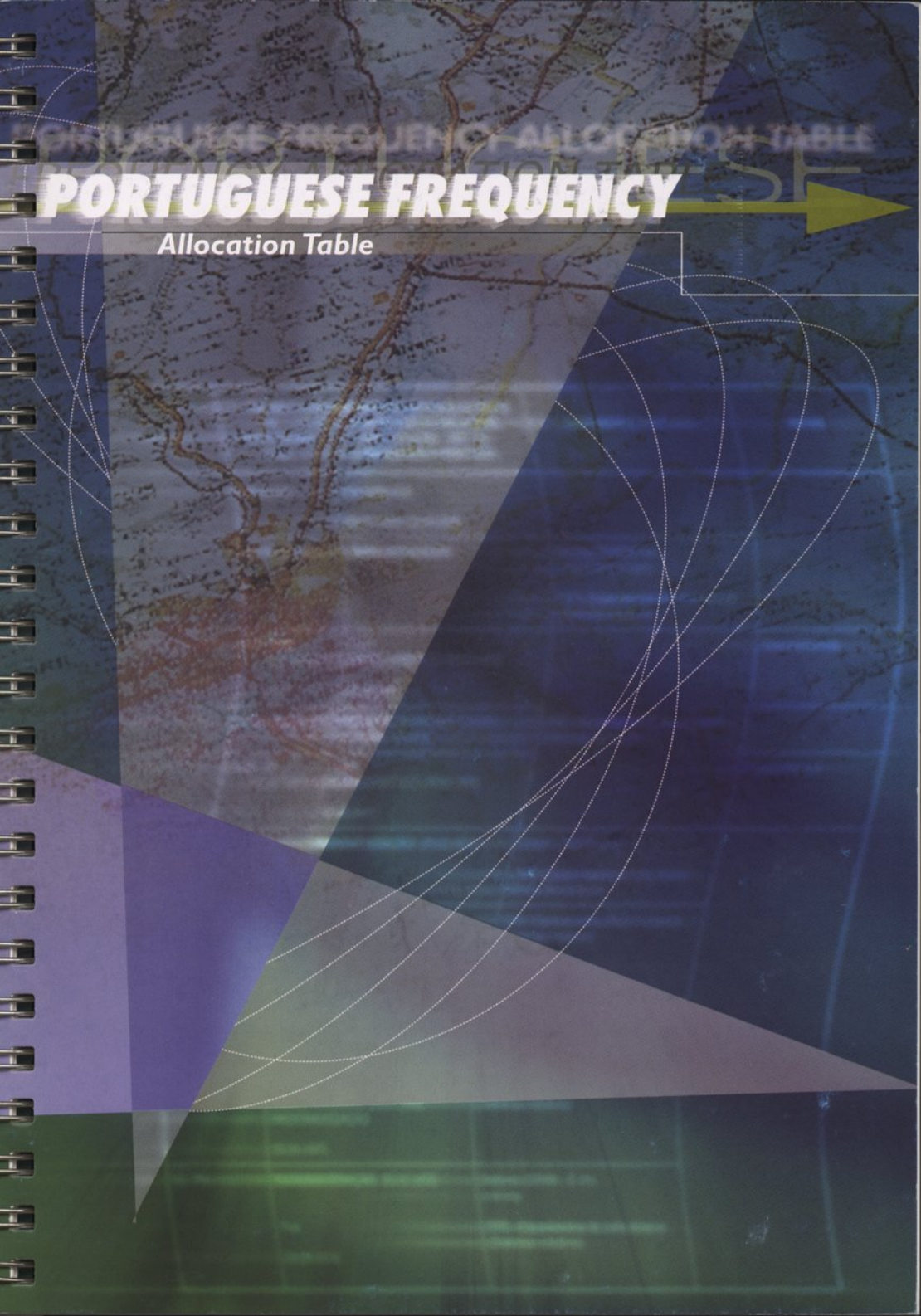
- **Amateur Service (AM):** A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

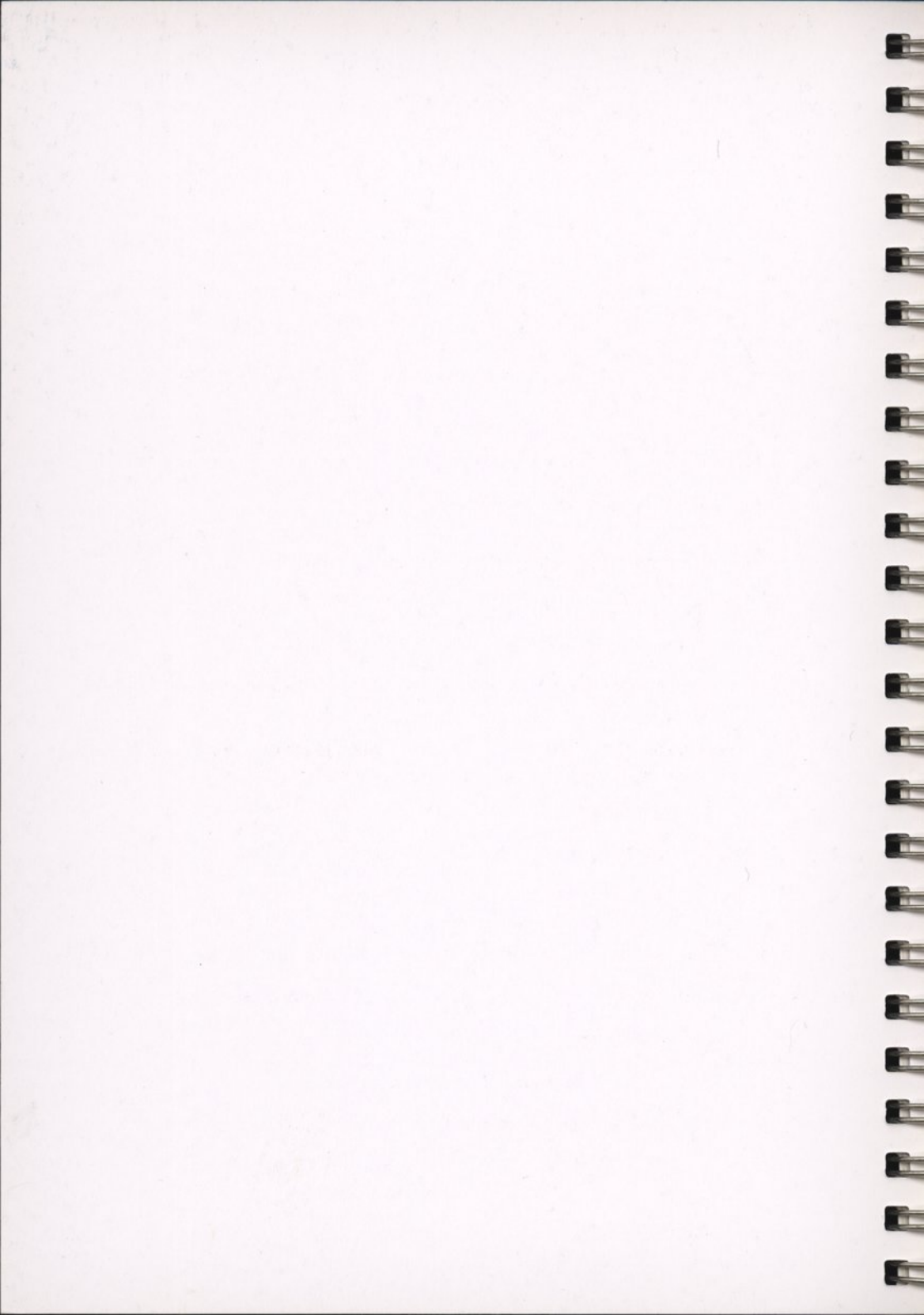
- **Amateur-Satellite Service (AM-S):** A radiocommunication service using space stations on earth satellites for the same purposes as those of the amateur service.
- **Radio Astronomy Service (RAST):** A service involving the use of radio astronomy.
- **Safety Service (SEG):** Any radiocommunication service used permanently or temporarily for the safeguarding of human life and property.
- **Special Service (ESP):** A radiocommunication service not otherwise defined, carried on exclusively for specific needs of general utility, and not open to public correspondence.
- **Industrial, Scientific and Medical Applications (of radio frequency energy) (ISM):** Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.

PORTUGUESE FREQUENCY ALLOCATION TABLE

PORTUGUESE FREQUENCY

Allocation Table





3. PORTUGUESE FREQUENCY ALLOCATION TABLE

INSTRUCTIONS

Column 1: FREQUENCY BANDS

Shows the frequency band to which each line of the table is related to.

Column 2: ALLOCATION FROM THE SIMPLIFIED RR (Art. S5) APPLIED TO PORTUGAL

Contains, for each frequency band:

- Allocation from Art. S5 of the Simplified RR applied to Portugal;
- Services authorised in Portugal (marked in **bold**);
- Notes from Art. S5 of the Simplified RR applied to Portugal;
- Notes within parenthesis are related to the Radio Regulations, Edition of 1990, Revised in 1994, applied to Portugal;
- Notes within double parenthesis are related to additional allocations, alternative or different categories of services.

Column 3: MAIN PORTUGUESE USAGE

Main systems authorised in Portugal.

Column 4: NOTES

- Planning used;
- Relevant national and international norms;
- Conditioning to the usage of bands;
- Other relevant information.

PORTUGUESE FREQUENTLY ALLOCATED TABLE

INSTRUCTIONS

FREQUENTLY ALLOCATED

Before the frequency table is used, each column of the table must be

ALLOCATED FROM THE SAMPLED BY (A) 22 APPLIED TO PORTUGAL

Column 1: Each frequency band

• Allocation: 1-22 in the frequency band in Portugal

• Column 2: Frequency band in Portugal

• Column 3: 1-22 in the frequency band in Portugal

• Column 4: 1-22 in the frequency band in Portugal

• Column 5: 1-22 in the frequency band in Portugal

• Column 6: 1-22 in the frequency band in Portugal

• Column 7: 1-22 in the frequency band in Portugal

MAIN PORTUGUESE USAGE

• Column 1: Frequency band in Portugal

NOTES

• Column 1: Frequency band in Portugal

• Column 2: Frequency band in Portugal

• Column 3: Frequency band in Portugal

• Column 4: Frequency band in Portugal

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
Below 9	(not allocated) S5.53 (444), S5.54 (445)		
9 - 14	RADIONAVIGATION	OMEGA System (RV) (10,2; 11,33 and 13,6 kHz) SRD - Short Range Devices (Inductive Systems)	
14 - 19,95	FIXED MARITIME MOBILE S5.57 (448) S5.56 (447)	SRD - Short Range Devices (Inductive Systems)	Government
19,95 - 20,05	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)		
20,05 - 70	FIXED MARITIME MOBILE S5.57 (448) S5.56 (447)		Government
70 - 72	RADIONAVIGATION S5.60 (451)	DECCA System (RV) SRD - Short Range Devices (Inductive Systems)	
72 - 84	FIXED MARITIME MOBILE S5.57 (448) RADIONAVIGATION S5.60 (451) S5.56 (447)	SRD - Short Range Devices (Inductive Systems)	
84 - 86	RADIONAVIGATION S5.60 (451)	DECCA System (RV) SRD - Short Range Devices (Inductive Systems)	
86 - 90	FIXED MARITIME MOBILE S5.57 (448) RADIONAVIGATION S5.56 (447)	SRD - Short Range Devices (Inductive Systems)	
90 - 110	RADIONAVIGATION S5.62 (453) Fixed S5.64 (454)	LORAN - C System (RV) (100 kHz) SRD - Short Range Devices (Inductive Systems)	

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
110 - 112	FIXED MARITIME MOBILE RADIONAVIGATION S5.64 (454)	SRD - Short Range Devices (Inductive Systems)	
112 - 115	RADIONAVIGATION S5.60 (451)	DECCA System (RV) SRD - Short Range Devices (Inductive Systems)	
115 - 117,6	RADIONAVIGATION S5.60 (451) Fixed Maritime Mobile S5.64 (454)	SRD - Short Range Devices (Inductive Systems)	
117,6 - 126	FIXED MARITIME MOBILE RADIONAVIGATION S5.60 (451) S5.64 (454)	SRD - Short Range Devices (Inductive Systems)	
126 - 129	RADIONAVIGATION S5.60 (451)	DECCA System (RV) SRD - Short Range Devices (Inductive Systems)	
129 - 130	FIXED MARITIME MOBILE RADIONAVIGATION S5.60 (451) S5.64 (454)	SRD - Short Range Devices (Inductive Systems) (9 - 135 kHz)	
130 - 148,5	MARITIME MOBILE FIXED S5.64 (454)		Government
148,5 - 255	BROADCASTING		
255 - 283,5	BROADCASTING AERONAUTICAL RADIONAVIGATION	NDB - Radiobeacons (RVA)	ICAO - (Annex 10)
283,5 - 315	MARITIME RADIONAVIGATION (radiobeacons) S5.73 (466) AERONAUTICAL RADIONAVIGATION S5.74 (466A)	NDB - Radiobeacons (RVM) NDB - Radiobeacons (RVA) OMEGA DIFFERENTIAL System (RV) (285 - 315 kHz)	GE-85 (Radiobeacons) S5.74 (RR466A): (285,3-285,7 kHz) ICAO - (Annex 10)

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
315 - 325	AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (radiobeacons) S5.73 (466)	NDB - Radiobeacons (RVA) OMEGA DIFFERENTIAL System (RV)	ICAO - (Annex 10)
325 - 405	AERONAUTICAL RADIONAVIGATION	NDB and LOCATOR - Radiobeacons (RVA) OMEGA DIFFERENTIAL System (RV)	ICAO - (Annex 10)
405 - 415	RADIONAVIGATION S5.76 (468)	OMEGA DIFFERENTIAL System (RV)	
415 - 435	AERONAUTICAL RADIONAVIGATION MARITIME MOBILE S5.79 (470)	NDB and LOCATOR - Radiobeacons (RVA) Maritime Mobile (MM)	ICAO - (Annex 10) GE-85
435 - 495	MARITIME MOBILE S5.79 (470) Aeronautical Radionavigation S5.81 (471), S5.82 (472A)	Maritime Mobile (MM)	GE-85
495 - 505	MOBILE (distress and calling) S5.83 (472)	Mobile (MOV)	RR Ap. S13 (3010): 500 kHz
505 - 526,5	MARITIME MOBILE S5.79 (470) AERONAUTICAL RADIONAVIGATION S5.81 (471), S5.84 (474)	Maritime Mobile (MM) NAVTEX - International System (MM) (518 kHz) NDB - Radiobeacons (RVA) (510-526,5 kHz)	GE-85 ICAO - (Annex 10)
526,5 - 1606,5	BROADCASTING	Sound Broadcasting (RAD)	GE-75
1606,5 - 1625	MARITIME MOBILE S5.90 (480A) FIXED LAND MOBILE S5.92 (484)	Maritime Mobile (MM)	GE-85
1625 - 1635	RADIOLOCATION		
1635 - 1800	MARITIME MOBILE S5.90 (480A) FIXED LAND MOBILE S5.92 (484)	Maritime Mobile (MM)	GE-85

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1800 - 1810	RADIOLOCATION		
1810 - 1850	AMATEUR S5.100 (492)	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
1850 - 2000	FIXED MOBILE except aeronautical mobile S5.92 (484), S5.103 (495)		RR Res. 704 (Mob-83)
2000 - 2025	FIXED MOBILE except aeronautical mobile (R) S5.92 (484), S5.103 (495)		RR Res. 704 (Mob-83)
2025 - 2045	FIXED MOBILE except aeronautical mobile (R) Meteorological Aids S5.104 (496) S5.92 (484), S5.103 (495)		Government RR Res. 704 (Mob-83)
2045 - 2160	MARITIME MOBILE FIXED LAND MOBILE S5.92 (484)	Maritime Mobile (MM)	GE-85
2160 - 2170	RADIOLOCATION		
2170 - 2173,5	MARITIME MOBILE		
2173,5 - 2190,5	MOBILE (distress and calling) S5.108 (500), S5.109 (500A), S5.110 (500B), S5.111 (501)	Mobile (distress and calling)	RR Ap. S13 (3010): 2174,5 ; 2182 and 2187,5 kHz
2190,5 - 2194	MARITIME MOBILE		
2194 - 2300	FIXED MOBILE except aeronautical mobile (R) S5.92 (484), S5.103 (495)		Government: (2207-2222 kHz)
2300 - 2498	FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113 (503) S5.103 (495)		RR Res. 704 (Mob-83) Government: (2387-2411 kHz)
2498 - 2501	STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)		

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2501 - 2502	STANDARD FREQUENCY AND TIME SIGNAL Space Research		
2502 - 2625	FIXED MOBILE except aeronautical mobile (R) S5.92 (484), S5.103 (495)		Government: (2502-2555 kHz)
2625 - 2650	MARITIME MOBILE MARITIME RADIONAVIGATION S5.92 (484)		RR Res. 704 (Mob-83)
2650 - 2850	FIXED MOBILE except aeronautical mobile (R) S5.92 (484), S5.103 (495)	Fixed (FIX) Mobile (MOV)	RR Res. 704 (Mob-83) Government: (2650-2725 kHz)
2850 - 3025	AERONAUTICAL MOBILE (R) S5.111 (501), S5.115 (505)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
3025 - 3155	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
3155 - 3200	FIXED MOBILE except aeronautical mobile (R) S5.116 (506)	Fixed (FIX) Mobile (MOV)	RR Res. 704 (Mob-83)
3200 - 3230	FIXED MOBILE except aeronautical mobile (R) BROADCASTING S5.113 (503) S5.116 (506)		
3230 - 3400	FIXED MOBILE except aeronautical mobile BROADCASTING S5.113 (503) S5.116 (506)		
3400 - 3500	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
3500 - 3800	AMATEUR S5.120 (510) FIXED MOBILE except aeronautical mobile S5.92 (484)	Amateur (AM) Fixed (FIX) Mobile (MOV)	Amateur National Regulations CEPT Rec. T/R 61-01 RR Res. 704 (Mob-83)

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
3800 - 3900	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed (FIX) Aeronautical Mobile (MAOR) Land Mobile (MT)	
3900 - 3950	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
3950 - 4000	FIXED BROADCASTING	Fixed (FIX)	
4000 - 4063	FIXED MARITIME MOBILE S5.127 (517)		
4063 - 4438	MARITIME MOBILE S5.109 (500A), S5.110 (500B), S5.130 (520), S5.131 (520A), S5.132 (520B) S5.129 (519)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (4065-4152; 4351-4438kHz) RR Ap. S25 (Ap. 25) : (4351-4438 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (4209,25-4219,25 kHz) RR Ap. S17 (Ap. 33) : (4202,25-4207,25 kHz) RR Ap. S13 (3010) : 4125; 4177,5 and 4207,5 kHz Government: (4063-4094 kHz) (4146,6-4162,5 kHz) (4166-4170 kHz)
4438 - 4650	FIXED MOBILE except aeronautical mobile (R)	Fixed (FIX) Mobile (MOV)	
4650 - 4700	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
4700 - 4750	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
4750 - 4850	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING S5.113 (503)	Fixed (FIX) Aeronautical Mobile (MAOR)	
4850 - 4995	FIXED LAND MOBILE BROADCASTING S5.113 (503)	Fixed (FIX) Land Mobile (MT)	
4995 - 5003	STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)		

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
5003 - 5005	STANDARD FREQUENCY AND TIME SIGNAL Space Research	Fixed (FIX)	
5005 - 5060	FIXED BROADCASTING S5.113 (503)		
5060 - 5250	FIXED Mobile except aeronautical mobile		
5250 - 5450	FIXED MOBILE except aeronautical mobile		
5450 - 5480	FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	Fixed (FIX) Aeronautical Mobile (MAOR)	RR Ap. S26 (Ap. 26)
5480 - 5680	AERONAUTICAL MOBILE (R) S5.111 (501), S5.115 (505)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
5680 - 5730	AERONAUTICAL MOBILE (OR) S5.111 (501), S5.115 (505)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
5730 - 5900	FIXED LAND MOBILE	Fixed (FIX)	Frequencies to be assigned to the Broadcasting service, only after a competent WRC.
5900 - 5950	BROADCASTING S5.134 (521A), S5.135 (521B) S5.136 (521C)		
5950 - 6200	BROADCASTING	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17)

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
6200 - 6525	MARITIME MOBILE S5.109 (500A), S5.110 (500B), S5.130 (520), S5.132 (520B) S5.137 (522)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (6200-6233; 6501-6525 kHz) RR Ap. S25 (Ap. 25) : (6501-6525 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (6313,75-6330,75 kHz) RR Ap. S17 (Ap. 33) : (6300,25-6311,75 kHz) RR Ap. S17 (Ap. 35) : (6284,75-6300,25 kHz) RR Ap. S13 (3010) : 6215; 6268 and 6312 kHz Government: (6200-6203,1 kHz) (6206,2-6215,5 kHz) (6221,7-6246,5 kHz) (6248-6256 kHz) (6321-6362 kHz)
6525 - 6685	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
6685 - 6765	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
6765 - 7000	FIXED Land Mobile S5.138 (524)	Fixed (FIX) Land Mobile(MT) SRD - Short Range Devices (6765-6795 kHz) ISM - Industrial, Scientific and Medical applications (6765-6795 kHz)	CEPT Rec. T/R 01-04
7000 - 7100	AMATEUR S5.120 (510) AMATEUR SATELLITE	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
7100 - 7300	BROADCASTING	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17)
7300 - 7350	BROADCASTING S5.134 (521A), S5.135 (521B) S5.143 (528A)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference
7350 - 8100	FIXED Land Mobile	Fixed (FIX)	

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FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
10003 - 10005	STANDARD FREQUENCY AND TIME SIGNAL Space Research S5.111 (501)		
10005 - 10100	AERONAUTICAL MOBILE (R) S5.111 (501)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
10100 - 10150	FIXED Amateur S5.120 (510)	Fixed (FIX) Amateur (AM)	Amateur National Regulations
10150 - 11175	FIXED Mobile except aeronautical mobile (R)	Fixed (FIX)	
11175 - 11275	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
11275 - 11400	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
11400 - 11600	FIXED	Fixed (FIX)	
11600 - 11650	BROADCASTING S5.134 (521A), S5.135 (521B) S5.146 (529B)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
11650 - 12050	BROADCASTING S5.147 (530), S5.148 (531)	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17) : (11700-11975 kHz) RR S5.148 (531) : (11650-11700 kHz); (11975-12050 kHz)
12050 - 12100	BROADCASTING S5.134 (521A), S5.135 (521B) S5.146 (529B)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
12100 - 12230	FIXED	Fixed (FIX)	

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
12230 - 13200	MARITIME MOBILE S5.109 (500A), S5.110 (500B), S5.132 (520B), S5.145 (529A)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (12230-12368) ; (13077-13200 kHz) RR Ap. S25 (Ap. 25) : (13077-13200 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (12476,75-12549,75) ; (12578,75-12656,75 kHz) RR Ap. S17 (Ap. 33) : (12559,75-12576,75 kHz) RR Ap. S17 (Ap. 35) : (12421,75-12476,75 kHz) RR Ap. S13 (3010) : 12290; 12520 and 12577 kHz Government: (12339,3-12348,6 kHz) (12351,7-12392 kHz) (12395,1-12401,3 kHz) (12439,5-12479,5 kHz) (12483-12491 kHz)
13200 - 13260	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
13260 - 13360	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
13360 - 13410	FIXED RADIO ASTRONOMY S5.149 (533)	Fixed (FIX)	
13410 - 13570	FIXED Mobile except aeronautical mobile (R) S5.150 (534)	Fixed (FIX) Mobile (MOV) SRD - Short Range Devices (13553-13567 kHz) ISM - Industrial, Scientific and Medical applications (13553-13567 kHz)	CEPT Rec. T/R 01-04
13570 - 13600	BROADCASTING S5.134 (521A), S5.135 (521B) S5.151 (534A)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
13600 - 13800	BROADCASTING S5.148 (531)	Sound Broadcasting (RAD)	RR S5.148 (531)
13800 - 13870	BROADCASTING S5.134 (521A), S5.135 (521B) S5.151 (534A)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
13870 - 14000	FIXED Mobile except aeronautical mobile (R)	Fixed (FIX)	
14000 - 14250	AMATEUR S5.120 (510) AMATEUR-SATELLITE	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
14250 - 14350	AMATEUR S5.120 (510)		
14350 - 14990	FIXED Mobile except aeronautical mobile (R)	Fixed (FIX)	
14990 - 15005	STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) S5.111 (501)		
15005 - 15010	STANDARD FREQUENCY AND TIME SIGNAL Space Research		
15010 - 15100	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RRAp. S26 (Ap. 26)
15100 - 15600	BROADCASTING S5.148 (531)	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17) : (15100-15400 kHz) RR S5.148 (531) : (15450-15600 kHz)
15600 - 15800	BROADCASTING S5.134 (521A), S5.135 (521B) S5.146 (529B)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
15800 - 16360	FIXED	Fixed (FIX)	

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
16360 - 17410	MARITIME MOBILE S5.109 (500A), S5.110 (500B), S5.132 (520B), S5.145 (529A)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (16360-16549) ; (17242-17410 kHz) RR Ap. S25 (Ap. 25) : (17242-17410 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (16683,25-16733,75) : (16806,25-16902,75 kHz) RR Ap. S17 (Ap. 33) : (16784,75-16804,25 kHz) RR Ap. S17 (Ap. 35) : (16618,75-16683,25 kHz) RR Ap. S13 (3010) : 16420; 16695 and 16804,5 kHz Government: (16460-16503,4 kHz) (16506,5-16515,8 kHz) (16596,4-16636,5 kHz) (16640-16660 kHz)
17410 - 17480	FIXED	Fixed (FIX)	
17480 - 17550	BROADCASTING S5.134 (521A), S5.135 (521B) S5.146 (529B)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
17550 - 17900	BROADCASTING S5.148 (531)	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17) : (17700-17900 kHz) RR S5.148 (531) : (17550-17700 kHz)
17900 - 17970	AERONAUTICAL MOBILE (R)	Aeronautical Mobile (MAR)	RR Ap. S27 (Ap. 27 Aer2)
17970 - 18030	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (MAOR)	Government RR Ap. S26 (Ap. 26)
18030 - 18052	FIXED	Fixed (FIX)	
18052 - 18068	FIXED Space Research		
18068 - 18168	AMATEUR S5.120 (510) AMATEUR-SATELLITE	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
18168 - 18780	FIXED Mobile except aeronautical mobile	Fixed (FIX)	
18780 - 18900	MARITIME MOBILE		RR Ap. S17 (Ap. 16) : (18780-18846 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (18870-18892,75 kHz) RR Ap. S17 (Ap. 33) : (18892,75-18898,25 kHz)
18900 - 19020	BROADCASTING S5.134 (521A), S5.135 (521B) S5.146 (529B)		Frequencies to be assigned to the Broadcasting service, only after a Planning Conference .
19020 - 19680	FIXED	Fixed (FIX)	
19680 - 19800	MARITIME MOBILE S5.132 (520B)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (19755-19800 kHz) RR Ap. S25 (Ap. 25) : (19755-19800 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (19680,25-19703,25 kHz)
19800 - 19990	FIXED	Fixed (FIX)	
19990 - 19995	STANDARD FREQUENCY AND TIME SIGNAL Space Research S5.111 (501)		
19995 - 20010	STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) S5.111 (501)		
20010 - 21000	FIXED Mobile	Fixed (FIX) Mobile (MOV)	
21000 - 21450	AMATEUR S5.120 (510) AMATEUR-SATELLITE	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
21450 - 21850	BROADCASTING S5.148 (531)	Sound Broadcasting (RAD)	RR Art. S12A (Art. 17) : (21450-21750 kHz) RR S5.148 (531) : (21750-21850 kHz)

FREQUENCY BANDS (kHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
21850 - 21870	FIXED	Fixed (FIX)	
21870 - 21924	FIXED S5.155B		
21924 - 22000	AERONAUTICAL MOBILE (R)		
22000 - 22855	MARITIME MOBILE S5.132 (520B)	Maritime Mobile (MM)	RR Ap. S17 (Ap. 16) : (22000-22180) ; (22696-22855 kHz) RR Ap. S25 (Ap. 25) : (22696-22855 kHz) RR Ap. S17 (Ap. 31) RR Ap. S17 (Ap. 32) : (22284,25-22351,75) ; (22375,75-22443,75 kHz) RR Ap. S17 (Ap. 33) : (22351,75-22374,25 kHz) RR Ap. S17 (Ap. 34) : (22279,25-22284,25 kHz) RR Ap. S17 (Ap. 35) : (22241,75-22279,25 kHz) Government : (22068,2-22093 kHz) (22139,5-22160,5 kHz) (22164-22192 kHz)
22855 - 23000	FIXED	Fixed (FIX)	
23000 - 23200	FIXED Mobile except aeronautical mobile (R)	Fixed (FIX) Mobile (MOV)	
23200 - 23350	AERONAUTICAL MOBILE (OR) FIXED S5.156A	Aeronautical Mobile (MAOR)	
23350 - 24000	FIXED MOBILE except aeronautical mobile S5.157 (541)	Fixed (FIX)	
24000 - 24890	FIXED LAND MOBILE		
24890 - 24990	AMATEUR S5.120 (510) AMATEUR-SATELLITE	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
24990 - 25005	STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)		

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FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
27,5-28	METEOROLOGICAL AIDS FIXED MOBILE	CT0 - Cordless Telephones (MOV) (27,550 - 27,825 MHz)	Frequency use of 27,9 MHz (+/- 100 kHz) is conditioned
28-29,7	AMATEUR AMATEUR-SATELLITE	Amateur (AM) Amateur-Satellite (AM-S)	Amateur National Regulations CEPT Rec. T/R 61-01
29,7-30,005	FIXED MOBILE	SMT - Private Mobile Radio (MOV) SRD - Short Range Devices (29,980; 29,990; 30,000 MHz)	40 MHz Channel Plan CEPT Rec. T/R 20-04
30,005-30,01	SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	SMT - Private Mobile Radio (MOV) SRD - Short Range Devices (30,010 MHz)	40 MHz Channel Plan CEPT Rec. T/R 20-04
30,01-37,5	FIXED MOBILE	SMT - Private Mobile Radio (MOV) SRD - Short Range Devices Wireless Microphones (34,50; 34,75 MHz) Telecomand for Aircraft models (35,005-35,205 MHz) CT0 - Cordless Telephones (MOV) (37,000 - 37,275 MHz)	40 MHz Channel Plan CEPT Rec. T/R 20-06 Government : (31,06-33,08 ; 36,2-36,6 MHz)
37,5-38,25	FIXED MOBILE Radio Astronomy S5.149 (547)	SMT - Private Mobile Radio (MOV)	40 MHz Channel Plan Government : (37,74 - 38,25 MHz)
38,25-39,986	FIXED MOBILE		40 MHz Channel Plan Government : (38,25 - 39,76 MHz)
39,986-40,02	FIXED MOBILE Space Research		40 MHz Channel Plan

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
40,02-40,98	FIXED MOBILE S5.150 (548)	SMT - Private Mobile Radio (MOV) SRD - Short Range Devices (40,66 - 40,70 MHz) (40,665; 40,695 MHz) ISM - Industrial, Scientific and Medical applications (40,66 - 40,70 MHz)	40 MHz Channel Plan CEPT Rec. T/R 01-04 CEPT Rec. T/R 20-03
40,98-41,015	FIXED MOBILE Space Research	Land Mobile (MOV)	Government
41,015-47	FIXED MOBILE		
47-68	BROADCASTING	Television Broadcasting (RAD)	Band I ST-61
68-74,8	FIXED MOBILE except aeronautical mobile S5.149 (568)	SMT - Private Mobile Radio (MOV)	80 MHz Channel Plan Government: (68,888 - 69,388 MHz)
74,8-75,2	AERONAUTICAL RADIONAVIGATION S5.180 (572)	Aeronautical Radiobeacons - ILS/Glide path markers (RVA)	ICAO - (Annex 10)
75,2-87,5	FIXED MOBILE except aeronautical mobile	SMT - Private Mobile Radio (MOV)	80 MHz Channel Plan Government: (75,2 - 75,713 MHz) (79,413 - 79,913 MHz) (85,738 - 86,238 MHz)
87,5-100	BROADCASTING	Sound Broadcasting (RAD)	Band II - FM GE-84
100-108	BROADCASTING		
108-117,975	AERONAUTICAL RADIONAVIGATION	Aeronautical Radiobeacons - VOR and ILS localizers (RVA)	ICAO - (Annex 10) RR S5.198 (591) : S9.21 (Art. 14) RR Ap. S13 (3010) : 121,5 MHz

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
117,975-136	AERONAUTICAL MOBILE (R) Aeronautical Mobile-Satellite (R) S5.198 (591) S5.111 (501), S5.199 (592), S5.200 (593)	Aeronautical Mobile (MAR)	ICAO - (Annex 10) RR S5.198 (591) : S9.21 (Art. 14) RR Ap. S13 (3010) : 121,5 MHz
136-137	AERONAUTICAL MOBILE (R) Fixed Mobile except aeronautical mobile (R) S5.198 (591), S5.203 (595)		ICAO - (Annex 10) RR S5.198 (591) : S9.21 (Art. 14)
137-137,025	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) S5.209 (599B), S5.208A SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) S5.208 (599A)		
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) S5.209 (599B), S5.208A Mobile except aeronautical mobile (R) S5.208 (599A)	METEOSAT - Low Resolution Picture Transmissions - LRPT (MET-S)	Meteosat will replace APT system

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
137,175-137,825	<p>SPACE OPERATION (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE- SATELLITE (space-to-Earth) S5.209 (599B), S5.208A</p> <p>SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R)</p> <p>S5.208 (599A)</p>	<p>METEOSAT - Low Resolution Picture Transmission - LRPT (MET-S) - Automatic Picture Transmission - APT (MET-S) (137,5 - 137,62 MHz)</p>	Meteosat will replace APT system
137,825-138	<p>SPACE OPERATION (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>SPACE RESEARCH (space-to-Earth) Fixed Mobile-Satellite (space-to-Earth) S5.209 (599B), S5.208A Mobile except aeronautical mobile (R)</p> <p>S5.208 (599A)</p>	<p>METEOSAT - Low Resolution Picture Transmission - LRPT (MET-S)</p>	Meteosat will replace APT system
138-143,6	AERONAUTICAL MOBILE (OR)	Aeronautical Mobile (OR) (MAOR)	Government
143,6-143,65	<p>AERONAUTICAL MOBILE (OR)</p> <p>SPACE RESEARCH (space-to-Earth)</p>		
143,65-144	AERONAUTICAL MOBILE (OR)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
223-230	BROADCASTING Fixed Mobile	T-DAB: Sound Broadcasting (RAD)	Wiesbaden Agreement 1995 Government : (225 - 230 MHz)
230-235	FIXED MOBILE	Mobile (MOV)	Government
235-267	FIXED MOBILE Mobile-Satellite S5.254 (641) S5.111 (501), S5.199 (592), S5.256 (642)	Mobile (MOV)	Government RR S5.254 (641) : S9.21 (Art. 14)
267-272	FIXED MOBILE Space Operation (space-to-Earth) Mobile-Satellite S5.254 (641) S5.257 (643)	Mobile (MOV)	Government RR S5.254 (641) and RR S5.257 (643) : S9.21 (Art. 14)
272-273	SPACE OPERATION (space-to-Earth) FIXED MOBILE Mobile-Satellite S5.254 (641)	Mobile (MOV)	Government RR S5.254 (641): S9.21 (Art. 14)
273-312	FIXED MOBILE Mobile-Satellite S5.254 (641)		
312-315	FIXED MOBILE Mobile-Satellite (Earth-to-space) S5.254 (641), S5.255 (641A)		
315-322	FIXED MOBILE S5.254 (641)		
322-328,6	FIXED MOBILE RADIO ASTRONOMY S5.149 (644)		ICAO - (Annex 10)

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
328,6-335,4	AERONAUTICAL RADIONAVIGATION S5.258 (645)	Aeronautical Radiobeacons - ILS/ glide path (RVA)	ICAO - (Annex 10)
335,4-387	FIXED MOBILE S5.254 (641)	Mobile (MOV)	Government
387-390	FIXED MOBILE Mobile-Satellite (space-to-Earth) S5.254 (641), S5.255 (641A), S5.208A		RR S5.254 (641) : S9.21 (Art. 14)
390-399,9	FIXED MOBILE S5.254 (641)		
399,9-400,05	RADIONAVIGATION-SATELLITE LAND MOBILE-SATELLITE (Earth-to-space) S5.209 (599B) S5.220 (608B), S5.222 (609), S5.224 (609B), S5.260 (645B)	TRANSIT - Radionavigation-Satellite system (RV-S) (399,968 MHz)	Transit system to be cancelled
400,05-400,15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400,1 MHz) S5.261 (646)		
400,15-401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) S5.209 (599B), S5.208A SPACE RESEARCH (space-to-Earth) S5.263 (647A) Space Operation (space-to-Earth) S5.264 (647B)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
401-402	<p>METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space)</p> <p>Mobile except aeronautical mobile</p>	DCP - Data Collecting Platforms for Meteorological service (MET-S) (401,9 MHz +/- 200 kHz)	
402-403	<p>METEOROLOGICAL AIDS Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space)</p> <p>Mobile except aeronautical mobile</p>	DCP - Data Collecting Platforms for Meteorological service (MET-S) (401,9 MHz +/- 200 kHz)	
403-406	<p>METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile</p>	Radiosondes (METAX)	
406-406,1	<p>MOBILE-SATELLITE (Earth-to-space)</p> <p>S5.266 (649), S5.267 (649A)</p>	Low power EPIRB COSPAS - SARSAT (MV-S)	RR Ap. S13 (3010)
406,1-410	<p>FIXED</p> <p>MOBILE except aeronautical mobile RADIO ASTRONOMY</p> <p>S5.149 (650)</p>	Single channel (FIX)	Single channel links Plan Planned for unidirectional links and mobile systems in the future.
410-420	<p>FIXED</p> <p>MOBILE except aeronautical mobile Space Research (space-to-space) S5.268 (651A)</p>		Single channel links Plan Planned for bidirectional links and mobile systems in the future. Government : (414 - 416,5 MHz)

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
420-430	FIXED MOBILE except aeronautical mobile Radiolocation	Single channel (FIX) POSAT-1 (429,450; 429,520; 429,880; 429,950 MHz)	Single channel links Plan Low Earth Orbiting satellite Under RR S4.4 (342) Government : (426 - 428,5 MHz)
430-435	AMATEUR RADIOLOCATION S5.138, (S5.280 (662))	Amateur (AM) SRD - Short Range Devices (433,05 - 434,79 MHz) ISM - Industrial, Scientific and Medical applications (433,05 - 434,79 MHz)	Amateur National Regulations CEPT Rec. T/R 61-01 CEPT Rec. T/R 01-04
435-438	AMATEUR RADIOLOCATION Amateur-Satellite S5.282 (664)	Amateur-Satellite (AM-S) (435 - 438 MHz) POSAT-1 (AM-S) (435,050; 435,075 MHz)	Amateur National Regulations CEPT Rec. T/R 61-01 The amateur-satellite uses have a secondary allocation in the frequency band 435 - 438 MHz under RR S5.282 (664)
438-440	AMATEUR RADIOLOCATION	Amateur (AM)	Amateur National Regulations CEPT Rec. T/R 61-01
440-450	FIXED MOBILE except Aeronautical Mobile Radiolocation S5.286 (668)	Fixed (FIX) SMT - Private Mobile Radio (MOV)	

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
450-460	<p>FIXED</p> <p>MOBILE</p> <p>S5.286 (668), S5.286C, S5.287 (669)</p>	<p>SMT - Private Mobile Radio (MOV)</p> <p>SMRP - National Trunking Mobile System (MOV) (frequency assignments in the sub-band 450,0125 - 451,3875 MHz)</p> <p>C450 - Public Analog Land Mobile Cellular Communications (MOV) (453,0375 - 457,5375 MHz)</p> <p>SCPP - Private Radio Paging (MOV)</p> <p>SRD - Short Range Devices (458,1125; 458,1250; 458,1375; 458,15 MHz)</p> <p>On board communications (maritime) (MOV) (457,525; 457,550; 457,575 MHz)</p>	<p>450 MHz Channel Plan</p> <p>MPT 1327</p> <p>C-netz</p> <p>On-site Paging</p> <p>CEPT Rec. T/R 20-04</p> <p>RR S5.287 (669)</p> <p>Government: (458,212 - 459,362 MHz)</p>
460-470	<p>FIXED</p> <p>MOBILE</p> <p>Meteorological-Satellite (space-to-Earth) Earth Exploration-Satellite S5.289 (671)</p> <p>S5.287 (669)</p>	<p>SMT - Private mobile radio (MOV)</p> <p>SMRP - National Trunking Mobile System (MOV) (frequency assignments in the sub-band 460,0125 - 461,3875 MHz)</p> <p>C450 - Public Analog Land Mobile Cellular Communications (MOV) (463,0375 - 467,5375 MHz)</p> <p>SCPP - Private Radio Paging (MOV)</p> <p>On board communications (maritime) (MOV) (467,525; 467,550; 467,575 MHz)</p>	<p>450 MHz Channel Plan</p> <p>MPT 1327</p> <p>On-site Paging</p> <p>RR S5.287 (669)</p> <p>Government: (468,212 - 469,212; 469,362 - 469,587 MHz)</p>

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
470-790	BROADCASTING Radio Astronomy S5.306 (689) Land Mobile (S5.296 (677A)) S5.149, S5.311 (693)	Television Broadcasting (RAD) SMT - Private mobile radio (MOV)	Bands IV (470-582 MHz) and V (582-790 MHz) (channels 21-60) ST-61
790-862	FIXED BROADCASTING MOBILE except aeronautical mobile (S5.316 (697))	STL - Studio Transmitter Link (FIX) (838,75 - 852,25 MHz) DVB-T: Television Broadcasting (RAD) (790-822 MHz)	Band V (channels 61-64 may become available for DVB-T in 1998) Government : (825-862 MHz)
862-890	FIXED MOBILE except aeronautical mobile	Fixed (FIX) Mobile (MOV)	To cancel in the short-term CEPT Rec. T/R 75-02 Government : (862-870 MHz)
890-942	FIXED MOBILE except Aeronautical Mobile Radiolocation	Fixed (FIX) GSM - Global System for Mobile Telecommunications (MOV) (frequency assignments in the sub-bands 890 - 914 and 935 - 942 MHz) CT1 - Cordless Telephones (MOV) (914 - 915 MHz)	To cancel in the short-term CEPT Rec. T/R 75-02 EEC Directive: 87/372/EEC CEPT Rec. T/R 20-08 ERC/DEC/(94)01 CEPT Rec. T/R 24-03
942-960	FIXED MOBILE except Aeronautical Mobile	Fixed (FIX) GSM - Global System for Mobile Telecommunications (MOV) (frequency assignments in the sub-bands 942 - 959 MHz) CT1 - Cordless Telephones (MOV) (959 - 960 MHz)	To cancel in the short-term CEPT Rec. T/R 75-02 EEC Directive: 87/372/EEC CEPT Rec. T/R 20-08 ERC/DEC/(94)01 CEPT Rec. T/R 24-03

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
960 - 1215	AERONAUTICAL RADIONAVIGATION S5.328 (709)	Flight, Safety and Navigation Systems (DME, TACAN, SSR) - (RVA)	
1215 - 1240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) S5.329 (710) RADIONAVIGATION S5.331 (712) S5.333 (713)	GPS - Global Positioning System (RVA-S)	
1240 - 1260	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) S5.329 (710) RADIONAVIGATION S5.331 (712) Amateur S5.333 (713)	Amateur (AM)	Amateur National Regulations
1260 - 1300	RADIOLOCATION RADIONAVIGATION S5.331 (712) Amateur Amateur-Satellite S5.282 (664) S5.333 (713)	Amateur (AM) Amateur-Satellite (AM-S)	
1300 - 1350	AERONAUTICAL RADIONAVIGATION S5.337 (717) Radiolocation S5.149 (718)	Radars (RVA; RLC)	
1350 - 1400	FIXED MOBILE RADIOLOCATION Space Research (passive) S5.339 (720) Earth Exploration-Satellite (passive) S5.339 (720) S5.149 (718)	Fixed Links (FIX)	Planned use in accordance with CEPT Rec. T/R 13-01 Annexes A, B Government

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1400 - 1427	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (721), S5.341 (722)	ALL EMISSIONS IN THIS BAND ARE PROHIBITED	
1427 - 1429	FIXED SPACE OPERATION (Earth-to-space) MOBILE except aeronautical mobile S5.341 (722)		Planned use in accordance with CEPT Rec. T/R 13-01 Annex B.
1429 - 1452	FIXED MOBILE except aeronautical mobile S5.341 (722)	Fixed Links (FIX)	1,5 GHz Band Low capacity analogue and digital fixed links: up to 30 channels or 2 Mbit/s. Report ITU-R F 379-5 (To cancel in the short-term) Planned use in accordance with CEPT Rec. T/R 13-01 Annex B.
1452 - 1492	FIXED MOBILE except aeronautical mobile BROADCASTING S5.345 (722A), S5.347 (722B) BROADCASTING-SATELLITE S5.345 (722A), (S5.347 (722B)) S5.341 (722)	T-DAB: Sound Broadcasting (RAD)	1,5 GHz Band RR S5.347 (722B) : applicable until 2007 Bilateral agreement between Portugal and Spain in part of the band 1452-1467,5 MHz. Band reserved by WARC - 92 to Digital Broadcasting-Satellite sound , from 2007 onwards.
1492 - 1525	FIXED MOBILE except aeronautical mobile S5.341 (722)		1,5 GHz Band Planned use in accordance with CEPT Rec. T/R 13-01 Annex A.

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1525 - 1530	SPACE OPERATION (space-to-Earth) FIXED MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Land Mobile-Satellite (space-to-Earth) S5.352 (726B) Mobile except aeronautical mobile S5.341 (722), S5.351 (726A), S5.354(726D)	Maritime Mobile-Satellite (MM-S)	Government
1530 - 1533	SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) LAND MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile S5.341 (722), S5.351 (726A), S5.354(726D)	Maritime Mobile-Satellite (MM-S) Land Mobile-Satellite (MT-S)	
1533 - 1535	SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile Land Mobile-Satellite (space-to-Earth) S5.352 (726B) S5.341 (722), S5.351 (726A), S5.354(726D)	Land Mobile-Satellite (MT-S)	

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1535 - 1544	MARITIME MOBILE-SATELLITE (space-to-Earth) Land Mobile-Satellite (space-to-Earth) S5.352 (726B) S5.341 (722), S5.351 (726A), S5.354(726D)	Maritime Mobile-Satellite (MM-S)	
1544 - 1545	MOBILE-SATELLITE (space-to-Earth) S5.341 (722), S5.354 (726D), S5.356(727A)	Search and rescue satellite Sytems, including GMDSS (MV-S)	International frequency band for distress and safety
1545 - 1555	AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth) S5.341 (722), S5.351 (726A), S5.354 (726D), S5.357 (729), S5.358 (729A)		
1555 - 1559	LAND MOBILE-SATELLITE (space-to-Earth) S5.341 (722), S5.351 (726A), S5.354 (726D), S5.360 (730A)		
1559 - 1610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) S5.341 (722)	GPS - Global Positioning System (RVA-S)	
1610 - 1610,6	MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION S5.341 (722), S5.364 (731E), S5.366 (732), S5.367 (733), S5.368 (733A), S5.372 (733E), S5.371 (733F)		Important band for Radio Astronomy in Europe
1610,6 - 1613,8	MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION S5.149 (734), S5.341 (722), S5.364 (731E), S5.366 (732), S5.367 (733), S5.368 (733A), S5.372 (733E), S5.371 (733F)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1613,8 - 1626,5	MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Mobile-Satellite (space-to-Earth) S5.341 (722), S5.364 (731E), S5.365 (731F), S5.366 (732), S5.367 (733), S5.368 (733A), S5.372 (733E), S5.371 (733F)		
1626,5 - 1631,5	MARITIME MOBILE-SATELLITE (Earth-to-space) Land Mobile-Satellite (Earth-to-space) S5.352 (726B) S5.341 (722), S5.351 (726A), S5.354 (726D)	Maritime Mobile-Satellite (MM-S)	
1631,5 - 1634,5	MARITIME MOBILE-SATELLITE (Earth-to-space) LAND MOBILE-SATELLITE (Earth-to-space) S5.341 (722), S5.351 (726A), S5.354 (726D), S5.374 (734A)	Maritime Mobile-Satellite (MM-S)	
1634,5 - 1645,5	MARITIME MOBILE-SATELLITE (Earth-to-space) Land Mobile-Satellite (Earth-to-space) S5.352 (726B) S5.341 (722), S5.351 (726A), S5.354 (726D)	Land Mobile-Satellite (MT-S)	
1645,5 - 1646,5	MOBILE-SATELLITE (Earth-to-space) S5.341 (722), S5.354 (726D), S5.375 (734B)	Search and rescue satellite Systems, including GMDSS (MV-S)	International frequency band for distress and safety
1646,5 - 1656,5	AERONAUTICAL MOBILE -SATELLITE (R) (Earth-to-space) S5.341 (722), S5.351 (726A), S5.354 (726D), S5.358 (729A), S5.376 (735)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1656,5 - 1660	LAND MOBILE-SATELLITE (Earth-to-space) S5.341 (722), S5.351 (726A), S5.354 (726D), S5.360 (730A), S5.374 (734A)		
1660 - 1660,5	LAND MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY S5.149 (736), S5.341 (722), S5.351 (726A), S5.354 (726D), S5.360 (730A)		Important band for Radio Astronomy in Europe
1660,5 - 1668,4	RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile S5.149 (736), S5.341 (722), S5.379A (739)		
1668,4 - 1670	METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY S5.149 (736), S5.341 (722)		Government Important band for Radio Astronomy in Europe
1670 - 1675	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE S5.380 (740A) S5.341 (722)	TFTS - Terrestrial Flight Telephone System (Ground-air) (MOV)	Government ERC/DEC/(92)01

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1675 - 1690	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.341 (722)		Government
1690 - 1700	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile S5.289 (671), S5.341 (722)	METEOSAT: Meteorological satellites for High Resolution Pictures Transmission - HRPT (MET-S)	
1700 - 1710	FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.289 (671), S5.341 (722)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
1710 - 1980	<p>FIXED</p> <p>MOBILE S5.380 (740A)</p> <p>S5.149, S5.341 (722), S5.385 (744), S5.388 (746A)</p>	<p>Fixed Links (FIX)</p> <p>*DCS 1800 - Digital Cellular Telecommunications System (1710 - 1785 MHz; 1805 - 1880 MHz).</p> <p>TFTS - Terrestrial Flight Telephone System (air-Ground) (MOV); (1800 - 1805 MHz).</p> <p>DECT - Digital European Cordless Telecommunication System (MOV) ; (1880 - 1900 MHz).</p> <p>IMT-2000 - International Mobile Telecommunication - 2000 (MOV) ; (from 1885 MHz).</p>	<p>2 GHz Band Low and medium capacity analogue and digital fixed links: 30 - 960 channels or 2 - 34MBit/s. Rec. ITU-R F 283-5 and Rec. ITU-R F 382-6 (To cancel channel plans in the short-term)</p> <p>CEPT Rec. T/R 22 - 07 ERC/DEC/(95)03</p> <p>ERC/DEC/(92)01</p> <p>EEC Directive 91/287/EEC ; CEPT Rec. T/R 22-02 ERC/DEC/(94)03</p> <p>WARC-92</p>
1980 - 2010	<p>FIXED</p> <p>MOBILE</p> <p>MOBILE -SATELLITE (Earth-to-space)</p> <p>S5.388 (746A), S5.389A (746B)</p>		
2010 - 2025	<p>FIXED</p> <p>MOBILE</p> <p>S5.388 (746A)</p>	<p>Fixed Links (FIX)</p> <p>IMT-2000 - International Mobile Telecommunication - 2000 (MOV)</p>	<p>2 GHz Band</p> <p>WARC-92</p>

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2025 - 2110	<p>FIXED</p> <p>SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)</p> <p>MOBILE S5.391 (747A) SPACE RESEARCH (Earth-to-space) (space-to-space)</p> <p>S5.392 (750A)</p>	<p>Fixed Links (FIX)</p> <p>TCR - Tracking, Control and Ranging (OE)</p>	<p>2 GHz Band Planned use in accordance with T/R 13-01 Annex C.</p>
2110 - 2120	<p>FIXED</p> <p>MOBILE SPACE RESEARCH (deep space) (Earth-to-space)</p> <p>S5.388 (746A)</p>	<p>Fixed Links (FIX)</p> <p>IMT-2000 - International Mobile Telecommunication - 2000 (MOV)</p>	<p>2 GHz Band Low and medium capacity analogue and digital fixed links: 30 - 960 channels or 2 - 34MBit/s. Rec. ITU-R F 283-5 and Rec. ITU-R F 382-6 (To cancel channel plans in the short-term)</p> <p>WARC-92</p>
2120 - 2170	<p>FIXED MOBILE</p> <p>S5.388 (746A)</p>		
2170 - 2200	<p>FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)</p> <p>S5.388 (746A), S5.389A (746B)</p>		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2200 - 2290	<p>FIXED</p> <p>SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)</p> <p>MOBILE S5.391 (747A) SPACE RESEARCH (space-to-Earth) (space-to-space)</p> <p>S5.392 (750A)</p>	<p>Fixed Links (FIX)</p> <p>TCR - Tracking, Control and Ranging (OE)</p>	<p>2 GHz Band Low and medium capacity analogue and digital fixed links: 30 - 960 channels or 2 - 34MBit/s. Rec. ITU-R F 283-5 and Rec. ITU-R F 382-6 (To cancel channel plans in the short-term) Planned use in accordance with T/R 13-01 Annex C.</p>
2290 - 2300	<p>FIXED</p> <p>MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)</p>		<p>2 GHz Band Low and medium capacity analogue and digital fixed links: 30 - 960 channels or 2 - 34MBit/s. Rec. ITU-R F 283-5 and Rec. ITU-R F 382-6 (To cancel channel plans in the short-term)</p>
2300 - 2400	<p>FIXED</p> <p>MOBILE Amateur Radiolocation</p> <p>S5.150 (752), S5.282 (664)</p>	<p>Fixed Links (FIX)</p>	<p>2 GHz Band ENG Links (Rep. ITU-R 933)</p>

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2400 - 2450	FIXED MOBILE Amateur Amateur-Satellite S5.282 (664) Radiolocation S5.150 (752)	Fixed Links (FIX) Amateur - Satellite (AM-S) SRD - Short Range Devices (2400-2483,5 MHz) WBDS - Wide Band Data Transmission System (2400 - 2483,5 MHz)	2 GHz Band ENG Links (Rep. ITU-R 933) CEPT Rec. T/R 01-04 CEPT Rec. T/R 10-01
2450 - 2483,5	FIXED MOBILE Radiolocation S5.150 (752)	ISM - Industrial Scientific and Medical applications (2400 - 2500 MHz)	
2483,5 - 2500	FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) Radiolocation S5.150 (752), S5.371 (733F), S5.398 (753A), S5.399 (753B), S5.402 (753F)		CEPT Rec. ITU-R F 283-5
2500 - 2520	FIXED S5.409 (762), S5.410 (763), S5.411 (764) MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) S5.403 (754), S5.414 (760A)	Fixed Links (FIX)	CEPT Rec. ITU-R F 283-5 RR S5.414 (760A): band allocated to Mobile-Satellite Service from 1/1/2005
2520 - 2655	FIXED S5.409 (762), S5.410 (763), S5.411 (764) MOBILE except aeronautical mobile BROADCASTING-SATELLITE S5.416 (757), S5.413 (760) S5.339 (720), S5.403 (754)		Planned use in accordance with T/R 13-01 Annex D. CEPT Rec. ITU-R F 283-5

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2655 - 2670	<p>FIXED S5.409 (762), S5.410 (763), S5.411 (764)</p> <p>MOBILE except aeronautical mobile BROADCASTING-SATELLITE S5.416 (757), S5.413 (760) Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)</p> <p>S5.149 (765), S5.420 (766)</p>	Fixed Links (FIX)	Planned use in accordance with T/R 13-01 Annex D. CEPT Rec. ITU-R F 283-5
2670 - 2690	<p>FIXED S5.409 (762), S5.410 (763), S5.411 (764)</p> <p>MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)</p> <p>S5.149 (765), S5.419 (764A), S5.420 (766)</p>		<p>CEPT Rec. ITU-R F 283-5</p> <p>RR S5. 419 (764A): band allocated to Mobile-Satellite service from 1/1/2005.</p>
2690 - 2700	<p>EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)</p> <p>S5.340 (768)</p>	ALL EMISSIONS IN THIS BAND ARE PROHIBITED	
2700 - 2900	<p>AERONAUTICAL RADIONAVIGATION S5.337 (717) METEOROLOGICAL AIDS S5.423 (770) Radiolocation</p>	<p>Navigation Systems (RVA) Meteorological Radars (METAX) Radars (RVA, RLC)</p>	

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
2900 - 3100	RADIONAVIGATION S5.426 (773) Radiolocation S5.425 (772), S5.427 (775A)	Radars (RVA, RLC)	
3100 - 3300	RADIOLOCATION S5.333 (713), S5.149 (778)	Radars (RLC)	Government
3300 - 3400	RADIOLOCATION S5.149 (778)		
3400 - 3600	FIXED FIXED-SATELLITE (space-to-Earth) Mobile Radiolocation	Fixed-Satellite (FIX-S)	
3600 - 4200	FIXED FIXED-SATELLITE (space-to-Earth) Mobile	Fixed Links (FIX) (3800-4200 MHz) Fixed-Satellite: V-SATs (3700-4200 MHz) (FIX-S)	4 GHz Band Medium and high capacity analogue fixed links: 600 - 1800 channels. Rec. ITU-R F 382-6
4200 - 4400	AERONAUTICAL RADIONAVIGATION S5.438 (789) S5.440 (791)	Radars (RVA)	
4400 - 4500	FIXED MOBILE	Fixed Links (FIX)	Government
4500 - 4800	FIXED FIXED-SATELLITE (space-to-Earth) S5.441 (792A) MOBILE		Government RR Ap. S30B (Ap. 30B)

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
4800 - 4990	FIXED MOBILE S5.442 (793) Radio Astronomy S5.339 (720), S5.149 (778)	Fixed Links (FIX)	Government
4990 - 5000	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space Research (passive) S5.149 (795)		
5000 - 5150	AERONAUTICAL RADIONAVIGATION S5.367 (733), S5.444 (796), S5.444A		Band reserved for the MLS system
5150 - 5250	AERONAUTICAL RADIONAVIGATION MOBILE (S5.447 (797B)) FIXED-SATELLITE SERVICE (Earth-to-space) S5.447A S5.446 (797A), S5.447B, S5.447C	HIPERLAN - High Performance Radio Local Area Network	CEPT Rec. T/R 22-06 ERC/DEC/(96)03
5250 - 5255	RADIOLOCATION Space Research S5.333 (713)	HIPERLAN - High Performance Radio Local Area Network	Government CEPT Rec. T/R 22-06
5255 - 5350	RADIOLOCATION S5.333 (713)	HIPERLAN - High Performance Radio Local Area Network	Government
5350 - 5460	AERONAUTICAL RADIONAVIGATION S5.449 (799) Radiolocation		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
5460 - 5470	RADIONAVIGATION S5.449 (799) Radiolocation		
5470 - 5600	MARITIME RADIONAVIGATION Radiolocation S5.452 (802)	Radars (RVM)	
5600 - 5650	MARITIME RADIONAVIGATION METEOROLOGICAL AIDS S5.452 (802) Radiolocation	Radars (RVM) Meteorological Radars (METAX)	
5650 - 5670	RADIOLOCATION Amateur Amateur-Satellite S5.282 (664) Space Research (deep space)	Amateur-Satellite (AM-S)	Government
5670 - 5725	RADIOLOCATION Amateur Space Research (deep space)		
5725 - 5830	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur S5.150 (806)	Amateur (AM) SRD - Short Range Devices (5725-5875 MHz) ISM - Industrial Scientific and Medical applications (5725-5875 MHz) RTT/RTI - Road Transport Telematic/ Information Systems (5795 - 5815 MHz)	Amateur National Regulations CEPT Rec. T/R 01-04 CEPT Rec. T/R 22-04 (1991) ERC/DEC/(92)02

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
5830 - 5850	<p>FIXED-SATELLITE (Earth-to-space) RADIOLOCATION</p> <p>Amateur</p> <p>Amateur-Satellite (space-to-Earth)</p> <p>S5.150 (806)</p>	<p>Amateur (AM)</p> <p>SRD - Short Range Devices (5725-5875 MHz)</p> <p>ISM - Industrial Scientific and Medical applications (5725-5875 MHz)</p> <p>RTT / RTI - Road Transport Telematic/ Information Systems (5795 - 5815 MHz)</p>	<p>Amateur National Regulations</p> <p>CEPT Rec. T/R 01-04</p> <p>CEPT Rec. T/R 22-04 (1991) ERC/DEC/(92)02</p>
5850 - 5925	<p>FIXED FIXED-SATELLITE (Earth-to-space) MOBILE</p> <p>S5.150 (806)</p>	<p>SRD - Short Range Devices (5725-5875 MHz)</p> <p>ISM - Industrial Scientific and Medical applications (5725-5875 MHz)</p>	<p>CEPT Rec. T/R 01-04</p>
5925 - 6700	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>S5.149, S5.440 (791), S5.458 (809)</p>	<p>Fixed Links (FIX)</p> <p>Fixed-Satellite: V-SATs (5925 - 6425 MHz) - (FIX-S)</p>	<p>Lower 6 GHz band (5925-6425 MHz) Upper 6 GHz Band (6425-7110 MHz) Medium and high capacity analogue fixed links: 600 - 1800 channels. Rec. ITU-R F 383-5</p>

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
6700 - 7075	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) S5.441 (792A)</p> <p>MOBILE</p> <p>S5.458 (809), S5.458A, S5.458B, S5.458C</p>	<p>Fixed Links (FIX)</p> <p>Fixed - Satellite (FIX-S)</p>	<p>Upper 6 GHz Band (6425-7110 MHz)</p> <p>High capacity digital fixed links: 140 MBit/s</p> <p>Rec. ITU-R F 384-6</p> <p>RR Ap.S30B (Ap.S30B): (6725 - 7025 MHz)</p>
7075 - 7110	<p>FIXED</p> <p>MOBILE</p> <p>S5.458 (809), S5.460 (811)</p>		
7110 - 7250	<p>FIXED</p> <p>MOBILE</p> <p>S5.458 (809), S5.460 (811)</p>	Fixed Links (FIX)	<p>7 GHz Band</p> <p>Low capacity analogue and digital fixed links: up to 120 channels or 4x2 MBit/s, respectively</p> <p>Rec.ITU-R F 385-6</p>
7250 - 7300	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>S5.461 (812)</p>	Fixed-Satellite (FIX-S)	Government
7300 - 7450	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>S5.461 (812)</p>	Fixed-Satellite (FIX-S)	<p>7 GHz Band</p> <p>Low capacity analogue and digital fixed links: up to 120 channels or 4x2 MBit/s, respectively</p> <p>Rec.ITU-R F 385-6</p>

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
7450 - 7550	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile</p>	<p>Fixed Links (FIX)</p> <p>Fixed - Satellite (FIX-S) Meteorological-Satellite (MET-S)</p>	<p>7 GHz Band Low capacity analogue and digital fixed links: up to 120 channels or 4x2 MBites, respectively. Rec ITU-R F 385-6</p>
7550 - 7750	<p>FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile</p>	Fixed-Satellite (FIX-S)	
7750 - 7900	<p>FIXED MOBILE except aeronautical mobile</p>		
7900 - 8025	<p>FIXED FIXED-SATELLITE (Earth-to-space) MOBILE</p> <p>S5.461 (812)</p>	Fixed-Satellite (FIX-S)	Government
8025 - 8175	<p>FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-Earth)</p> <p>S5.462 (813)</p>	<p>Fixed Links (FIX) Fixed-Satellite (FIX-S)</p>	

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
8175 - 8200	FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-Earth) S5.462 (813)	Fixed Links (FIX) Fixed-Satellite (FIX-S) Meteorological-Satellite (MET-S)	
8200 - 8215	FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-Earth) S5.462 (813)	Fixed Links (FIX) Fixed-Satellite (FIX-S) Meteorological-Satellite (MET-S)	8 GHz Band Medium capacity analogue fixed links: up to 960 channels Rec.ITU-R F 386-4
8215 - 8400	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (space-to-Earth) S5.462 (813)	Fixed Links (FIX) Fixed-Satellite (FIX-S)	
8400 - 8500	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) S5.465 (816)		

FREQUENCY BANDS (MHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
8500 - 8750	RADIOLOCATION S5.333 (713)		Government
8750 - 8850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION S5.470 (821)		
8850 - 9000	RADIOLOCATION MARITIME RADIONAVIGATION S5.472 (823)		
9000 - 9200	AERONAUTICAL RADIONAVIGATION S5.337 (717) Radiolocation	Radars (RVA, RLC)	
9200 - 9300	RADIOLOCATION MARITIME RADIONAVIGATION S5.472 (823) S5.474 (824A)	Radars (RVM, RLC) - SARTs	Government
9300 - 9500	RADIONAVIGATION S5.476 (825A) Radiolocation S5.427 (775A), S5.474 (824A), S5.475 (825)	Radars (RVA, RLC) - SARTs	
9500 - 9800	RADIOLOCATION RADIONAVIGATION S5.333 (713)	SRD - Short Range Devices (9500 -9975 MHz)	Government CEPT Rec. T/R 60-01
9800 - 10000	RADIOLOCATION Fixed S5.479 (828)	SRD - Short Range Devices (9500 -9975 MHz)	Government CEPT Rec. T/R 60-01

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
10 - 10,45	FIXED MOBILE RADIOLOCATION Amateur S5.479 (828)	Amateur(AM)	Amateur National Regulations
10,45 - 10,5	RADIOLOCATION Amateur Amateur-Satellite	Amateur-Satellite (AM-S)	
10,5 - 10,55	FIXED MOBILE Radiolocation	Fixed (Fix)	Analogue links. Capacity: 960channels. (transportables). Rec. ITU-R F 747 Annex 1
10,55 - 10,6	FIXED MOBILE except aeronautical mobile Radiolocation		
10,6 - 10,68	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation S5.149 (832), S5.482 (831)		
10,68 - 10,7	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (833)	ALL EMISSIONS IN THIS BAND ARE PROHIBITED	

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
10,7 - 11,7	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) S5.441 (792A), S5.484 (835)</p> <p>MOBILE except aeronautical mobile</p>	<p>Fixed (Fix)</p> <p>Fixed-Satellite: V-SATs (10,95-11,2; 11,45-11,7 GHz) - (FIX-S)</p> <p>EUTELTRACS - Land mobile satellite system for data communications</p>	<p>11 GHz band High capacity digital fixed links : 140 MBit/s. Rec. ITU-R F 387-7 Annex 1</p> <p>RR Ap. S30B (Ap. 30B) : (10,7-10,95 GHz;11,2-11,45 GHz)</p> <p>Under RR S4.4 (RR 342) CEPT Rec. T/R 21 - 09.</p>
11,7 - 12,5	<p>FIXED BROADCASTING BROADCASTING-SATELLITE</p> <p>Mobile except aeronautical mobile</p> <p>S5.487 (838)</p>		<p>RR Ap. S30 (Ap. 30), Ap. S30A (Ap. 30A) e Ap. S30B (Ap. 30B)</p>
12,5 - 12,75	<p>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) Fixed (S5.495 (849)) Mobile except aeronautical mobile (S5.495 (849))</p>	<p>Fixed-Satellite : V-SATs - (FIX-S)</p> <p>EUTELTRACS - Land mobile satellite system for data communications</p>	<p>Preferencial band for the use of VSATs networks.</p> <p>Under RR S4.4 (RR 342) CEPT Rec. T/R 21 - 09.</p>
12,75 - 13,25	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) S5.441 (792A)</p> <p>MOBILE Space Research (deep space) (space-to-Earth)</p>	<p>Fixed (Fix)</p>	<p>13 GHz Band Low and medium capacity digital fixed links: up to 34 MBit/s Rec. ITU-R F 497-5</p> <p>RR Ap. S30B (Ap. 30B)</p>

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
13,25 - 13,4	AERONAUTICAL RADIONAVIGATION S5.497 (851) S5.498 (852)	SRD - Short Range Devices (13,4-14,0 GHz)	
13,4 - 13,75	RADIOLOCATION Standard Frequency and Time Signal - Satellite (Earth-to-space) Space Research S5.333 (713)		Government CEPT Rec. T/R 60-01
13,75 - 14	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Standard Frequency and Time Signal - Satellite (Earth-to-space) Space Research S5.333 (713), S5.502 (855A), S5.503 (855B), S5.503A		
14 - 14,25	FIXED-SATELLITE (Earth-to-space) RADIONAVIGATION S5.504 (856) Land Mobile-Satellite (Earth-to-space) Space Research	Fixed-Satellite : V-SATs - (FIX-S) EUTELTRACS - Land mobile satellite system for data communications	Preferential band for the use of VSATs networks CEPT Rec. T/R 21 - 09.
14,25 - 14,3	FIXED-SATELLITE (Earth-to-space) RADIONAVIGATION S5.504 (856) Land Mobile-Satellite (Earth-to-space) Space Research (S5.508 (860))	Fixed-Satellite : V-SATs - (FIX-S)	Preferential band for the use of VSATs networks

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
14,3 - 14,4	<p>FIXED FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE except aeronautical mobile Land Mobile-Satellite(Earth-to-space) Radionavigation-Satellite</p>	Fixed-Satellite : V-SATs - (FIX-S)	Preferential band for the use of VSATs networks
14,4 - 14,47	<p>FIXED FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE except aeronautical mobile Land Mobile-Satellite (Earth-to-space) Space Research (space-to-Earth)</p>		
14,47 - 14,5	<p>FIXED FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE except aeronautical mobile Land Mobile-Satellite (Earth-to-space) Radio Astronomy</p> <p>S5.149 (862)</p>		
14,5 - 14,8	<p>FIXED FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE Space Research</p>	Fixed (FIX)	Government : (14,62 - 15,23 GHz)
14,8 - 15,35	<p>FIXED Mobile Space Research</p> <p>S5. 339 (720)</p>		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
15,35 - 15,4	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (864)	ALL EMISSIONS IN THIS BAND ARE PROHIBITED	
15,4 - 15,7	AERONAUTICAL RADIONAVIGATION S5.511B FIXED-SATELLITE (space-to-Earth) S5.511A, S5.511C		
15,7 - 16,6	RADIOLOCATION	Radars (RLC)	Government
16,6 - 17,1	RADIOLOCATION Space Research (deep space) (Earth-to-space)		
17,1 - 17,2	RADIOLOCATION	HIPERLANs - High performance radio local area network	Government CEPT Rec. T/R 22-06
17,2 - 17,3	RADIOLOCATION Earth Exploration-satellite (active) Space Research (active)		
17,3 - 17,7	FIXED-SATELLITE (Earth-to-space) S5.516 (869) Radiolocation		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
17,7 - 18,1	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) S5.516 (869) MOBILE</p>	Fixed (Fix)	<p>18 GHz Band Low and high capacity digital fixed links : up to 140 MBit/s . Rec. ITU-R F 595-4</p>
18,1- 18,4	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) S5.520 (870A) MOBILE</p> <p>S5.519 (870)</p>		
18,4 - 18,6	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) MOBILE</p>		
18,6-18,8	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) S5.523 (872) MOBILE except aeronautical mobile Earth Exploration-Satellite (passive) Space Research (passive)</p> <p>S5.522 (871)</p>		
18,8 - 19,3	<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) S5.523A MOBILE</p>		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
19,3 - 19,7	FIXED FIXED-SATELLITE (space-to-Earth) S5.523D (Earth-to-space) S5.523B MOBILE S5.523C	Fixed (Fix)	
19,7 - 20,1	FIXED-SATELLITE (space-to-Earth) Mobile-satellite (space-to-Earth)		Government: (20,2 - 21,2 GHz)
20,1 - 20,2	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) S5.525 (873A), S5.526 (873B), S5.527 (873C), S5.528 (873D)		
20,2 - 21,2	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard Frequency and Time Signal (space-to-Earth)		
21,2 - 21,4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	Fixed (Fix)	23 GHz Band Low and medium capacity digital fixed links: up to 34 MBit/s . Rec. ITU-R F 637-2.

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
21,4 - 22	FIXED MOBILE BROADCASTING-SATELLITE S5.530 (873F)	Fixed (FIX)	23 GHz Band Low and medium capacity digital fixed links: up to 34 MBit/s. Rec. ITU-R F 637-2 Planned use in accordance with T/R 13-02 Annex A (22-22,6 GHz).
22 - 22,21	FIXED MOBILE except aeronautical mobile S5.149 (874)		
22,21 - 22,5	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) S5.149 (875), S5.532 (876)		
22,5 - 22,55	FIXED MOBILE		
22,55 - 23	FIXED INTER-SATELLITE MOBILE S5.149 (879)		
23 - 23,55	FIXED INTER-SATELLITE MOBILE S5.149 (879)		23 GHz Band Planned use in accordance with T/R 13-02 Annex A (23-23,6 GHz). Government : (23,2 - 23,6 GHz)
23,55 - 23,6	FIXED MOBILE		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
23,6 - 24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (880)	ALL EMISSIONS IN THIS BAND ARE PROHIBITED	
24 - 24,05	AMATEUR AMATEUR-SATELLITE S5.150 (881)	Amateur (AM) Amateur-Satellite (AM-S) SRD - Short Range Devices (24,00-24,25 GHz) ISM - Industrial, Scientific and Medical applications (24,00-24,25 GHz)	Amateur National Regulations CEPT Rec. T/R 61-01 CEPT Rec. T/R 01-04
24,05 - 24,25	RADIOLOCATION Amateur Earth Exploration-Satellite (active) S5.150 (881)	Radars (RLC) Amateur (AM) (24,05-24,15 GHz) SRD - Short Range Devices (24,00-24,25 GHz) ISM - Industrial, Scientific and Medical applications (24,00-24,25 GHz)	Amateur National Regulations CEPT Rec.T/R 01-04
24,25 - 24,45	FIXED		Planned use in accordance with T/R 13-02 Annex B (24,5-26,5 GHz).
24,45 - 24,65	FIXED INTER-SATELLITE		
24,65 - 24,75	FIXED INTER-SATELLITE		
24,75 - 25,25	FIXED		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
25,25 - 25,5	FIXED INTER-SATELLITE S5.533 (881A) MOBILE Standard Frequency and Time Signal - Satellite (Earth-to-space)		Planned use in accordance with T/R 13-02 Annex B ((24,5-26,5 GHz). Government
25,5 - 27	FIXED INTER-SATELLITE S5.533 (881A) MOBILE Earth Exploration-Satellite (space-to-Earth) Standard Frequency and Time Signal - Satellite (Earth-to-space)		
27 - 27,5	FIXED INTER-SATELLITE S5.533 (881A) MOBILE		
27,5 - 28,5	FIXED FIXED-SATELLITE(Earth-to-space) S5.539 (882D) MOBILE S5.538 (882A), S5.540 (882B)		Planned use in accordance with T/R 13-02 Annex C (27,5-29,5 GHz).
28,5 - 29,1	FIXED FIXED-SATELLITE (Earth-to-space) S5.539 (882D), S5.523A MOBILE Earth Exploration-Satellite (Earth-to-space) S5.541 (882C) S5.540 (882B)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
29,1 - 29,5	<p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) S5.523C, S5.535A, S5.539 (882D), S5.541A</p> <p>MOBILE Earth Exploration-Satellite (Earth-to-space) S5.541 (882C)</p> <p>S5.540 (882B)</p>		Planned use in accordance with T/R 13-02 Annex C (27,5-29,5 GHz)
29,5 - 29,9	<p>FIXED-SATELLITE (Earth-to-space) S5.539 (882D) Earth Exploration-Satellite (Earth-to-space) S5.541 (882C)</p> <p>Mobile-satellite (Earth-to-space)</p> <p>S5.540 (882B)</p>		
29,9 - 30	<p>FIXED-SATELLITE (Earth-to-space) S5.539 (882D) MOBILE-SATELLITE (Earth-to-space) Earth Exploration-Satellite (Earth-to-space) S5.541 (882C)</p> <p>S5.525 (873A), S5.526 (873B), S5.527 (873C), S5.543 (882), S5.538 (882A), S5.540 (882B)</p>		
30 - 31	<p>FIXED-SATELLITE (Earth-to-space) MOBILE-SATELLITE (Earth-to-space) Standard Frequency and Time Signal - Satellite (space-to-Earth)</p>		Government

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
31- 31,3	FIXED MOBILE Standard Frequency and Time Signal - Satellite(space-to-Earth) Space Research S5.544 (884) S5.149 (886)		
31,3 - 31,5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (887)		
31,5 - 31,8	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile S5.149 (888)		
31,8 - 32	RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) S5.548 (893)		
32 - 32,3	INTER-SATELLITE RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) S5.548 (893)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
32,3 - 33	INTER-SATELLITE RADIONAVIGATION S5.548 (893)		
33 - 33,4	RADIONAVIGATION		
33,4 - 34,2	RADIOLOCATION		
34,2 - 34,7	RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space)		
34,7 - 35,2	RADIOLOCATION Space Research		Government
35,2 - 36	METEREOLOGICAL AIDS RADIOLOCATION S5.551 (897)		
36 - 37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) S5.149 (898)		Government
37 - 37,5	FIXED MOBILE SPACE RESEARCH (space-to-Earth)	Fixed (Fix)	CEPT Rec. T/R 12-01

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
37,5 - 38	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth Exploration-Satellite (space-to-Earth)	Fixed (Fix)	CEPT Rec. T/R 12-01
38 - 39,5	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth Exploration-Satellite (space-to-Earth)		
39,5 - 40	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite (space-to-Earth)		
40 - 40,5	EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth Exploration-Satellite (space-to-Earth)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
40,5 - 42,5	BROADCASTING-SATELLITE BROADCASTING Fixed Mobile		Band reserved to MVDS CEPT Rec. T/R 52-01
42,5 - 43,5	FIXED FIXED-SATELLITE (Earth-to-space) S5.552 (901) MOBILE except aeronautical mobile RADIO ASTRONOMY S5.149 (900)		
43,5 - 47	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE S5.554 (903)		
47 - 47,2	AMATEUR AMATEUR-SATELLITE	Amateur (AM) Amateur-satellite (AM-S)	Amateur National Regulations CEPT Rec. T/R 61-01
47,2 - 50,2	FIXED FIXED-SATELLITE (Earth-to-space) S5.552 (901) MOBILE S5.149, S5.340, S5.555 (904)		
50,2 - 50,4	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	Radiometers - Passive sensors (EXP-S).	

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
50,4 - 51,4	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-satellite (Earth-to-space)		
51,4 - 54,25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) S5.556 (906), S5.340 (907)	Radiometers - Passive sensors (EXP-S).	
54,25 - 58,2	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE S5.558 (909) SPACE RESEARCH (passive)		
58,2 - 59	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) S5.556 (906), S5.340 (907)		
59 - 64	FIXED INTER-SATELLITE MOBILE S5.558 (909) RADIOLOCATION S5.559 (910) S5.138 (911)	RTT / RTI - Road Transport Telematic / Information System (63 - 64 GHz) ISM - Industrial, Scientific and Medical applications (61,00-61,50 GHz)	CEPT Rec. T/R 22-04 ERC/DEC/(92)02

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
64 - 65	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) S5.556 (906), S5.340 (907)		
65 - 66	EARTH EXPLORATION-SATELLITE SPACE RESEARCH Fixed Mobile		
66 - 71	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE S5.554 (903)		
71 - 74	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) S5.149, S5.556 (906)		
74 - 75,5	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Space Research (space-to-Earth)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
75,5 - 76	AMATEUR AMATEUR-SATELLITE Space Research (space-to-Earth)	Amateur (AM) Amateur-satellite (AM-S)	Amateur National Regulations CEPT Rec. T/R 61-01
76 - 81	RADIOLOCATION Amateur Amateur -Satellite Space Research (space-to-Earth) S5.560 (912)	Amateur-satellite (AM-S) RTT / RTI - Road Transport Telematic / Information System (76 - 77 GHz)	Government CEPT Rec. T/R 22-04 (1991) ERC/DEC/(92)02
81 - 84	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) Space Research (space-to-Earth)		
84 - 86	FIXED MOBILE BROADCASTING BROADCASTING-SATELLITE S5.561 (913)		
86 - 92	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (907)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
92 - 95	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIOLOCATION S5.149 (914), S5.556		
95 - 100	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE Radiolocation S5.149, S5.554 (903), S5.555 (904)		
100 - 102	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) S5.341 (722)		
102 - 105	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE S5.341 (722)		
105 - 116	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (907), S5.341 (722)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
116 - 126	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE S5.558 (909) SPACE RESEARCH (passive) S5.138 (916), S5.341 (722)	SRD - Short Range Devices (122-123 GHz) ISM - Industrial, Scientific and Medical applications (122,00-123,00 GHz)	CEPT Rec. T/R 01-04
126 - 134	FIXED INTER-SATELLITE MOBILE S5.558 (909) RADIOLOCATION S5.559 (910)		
134 - 142	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE Radiolocation S5.149 (918), S5.340 (917), S5.554 (903), S5.555		
142 - 144	AMATEUR AMATEUR-SATELLITE	Amateur (AM) Amateur-satellite (AM-S)	Amateur National Regulations CEPT Rec. T/R 61-01
144 - 149	RADIOLOCATION Amateur Amateur-Satellite S5.149 (918), S5.555	Amateur-satellite (AM-S)	Government

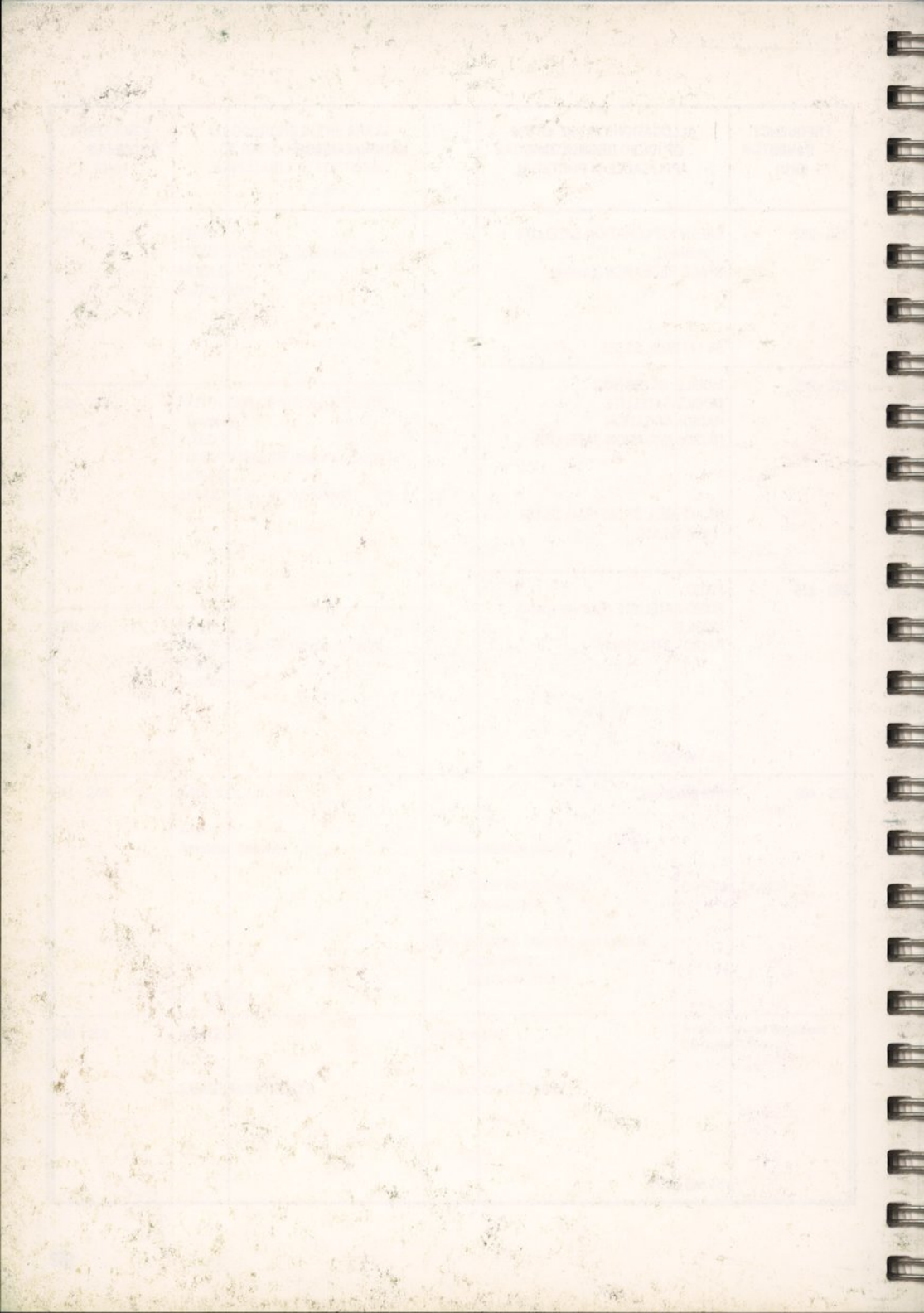
FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
149 - 150	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE		
150 - 151	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) S5.149 (919), S5.385		
151 - 156	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE		
156 - 158	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE		Future utilization: Passive sensors
158 - 164	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
164 - 168	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)		
168 - 170	FIXED MOBILE		
170 - 174,5	FIXED INTER-SATELLITE MOBILE S5.558 (909) S5.149 (919), S5.385		
174,5 - 176,5	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE S5.558 (909) SPACE RESEARCH (passive) S5.149 (919), S5.385		
176,5 - 182	FIXED INTER-SATELLITE MOBILE S5.558 (909) S5.149 (919), S5.385		
182 - 185	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (921)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
185 - 190	FIXED INTER-SATELLITE MOBILE S5.558 (909) S5.149 (919), S5.385		
190 - 200	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE S5.341 (722), S5.554 (903)		
200 - 202	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) S5.341 (722)		
202 - 217	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE S5.341 (722)		
217 - 231	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) S5.340 (907), S5.341 (722)		

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.55 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
231 - 235	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation		
235 - 238	EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive)		
238 - 241	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation		
241 - 248	RADIOLOCATION Amateur Amateur -Satellite S5.138 (922)	Amateur-satellite (AM-S) SRD - Short Range Devices (244-246 GHz) ISM - Industrial, Scientific and Medical applications (244,00-246,00 GHz)	Government CEPT Rec. T/R 01-04
248 - 250	AMATEUR AMATEUR-SATELLITE	Amateur (AM) Amateur-satellite (AM-S)	Amateur National Regulations CEPT Rec. T/R 61-01

FREQUENCY BANDS (GHz)	ALLOCATIONS IN THE ART.S5 OF RADIO REGULATIONS APPLICABLE IN PORTUGAL	NATIONAL USAGE	NOTES
250 - 252	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) S5.149 (923), S5.555		
252 - 265	MOBILE S5.553 (902) MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE S5.149 (923), S5.385 (924), S5.554 (903), S5.555		
265 - 275	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY S5.149 (926)		
275 - 400	(not allocated) S5.565 (927)		



ACRONYMS

4. ACRONYMS

APT	-	Automatic Picture Transmission
CB	-	Citizen Band
CCIR	-	International Radio Consultative Committee
CEPT	-	Conference of European Postal and Telecommunications Administrations
CT1; CT0	-	Cordless Telephones
C450	-	Public Analogue Land Mobile Cellular Communications
DCP	-	Data Collection Platform
DCS1800	-	Digital Cellular Telecommunications System in the 1800 MHz band
DECCA	-	Radionavigation System
DECT	-	Digital European Cordless Telecommunications system

DME	-	UHF Distance Measuring Equipment
DSRR	-	Digital Short Range Radio
DVB-T	-	Terrestrial Digital Video Broadcasting system
ENG	-	Electronic News Gathering
ERC	-	European Radiocommunications Committee
ERMES	-	European Radio MESSage System
ERO	-	European Radiocommunications Office
EUTELSAT	-	EUropean TELecomunications SATellite Organisation
EUTELTRACS	-	EUTELsat Transport RAnging and Communnication Services
GE-75	-	Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3), Geneva 1975
GE-84	-	Regional Administrative Radio Conference for the planning of the VHF Sound Broadcasting (Region 1 and part of Region 3), Geneva 1984

GE-85	-	Regional Administrative Radio Conference for the planning of the
(Radiobeacons)		Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area, Geneva 1985
GE-85	-	Regional Administrative Radio Conference for the planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1), Geneva 1985
GMDSS	-	Global Maritime Distress and Safety System
GPS	-	Global Positioning System
GSM	-	Global System for Mobile Communications
HDTV	-	High Definition TeleVision
HIPERLAN	-	High PErformance Radio Local Area Network
HRPT	-	High Resolution Picture Transmission
ICAO	-	International Civil Aviation Organisation
ILS	-	Instrument Landing System

IMT-2000	-	International Mobile Telecommunication-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 C-system
LPD	-	Low Power Devices
LRPT	-	Low Resolution Picture Transmission
METEOSAT	-	METEORological SATellite
MLS	-	Microwave Landing System
MVDS	-	Multipoint Video Distribution System

NAVTEX	-	International NAVTEX system
NDB	-	Non-Directional radio Beacon
OMEGA	-	Radionavigation system
POSAT 1	-	POrtuguese SATellite 1
RTI	-	Road Transport Information Systems
RTT	-	Road Transport Telematics system
SCP	-	Public National Radio Paging
SCPP	-	Private Radio Paging
SMM	-	Maritime Mobile Networks
SMRP	-	National Trunking Mobile System
SMT	-	Private Mobile Radio
SNG	-	Satellite News Gathering

SRD	-	Short Range Devices
SSR	-	Secondary Surveillance Radar
ST-61	-	European VHF/UHF Broadcasting Conference, Stockholm 1961
STL	-	Studio Transmitter Links
TACAN	-	TACTical Air Navigation system
TCR	-	Tracking, Control and Ranging system
T-DAB	-	Terrestrial Digital Audio Broadcasting system
TFTS	-	Terrestrial Flight Telephone System
TRANSIT	-	Radionavigation-Satellite system
VOR	-	VHF Omnidirectional Radio range system
VSAT	-	Very Small Aperture Terminal

- WARC-92 - World Administrative Radio Conference for Dealing with Frequency
Allocations in Certain Parts of the Spectrum, Malaga-Torremolinos 1992
- WRC-95 - World Radiocommunication Conference, Geneva 1995
- WBDS - Wide Band Data Transmission System

WABC-12

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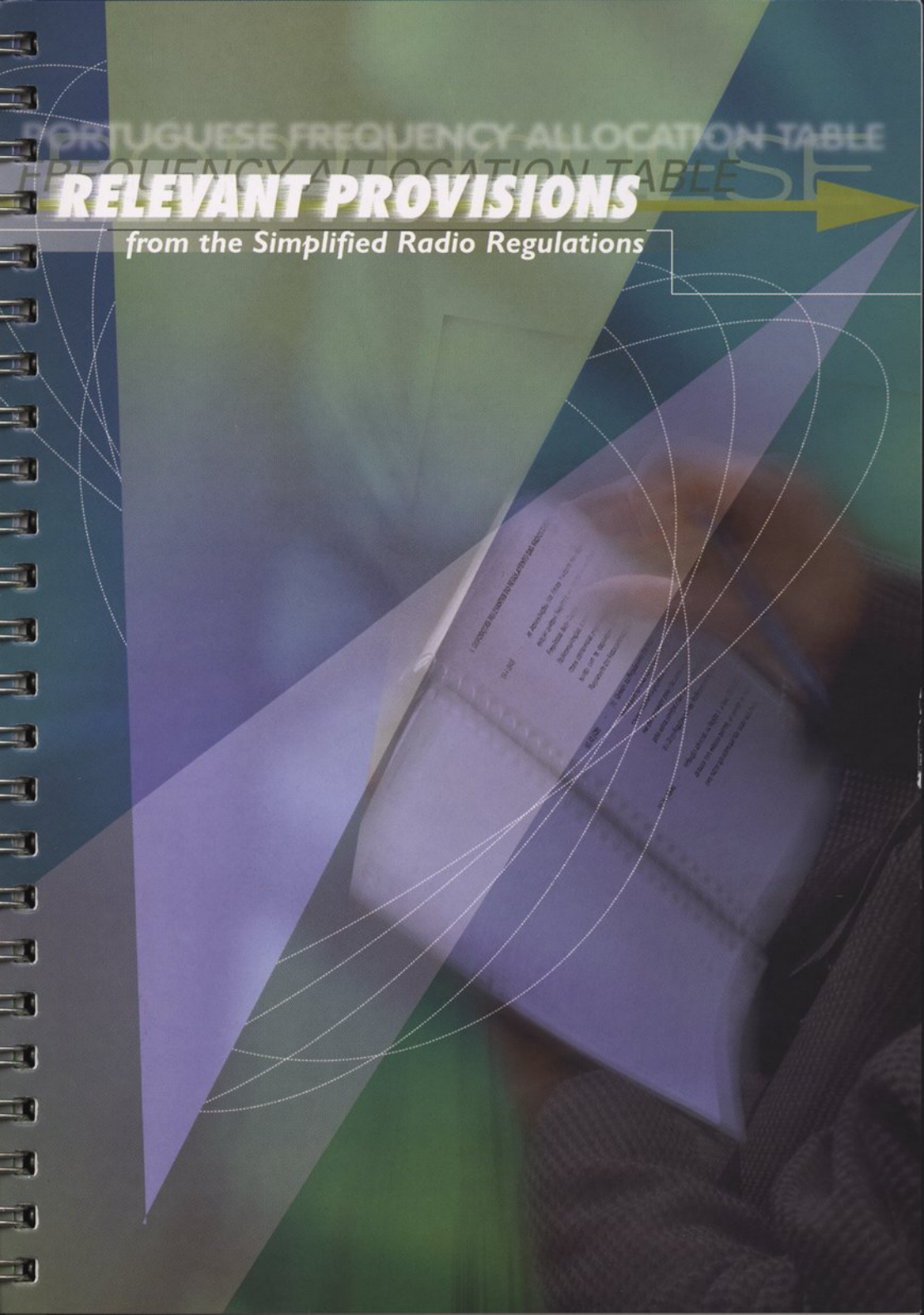
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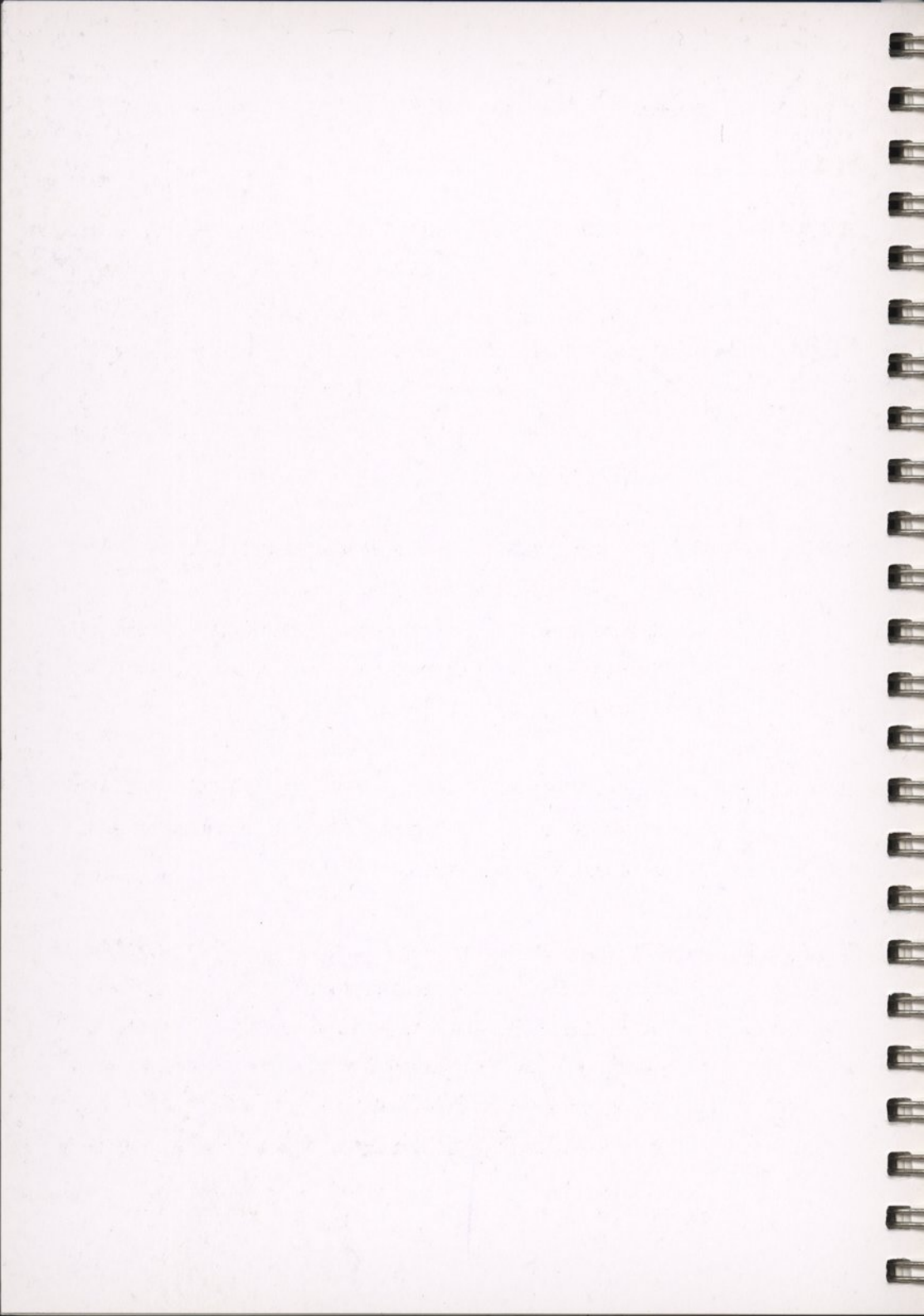
WABC-12

PORTUGUESE FREQUENCY ALLOCATION TABLE

RELEVANT PROVISIONS

from the Simplified Radio Regulations





5. RELEVANT PROVISIONS FROM THE SIMPLIFIED RADIO REGULATIONS

- S4.4 (342)** - Administrations of the Members shall not assign to a station any frequency in derogation of either the Table of Frequency Allocations in this Chapter or the other provisions of these Regulations, except on the express condition that such a station shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention and these Regulations.
- S5.43 (435)** - (1) Where it is indicated in these Regulations that a service may operate in a specific frequency band subject to not causing harmful interference, this means also that this service cannot claim protection from harmful interference caused by other services to which the band is allocated under Chapter III / SII of these Regulations.
- S5.74 (466A)** - Additional Allocation: in Region 1, the frequency band 285.3 - 285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a primary basis.
- S5.136 (521C)** - The band 5 900 - 5 950 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the following services: in Region 1 to the land mobile service on a primary basis, in Region 2 to the mobile except aeronautical mobile (R) service on a primary basis, and in Region 3 to the mobile except aeronautical mobile (R) service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95).

After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.143 (528A) - The band 7 300 - 7 350 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis and to the land mobile service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95). After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.146 (529B) - The bands 9 400 - 9 500 kHz, 11 600 - 11 650 kHz, 12 050 - 12 100 kHz, 15 600 - 15 800 kHz, 17 480 - 17 550 kHz and 18 900 - 19 020 kHz are allocated to the fixed service on a primary basis until 1 April 2007, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95). After 1 April 2007, frequencies in these bands may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service,

administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

S5.148 (531) - The bands 9 775 - 9 900 kHz, 11 650 - 11 700 kHz, 11 975 - 12 050 kHz, 13 600 - 13 800 kHz, 15 450 - 15 600 kHz, 17 550 - 17 700 kHz and 21 750 - 21 850 kHz are allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of these bands by the broadcasting service shall be subject to provisions established by the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (see Resolution 508). The provisions of Resolution 512 (HFBC-87) also apply. Within these bands, the date of commencement of operations in the broadcasting service on a planned channel shall not be earlier than the date of completion of satisfactory transfer, according to the procedures described in Resolution 8, of all assignments to stations in the fixed service operating in accordance with the Table and other provisions of the Radio Regulations, which are recorded in the *Master Register* and which may be affected by broadcasting operations on that channel.

S5.151 (534A) - The bands 13 570 - 13 600 kHz and 13 800 - 13 870 kHz are allocated, until 1 April 2007, to the fixed service on a primary basis and to the mobile except aeronautical mobile (R) service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (Rev.WRC-95). After 1 April 2007, frequencies in these bands may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not

caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

- S5.198 (591)** - Additional allocation: the band 117.975 - 137 MHz is also allocated to the aeronautical mobile-satellite (R) service on a secondary basis, subject to agreement obtained under Article 14 / No. S9.21.
- S5.218 (608)** - Additional allocation: the band 148 - 149.9 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under Article 14 / No. S9.21. The bandwidth of any individual transmission shall not exceed $\pm 25\text{kHz}$.
- S5.254 (641)** - The bands 235 - 322 MHz and 335.4 - 399.9 MHz may be used by the mobile-satellite service, subject to agreement obtained under Article 14 / No. S9.21, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table of Frequency Allocations.
- S5.257 (643)** - The band 267 - 272 MHz may be used by administrations for space telemetry in their countries on a primary basis, subject to agreement obtained under Article 14 / No. S9.21.
- S5.282 (664)** - In the bands 435 - 438 MHz, 1 260 - 1 270 MHz, 2 400 - 2 450 MHz, 3 400 - 3 410 MHz (in Regions 2 and 3 only) and 5 650 - 5 670 MHz, the amateur-satellite service may operate subject to not causing harmful

interference to other services operating in accordance with the Table (see No. S5.43). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. 2741 / S25.11. The use of the bands 1 260 - 1 270 MHz and 5 650 - 5 670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.

- S5.287 (669)** - In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174.
- S5.347 (722B)** - Different category of service: in Bangladesh, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Colombia, Cuba, Denmark, Egypt, Spain, Greece, Hungary, Ireland, Italy, Jordan, Kenya, The Former Yugoslav Republic of Macedonia, Malawi, Mozambique, Panama, Portugal, Sri Lanka, Sweden, Swaziland, Yemen, Yugoslavia and Zimbabwe, the allocation of the band 1 452 - 1 492 MHz to the broadcasting-satellite service and the broadcasting service is on a secondary basis until 1 April 2007.
- S5.414 (760A)** - The allocation of the frequency band 2 500 - 2 520 MHz to the mobile-satellite service (space-to-Earth) shall be effective on 1 January 2005 and is subject to coordination under Resolution 46 (Rev.WRC-95) / No. S9.11A.

- Art. S1 - Terms and Definitions.
(Art. 1)
- Art. S5 - Frequency Allocations.
(Art. 8)
- Art. S9 - Procedure for Effecting Coordination with or Obtaining Agreement of Other Administrations.
(Art. 11)
- Art. S12A - Planning and Procedures for the Bands Allocated Exclusively to the
(Art. 17) Broadcasting Service Between 5 950 kHz and 26 100 kHz.
- Art. S31 - Frequencies for the Global Maritime Distress and Safety System (GMDSS).
(Art. N38)
- Ap. S13 - Distress and Safety Communications (Non-GMDSS).
(Chapter IX, RR55, RR56)
- Ap. S15 - Frequencies for Distress and Safety Communications for the GMDSS.
(RR N38)
- Ap. S17 - Frequencies and Channelling Arrangements in the High-Frequency Bands
(Aps. 16, 31 to 35) for the Maritime Mobile Service.
- Ap. S18 - Table of Transmitting Frequencies in the VHF Maritime Mobile Band.
(Ap. 18)
- Ap. S25 - Provisions and associated Frequency Allotment Plan for Coast Radiotelephone Stations Operating in the Exclusive Maritime Mobile Bands Between 4 000 kHz and 27 500 kHz.
(Ap. 25)
- Ap. S26 - Provisions and Associated Frequency Allotment Plan for the Aeronautical Mobile (OR) Service in the Bands Allocated Exclusively to that Service Between 3 025 kHz and 18 030 kHz.
(Ap. 26)

- Ap. S27 - Frequency Allotment Plan for the Aeronautical Mobile (R) Service and
(Ap. 27 Aer. 2) Related Information Between 2 850 kHz and 22 000 kHz.

- Ap. S30 - Provisions for All Services and Associated Plans for the Broadcasting-
(Ap. 30) Satellite Service in the Frequency Bands 11.7 - 12.2 GHz (in Region 3)
11.7 - 12.5 GHz (in Region 1) and 12.2 - 12.7 GHz (in Region 2).

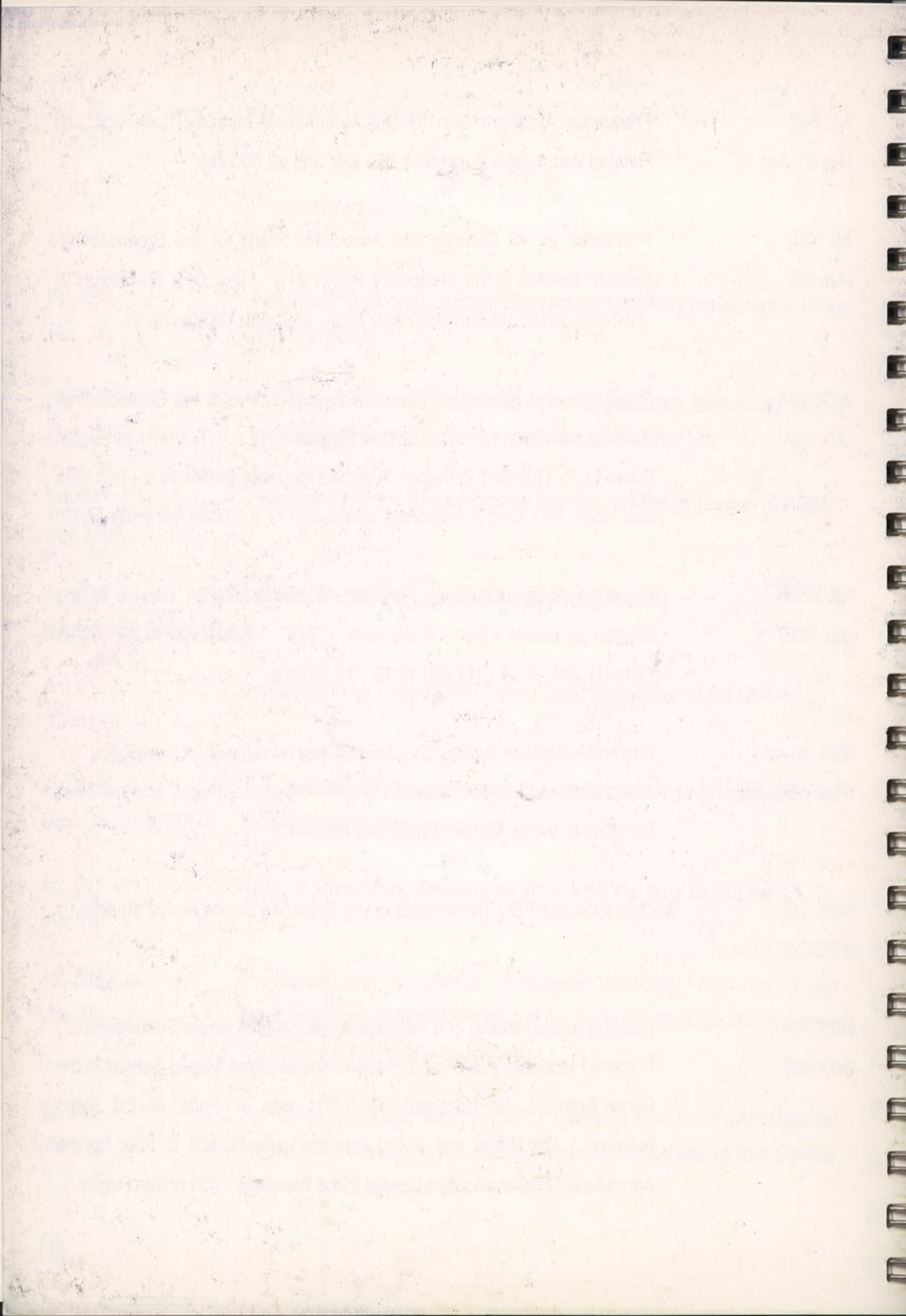
- Ap. S30A - Provisions and Associated Plans for Feeder Links for the Broadcasting-
(Ap. 30A) Satellite Service (11.7 - 12.5 GHz in Region 1, 12.2 - 12.7 GHz in Region
2 and 11.7 - 12.2 GHz in Region 3) in the Frequency Bands 14.5 - 14.8 GHz
and 17.3 - 18.1 GHz in Regions 1 and 3, and 17.3 - 17.8 GHz in Region 2.

- Ap. S30B - Provisions and Associated Plan for the Fixed-Satellite Service in the
(Ap. 30B) Frequency Bands 4 500 - 4 800 MHz, 6 725 - 7 025 MHz, 10.70 - 10.95
GHz, 11.20 - 11.45 GHz and 12.75 - 13.25 GHz.

- RES 46 - Interim Procedures for the Coordination and Notification of Frequency
(Rev.WRC-95) Assignments of Satellite Networks in Certain Space Services and the Other
Services to Which Certain Bands are Allocated.

- RES 512 - Operation of HFBC Transmitters in the Extended Bands Above 10 MHz.
(HFBC-87)

- RES 704 - Relating to the Holding of a Regional Administrative Radio Conference to
(Mob-83) Prepare Frequency Assignment Plans for the Maritime Mobile Service in the
Bands Between 435 kHz and 526.5 kHz and in Parts of the Band
between 1 606.5 kHz and 3 400 kHz in Region 1 and to Plan for the
Aeronautical Radionavigation Service in the Band 415 - 435 kHz in Region 1.

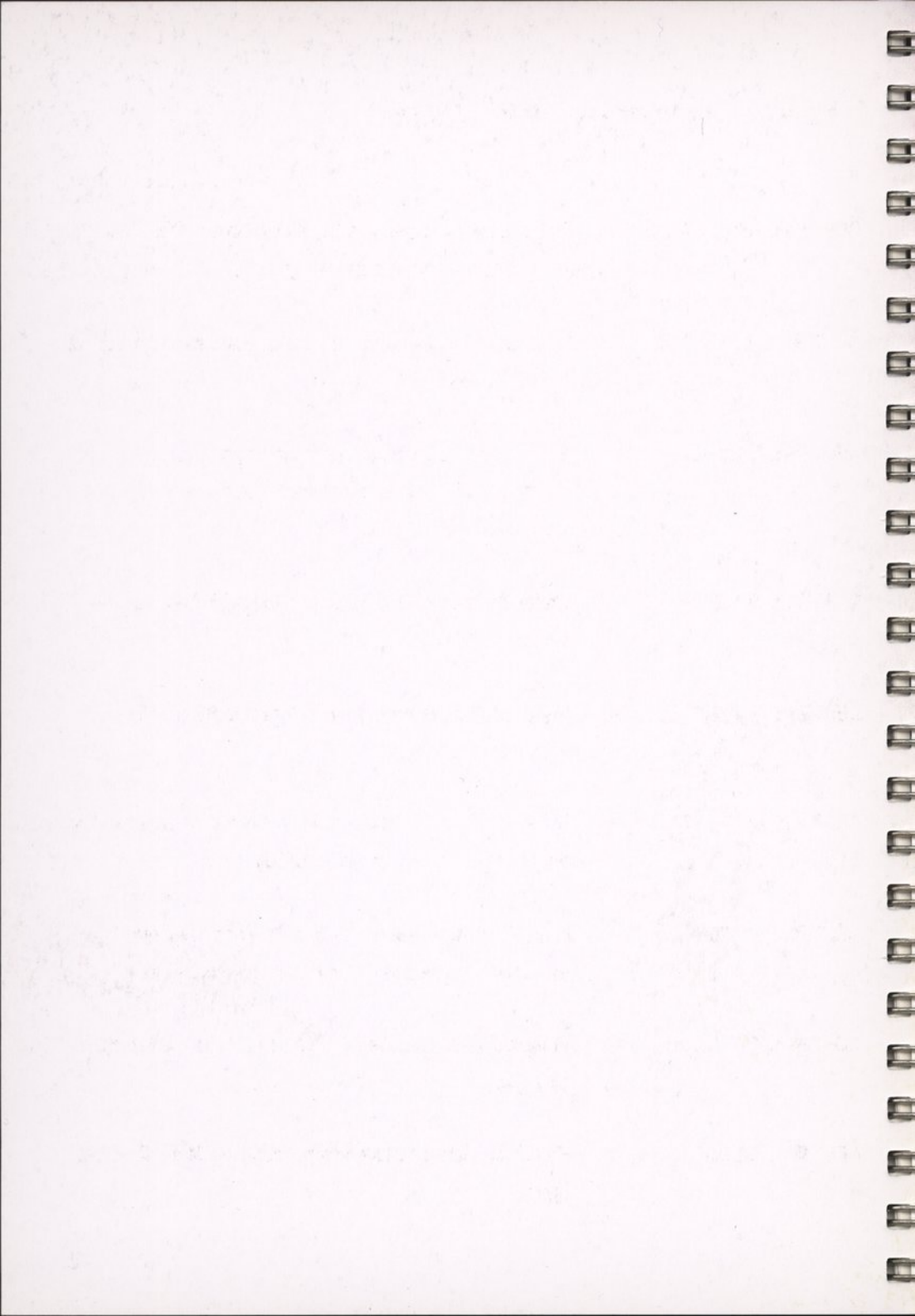


PORTUGUESE FREQUENCY ALLOCATION TABLE

RELEVANT DOCUMENTS

from CEPT, ITU and EU





6. RELEVANT DOCUMENTS FROM CEPT, ITU AND EU

- CEPT Rec. T/R 01-04 - Use of Low Power Devices (LPD) using integral antennas and operating in harmonized frequency bands.
- CEPT Rec. T/R 10-01 - Wide band data transmission systems using spread-spectrum technology in the 2.5 GHz band.
- CEPT Rec. T/R 12-01 - Harmonized radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 37-39.5 GHz.
- CEPT Rec. T/R 13-01 - Preferred Channel Arrangements for Fixed Services in the Range 1 - 3 GHz.
- CEPT Rec. T/R 13-02 - Preferred Channel Arrangements for Fixed Services in the Range 22 - 29,5 GHz.
- CEPT Rec. T/R 20-03 - Low-power Telecommand and Telemetry equipment operating on collective frequencies in ISM bands.
- CEPT Rec. T/R 20-04 - Low-power Narrow-Band Telecommand and Telemetry equipment for use outside the ISM frequency bands.
- CEPT Rec. T/R 20-06 - Transmitters and receivers for low-power Cordless Microphone systems.
- CEPT Rec. T/R 20-08 - Frequency planning and frequency coordination for the GSM system.

- CEPT Rec. T/R 20-09 - PR 27 radio equipment intended to provide short range voice radiocommunication in the 27 MHz band.

- CEPT Rec. T/R 20-10 - Digital Short-Range Radio (DSRR) equipment intended to provide short-range voice and/or data radiocommunication in the frequency bands 933-935/888-890 MHz.

- CEPT Rec. T/R 21-09 - EUTELTRACS service with omniTRACS satellite terminals in Europe.

- CEPT Rec. T/R 22-02 - Frequency band to be designated for the European digital cordless telecommunication system (DECT).

- CEPT Rec. T/R 22-04 - Harmonisation of frequency bands for road transport information systems (RTI).

- CEPT Rec. T/R 22-06 - Harmonised radio frequency bands for High Performance Radio Local Area Networks (HIPERLANs) in the 5 GHz and 17 GHz frequency range.

- CEPT Rec. T/R 22-07 - Frequency bands, planning and coordination for systems using the DCS 1800 standards.

- CEPT Rec. T/R 24-03 - Radio characteristics of cordless telephones.

- CEPT Rec. T/R 25-07 - Frequency coordination for the European Radio Message System (ERMES).

- CEPT Rec. T/R 52-01 - Designation of a harmonized frequency band for multipoint video distribution systems in Europe.

- CEPT Rec. T/R 60-01 - Low-power radiolocation equipment for detecting movement and for alert.

- CEPT Rec. T/R 61-01 - CEPT Radio Amateur Licence.

- CEPT Rec. T/R 75-02 - Use of frequencies in the band 862-960 MHz by the mobile except aeronautical mobile service.

- ERC/DEC/(92)01 - ERC Decision of 22 October 1992 on the frequency bands to be designated for the coordinated introduction of the Terrestrial Flight Telecommunications System.

- ERC/DEC/(92)02 - ERC Decision of 22 October 1992 on the frequency bands to be designated for the coordinated introduction of the Road Transport Telematic Systems.

- ERC/DEC/(94)01 - ERC Decision of 24 October 1994 on the frequency bands to be designated for the coordinated introduction of the GSM Digital pan-European communications System.

- ERC/DEC/(94)02 - ERC Decision of 24 October 1994 on the frequency band to be designated for the coordinated introduction of the European Radio Messaging System (ERMES).

- ERC/DEC/(94)03 - ERC Decision of 24 October 1994 on the frequency band to be designated for the coordinated introduction of the Digital European Cordless Telecommunications System.

- ERC/DEC/(95)03 - ERC Decision of 1 December 1995 on the frequency bands to be designated for the introduction of DCS 1800.

- ERC/DEC/(96)03** - ERC Decision of 7 March 1996 on the harmonised frequency band to be designated for the introduction of High Performance Radio Local Area Networks (HIPERLANs).

- Rec. ITU-R F.283-5 (06/90)** - Radio-frequency channel arrangements for low and medium capacity analogue or digital radio-relay systems operating in the 2 GHz band.

- Rec. ITU-R F.382-6 (01/91)** - Radio-frequency channel arrangements for radio-relay systems operating in the 2 and 4 GHz bands.

- Rec. ITU-R F.383-5 (03/92)** - Radio-frequency channel arrangements for high capacity radio-relay systems operating in the lower 6 GHz band.

- Rec. ITU-R F.384-6 (10/95)** - Radio-frequency channel arrangements for medium and high capacity analogue or digital radio-relay systems operating in the upper 6 GHz band.

- Rec. ITU-R F.385-6 (11/93)** - Radio-frequency channel arrangements for radio-relay systems operating in the 7 GHz band.

- Rec. ITU-R F.386-4 (03/92)** - Radio-frequency channel arrangements for radio-relay systems operating in the 8 GHz band.

- Rec. ITU-R F.387-7 (10/95)** - Radio-frequency channel arrangements for radio-relay systems operating in the 11 GHz band.

- Rec. ITU-R F.497-5 (10/95)** - Radio-frequency channel arrangements for radio-relay systems operating in the 13 GHz frequency band.

- Rec. ITU-R F.595-4 (10/95) - Radio-frequency channel arrangements for radio-relay systems operating in the 18 GHz frequency band.

- Rec. ITU-R F.637-2 (11/93) - Radio-frequency channel arrangements for radio-relay systems operating in the 23 GHz band.

- Rec. ITU-R F.747 (03/92) - Radio-frequency channel arrangements for radio-relay systems operating in the 10 GHz band.

- Rec. ITU-R M.1174 (10/95) - Characteristics of equipment used for on-board communications in the bands between 450 MHz and 470 MHz.

- Rep. ITU-R F.379-5 - Characteristics of simple radio-relay equipment operating in bands 8 and 9 for the provision of telephone trunk connections in rural areas.

- Rep. ITU-R F.607-4 - Radio-frequency channel arrangements for radio-relay systems in the ranges 10.5 to 10.68 GHz and 11.7 to 15.35 GHz.

- Dir. 87/372/EEC - Council Directive of 25 June 1987 on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the European Community.

- Dir. 90/544/EEC - Council Directive of 9 October 1990 on the frequency bands designated for the coordinated introduction of pan-European land-based public radio paging in the Community.

- Dir. 91/287/EEC - Council Directive of 3 June 1991 on the frequency band to be designated for the coordinated introduction of digital European cordless telecommunications (DECT) into the Community.



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