PUBLICATION OF FREQUENCIES 2-year period 2000/2001

1. INTRODUCTION

Decree-Law no. 381-A/97, of December 30, establishes the regulatory framework for access to the activity of public telecommunications network operators and service providers for public use telecommunications, in pursuit of Law no. 91/97, of August 1 (Basic Telecommunications Law).

In conformity with the terms of article 22 of Decree-Law no. 381-A/97, ICP is entrusted with a series of powers in the framework of management of the radioelectric spectrum and issue of respective licenses, and specifically in what regards to the publication of availability and use of frequency bands and the respective modes of assignment to different entities.

The present document was prepared in this context, and includes data published by ICP concerning public telecommunications network operators, service providers for public use telecommunications and owners of private telecommunications networks.

The following aspects should nonetheless be emphasized:

- In exceptional and duly justified circumstances, it may prove necessary to change the
 previously established modes of assignment and conditions for each contemplated
 radiocommunications service or system.
- As a result of the development of new technologies, new systems and services may emerge that are not contemplated in this document, thus justifying a new assignment of frequencies or modification of the established terms and conditions. Such systems and services will be analysed on a case-by-case basis.

2. MODES OF ASSIGNMENT

The modes of assignment to public telecommunications network operators, service providers for public use telecommunications and owners of private telecommunications networks are as follows:

- Full access;
- Public tender;

There are certain services/systems for which the respective modes of assignment are currently being defined.

Whenever, considered necessary, before selecting specific modes of assignment, Public Consultation may be held, to gather the opinion of market agents or other bodies.

The above modes of assignment do not apply to other uses of the spectrum that are not subject to licensing, in particular low power or short-range equipment, whose categories are listed in the annexes to Administrative Rules Nos. 859/94, of September 23, 649/95, of June 22 and 802/99, of September 20.

These types of radiocommunications equipment are used in a wide range of different applications and are not specific to a single type of service. Such equipment operates on a non-interference and non-protection basis.

Categories:

- General purpose low-power equipment for use within ISM bands;
- Low-power telecommand and telemetry equipment for use in specific frequencies in ISM bands;
- Low-power, narrowband telecommand, telemetry, telealarms and data transmission equipment for use outside the ISM bands;
- Low-power radio microphones;
- Low-power radiolocation equipment for alert and detection of movements;
- Equipment for Broadband data transmission systems using spread spectrum techniques;
- Low-power telecommand equipment for model aircraft;
- Low-power car immobilisers;
- Low power PMR 446 equipment.

2.1 Full access

With the exception of personal radio (CB-Citizen Band) and amateur services, frequencies are assigned on a case-by-case basis, subject to project assessment and previous national or international co-ordination. International co-ordination is particularly important for satellite services.

Coordination is achieved on the basis of the current utilisation at the date of the request, from the same service or other services in the band under consideration, or in adjacent bands, what may cause situations of geographical sharing of frequencies and restrictions on the conditions of use of stations.

Whenever as a result of increased use of a specific frequency band, it proves to be impossible to successfully co-ordinate new types of use, ICP may bar the access to this frequency band.

The services/systems that are subject to the mode of full access are as follows:

Services	Services/systems/technologies
FIXED SERVICE	Decametric wave links
	Studio-transmitter links (STL)
	Point-to-point fixed links (narrow band)
	Point-to-point fixed links (wide band)
	Fixed Wireless Access (FWA) - DECT Digital European
	Cordless Telecommunication
FIXED SATELLITE SERVICE-	
MOBILE SERVICE	Aeronautical Mobile service ()
	Maritime Mobile service ()
	Land Mobile service ()
	Private Radio Paging ()
	European Radio MEssaging System (ERMES)

Services (cont.)	Services/systems/technologies (cont.)		
MOBILE SATELLITE SERVICE	Mobile satellite service ()		
	Satellite Personal Communications System (S-PCS)		
RADIODETERMINATION SERVICE	Radiolocation service		
	Aeronautical radionavigation service ()		
	Maritime radionavigation service ()		
METEREOLOGICAL AIDS SERVICE			
AMATEUR SERVICE (AM)			
CITIZEN BAND (CB)			
	High performance radio local area networks		
	(HIPERLAN)		
	Social alarm systems		
	Road Transport Information Systems (RTI)		
	Road Transport Telematic Systems (RTT)		

2.2 Public Tender

This mode of assignment involves comparative assessment of various bids submitted for appraisal, on the basis of previously defined selection criteria.

Examples of this mode of assignment are certain Pan-European services or the assignment of frequency bands for Fixed Wireless Access (FWA).

3. PUBLICATION OF FREQUENCIES

On the basis of the classification of telecommunications services established in Law no. 91/97, of August (Basic Telecommunications Law), this chapter is structured as follows:

- A- Public telecommunications network operators and service providers for public use telecommunications:
- A.1 Frequency bands and quantity of channels used for operation of radiocommunications networks of public telecommunications network operators or of service providers for public use telecommunications licensed up until August 31, 2000.
- **A.2** Frequency bands and channels reserved for the year 2001, for the operation of radiocommunications stations of public telecommunications network operators or service providers for public use telecommunications;
- B- Owners of private telecommunications networks:
- **B.1** Frequency bands and quantity of channels used for operation of stations of private radiocommunications networks, as of August 31, 2000.
- **B.2** Frequency bands and channels reserved for the year 2001, for the operation of private radiocommunications networks.

- A- Public telecommunications network operators and service providers for public use telecommunications:
- A.1 Frequency bands and quantity of channels used for operation of radiocommunications networks of public telecommunications network operators or of service providers for public use telecommunications licensed up until August 31, 2000.

FIXED SERVICE – POINT-TO-POINT FIXED LINKS				
Frequency	No. of channels/type of use		coope of use	
Bands	Shared	exclusive	scope of use	
1,5 GHz	1		g	
(1429 - 1525 MHz)		2 (*)	_	
2 GHz	2	2 · ·	n g	
(1700 - 1900 MHz)			ŭ	
	4		g	
(1700 - 2100 MHz)	·		9	
	4			
(1900 - 2100 MHz)	4		g	
2 GHz	6		g	
2 GHz	4		g	
4 GHz	5		g	
(3800 - 4200 MHz)				
Plan. Principal				
6 GHz	8		g	
7 GHz	3		g	
8 GHz	3		g	
(8200 - 8500 MHz)				
11 GHz	11		g	
(10,7 - 11,7 GHz)			J	
13 GHz	8		g	
15 GHz				
(14,5 – 15,35 GHz)		A (*)	n	
18 GHz		4	11	
(17,7 – 19,7 GHz)		4 (*)	n .	
Plan. 10 MHz 18 GHz		4 ` '	n	
(17,7 – 19,7 GHz)		- (*)		
		5 (^)	n	
18 GHz				
(17,7 - 19,7 GHz)	2		g	
Plan.110 MHz			-	
23 GHz	2		_	
	3		g	
	Frequency Bands 1,5 GHz (1429 - 1525 MHz) Rec. 746-A1 2 GHz (1700 - 1900 MHz) Rec. UIT-R 283-5 2 GHz (1700 - 2100 MHz) Rec. UIT-R 382-6 2 GHz (1900 - 2100 MHz) Rec. UIT-R 283-5 2 GHz (1900 - 2300 MHz) Rec. UIT-R 382-6 2 GHz (1900 - 2300 MHz) Rec. UIT-R 382-6 2 GHz (2100 - 2300 MHz) Rec. UIT-R 382-6 2 GHz (2100 - 2300 MHz) Rec. UIT-R 382-6 6 GHz (3800 - 4200 MHz) Rec. UIT-R 382-6 Plan. Principal 6 GHz (6425 - 7110 MHz) Rec. UIT-R 384-5 7 GHz (7425 - 7750 MHz) Rec. UIT-R 385-6 8 GHz (8200 - 8500 MHz) Rec. UIT-R 386-4 11 GHz (10,7 - 11,7 GHz) Rec. UIT-R 386-4 11 GHz (10,7 - 11,7 GHz) Rec. UIT-R 387-6 Intercalated Plan. 13 GHz (12,75 - 13,35 GHz) Rec. UIT-R 497-4 15 GHz (14,5 - 15,35 GHz) Rec. UIT-R 595-4 Plan. 10 MHz 18 GHz (17,7 - 19,7 GHz) Rec. UIT-R 595-4 Plan. 27,5 MHz Rec. UIT-R 595-4 Plan. 110 MHz	Frequency Bands	Frequency Shared exclusive	

(*) Transportable links.

FIXED SERVICE - FIXED LINKS (SFFH) - (cont.)					
Entity	Frequency Bands	No. of channe Shared	ls/type of use exclusive	scope of use	
TELECEL	18 GHz (17,7 – 19,7 GHz) Rec. UIT-R 595-4 Plan. 3,5 MHz		1 (*)	n	
Licence ICP-01/98-RPT	23 GHz 22-22,6 GHz 23-23,6 GHz Rec.T/R 13-02E Annex A	1		g	
CPRM Sub-concession contract between PT and CPRM Ministerial Order MEPAT no. 156/96 of 06-11-1996	23 GHz (21,2 - 23,6 GHz) Rec. UIT-R 637-2	1		g	

FIXED SERVICE - POINT-MULTIPOINT FIXED LINKS (SFPM)					
	Frequency	No. of channe	ls/type of use	scope of use	
Entity	Bands	Shared	exclusive	scope of use	
	450/470 MHz	56		g	
PORTUGAL TELECOM Concession contract signed on	1356,5-1374,5 MHz 1498,5-1516,5 MHz	9		g	
20-03-1995 in conformity with the Annex to DL no. 40/95 of 15/2	3410-3438 MHz 3510-3538 MHz CEPT/ERC/REC 14-03	2x28 MHz		n	

(*) Transportable links.

FIXED SERVICE Fixed Wireless Access (FWA)				
Entity	Frequency Bands	No. of channels Shared	s/type of use exclusive	scope of use
ONITELECOM Licence ICP-001/99-FWA	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	2x 28 MHz ^(*)		g
SONAE Licence ICP-002/99-FWA	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	2x 28 MHz ^(*)		g
MAXITELSAT Licence ICP-003/99-FWA	3600-3800 MHz CEPT ERC/REC 12-08 Annex B	2x 28 MHz ^(*)		g
SONAE Licence ICP-004/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
ONITELECOM Licence ICP-005/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
JAZZTEL Licence ICP-006/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
EASTÉCNICA IV Licence ICP-007/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
TELEWEB Licence ICP-008/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
TELECEL Licence ICP-009/99-FWA	24,5-26,5 GHz CEPT ERC/REC 13-02 Annex B	2x 56 MHz		g
WTS Licence ICP-010/99-FWA	27,5-29,5 GHz CEPT ERC/REC 13-02 Annex C	2x 175 MHz		g
BRAGATEL Licence ICP-011/99-FWA	27,5-29,5 GHz CEPT ERC/REC 13-02 Annex C	2x 175 MHz		g

(*) Band shared with other users

FIXED SERVICE – MULTIPOINT MICROWAVE DISTRIBUTION SYSTEM (MMDS)				
Entity	Frequency No. of channels/type of use Shared exclusive scope of use			
CABO TV MADEIRENSE Authorisation ICP-001/TVC	2500 - 2700 MHz	(1)		g

FIXED SATELLITE SERVICE				
Entity	Frequency bands Type of link	No. of channe Shared	els/type of use exclusive	scope of use
	5925 - 6475 MHz Uplink	(1) (2)		g
00014	14 – 14,5 GHz Uplink	(1) (2)		g
CPRM Sub-concession contract between PT and CPRM Ministerial Order	17,3 – 17,7 GHz Uplink	(3)		g
MEPAT no. 156/96 of 06-11-1996	3600 – 4200 MHz Downlink	(1)(2)		g
Licence ICP-002/SRS	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1)(2)		g
	5925 - 6425 MHz Uplink	(1)(2)		g
MAXITELSAT	14 – 14,5 GHz Uplink	(1)(2)		g
Licence ICP-003/RPT	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
ONITELECOM Licence ICP-004/SRS	3700 – 4200 MHz Downlink	(1) (2)		g
	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g

⁽¹⁾ Band shared with other users.
(2) Dynamic management of frequencies, in accordance with each type of application.
(3) Exclusively for connection links of the broadcasting satellite service.

FIXED SATELLITE SERVICE - (cont.)				
Entity	Frequency bands Type of link	No. of channe Shared	No. of channels/type of use Shared Exclusive	
	5925 - 6425 MHz Uplink	(1)(2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
TELENET Authorisation ICP-003/SRS	3700 – 4200 MHz Downlink	(1) (2)		g
Licence ICP-004/SCVS	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
CINTRA O LEAL	14 – 14,5 GHz Uplink	(1) (2)		g
CINTRA & LEAL Registration No. ICP-049/99	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
AVCOM Registration	10,95 – 11,2 GHz Downlink	(1) (2)		g
No. ICP-050/99	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
	5925 - 6425 MHz Uplink	(1) (2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
TELEPAC (3)	3700 – 4200 MHz Downlink	(1) (2)		g
Registration No. ICP-041/99	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g

⁽¹⁾ Band shared with other users.
(2) Dynamic management of frequencies, in accordance with each type of application.
(3) Company name changed to "PT PRIME – Soluções Empresariais de Telecomunicações e Sistemas, S.A.".

FIXED SATELLITE SERVICE – (cont.)				
	Frequency bands No. of channels/type of use			scope of use
Entity	Type of link	Shared	exclusive	·
KONOLISCE DODILICAL	14 – 14,5 GHz Uplink	(1)(2)		g
KPNQUEST PORTUGAL- TELECOMUNICAÇÕES, LDA Registration	10,95 – 11,2 GHz Downlink	(1) (2)		g
No. ICP-044/99	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
ONL COLUTIONS	14 – 14,5 GHz Uplink	(1) (2)		g
ONI SOLUTIONS- INFOCOMUNICAÇÕES, SA Registration	10,95 – 11,2 GHz Downlink	(1) (2)		g
No. ICP-036/99	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g
	5925 - 6425 MHz Uplink	(1) (2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
COMPENSA Registration	3700 – 4200 MHz Downlink	(1) (2)		g
No. ICP-042/99	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		G
	12,5 – 12,75 GHz Downlink	(1) (2)		G
	5925 - 6425 MHz Uplink	(1) (2)		g
	14 – 14,5 GHz Uplink	(1) (2)		g
PORTUGAL TELECOM Registration No. ICP-035/99	3600 – 4200 MHz Downlink	(1) (2)		g
	10,95 – 11,2 GHz Downlink	(1) (2)		g
	11,45 – 11,7 GHz Downlink	(1) (2)		g
	12,5 – 12,75 GHz Downlink	(1) (2)		g

Band shared with other users.

(2) Dynamic management of frequencies, in accordance with each type of application.

FIXED SATELLITE SERVICE					
Entity	Frequency bands Type of link	No. of channe Shared	ls/type of use exclusive	scope of use	
	14 – 14,5 GHz Uplink	(1)(2)		g	
EASTÉCNICA IV Registration	10,95 – 11,2 GHz Downlink	(1) (2)		g	
No. ICP-011/99	11,45 – 11,7 GHz Downlink	(1) (2)		g	
	12,5 – 12,75 GHz Downlink	(1) (2)		g	
	14 – 14,5 GHz Uplink	(1) (2)		g	
NETSAT Registration No. ICP-003/99	10,95 – 11,2 GHz Downlink	(1) (2)		g	
	11,45 – 11,7 GHz Downlink	(1) (2)		g	
	12,5 – 12,75 GHz Downlink	(1) (2)		g	

SOUND BROADCASTING SERVICE MF (Hectometric waves)					
Entity	Frequency Bands	No. of channe Shared	ls/type of use exclusive	scope of use	
RDP - RADIODIFUSÃO PORTUGUESA , SA	526,5 - 1606,5 kHz	13		g	
RADIO RENASCENÇA	526,5 - 1606,5 kHz	7		g	
RADIO COMERCIAL SA	526,5 - 1606,5 kHz	6		g	
RADIO ALTITUDE CERISSM	526,5 - 1606,5 kHz	1		g	
CLUBE ASAS DO ATLANTICO	526,5 - 1606,5 kHz	1		g	
RADIO CLUBE ANGRA	526,5 - 1606,5 kHz	1		g	
HERDEIROS M PORTELA RIBEIRO	526,5 – 1606,5 kHz	1		g	
POSTO EMISSSOR RADIODIFUS. FUNCHAL	526,5 – 1606,5 kHz	1		g	

⁽¹⁾ Band shared with other users.
(2) Dynamic management of frequencies, in accordance with each type of application.

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SOUND BROADCASTING SERVICE HF (Decametric waves)							
Entity	Frequency	No. of channel	ls/type of use	scope of use			
Linkly	Bands	Shared exclusive		scope of use			
	5950 - 6200 kHz						
	7100 - 7300 kHz						
	9500 - 9900 kHz						
	11650 - 12050 kHz						
PROFUNK	13600 - 13800 kHz	(1)		(2)			
	15100 - 15600 kHz						
	17550 - 17900 kHz						
	21450 - 21850 kHz						
	25670 - 26100 kHz						
	5950 - 6200 kHz						
	7100 - 7300 kHz						
	9500 - 9900 kHz						
RDP-RADIODIFUSÃO	11650 - 12050 kHz						
PORTUGUESA, SA	13600 - 13800 kHz	(1)		(2)			
	15100 - 15600 kHz						
	17550 - 17900 kHz						
	21450 - 21850 kHz						
	25670 - 26100 kHz						
	5950 - 6200 kHz						
	7100 - 7300 kHz						
	9500 - 9900 kHz						
	11650 - 12050 kHz						
RÁDIO RENASCENÇA	13600 - 13800 kHz	(1)		(2)			
	15100 - 15600 kHz						
	17550 - 17900 kHz						
	21450 - 21850 kHz						
	25670 - 26100 kHz						

SOUND BROADCASTING SERVICE					
VHF (Metric waves) NATIONAL COVERAGE— Mainland					
Entity	Frequency Bands	No. of channels/type of use Shared exclusive		scope of use	
RDP - RADIODIFUSAO PORTUGUESA SA		70		g	
RADIO RENASCENCA	87,5 - 108 MHz	35		g	
RADIO COMERCIAL SA		14		g	

⁽¹⁾ Number of channels varies by seasonal timetable. Bands shared with other users.
(2) Not applicable.

SOUND BROADCASTING SERVICE				
VHF (Metric waves)				
REGIONAL NATIONAL COVERAGE- Madeira				
Entity	Frequency	No. of channels/type of use		scope of use
Linity	Bands	Shared	exclusive	scope or use
RDP - RADIODIFUSAO PORTUGUESA SA	87,5 - 108 MHz	21		g

SOUND BROADCASTING SERVICE				
VHF (Metric waves)				
REGIONAL NATIONAL COVERAGE- Azores				
Entity	Frequency	No. of channe	ls/type of use	scope of use
Littly	Bands	Shared	exclusive	scope or use
RDP - RADIODIFUSAO PORTUGUESA SA	87,5 - 108 MHz	18		g

SOUND BROADCASTING SERVICE				
VHF (Metric waves)				
REGIONAL COVERAGE (*)				
Entity	Frequency	No. of channels/type of use		scope of use
Linity	Bands	Shared	exclusive	scope or use
RADIOPRESS COMUNICACAO RADIODIF. DA	87.5 - 108 MHz	13		g
RADIO REGIONAL LISBOA SA	67,5 - 106 MITZ	7		g

SOUND BROADCASTING SERVICE				
	VHF (Metric wave	s)		
LOCAL COVERAGE (*) - Azores				
Entity Frequency No. of channels/type of use scope of the				
,	Bands	Shared	exclusive	
ANTENA NOVE CRL		4		g
CICLONE PUBLICACOES E DIFUSOES LDA		1		g
CLUBE ASAS ATLANTICO		1		g
COOPERATIVA ECOS DO NORTE CRL		1		g
COOPERATIVA RADIO GRACIOSA CRL		1		g
COOPERATIVA RADIODIFUSAO DO PICO CRL		1		g
ESTADO MAIOR FORÇA AÉREA		1		g
MUSIPELAGO COOP SOM RADIODIFUSAO CRL	87,5 - 108 MHz	1		g
RADIO CLUBE ANGRA		1		g
RADIO ILHA LDA		1		g
RADIO INSULAR LDA		1		g
RADIO LUMENA VOZ DE S JORGE		1		g
RCA RADIO COMERCIAL DOS ACORES LDA		1		g
TOP RADIO LDA		2		g
UNITED STATES AIR FORCE		1		g

^(*) Entities that own local and regional coverage sound broadcasting stations are authorised to exercise their business activity under the terms of the license assigned by public tender.

SOUND BROADCASTING SERVICE					
VHF (Metric waves)					
LOCAL COVERAGE (*) - Madeira					
Entity Frequency No. of channels/type of use scope of u					
Linity	Bands	Shared	exclusive	scope or use	
EMPRESA JORNAL DA MADEIRA LDA		1		g	
ESTACAO RADIO DA MADEIRA		1		g	
POSTO EMISSOR DE RADIODIFUS. DO FUNCHAL		1		g	
RADIO BRAVA	97 F 100 MU	1		g	
RADIO CLUBE MADEIRA LDA	87,5 - 108 MHz	1		g	
RADIO PALMEIRA		1		g	
RADIO SOL		1		g	
RADIO ZARCO		1		g	
SPN – Sociedade Produtora de Notícias, Lda		1		g	

SOUND BROADCASTING SERVICE				
	VHF (Metric wave			
	vnr (metric wave ERAGE ^(*) – Main	•		
EOCAE COV		1		
Entity	Frequency Bands	No. of channe Shared	ls/type of use exclusive	scope of use
	Darius		CACIUSIVE	
A FLOR DO ÉTER, RADIODIFUSÃO, LDA		1		g
A FOLHA CRL		1		g
A FOLHA CRL		1		g
A M OLIVEIRA JORNAL DE SANTO TIRSO		1		g
A VOZ DA PLANICIE CRL		1		g
A VOZ DO SORRAIA EMIS. REG. C CORUCHE		1		g
AGUIA AZUL CRL		1		g
ALCOOJOR COOP JORNAL RADIO ALCOCHETE CRL		1		g
ANTENA DEZ RADIO SANTO ANTONIO LDA		1		g
ANTENA LIVRE DE GOUVEIA		1		g
ANTENA MINHO EMISSORA REG BRAGA LDA		1		g
ANTENA MIROBRIGA COOP SERVICOS CRL		1		g
ANTENA VAREIRA CRL		1		g
AO TOM DELA (RADIO) LDA		1		g
ASS ACADEMICA UNIVERSIDADE MINHO		1		g
ASS CULT DESPORTIVA RECREATIVA INES NEGRA		1		g
ASS CULT E RECREATIVA RADIO CONDESTAVEL		2		g
ASS CULTURAL RECREATIVA DE CARIA		1		g
ASS CULTURAL TORRE DE MONCORVO		1		g
ASS HUM BOMB VOL VIDIGUEIRA	87,5 - 108 MHz	1		g
ASS PROM SOC CULT DESP FORNOS ALGODRES		1		g
AUDIMAIA CRL		1		g
AUDISINTRA LDA		1		g
BASMINHO – PUBLICIDADE, LDA		1		g
CANAL 13 SOC REAL PROD EMIS PROG AUDI		1		g
CENTRO CULTURAL CHAMUSQUENSE		1		g
CENTRO FORMACAO ASS DESENVOLVIMENTO		1		g
CIDADE DE RIO MAIOR LDA		1		g
CIDADE ESPINHO COSTA VERDE CRL		1		g
CINCIBERLANT		1		g
CLUBE CULTURAL RADIO MARINHAIS		1		g
CÔCO-COMPANHIA DE COMUNICAÇÃO LDA		1		g
CÔCO-COMPANHIA DE COMUNICAÇÃO, LDA		1		g
COMISSAO MELHORAMENTOS DE ESMORIZ		1		g
COOP CULTURAL PALA PINTA CRL		1		g
COOP INF E CULTURA PORTO DE MOS		1		g
COOP RADIO BANDARRA CRB CRL		1		g
COOP RADIO BOA NOVA CRL		1		g
COOP RADIO EMISSORA ST ANTONIO DE VAGOS		1		g
COOPERATIVA CULTURAL VOZ DO MARAO CRL		1		g

^(*) Entities that own local and regional coverage sound broadcasting stations are authorised to exercise their business activity under the terms of the license assigned by public tender.

SOUND BROADCASTING SERVICE				
	VHF (Metric wave	es)		
LOCAL COVERA	GE ^(*) – Mainland	d Portugal (cor	nt.)	
	Frequency No. of channels/type of use			
Entity (cont.)	Bands	Shared	exclusive	scope of use
COOPERATIVA DE RADIO ANTENA SUL CRL		1		g
COOPERATIVA DE RADIO VOUZELA CRL		1		g
COOPERATIVA DE SANTO ANDRE CRL		1		g
COOPERATIVA INFORM CULTURA RADIO VINHAIS		1		g
COOPERATIVA RADIO VOZ DO NEIVA CRL		1		g
COOPERATIVA RADIODIFUSAO BRIGANTIA CRL		2		g
COOPERATIVA RADIODIF. DE MORTAGUA CRL		1		g
CORAL RADIO ALTO AVE		1		g
CORTICOL COOP INFORMACAO CULTURA CRL	1	1		g
CR-COMUNICAÇÃO REGIONAL LDA	1	1		g
CRISTINA MARIA SILVA REDE, UNIPESSOAL, LDA	1	1		g
DEFESA BEIRA SOCIEDADE NOTICIAS LDA		1		g
DIFUSAO IDEIAS SOC RADIODIFUSAO LDA		1		g
ECOS DA RAIA PUBLICIDADE E RADIO LDA		1		g
EDIBERTO LIMA, PROD. EM VIDEO E FILME LDA		1		g
EDICOES LINEAR CRL		1		g
EDITAVE COMUNIC PUBLICIDADE PROMOCOES		2		g
LDA EMISSORA INDEP AGUEDA RADIO BOTAREU	-	1		g
EMISSORA REGIONAL DE AMARANTE	1	1		g
EMISSORA REGIONAL DE RESENDE	87,5 - 108 MHz	1		g
EMISSORA REGIONAL LEIRIA RADIO LIZ CRL	-	1		g
EMISSORA REGIONAL RADIO BATALHA CRL	-	1		g
EMISSORA REGIONAL VISEU RCI LDA	-	1		g
EMITAMEGA EMISS. RADIOFONICAS TAMEGA	-	1		g
LDA EMPRESA DE DIFUSAO DE RADIO SA	1	1		g
EMPRESA EDITORA CIDADE DE TOMAR LDA		1		g
EMPRESA JORNAL O CORREIO DE FAFE LDA		1		g
EMPRESA RADIO CAVADO LDA	-	1		g
ERACA-EMPRESA DE RADIOD ALTO CÁVADO,	-	1		g
LDA ERO- EMPRESA DE RADIODIFUSÃO DO OESTE	-	1		g
ERZ EMISS REGIONAL DO ZEZERE	1	1		g
EVB EMISSORA VOZ DA BAIRRADA CRL	1	1		g
FABRICA DA IGREJA PAROQUIAL DO DIVINO SALVADOR DE FERVENÇA		1		g
FABRICA DA SE CATEDRAL DE FARO		1		g
FONOGRAFO PRODUCOES SOM IMAGEM SA		1		g
FORUM BOTICAS ASS RECREATIVA CULTURAL	1	1		g
FUNDACAO AMIZADE	1	1		g
SOLID.PORTUGAL/HOLANDA FUNDACAO FREI PEDRO DA GUARDA	1	1		g

^(*) Entities that own local and regional coverage sound broadcasting stations are authorised to exercise their business activity under the terms of the license assigned by public tender.

SOUND BROADCASTING SERVICE VHF (Metric waves) LOCAL COVERAGE (*) - Mainland Portugal (cont.) Frequency No. of channels/type of use Entity (cont.) scope of use Bands Shared exclusive GRUPO ESTUDOS INVEST CIEN EXPERIMENTAIS 1 g GRUPO DESPORTIVO CULTURAL MINAS 1 g BORRALHA GUADISOM LDA g INFORADIO COMUNICACAO SOCIAL SA 1 g INTERLOCAL-COMUNICAÇÃO, LDA 1 g IRIS-SERVIÇO DE INF.RADIOF. INDEPEND, LDA 1 g JANELA INDISCRETA SOC COMUNICACAO LDA 1 g JORNAL DA TROFA LDA 1 g JORNAL ESPOSENDE SOC EDITORA 1 g JORTEJO LDA 1 g JOSE SOARES SILVA LDA(R.REG SANJOANENSE) 1 g LEIRIMEDIA PRODUCOES E PUBLICIDADE LDA 1 g LEZIRIA COMUNICACAO SOCIAL SA MAFRA FM COOP RADIODIFUSAO CRL 1 g MARGINAUDIO ACT RADIOFONICAS CRL 1 g MÉDIA CAPITAL RÁDIO -RADIODIFUSÃO, LDA 1 g MEIA MARATONA INTERNACIONAL NAZARE ACD 1 g MIRANTE COOP DE INFORMACAO E CULTURA 1 g CRL NOTIMAIA PUBLIC E COMUNICACAO SOCIAL LDA 1 g NUCLEO AMADOR DE INVESTIGACAO DE AFIFE 1 g 87.5 - 108 MHz OFICINA DE VIDEO LDA 1 g ORGANIZACAO COOP INFORMATIVA MARCO CRL 1 g PAJOVIR ESPECTAC. MARKETING PUBLICI., LDA 1 g PAJOVIR ESPECTAC. MARKETING PUBLICI., LDA 1 g PENSE POSITIVO EDICAO DIST AUDIOVISUAIS 1 g PICARRA COMPANHIA, LDA 1 g POLIMEDIA LDA 1 g PRC PRODUCOES RADIOFONICAS COIMBRA LDA 1 g PUBLIÁREA-PUBLICAÇÕES E COMUNICAÇÃO, 1 g _DA PUBLICELOS LDA 1 g PUBLIDIFUSAO LDA ESTACAO ORBITAL 1 g PUBLITABUA SERV EMP LDA 1 g R A PRODUCOES RADIOFONICAS LDA 1 g R O EDICOES PUB LDA 1 g RADIO 90 FM COIMBRA RADIODIFUSAO LDA 1 g RADIO ALTITUDE CERISSM RADIO ALTO MINHO LDA 2 g RADIO ALVOR CRL 1 g RADIO AMADOR DE CANAS DE SENHORIM CRL 1 g RADIO ANSIAES CRL 1 g

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SOUND BROADCASTING SERVICE VHF (Metric waves) LOCAL COVERAGE (*) – Mainland Portugal (cont.) Frequency No. of channels/type of use Entity (cont.) scope of use Shared exclusive Bands RADIO ANTENA LIVRE CRL 1 RADIO ASSOC BOMB VOLUNTARIOS DE SINES 1 g RADIO ATENEU A A VILAFRANQUENSE 1 g RADIO ATLANTICO SUL R P PUBLICIDADE LDA 1 g RADIO BAIA SOC RADIODIFUSAO LDA 1 g RADIO BAIRRADA CRL 1 g RADIO BARCA CRL 1 g RADIO BEIRA ALTA EPE LDA 1 g RADIO BEIRA INTERIOR CRL g RADIO BORBA 1 g RADIO BRAGANCANA RBA CRL 2 g RADIO CAMPANARIO VOZ DE VILA VICOSA CRL 1 g RADIO CARDAL LDA 1 g RADIO CARTAXO CRL 1 g RADIO CASTELO DE LANHOSO CRL 1 g RADIO CENTRAL DO VOUGA LDA 2 RADIO CIDADE HOJE CCF 1 g RADIO CIDADE PROD AUDIOVISUAIS SA 1 g RADIO CISTER CRL 1 g RADIO CLUBE AGUIARENSE 1 g RADIO CLUBE ALVAIAZERE 87,5 - 108 MHz 1 g RADIO CLUBE CASCAIS CRL 1 g RADIO CLUBE DA COVILHA 2 g RADIO CLUBE DA FEIRA CRL 1 g RADIO CLUBE DA LOURINHA CRL 1 g RADIO CLUBE DA PAMPILHOSA CRL 1 g RADIO CLUBE DE ARGANIL CRL 1 g RADIO CLUBE DE ARMAMAR, PROD.RADIOF, LDA 1 g RADIO CLUBE DE GAIA SLRS LDA 1 g RADIO CLUBE DE GONDOMAR LDA 1 g RADIO CLUBE DE GRANDOLA CRL 1 g RADIO CLUBE DE LAFOES CRL 1 g RADIO CLUBE DE LOULE CRL 1 g RADIO CLUBE DE MONSANTO CRL 1 g RADIO CLUBE DE OUREM 1 g RADIO CLUBE DE PENAFIEL CRL 1 g RADIO CLUBE DE REDONDO CRL 1 g RADIO CLUBE DE SINTRA TIPOG MEDINA LDA 1 g RADIO CLUBE DO SUL CRL 1 g RADIO CLUBE FOZ MONDEGO CRL 1 g

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SOUND BROADCASTING SERVICE VHF (Metric waves) LOCAL COVERAGE (*) – Mainland Portugal (cont.) Frequency No. of channels/type of use Entity (cont.) scope of use Bands Shared exclusive RADIO CLUBE LAMEGO LDA g RADIO CLUBE LOUSA 1 g RADIO CLUBE POMBAL CRL 1 g RADIO COMERCIAL DA LINHA LDA 1 g RADIO COMERCIAL DE ALMEIRIM LDA 1 g RADIO COMERCIAL DE VALPAÇOS LDA 1 g RADIO CONCELHO DE CANTANHEDE LDA 1 g RADIO CONIMBRIGA DE CONDEIXA LDA 1 g RADIO CORVAL, CRL RADIO DESPERTAR VOZ DE ESTREMOZ CRL 1 g RADIO DIANA CRL 1 g RADIO DO SEIXAL LDA 1 g RADIO ELMO CNEAJ 1 g RADIO ESCURO CRL 1 g RADIO EUROPA CRL 1 g RADIO FELGUEIRAS CRL 1 g RADIO FESTIVAL DO NORTE LDA 1 g RADIO FOIA CRL 1 g RADIO FOZ DO AVE LDA 1 g RADIO GILAO COOP RADIODIFUSAO CRL 1 g RADIO GRANADA CRL 1 g RADIO GUADALUPE CRL 1 g RADIO HERTZ ASSOCIACAO CULT E RECREATIVA 1 g RADIO HORIZONTE TEJO A RESISTENCIA CRL g RADIO INDEPENDENTE AVEIRO CRL 1 g RADIO INDEPENDENTE PAIVENSE CRL 1 g RADIO JORNAL CAMINHENSE LDA 1 g RADIO JORNAL FUNDAO LDA 1 g RADIO JORNAL SETUBAL LDA 1 g RADIO JUVENTUDE CRL 1 g RADIO LAROUCO CRL 1 g RADIO LIMITE DE CASTRO D'AIRE CRL 1 g RADIO LITORAL CENTRO EMP RAD LDA 1 g RADIO LITORAL CRL 1 g RADIO LIVRE MACEDENSE CRL 1 g RADIO MAIOR, PUBLICIDADE E COMUNICAÇÃO 1 g DA RADIO MAIORCA CRL 1 g RADIO MAIS 1 g RÁDIO METROPOLITANA, COMUN. SOCIAL, LDA 1 g RADIO MIRASADO COOP CULT ANIM RADIOF CRL 1 g RADIO MOLICEIRO COM SOCIAL LDA 1

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SOUND BROADCASTING SERVICE VHF (Metric waves) LOCAL COVERAGE (*) – Mainland Portugal (cont.) Frequency No. of channels/type of use Entity (cont.) scope of use Bands Shared exclusive RADIO NOVA CONTRASTA LDA g RADIO NOVA ERA SOC DE COMUNICACOES LDA 1 g RADIO NOVA LOURES 1 g RADIO NOVA SIRS SOC IND RADIODIFUSAO LDA 1 g RADIO OASIS CRL 1 g RÁDIO OBJECTIVA, LDA 1 g RADIO ONDA VIVA SA 1 g RÁDIO PAÇOS-COMUNICAÇÃO REGIONAL, LDA 1 g RADIO PALMELA EMISSORA REGIONAL CRL RADIO PAX 1 g RADIO PERNES LDA 2 g RADIO PIRANHA CRL 1 g RADIO PLACARD LDA 1 g RADIO PLANALTO CRL 1 g RADIO POPULAR DO CONCELHO DE SOURE 1 g RADIO PORTALEGRE CRL 2 g RADIO PRAIA CRL 1 g RADIO PROVINCIA LDA 1 g RADIO RACAL EMP RADIODIF INFORMACAO LDA 1 g RADIO REGIONAL AVEIRO 1 g RADIO REGIONAL DE AROUCA 1 g RÁDIO RENANCENÇA, LDA 1 g RADIO RIBA TAVORA 1 g RADIO RIBATEJO COOP.RADIODIFUSAO CRL g RADIO SANTA MARIA CRL 1 g RADIO SANTA MARTA LDA 1 g RADIO SANTIAGO COOPERATIVA COM CULTURA 1 g RADIO SANTIAGO EMP GRAF JOR COM GUIM LDA 1 g RADIO SATELITE CRL 1 g RÁDIO SEM FRONTEIRAS, SA 1 g RADIO SINGA CRL 1 g RADIO SOBERANIA, EMPRESA DE RADIODIF. 1 g _DA RADIO SUL E SUESTE CRL 1 g RADIO TAGIDE CRL 1 g RADIO TEMPOS LIVRES CRL 1 g RÁDIOTORRES, LDA 1 g RADIO UNIVERSIDADE MARAO COOP RADIO CRL 1 g RADIO URBANA CRL 1 g RADIO VALDEVEZ ASS CULT DE RADIODIFUSAO 1 g RADIO VIDA NOVA CRL 1 g RADIO VIRIATO NODIGRAFICA LDA 1 g RADIO VIZELA COOP RADIODIFUSAO CRL 1 q

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SOUND BROADCASTING SERVICE VHF (Metric waves) LOCAL COVERAGE (*) – Mainland Portugal (cont.) Frequency No. of channels/type of use Entity (cont.) scope of use Bands Shared exclusive RADIO VOZ ALENQUER g RADIO VOZ DA BENEDITA 1 g RADIO VOZ DE ALCANENA 1 g RADIO VOZ DE TABUACO CRL 1 g RADIO VOZ DO MAR CRL 1 g RADIO VOZ DO MINHO LDA 1 g RADIO VOZ MANGUALDE 1 g RADIO VOZ RIA EMISSORA C ESTARREJA CRL 1 g RADIO VOZ SETUBAL LDA RADIODIFUSAO PUBLIC ESPECTACULOS LDA 1 g RADIOESTE COOP RADIODIFUSAO LOCAL CRL 1 g RAJ RADIO ANTENA JOVEM CRL 1 g RBL RADIO BEIRA LITORAL CRL 1 g RC EMPRESA DE RADIODIFUSAO SA 1 g RC EMPRESA DE RADIODIFUSAO SA 1 g RCB RADIO COVA DA BEIRA CRL 2 g RCC RADIO CULTURAL CERVEIRA 1 g RCCI RADIO COM. CRIATIVIDADE IMAGEM LDA 1 g RCMG RADIO CLUBE MARINHENSE CRL 1 g RDN RADIO DOURO NORTE 1 g RDP – RADIODIFUSÃO PORTUGUESA SA 1 g 87,5 - 108 MHz RDT RADIODIFUSAO TRANSMONTANA CRL 1 g REDE A EMISSORA REGIONAL DO SUL LDA 1 g RGA RADIO GLOBO AZUL 1 g RIM RADIO IMPACTO CRL 1 g RR RADIO RESTAURACAO CRL 1 g RSF, RADIODIFUSÃO, LDA 1 g RTA SOC RADIODIF TELECOM ALBUFEIRA LDA 1 g RTM ASSOC CULT RDIODIF AUDIO DISC MINHO 1 g RTV ESTACAO EMISSORA R TERRA VERDE LDA 1 g RTVA RADIOTELEVISAO ATLANTICO SA 1 g RUC RADIO UNIVERSIDADE AAC 1 g RVE-SOCIEDADE RADIOFÓNICA LDA 1 g SALDIDA FM RADIO INFORMACAO CULTURA CRL 1 g SANTA CASA MISERICORDIA PENAMACOR 1 g SINTONIZENOS COMUNICACAO SOCIAL LDA 1 g SIRPA SOC IMPRENSA RADIO PARALELO LDA 1 g SIRS SOC INDEPE.RADIODIF. SONORA SA 1 g SIT-SOC. DE INFORM. DE TRÁS-OS-MONTES 1 SOC FRANCO-PORTUGUESA COMUNICACAO SA 1 g SOCIEDADE EDITORIAL BETICA LDA 1 g

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SOCIROL SOC RADIODIFUSAO LIMIANA LDA

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SOUND BROADCASTING SERVICE						
	VHF (Metric waves)					
LOCAL COVERAGE ⁽¹⁾ – Mainland Portugal (cont.)						
Entity (cont.)	Frequency	No. of channe	ls/type of use	scope of use		
Linity (cont.)	Bands	Shared	exclusive	scope or use		
SOM DO PINHAL COOP RADIODIFUSAO CRL		1		g		
SONCENTRO EMISSORA RADIO LDA		1		g		
SPN-SOCIEDADE PRODUTORA DE NOTÍCIAS, LDA		1		g		
SRA-SOCIEDADE DE RADIODIFUSÃO DE ALBUFEIRA		1		g		
TAVIRADIO CRL	87,5 - 108 MHz	1		g		
TERRA NOVA COOP RADIO ACCAO CULTURAL CRL		1		g		
TSF RADIO JORNAL LISBOA LDA		1		g		
UNIRADIO UCRL		1		g		
VOZ DE ALMADA COOP RADIODIFUSAO CRL		1		g		

TERRESTRIAL DIGITAL AUDIO BROADCASTING SERVICE				
Terrestrial Digital Audio Broadcasting (T-DAB)				
Entity	Frequency Bands No. of channels/type of use Shared Exclusive scope of use			scope of use
RDP – Radiodifusão Portuguesa, SA Licence ICP-04/99-RPT	224,880 – 226,416 MHz		1 (2)	n

TELEVISION BROADCASTING SERVICE					
Entity	Frequency	No. of channe	Is/type of use	scope of use	
Limity	Bands	Shared	exclusive	333p3 3. 4 33	
PORTUGAL TELECOM SA Concession Contract	Band I 47 - 68 MHz	3		g	
resulting from Law no. 58/90 of September 7	Band III 174 - 223 MHz	6		g	
Resolution 6/92 (2 nd Series) of the Council of Ministers	Band IV 470 - 582 MHz	14		g	
of 06.02.1992	Band V 582 - 822 MHz	30		g	
TVI-TELEVISAO INDEPENDENTE SA Resolution	Band IV 470 - 582 MHz	9		g	
6/92 (2 nd Series) of the Council of Ministers of 06.02.1992	Band V 582 - 822 MHz	13		g	

⁽¹⁾ Entities that own local and regional coverage sound broadcasting stations are authorised to exercise their business activity under the terms of the license assigned by public tender.
(2) One T-DAB channel enables 6 audio programmes to be broadcasted simultaneously.

LAND MOBILE SERVICE				
Entity	Frequency Bands	No. of channe Shared	ls/type of use Exclusive	scope of use
OPTIMUS Licence	GSM 900 890 - 915 MHz 935 - 960 MHz		39	n
ICP-014/TCM	DCS 1800 1710 - 1785 MHz 1805 - 1880 MHz		30	n
TELECEL Licence	GSM 900 890 - 915 MHz 935 - 960 MHz		40	n
ICP-006/TCM	DCS 1800 1710 - 1785 MHz 1805 - 1880 MHz		30	n
TMN Licence	GSM 900 890 - 915 MHz 935 - 960 MHz		40	n
ICP-011/TCM	DCS 1800 1710 – 1785 MHz 1805 – 1880 MHz		30	n

TRUNKED MOBILE SERVICE					
Entity Frequency No. of channels/type of use				scope of use	
Littity	Bands	Shared	Exclusive	scope or use	
RADIOMÓVEL Licence	450/470 MHz ⁽¹⁾	32		g	
LOD O10/TOM			58	n	
ICP-012/TCM			36	· · · · · · · · · · · · · · · · · · ·	
REPART Licence	450/470 MHz ⁽¹⁾	5	36	g	

TRANS-EUROPEAN TRUNKED RADIO SYSTEM (TETRA)				
Entity	Frequency	No. of channe	Is/type of use	scope of use
Entity	Bands	Shared	Exclusive	scope of use
RADIOMÓVEL Licence ICP-012/TCM	410/430 MHz	40 (2)		g
REPART Licence ICP-013/TCM	410/430 MHz	20 (2)		g

PUBLIC USE TELECOMMUNICATIONS

Planning with 12,5 kHz channel spacing.

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

MOBILE SATELLITE SERVICE					
	Frequency bands type of use				
Entity	Type of link	Shared	exclusive	scope of use	
CPRM Sub-concession contract between PT and CPRM Ministerial Order MEPAT no.	1626,5 – 1645,5 MHz Uplink	(1)		n	
156/96 of 06-11-1996 Licence ICP-002/SRS	1530 – 1544 MHz Downlink	(1)		n	

PAGING SERVICE					
Entity	Frequency Bands	No. of channe Shared	ls/type of use Exclusive	scope of use	
PORTUGAL TELECOM (R. A. Açores) Licence ICP-001/TCM	148 - 174 MHz		1 (2)	g	
TLM Licences ICP-007/TCM ICP-009/TCM	148 - 174 MHz		2	n	
TELECEL Licence ICP-010/TCM	148 - 174 MHz		1	n	
FINACOM Licence ICP-008/TCM	148 - 174 MHz		1	n	

SPATIAL OPERATIONS SERVICE					
	Frequency bands No. of channels/type of use				
Entity	Type of link	Shared	exclusive	scope of use	
CPRM Sub-concession contract between PT and CPRM Ministerial Order	2080-2095 MHz Uplink	(1)		g	
MEPAT no. 156/96 of 06-11-1996 Licence ICP-002/SRS	2260-2275 MHz Downlink	(1)		g	

 $^{^{(1)}}$ In conformity with prevailing legislation, these bands may be shared with other users $^{(2)}$ Only within $\,$ an Autonomous Region.

MARITIME MOBILE SERVICE				
Entity	Frequency Bands	No. of channe Shared	ls/type of use exclusive	scope of use
	2173,5 - 2190,5 kHz	 1		(*)
	(Emergency and calls) 2190,5 - 2194 kHz		1	(*)
	2501 - 2850 kHz (Annex 3 to Res. 704 of the RR)		7	(*)
	3500 - 3800 kHz (Annex 3 to Res. 704 of the RR)		1	(*)
	4 MHz (Annex S17 of the RR, part B, section I)		3	(*)
	4 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	6 MHz (Annex S17 of the RR, part B, section I)		1	(*)
	6 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	8 MHz (Annex S17 of the RR, part B, section I)		3	(*)
PORTUGAL TELECOM Concession contract signed on	8 MHz (Annex S17 of the RR, part B, section II)		3	(*)
20-03-1995 in conformity with the Annex to	12 MHz (Annex S17 of the RR, part B, section I)		5	(*)
DL nº40/95 de 15/2	12 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	16 MHz (Annex S17 of the RR, part B, section I)		4	(*)
	16 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	18/19 MHz (Annex S17 of the RR, part B, section I)		1	(*)
	18/19 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	22 MHz (Annex S17 of the RR, part B, section I)		3	(*)
	22 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	25/26 MHz (Annex S17 of the RR, part B, section II)		3	(*)
	156/174 MHz (Annex S18 of the RR)	2	11	(*)

(*) Not applicable.

Α-	Public telecommunications network operators e service providers for public use telecommunications:
A.2	Frequency bands and channels reserved for the year 2001, for the operation of radiocommunications stations of public telecommunications network operators or
	service providers for public use telecommunications:

PUBLIC USE TELECOMMUNICATIONS - Reserved Frequencies -

FIXED SERVICE – POINT-to-POINTFIXED LINKS				
Frequency	type o	of use	scope of	mode of
Bands	Shared	exclusive	use	assignment
	Shareu	exclusive	use	assignment
1350 – 1375 MHz 1492 – 1517 MHz				
CEPT ERC/REC 13-01 A	(1)		g	full access
1375 – 1400 MHz				
1427 – 1452 MHz	(1)		g	full access
CEPT ERC/REC 13-01 B			9	Tall decess
2025 – 2110 MHz 2200 – 2290 MHz	(1)		g	full access
CEPT ERC/REC 13-01 C			9	Tull access
4 GHz	(1)			
(3800 – 4200 MHz)			g	full access
Rec. UIT-R 382 6 GHz				
(5925 – 6425 MHz)	(2)		g	full access
Rec. UIT-R 383			9	1411 400000
6 GHz	(0)			
(6425 – 7110 MHz)	(2)		g	full access
Rec. UIT-R 384 7 GHz				
(7110 – 7425 MHz)	(2)		g	full access
Rec. UIT-R 385			3	
7 GHz	(2)			
(7425 – 7750 MHz) Rec. UIT-R 385	(2)		g	full access
8 GHz				
(7700 – 8300 MHz)	(2)		g	full access
Rec. UIT-R 386 A1			_	
8 GHz	(2)			6.11
(8200 – 8500 MHz) Rec. UIT-R 386	(2)		g	full access
11 GHz				
(10,7 – 11,7 GHz)	(2)		g	full access
Rec. UIT-R 387				
13 GHz	(2)			full access
(12,75 – 13,25 GHz) Rec. UIT-R 497			g	Tull access
15 GHz				
14,5 – 14,62 GHz	(1)		g	full access
15,23 – 15,35 GHz			9	Tall decess
CEPT ERC/REC 12-07 18 GHz				
(17,7 – 19,7 GHz)	(2)		g	full access
Rec. UIT-R 595			,	
23 GHz				
22 – 22,6 GHz	(1)		~	full access
23 – 23,6 GHz CEPT ERC/REC 13-02	` '		g	full access
Annex A				
38 GHz	(2)			
37 – 39,5 GHz			g	full access
CEPT Rec T/R 12-01 58 GHz				
58 GHZ 57 – 59 GHz	(2)		g	full access
CEPT ERC/REC 12-09			9	

⁽¹⁾ Band shared with other users (paired)
(2) Band shared with other users

PUBLIC USE TELECOMMUNICATIONS - Reserved frequencies -

FIXED SATELLITE SERVICE				
Frequency	Type	of use	scope of	Mode of
Bands	Shared	Exclusive	use	assignment
5925 - 6425 MHz Uplink	(1)(2)		g	Full access
14 - 14,5 GHz Uplink	(1) (2)		g	Full access
3800 – 4200 MHz Downlink	(1)(2)		g	Full access
10,95 – 11,2 GHz Downlink	(1)(2)		g	Full access
11,45 – 11,7 GHz Downlink	(1) (2)		g	Full access
12,5 – 12,75 GHz Downlink	(1)(2)		g	Full access

FIXED SERVICE – FIXED WIRELESS ACCESS (FWA)					
Frequency	No. of channels	s/type of use	scope of	Mode of	
Bands	Shared	Exclusive	use	assignment	
1880-1900 MHz	10 (3)		g	Full access (4)	
40,5-43,5 GHz ERC/DEC 99(15)			g	To be defined	

⁽¹⁾ Band shared with other users

Dynamic management of frequencies, in accordance with each type of application.

Dynamic management of band.

In accordance with the Notice published by ICP in the 2nd Supplement of the III Series of the Diário da República no. 144, of June 23, 1999

PUBLIC USE TELECOMMUNICATIONS - Reserved Frequencies -

TRANS-EUROPEAN TRUNKED RADIO SYSTEM (TETRA)					
Frequency	No. of channels	s/Type of use	scope of	mode of	
Bands	Shared	Exclusive	use	assignment	
380-383 MHz 390-393 MHz			n	Resolution of Council of Ministers no. 88/99, of August 12	
410 -430 MHz		130 ⁽¹⁾	g	full access	
450 - 470 MHz		(2)		To be defined	

ENHANCED RADIO MESSAGE SYSTEM (ERMES)						
Frequency	No. of channe	ls/Type of use	scope of	mode of		
Bands	Shared	exclusive	use	assignment		
169,4125 - 169,8125 MHz		7	g	full access (3)		

MOBILE SERVICE Universal Mobile Telecommunications System (UMTS)						
Frequency	No. of channels	s/Type of use	scope of	mode of		
Bands	Shared	Exclusive	use	assignment		
1920-1980 MHz 2110-2170 MHz		4 blocks 2 x 15 MHz	n	Public Tender ⁽⁴⁾		
1900-1920 MHz		4 blocks 1 x 5 MHz	n	Public Tender ⁽⁴⁾		

The full 130 channels will only be effective from 1/10/2002. This total of 130 channels, is subject to restrictions in certain regions of the country, for use by service providers that have already been licensed by ICP for the Trunked Mobile Service.

(2) This band is currently being re-planned in order to identify additional channels.

⁽³⁾ In accordance with the Notice published by ICP in the III series of the Diário da República no. 37, of February 13, 1998.

(4) Public Tender held in the year 2000, with licenses granted in December.

PUBLIC USE TELECOMMUNICATIONS - Reserved Frequencies -

MOBILE SATELLITE SERVICE (SMS)							
Frequency bands	Type o	of use	scope of	mode of			
Type of link	Shared	exclusive	use	assignment			
1530 - 1559 MHz Downlink	(2)		n	full access			
1626,5 - 1660,5 MHz Uplink	(2)		n	full access			
10,7 - 11,7 GHz Downlink	(2)		n	full access			
12,5 - 12,75 GHz Downlink	(2)		n	full access			
14,0 - 14,25 GHz Uplink	(2)		n	full access			

SATELLITE PERSONAL COMMUNICATIONS SERVICES (S-PCS)						
Frequency bands	Type o	f use	scope of	mode of		
Type of link	Shared	exclusive	use	assignment		
1610 - 1626,5 MHz Uplink/Downlink ⁽¹⁾	(2)		n	full access		
2483,5 - 2500 MHz Downlink	(2)		n	full access		
1980 - 2010 MHz Uplink	(2)		n	full access		
2170 - 2200 MHz Downlink	(2)		n	full access		

 $^{^{(1)}}$ Uplink in CDMA and TDMA modes; Downlink in TDMA mode $^{(2)}$ Band shared with other users

PUBLIC USE TELECOMMUNICATIONS Reserved Frequencies -

TERRESTRIAL DIGITAL AUDIO BROADCASTING SERVICE (T-DAB)					
Frequency Bands	No. of channels Shared	s/Type of use Exclusive	Scope of use	mode of assignment	
219 - 230 MHz		5	g	To be defined	

DIGITAL TERRESTRIAL TELEVISION BROADCASTING SERVICE Digital Video Broadcasting - Terrestrial (DVB-T) (1)						
Frequency	No. of channels	s/Type of use	scope of	mode of		
Bands	Shared	Exclusive	use	assignment		
BAND IV 470 - 582 MHz	7		g	Public Tender		
BAND V 582 - 862 MHz	19	2 (2)	g	Public Tender		

TERRESTRIAL FLIGHT TELECOMMUNICATIONS SYSTEM (TFTS)							
Frequency	No. of channels	s/Type of use	scope of	Mode of			
Bands	Shared	Exclusive	use	assignment			
1670 - 1675 MHz		8 (3)	n	in conformity with Ministerial Order SEH			
1800 - 1805 MHz		8 (4)	n	No. 48/90 of October 28			

⁽¹⁾ Set of channels that could enable 4 coverages in the territory of the mainland and 4 regional coverages in each of the Autonomous Regions.
(2) Exclusive channels only for the territory of Mainland Portugal.
(3) Channels intended for transmissions from aeronautical stations.

⁽⁴⁾ Channels intended for transmissions from aircraft stations.

B-	Owners of private telecommunications networks:
B. 1	Frequency bands and quantity of channels used for operation of stations of private
	radiocommunications networks, as of August 31, 2000.
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PRIVATE NETWORKS - Usage -

	FIXED SERVICE – POINT-to-POINT FIXED LINKS (SFFH)					
Frequency Bands ⁽¹⁾	Type of Channels	Number of users		nels/type of ation exclusive	scope of use	
1,5 GHz (1429 - 1525 MHz) Rec. UIT-R 746-A1	2 MHz	5	16		g	
2 GHz (2300 - 2500 MHz) Rec. UIT-R 746 A 1	14 MHz	3	4		g	
2 GHz (2500 - 2690 MHz) Rec. UIT-R 283-5	14 MHz	4	5		g	
6 GHz (5925 - 6425 MHz) Rec. UIT-R 383-5	29,65 MHz	1	4		g	
7 GHz (7110 - 7425 MHz) Rec UIT-R 385-6	7 MHz	3	5		g	
7 GHz (7425 - 7750 MHz) Rec UIT-R 385-6	7 MHz	2	7		g	
8 GHz (7700 - 8300 MHz) Rec. UIT-R 386-4 A1	29,65 MHz	1	5		g	
8 GHz (8200 - 8500 MHz) Rec. UIT-R 386-4	11,662 MHz	1	4		g	
10.5 GHz	28 MHz	3	3		g	
18 GHz (17, 7 - 19,7 GHz) Rec. UIT-R 595-4	2 MHz	1	2		g	

⁽¹⁾ Bands shared with public network operators and other private network operators

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PRIVATE NETWORKS - Usage -

FIXED SERVICE - DECAMETRIC WAVE LINKS						
Frequency Bands	Type of channels Mode of operation	Number of users	No. of channels/type of operation Shared exclusive		scope of use	
3155 - 3400 kHz	(*)	4	5		g	
3500 - 3800 kHz	(*)	1	2		g	
5005 - 5250 kHz	(*)	2	3		g	
5730 - 5900 kHz	(*)	1	1		g	
6765 - 7000 kHz	(*)	2	3		g	
7350 - 8100 kHz	(*)	4	5		g	
8100 - 8195 kHz	(*)	2	2		g	
9040 - 9400 kHz	(*)	2	2		g	
10150 - 11175 kHz	(*)	6	7		g	
11400 - 11600 kHz	(*)	3	3		g	
13410 – 13570 kHz	(*)	1	1		g	
13870 - 14000 kHz	(*)	2	2		g	
14350 - 14990 kHz	(*)	5	5		g	
15800 - 16360 kHz	(*)	4	5		g	
18168 - 18780 kHz	(*)	3	3		g	
19020 - 19680 kHz	(*)	2	2		g	
19800 - 19990 kHz	(*)	3	3		g	
20010 - 21000 kHz	(*)	3	3		g	
23000 – 23200 kHz	(*)	1	1		g	
23350 – 24000 kHz	(*)	1	1		g	

(*) Not applicable

FIXED SERVICE – POINT-to-POINT FIXED LINKS (narrow band)								
	Type of channels	Number of No. of channe operat			Scope of			
Bands	Mode of operation	users	Shared	exclusive	use			
406,1- 430 MHz	25 kHz duplex	79	208		g			

FIXED SERVICE – STUDIO TRANSMITTER LINKS (STL)									
Frequency	Type of	Number of No. of channels/type of operation		scope of					
Bands	Channels	users	Shared	exclusive	use				
1517 - 1525 MHz	300 kHz 100 kHz	44 1	12 1		g				

AERONAUTICAL MOBILE SERVICE									
Frequency	Type of	Number of	No. of chang	nels/type of ation	scope of				
Bands	Channels	users	Shared	exclusive	use				
3400 - 3500 kHz	3 kHz	1	2		g				
5480 - 5680 kHz	3 kHz	1	2		g				
8815 - 8965 kHz	3 kHz	1	2		g				
11275 - 11400 kHz	3 kHz	1	1		g				
13260 - 13360 kHz	3 kHz	1	2		g				
17900 - 17970 kHz	3 kHz	1	1		g				
117,975 - 136 MHz	25 kHz	45	68		g				

LAND MOBILE SERVICE									
Frequency Bands	Type of channels Mode of operation	Number of users		nels/type of ation	scope of use				
	20 kHz	2	2	OXO.GO.VO					
20.7 41 MUI	simplex				_				
29,7 - 41 MHz	20kHz	438	36		g				
	semi-duplex								
	12,5 kHz	12	35						
	simplex	6		20					
	12,5kHz	312	83						
	semi-duplex	9		40					
68 – 87,5 MHz	25 kHz	10	9		g				
	simplex	3		9					
	25kHz	214	100						
	semi-duplex	16		78					
	12,5 kHz	464	45						
	simplex	5		25	g				
148,4 – 174 MHz	12,5kHz	750	144	60	9				
	semi-duplex	5							
	25 kHz	91	40						
	simplex	3		14					
158 – 174 MHz	25kHz	261	106		g				
	semi-duplex	2		15					
	12,5 kHz	672	80						
	simplex	6		13	g				
440 - 450 MHz	12,5kHz	145	41		3				
	semi-duplex	3		7					
	12,5 kHz	198	50						
	simplex								
	12,5kHz	153	53						
	semi-duplex	2		6					
450 - 470 MHz	25 kHz	59	30		g				
	simplex	5		10					
		62	46						
	25kHz ^(*)	4		20					
	semi-duplex								

^(*) Includes reporting service

PAGING SERVICE Frequency Type of Number of No. of channels/type of scope of									
Frequency	Type of	Number of	No. of chant oper		scope of				
Bands	Channels	users	Shared	exclusive	use				
26175 - 27500 kHz	10 kHz	25	6		n				
40,02 - 40,98 MHz	20 kHz	382	1		n				
156,8375 - 174 MHz	25 kHz	15	1		n				
460 - 470 MHz	25 kHz	10	1		n				

AERONAUTICAL RADIONAVIGATION SERVICE									
Frequency Bands	Type of channels Mode of operation	Number of users		nels/type of ation exclusive	scope of use				
255 - 283,5 kHz	(*)	1	2	onorder v	g				
283,5 - 315 kHz	(*)	1	1		g				
315 - 325 kHz	(*)	1	2		g				
325 - 405 kHz	(*)	4	17		g				
415 - 435 kHz GE-85	(*)	2	3		g				
74,8 - 75,2 MHz	(*)	2	1		g				
108 - 117,975 MHz	(*)	1	22		g				
328,6 - 335,4 MHz	(*)	1	10		g				
960 - 1215 MHz	(*)	1	29		g				
1300 - 1350 MHz	(*)	1	3		g				
9300 - 9500 MHz	(*)	1	1		g				

^(*) Not applicable

MARITIME RADIONAVIGATION SERVICE									
Frequency	Type of channels	Number of	No. of chang	nels/type of ation	scope of				
Bands	Mode of operation	users	Shared	exclusive	use				
283,5 - 315 kHz	0,5 kHz	1	(2)		n				
9300 – 9500 MHz	(1)	1	(2)		n				

RADIOLOCATION SERVICE									
Frequency	Type of channels	Number of	No. of chang	nels/type of ation	scope of				
Bands	Mode of operation	users	Shared	exclusive	use				
435 - 438 MHz	(1)	1	(2)		g				
890 - 942 MHz	(1)	1	(2)		g				
5470 - 5600 MHz	(1)	1	(2)		g				
5725 - 5815 MHz	(1)	2	(2)		g				
9300 - 9500 MHz	(1)	1	(2)		g				

MARITIME MOBILE SERVICE									
Frequency	Type of channels	Number of		nels/type of ation	scope of				
Bands	Mode of operation	users	Shared	exclusive	use				
1635 - 1800 kHz Plan. SMM/MF (GE-85)	3 kHz	1	5		g				
156 - 174 MHz (Annex S18 of the RR)	25 kHz simplex	210	48		g				
	25 kHz duplex	186	20		g				

(1) Not applicable
(2) Band shared with other users

METEOROLOGICAL AIDS SERVICE								
Frequency Bands	Type of channels Mode of operation							
5600 – 5650 MHz	(1)	1	(2)		g			

PERSONAL RADIO SERVICE – CITIZEN BAND (CB)								
Frequency	Type of channels							
Bands	Mode of operation	users	use					
26965 – 27405 kHz	10 kHz simplex	15668	40		n			

	SHORT R	ANGE DEVICES	S (SRD)	4	-
Frequency Bands	Type of channels Mode of operation	Number of users		nels/type of ation exclusive	scope of use

The establishment, ownership and use of low power, short range devices, whose categories are listed in the Annexes to Administrative Rules nos. 859/94, of September 23, 649/95, of June 22 and 802/99, of September 20, do not require tutelary authorisation.

AMATEUR SATELLITE SERVICE							
Frequency	Type of channels			scope of			
Bands	Mode of operation	users	Shared	exclusive	use		
145,8 – 146 MHz	(1)	4921	(3)		n		
435 – 438 MHz	(1)	4921	(3)		n		

⁽¹⁾ Not applicable.

(2) Band shared with other users.

⁽³⁾ Frequency bands assigned to the amateur service with primary service status and shared by all category A and category B amateurs.

AMATEUR SERVICE						
Frequency	Type of channels	Number of		nels/type of ration	scope of	
Bands	Mode of operation	users	Shared	exclusive	use	
1830 – 1850 kHz	(1)	3351	(2)		n	
3500 – 3800 kHz	(1)	4921	(3)		n	
7000 – 7100 kHz	(1)	4921	(3)		n	
10100 – 10150 kHz	(1)	(6)	(4)		n	
14000 – 14350 kHz	(1)	4921	(3)		n	
18068 – 18155 kHz	(1)	4921	(3)		n	
18155 – 18168 kHz	(1)	(6)	(4)		n	
21000 – 21450 kHz	(1)	4921	(3)		n	
24890 – 24990 kHz	(1)	4921	(3)		n	
28000 – 29700 kHz	(1)	4921	(3)		n	
144 – 145,8 MHz	(1)	5399	(5)		n	
430 – 432 MHz	(1)	4921	(3)		n	
432 – 435 MHz	(1)	5399	(5)		n	
438 – 440 MHz	(1)	4921	(3)		n	
1240 – 1300 MHz	(1)	(6)	(7)		n	
2300 – 2450 MHz	(1)	(6)	(7)		n	
5650 – 5850 MHz	(1)	(6)	(7)		n	
10 - 10,5 GHz	(1)	(6)	(7)		n	
24 - 24,05 GHz	(1)	4921	(3)		n	
24,05 – 24,25 GHz	(1)	(6)	(7)		n	
47 - 47,2 GHz	(1)	4921	(3)		n	
75,5 – 76 GHz	(1)	4921	(3)		n	
76 – 81 GHz	(1)	(6)	(7)		n	
142 – 144 GHz	(1)	4921	(3)		n	
144 – 149 GHz	(1)	(6)	(7)		n	
241 – 248 GHz	(1)	(6)	(7)		n	
248 – 250 GHz	(1)	4921	(3)		n	

 $\dot{}^{(2)}$ Frequency bands assigned to the amateur service with primary service status and shared by all category A and category B amateurs authorised to use Morse.

(3) Frequency bands assigned to the amateur service with primary service status and shared by all category A

⁽¹⁾ Not applicable

and category B amateurs.

⁽⁴⁾ Frequency bands assigned to the amateur service with secondary service status and shared by all category A and category B amateurs authorised to use Morse.

(5) Frequency bands assigned to the amateur service with primary service status and shared by all categories of

amateurs. (6) Temporary authorisations granted on a case-by-case basis.

Frequency bands assigned to the amateur service with secondary service status and shared by all category A and category B amateurs.

B-	Owners of private telecommunications networks:
B.2	Frequency bands and channels reserved for the year 2001, for the operation of private radiocommunications networks.
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FIXE	FIXED SERVICE – POINT-to-POINT FIXED LINKS							
Frequency	type o	of use	scope of	mode of				
Bands	Shared	exclusive	use	assignment				
1350 – 1375 MHz 1492 – 1517 MHz								
CEPT ERC/REC 13-01 A	(1)		g	full access				
1375 – 1400 MHz 1427 – 1452 MHz CEPT ERC/REC 13-01 B	(1)		g	full access				
2025 – 2110 MHz 2200 – 2290 MHz	(1)		g	full access				
CEPT ERC/REC 13-01 C			9	Tull access				
4 GHz (3800 – 4200 MHz) Rec. UIT-R 382	(2)		g	full access				
6 GHz (5925 – 6425 MHz) Rec. UIT-R 383	(2)		g	full access				
6 GHz (6425 – 7110 MHz) Rec. UIT-R 384	(2)		g	full access				
7 GHz (7110 – 7425 MHz) Rec. UIT-R 385	(2)		g	full access				
7 GHz (7425 – 7750 MHz) Rec. UIT-R 385	(2)		g	full access				
8 GHz (7700 – 8300 MHz) Rec. UIT-R 386 A1	(2)		g	full access				
8 GHz (8200 – 8500 MHz) Rec. UIT-R 386	(2)		g	full access				
11 GHz (10,7 – 11,7 GHz) Rec. UIT-R 387	(2)		g	full access				
13 GHz (12,75 – 13,25 GHz) Rec. UIT-R 497	(2)		g	full access				
15 GHz 14,5 – 14,62 GHz 15,23 – 15,35 GHz CEPT ERC/REC 12-07	(1)		g	full access				
18 GHz (17,7 – 19,7 GHz) Rec. UIT-R 595	(2)		g	full access				
23 GHz 22 – 22,6 GHz 23 – 23,6 GHz CEPT ERC/REC 13-02 Annex A	(1)		g	full access				
38 GHz 37 – 39,5 GHz CEPT Rec. T/R 12-01	(2)		g	full access				
58 GHz 57 – 59 GHz CEPT ERC/REC 12-09	(2)		g	full access				

⁽¹⁾ Band shared with other users (paired)
(2) Band shared with other users

Frequency Bands 3200 – 3375 kHz		nels/Type of ration exclusive	scope of	mode of	
	Shared		1100		
3200 – 3375 kHz	(*)		use	assignment	
			g	full access	
6765 – 6795 kHz	(*)		g	full access	
7350 – 7757 kHz	(*)		g	full access	
13415 – 13495 kHz	(*)		g	full access	
13515 – 13570 kHz	(*)		g	full access	
13914 – 14000 kHz	(*)		g	full access	
14350 – 14604 kHz	(*)		g	full access	
14670 – 14990 kHz	(*)		g	full access	
15800 – 16180 kHz	(*)		g	full access	
16235-16360 kHz	(*)		g	full access	
17452 – 17480 kHz	(*)		g	full access	
18030 – 18052 kHz	(*)		g	full access	
18168 – 18249 kHz	(*)		g	full access	
18733 – 18780 kHz	(*)		g	full access	
19120 – 19680 kHz	(*)		g	full access	
19800 – 19990 kHz	(*)		g	full access	
20010 – 20442 kHz	(*)		g	full access	
20680 – 21000 kHz	(*)		g	full access	
21850 – 21870 kHz	(*)		g	full access	
22855 – 22900 kHz	(*)		g	full access	
23350 – 24125 kHz	(*)		g	full access	
24325 – 24890 kHz	(*)		g	full access	
25210 – 25550 kHz	(*)		g	full access	
26175 – 26870 kHz	(*)		g	full access	
26957 – 27500 kHz	(*)		g	full access	

(*) Band shared with other users.

FIXED SERVICE – POINT-to-POINT FIXED LINKS(narrow band)							
Frequency	Type of channels		No. of channels/Type of operation		mode of		
Bands	Mode of operation	Shared	exclusive	use	assignment		
406,1-410 MHz	12,5 kHz	214		g	full access		
	simplex						
410-430 MHz	12,5 kHz	381		g	full access		
	simplex						

FIXED SERVICE – STUDIO TRANSMITTER LINKS (STL)							
Frequency	Frequency Type of channels No. of channels/Type operation			scope of	mode of		
Bands		Shared	Exclusive	use	assignment		
1517 – 1525 MHz	100 kHz	80		g	full access		
1517 – 1525 MHz	300 kHz	26		g	full access		

FIXEDSATELLITE SERVICE							
Frequency	Type of channels	No. of chanr opera		scope of	mode of		
Bands		Shared	exclusive	use	assignment		
5925 – 6425 MHz Uplink	(1)	(2)		g	full access		
14 - 14,5 GHz Uplink	(1)	(2)		g	full access		
10,95 – 11,2 GHz Downlink	(1)	(2)		g	full access		
11,45 – 11,7 GHz Downlink	(1)	(2)		g	full access		
12,5 – 12,75 GHz Downlink	(1)	(2)		g	full access		

⁽¹⁾ Not applicable
(2) Band shared with other users

AERONAUTICAL MOBILE SERVICE							
Frequency	Type of channels	No. of chanr opera	nels/Type of ation	scope of	mode of		
Bands		Shared	exclusive	use	assignment		
3400 - 3500 kHz	3 kHz	1		g	full access		
5480 - 5680 kHz	3 kHz	2		g	full access		
8815 - 8965 kHz	3 kHz	3		g	full access		
11275 - 11400 kHz	3 kHz	2		g	full access		
13260 - 13360 kHz	3 kHz	1		g	full access		
17900 - 17970 kHz	3 kHz	1		g	full access		
117,975 - 137 MHz	25 kHz	752		g	full access		
143,9 - 144 MHz ^(*)	12,5 kHz simplex	3		n	full access		

MARITIME MOBILE SERVICE							
Frequency	Type of channels		nels/Type of	scope of	mode of		
Bands	Mode of operation	operation Shared exclusive		use	assignment		
156 – 174 MHz	25 kHz simplex	26		g	full access		
(Annex S18 of the RR)	25 kHz duplex	33		g	full access		

PAGING SERVICE							
Frequency Bands	Type of channels	No. of channels/Type of operation Shared exclusive		scope of use	mode of assignment		
26175 - 27500 kHz	10 kHz	10		n	full access		
40,02 - 40,98 MHz	20 kHz	1		n	full access		
156,8375 - 174 MHz	25 kHz	1		n	full access		
460 - 470 MHz	12,5 kHz	2		n	full access		
460 - 470 MHz	25 kHz	1		n	full access		

^(*) Sporting and leisure ultra-light, engine-less glider and hang-glider

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LAND MOBILE SERVICE							
Frequency Bands	Type of channels Mode of operation		No. of channels/Type of operation Shared ⁽¹⁾ exclusive		mode of assignment		
	20 kHz simplex	44		g	full access		
29,7 - 41 MHz	20 kHz semi-duplex	35		g	full access		
	12,5 kHz simplex	59		g	full access		
68 - 87,5 MHz	12,5 kHz semi-duplex	7		g	full access		
	12,5 kHz simplex	0		g	full access		
148 - 174 MHz	12,5 kHz semi-duplex	10		g	full access		
	12,5 kHz simplex	49		g	full access		
440 - 450 MHz	12,5 kHz semi-duplex	28		g	full access		
	12,5 kHz simplex	1		g	full access		
450 - 470 MHz	12,5 kHz semi-duplex	0		g	full access		

	MOBIL	LE SATELLITE SE	RVICE		
Frequency Bands	Type of channels Mode of operation	No. of chanr opera Shared	nels/Type of ation exclusive	scope of use	mode of assignment
1530-1544 MHz Downlink	(2)	(3)		g	full access
1626.5-1645,5 MHz Uplink	(2)	(3)		g	full access

⁽¹⁾ In addition to the available channels indicated in the above table it is also possible in specific geographic areas to cater for new private telecommunications networks using shared channels
(2) Not applicable
(3) Band shared with other users

AERONAUTICAL RADIONAVIGATION SERVICE					
Frequency Bands	Type of channels Mode of operation		nels/Type of ation exclusive	scope of use	mode of assignment
255 - 283,5 kHz	(1)	(2)		g	full access
283,5 - 315 kHz	(1)	(2)		g	full access
315 - 325 kHz	(1)	(2)		g	full access
325 - 405 kHz	(1)	(2)		g	full access
415 - 435 kHz GE-85	1 kHz	(2)		g	full access
74,8 - 75,2 MHz	(1)	1		g	full access
108 - 117,975 MHz	(1)	(2)		g	full access
328,6 - 335,4 MHz	(1)	(2)		g	full access
960 – 1350 MHz	(1)	(2)		g	full access
2700 – 2900 MHz	(1)	(2)		g	full access
2900 – 3100 MHz	(1)	(2)		g	full access
4200 – 4400 MHz	(1)	(2)		g	full access
5000 – 5150 MHz	(1)	(2)		g	full access
5150 – 5250 MHz	(1)	(2)		g	full access
9000 – 9200 MHz	(1)	(2)		g	full access
9300 – 9500 MHz	(1)	(2)		g	full access
15,4 – 15,7 GHz	(1)	(2)		g	full access

⁽¹⁾ Not applicable
(2) Band shared with other users

MARITIME RADIONEVIGATION SERVICE Type of channels No. of channels/Type of scope of Frequency mode of operation Bands Mode of operation use assignment Shared exclusive (2) 283,5 - 315 kHz 0,5 kHz full access g (1) (2) 5470 - 5600 MHz full access g (1) (2) 5600 - 5650 MHz full access g (1) (2) 9300 - 9500 MHz full access g

RADIOLOCATION SERVICE							
Frequency Bands	Type of channels Mode of operation	No. of channels/Type of operation Shared exclusive		scope of use	mode of assignment		
		c.iai cu	5.0.45140				
2700 - 2900 MHz	(1)	(2)		g	full access		
2900 - 3100 MHz	(1)	(2)		g	full access		
5725 - 5830 MHz	(1)	(2)		g	full access		
5830 - 5850 MHz	(1)	(2)		g	full access		
59 - 64 GHz	(1)	(2)		g	full access		

	METEREC	OLOGICAL AIDS	SERVICE		
Frequency Bands	Type of channels Mode of operation	No. of channels/Type of operation Shared exclusive		Scope of use	mode of assignment
5600 - 5650 MHz	(1)	(2)		g	full access

⁽¹⁾ Not applicable
(2) Band shared with other users

	PERSONAL RADIO	O SERVICE – CIT	IZEN BAND (CE	3)	
Frequency Bands	Type of channels Mode of operation	No. of chanr opera Shared	nels/Type of ation exclusive	Scope of use	mode of assignment
26965 –27405 kHz	10 kHz simplex	40		n	full access

	А	MATEUR SERVIC	E		
Frequency	Type of channels	No. of channels/Type of		Scope of	mode of
Bands	Mode of operation	operation Shared Exclusive		use	assignment

Frequency bands and transmission classes assigned in conformity with the terms established in Administrative Rule no. 322/95, of April 17.

	SHC	ORT RANGE DEVI (SRD)	CES		
Frequency	Type of channels	No. of channels/Type of operation		Scope of	mode of
Bands	Mode of operation	Shared	Exclusive	use	assignment

The establishment, ownership and use of low power, short range devices, whose categories are listed in the Annexes to Administrative Rules nos. 859/94, of September 23, 649/95, of June 22 and 802/99, of September 20, do not require regulatory authorisation.

HIGH PERFORMANCE RARIO LOCAL AREA NETWORK (HIPERLAN)					
Frequency	Type of channels	s No. of channels/Type of scope of operation		mode of	
Bands	Mode of operation	Shared	exclusive	use	assignment
5150 - 5250 MHz	(1)	(2)		g	full access
5250 - 5300 MHz	(1)	(2)		g	full access
17,1-17,3 GHz	(1)	(2)		g	full access

	soc	IAL ALARM SYST	rems		
Frequency Bands	Type of channels Mode of operation	No. of channels/Type of operation		scope of use	mode of assignment
Ballus	wode or operation	Shared	exclusive	use	assignment
869,2 - 869,25 MHz	(1)	(2)		n	full access

ROAD TRANSPORT TELEMATIC SYSTEMS (RTT) ROAD TRANSPORT INFORMATION SYSTEMS (RTI)					
Frequency Bands	Type of channels Mode of operation	No. of channels/Type of operation Shared exclusive		scope of use	mode of assignment
5795 – 5805 MHz	(1)	(2)		n	full access
5805 – 5815 MHz	(1)	(2)		n	full access
63 – 64 GHz	(1)	(2)		n	full access
76 – 77 GHz	(1)	(2)		n	full access

⁽¹⁾ Not applicable
(2) Band shared with other users

4. GLOSSARY OF TERMS

The terms and abbreviations used in the above lists have the following meanings:

4.1 General

Mode of operation:

- . simplex: operation method in which transmission is made possible alternately in each direction of a telecommunication channel, via use of one or two frequencies;
- . *duplex:* operation method in which transmission is possible simultaneously in both directions of a telecommunications channel, via use of two frequencies;
- . semi-duplex: A method which is simplex operation at one end of the circuit and duplex operation at the other, via use of two frequencies.

Type of use:

- . Shared: use of a channel/frequency by more than one entity;
- . exclusive: use of a channel/frequency by a single entity.

Scope of use:

- $n national\ scope$: use of a channel/frequency at the level of the national territory;
- . g specific geographic zone: use of a channel/frequency in a specific and well defined area, via radiocommunications stations such as fixed stations, broadcasting stations and earth stations.

4.2 Public telecommunications network operators and service providers for public use telecommunications

Entity, i.e. the name of the public use telecommunications operator/service provider, with an indication of the legal basis under which the entity operates;

Frequency band and Type of link (only for satellite links);

Number of channels (except for satellite links) and Type of use (Shared or exclusive);

Scope of use (national, regional, local, specific geographic zone);

Mode of assignment (full access or Public Tender, applicable to point A.2).

4.3 Owners of private telecommunications networks

Frequency band and Type of link (only for satellite links);

Type of channels (adjacent channels spacing, when applicable);

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

Number of users (Number of entities using shared channels);

Scope of use (national, specific geographic zone);

Mode of assignment (full access, applicable to point B.2).

5. ADDITIONAL NOTES

The use of assigned or reserved channels/frequencies, in exclusive or shared situations, for the operation of radiocommunications stations is generally subject to prior co-ordination of frequencies at the national and international level.

In this context, the channels/frequencies listed in the tables are used in a specific geographic area, with or without the imposition of technical constraints, in excluse or shared situations, by public network operators, service providers for public use telecommunications and/or private telecommunications network owners, for operation of the respective radiocommunications stations.

In satellite radiocommunications, dynamic management of frequencies is commonplace. This process consists in the use of a variable number of frequencies associated with different "typical" bandwidths, as a function of the traffic to be transmitted and depending on each type of application.

PUBLICATION OF FREQUENCIES

Two-year period 2000/2001

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 Frequency bands and quantity of channels used for operation of radio communications networks of public telecommunications network operators or of service providers for public use telecommunications licensed up until August 31, 2000.

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3. PUBLICATION OF FREQUENCIES ERROR! BOOKMARK NOT DEFINED
A- PUBLIC TELECOMMUNICATIONS NETWORK OPERATORS AND SERVICE PROVIDERS FOR PUBLIC USE TELECOMMUNICATIONS:
A.1 Frequency bands and number of channels used for the operations of radiocommunications networks of public telecommunications network operators or service providers for public use telecommunications, licensed up until August 31, 2000.
A.2 Frequency bands and channels reserved for the year 2001, for the operation of radiocommunications stations of public telecommunications network operators or service providers for public use telecommunications
B- OWNERS OF PRIVATE TELECOMMUNICATIONS NETWORKS:
B.1 Frequency bands and quantity of channels used for operation of stations of private radiocommunications networks, as of August 31, 2000.
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4.1 General
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