

Sporazum

med upravami
Avstrije, Češke republike, Nemčije, Madžarske, Slovaške republike, in
Slovenije

usklajevanju frekvenc za sisteme fiksne brezžične dostopa (FWA)
v frekvenčnih pasovih

24.549 – 25.053 GHz in 25.557 – 26.061 GHz

Dunaj, 28. november 2000

Agreement

between the Administrations of
Austria, the Czech Republic, Germany, Hungary, the Slovak Republic
and Slovenia

on the frequency coordination for systems for the
fixed wireless access (FWA) in the bands

24.549 – 25.053 GHz and 25.557 – 26.061 GHz

Vienna, 28 November 2000

1 Uvod

V skladu z *Dunajskim sporazumom 1999* so uprave za telekomunikacije Avstrije, Češke republike, Nemčije, Madžarske, Slovaške republike in Slovenije sklenile ta sporazum za usklajevanje frekvenc za sisteme FWA (fiksni brezžični dostop) v frekvenčnih pasovih 24.549 – 25.053 GHz in 25.557 – 26.061 GHz. Uporabljajo se ustrezne določbe *Dunajskega sporazuma 1999*, razen če ni v tem sporazumu določeno drugače.

2 Načela – ozadje

2.1 Navedene uprave so menile, da je treba skleniti sporazum o določitvi prednostnih frekvenc za sisteme FWA, ki uporabljajo tehnologijo FDD. Razdelitev kanalov v tem sporazumu ustreza priporočilu CEPT/ERC T/R 13-02 priloga B. Uporaba frekvenčnih pasov se sklada s priporočilom ERC (00)05 za tehnologijo FDD.

2.2 Prednostne frekvence so frekvence, ki jih lahko dodelijo uprave brez usklajevanja, če so izpolnjene določbe iz odstavka 3.3 tega sporazuma.

2.3 Neprednostne frekvence so frekvence, ki jih lahko dodelijo uprave brez usklajevanja, če so izpolnjene določbe iz odstavka 3.4 tega sporazuma.

2.4 Obvestila o podatkih za centralne postaje posameznega omrežja FWA se izmenjujejo v skladu s prilogo 2.

2.5 Ta sporazum je osnova za delovanje sistemov FWA.

1 Introduction

In the framework of the “Vienna Agreement 1999”, the Telecommunication Administrations of Austria, the Czech Republic, Germany, Hungary, the Slovak Republic and Slovenia concluded this agreement for the purpose of the frequency coordination for the fixed wireless access (FWA) systems in the frequency bands 24.549 - 25.053 GHz paired with 25.557 - 26.061 GHz. The relevant provisions of the “Vienna Agreement 1999” shall apply unless otherwise laid down in this agreement.

2 Principles – Background

2.1 The Administrations mentioned above deemed it necessary to conclude an agreement on the division of preferential frequencies for FWA systems using FDD technology only. The channel arrangement used in the agreement is in conformity with CEPT Recommendation T/R 13-02 Annex B. The use of the frequency bands shall be in accordance with ERC Recommendation (00)05 for FDD systems.

2.2 Preferential frequencies are frequencies which can be assigned by Administrations concerned without any coordination, provided that the provisions laid down in Paragraph 3.3 of this agreement are fulfilled.

2.3 Non-preferential frequencies are frequencies which can be assigned by Administrations concerned without any coordination, provided that the provisions laid down in Paragraph 3.4 of this agreement are fulfilled.

2.4 Notifications for assignments for the central stations of each FWA network and for each station in a point-to-point application will be exchanged according to Annex 3.

2.5 This agreement is considered to be the basis for the operation of

2.6 Da se vsaki upravi omogoči odločitev o tem, v katerih podpasovih se sistem FWA lahko uvede in kolikšno bo število operaterjev, se upošteva celoten frekvenčni pas 24.549 - 25.053 GHz skupaj s frekvenčnim pasom 25.557 - 26.061 GHz. 2.7 Celoten frekvenčni pas 24.549 - 25.053 GHz skupaj s pasom 25.557 - 26.061 GHz se deli na podpasove, v katerih je vsaki upravi zagotovljen enakovreden dostop do spektra. To vsaki upravi omogoča, da zagotovi posameznemu operaterju ustrezne pogoje delovanja. Razdelitev frekvenc, kot je opredeljena v tem sporazumu, je lahko predmet dvo- ali večstranskih uskladitev, o katerih se pogaja za vsak primer posebej, če je za zahtevo po dejanskih frekvencah na posameznih mejnih območjih pristojnih držav potrebna sprememba frekvenčne razdelitve. 2.8 Operaterji lahko sodelujejo, zato da se zmanjšajo medsebojne motnje in da se doseže najučinkovitejša uporaba spektra, ki je na voljo. Te sporazume med operaterji potrdijo pristojne uprave. 3 Tehnične določbe 3.1 Prednostne frekvence je določena v prilogi 1. 3.2 Splošni pregled razdelitve geografskih področij ob meji je določen v prilogi 2. 3.3 Pri oddajnikih, ki uporabljajo prednostne frekvence, spektralna	FWA systems. 2.6 In order to enable each Administration to decide on its own in which subbands FWA may be introduced and to decide on the number of operators, the entire frequency band 24.549 - 25.053 GHz paired with 25.557 - 26.061 GHz was taken into account. 2.7 The entire band 24.549 - 25.053 GHz paired with 25.557 - 26.061 GHz is divided into a number of sub-bands in which equal access to the spectrum is ensured for each Administration. This should enable each Administration to provide adequate operating conditions for each operator. The frequency partitioning as outlined in this agreement may, however, be subject to bi- or multilateral accommodations negotiated on a case by case basis in the event that the actual frequency demand in particular border areas of the countries concerned requires modification of the frequency partitioning. 2.8 Operators shall have the possibility to co-operate in order to minimise interference and to achieve the most efficient use of the available spectrum. Such agreements between operators shall be subject to confirmation by the Administrations concerned. 3 Technical provisions 3.1 The partitioning into preferential frequencies is described in Annex 1. 3.2 A rough overview of the border lines as divided into different zones is shown in Annex 2. 3.3 Transmitters using preferential frequencies may produce a
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gostota pretoka moči (pfd) pri oddaljenosti 15 km v sosednji države ne sme presegati $-105 \text{ dBW}/(\text{MHz} \times \text{m}^2)$. 3.4 Pri oddajnikih, ki uporabljajo neprednostne frekvence, spektralna gostota pretoka moči na meji s sosednjo državo ne sme presegati $-105 \text{ dBW}/(\text{MHz} \times \text{m}^2)$. 3.5 Spektralna gostota pretoka moči, ki povzroča motnjo, se izračuna glede na priporočilo ITU-R P.452-8 za prenos v praznem prostoru. Metoda izračunavanja se bo ponovno določila, ko bo na voljo usklajen program izračunavanja, ki ga razvija TWG-HCM. 3.6 Če se pojavi več motenj na kateri koli točki, se skupna motnja izračuna tako, da se seštejejo posamezne vrednosti spektralne gostote pretoka moči. 3.7 Frekvenčni pasovi se lahko uporabljajo tudi za sisteme točka-točka z upoštevanjem določb iz odstavkov 3.1 - 3.6. 4 Postopek ob škodljivih motnjah 4.1 Če se pojavijo škodljive motnje, se morajo prizadete uprave o tem obvestiti in si prizadevati za rešitev, ki bo sprejemljiva za vse. 4.2 Za izmenjavo podatkov med upravami se uporabljajo tehnični parametri iz priloge 3. 5 Sprememba sporazuma Ne glede na določbe iz odstavka 2.7 (zadnji stavek) se ta sporazum lahko	spectral power flux density not exceeding $-105 \text{ dBW}/(\text{MHz} \times \text{m}^2)$ at a distance of 15 km in the neighbouring country. 3.4 Transmitters using non-preferential frequencies may produce a spectral power flux density not exceeding $-105 \text{ dBW}/(\text{MHz} \times \text{m}^2)$ at the border to the neighbouring country. 3.5 The calculation of the interfering spectral power flux density shall be based on the ITU-R Recommendation P.452-8. The calculation shall be carried out on the basis of free space propagation only. The calculation method shall be reconsidered after the availability of the harmonized calculation program developed by TWG-HCM. 3.6 In case of multiple interferers at any point of the interference contour the resulting interfering signal shall be derived by summing up the contributing PFD values. 3.7 Administrations may use these frequency bands also for point-to-point applications observing the technical provisions given in paragraph 3.1 - 3.6. 4 Procedure in case of harmful interference 4.1 In cases of harmful interference the Administrations affected shall inform each other and endeavour to mutually find solutions. 4.2 For exchange of data between Administrations the technical parameters as described in Annex 3 shall be used. 5 Revision of this agreement Notwithstanding the provisions in paragraph 2.7 (last sentence), this
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spremeni ob upoštevanju administrativnih, ureditvenih ali tehničnih sprememb na predlog katere koli uprave podpisnice sporazumno z drugimi upravami podpisnicami. Tak predlog se pošlje avstrijski upravi.

6 Odpoved sporazuma

Vsaka uprava lahko odpove sporazum ob koncu vsakega koledarskega meseca, tako da svojo namero sporoči vsaj šest mesecev vnaprej. Izjava o odpovedi se naslovi na avstrijsko upravo. Dodeljene frekvence, ki so bile sporočene v skladu s tem sporazumom pred datumom začetka veljavnosti odpovedi, ostanejo veljavne in se zaščitijo glede na njihov status.

7 Datum, ko sporazum začne veljati

Sporazum začne za vsako upravo veljati tisti dan, ko ga podpiše.

Ta sporazum je v angleškem jeziku in se hrani pri avstrijski administraciji kot depozitarju tega sporazuma.

Za avstrijsko upravo
J. FRANZL

Za češko upravo
M. ROSA

agreement can be revised in the light of administrative, regulatory or technical developments at the proposal of any Signatory Administration with the agreement of all other Signatory Administrations required. Such a proposal shall be forwarded to the Austrian Administration.

6 Withdrawal from this agreement

Any Administration may withdraw from this agreement by the end of a calendar month by giving notice of its intention at least six months in advance. A declaration to that effect shall be addressed to the Austrian Administration. Frequency assignments notified within the framework of this agreement prior to the date of entry into force of the withdrawal shall remain valid and shall be protected according to their status.

7 Date of entry into force

This agreement enters into force for each administration at the date of its signature.

The original text of this agreement written in English is retained by the Austrian Administration as the handling Administration of this agreement.

For the Austrian Administration:
J. FRANZL

For the Czech Administration:
M. ROSA

Za nemško upravo	H. GÜNTHER	For the German Administration:	H. GÜNTHER
Za madžarsko upravo	Dr. G. DEMENDI	For the Hungarian Administration:	Dr. G. DEMENDI
Za slovaško upravo	P. SOBOLIC	For the Slovak Administration:	P. SOBOLIC
Za slovensko upravo	M. TRDIN	For the Slovenian Administration:	M. TRDIN

Priloga 1

Annex 1

**PREDNOSTNE FREKVENCE
ZA FWA SISTEME V 26GHz FREKVENČNEM PASU**

**DIVISION INTO PREFERENTIAL FREQUENCIES
FOR FWA-SYSTEMS IN THE 26 GHz BAND**

28 MHz kanali / channels			Področje / Zone											
Kanal Channel številka number	centralna frekvenca Center frequency		K2 AUT/ D	L AUT/ D/ CZE	M AUT/ CZE	N AUT/ CZE/ SVK	O AUT/ SVK	P AUT/ SVK/ HNG	Q AUT/ HNG	R AUT/ HNG SVN	S AUT/ SVN	T HNG/ SVN	U HNG/ SVK	V CZE/ SVK
	spodnji pas lower band	zgornji pas upper band												
1	24563	25571	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	HNG	HNG	CZE
2	24591	25599	AUT	CZE	CZE	SVK	SVK	SVK	AUT	SVN	SVN	SVN	SVK	SVK
3	24619	25627	D	D	CZE	CZE	SVK	HNG	HNG	HNG	SVN	HNG	HNG	CZE
4	24647	25655	D	CZE	CZE	CZE	SVK	HNG	HNG	HNG	SVN	HNG	HNG	CZE
5	24675	25683	AUT	D	CZE	SVK	SVK	SVK	AUT	SVN	SVN	SVN	SVK	SVK
6	24703	25711	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	SVN	SVK	CZE
7	24731	25739	D	CZE	CZE	CZE	AUT	HNG	HNG	HNG	AUT	HNG	HNG	CZE
8	24759	25767	D	D	CZE	SVK	SVK	SVK	HNG	SVN	SVN	SVN	SVK	SVK
9	24787	25795	D	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	HNG	SVK	SVK
10	24815	25823	AUT	CZE	CZE	CZE	AUT	HNG	HNG	HNG	AUT	HNG	HNG	CZE
11	24843	25851	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	SVN	HNG	SVK
12	24871	25879	D	D	CZE	SVK	SVK	SVK	HNG	SVN	SVN	SVN	SVK	SVK
13	24899	25907	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	HNG	HNG	CZE
14	24927	25935	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	SVN	SVK	SVK
15	24955	25963	D	D	CZE	SVK	SVK	SVK	HNG	SVN	SVN	SVN	SVK	SVK
16	24983	25991	D	CZE	AUT	CZE	SVK	HNG	HNG	HNG	SVN	HNG	HNG	CZE
17	25011	26019	AUT	CZE	AUT	CZE	AUT	HNG	HNG	HNG	AUT	HNG	HNG	CZE
18	25039	26047	D	D	AUT	SVK	SVK	SVK	AUT	SVN	SVN	SVN	SVK	SVK

