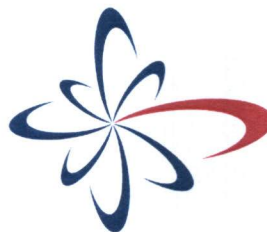




Bosna i Hercegovina
Босна и Херцеговина
Regulatorna agencija za komunikacije
Регулаторна агенција за комуникације



Republic of Serbia
RATEL
Regulatory Agency for
Electronic Communications
and Postal Services

Technical Agreement

between

**Regulatory Agency for Electronic Communications and Postal
Services
of Republic of Serbia**

and

**Communications Regulatory Agency
of Bosnia and Herzegovina**

concerning

**the co-ordination and distribution of preferential frequencies for
digital land mobile systems in the frequency bands
380-385 MHz / 390-395 MHz**

Sarajevo, May 2017

Preamble

In the framework of Article 6 of ITU Radio Regulations and in accordance with the CEPT Decisions ECC/DEC/(08)05, ERC/DEC(01)19, ECC/DEC(06)05 and the CEPT Recommendation T/R 25-08, the Communications Regulatory Agency (CRA) of Bosnia and Herzegovina and the Regulatory Agency for Electronic Communications and Postal Services (RATEL) of Republic of Serbia, hereinafter called Parties, concluded this technical agreement concerning the co-ordination and distribution of preferential frequencies for Public Protection and Disaster Relief (PPDR) radio applications in the frequency bands 380-385 MHz / 390-395 MHz (hereinafter called „Technical Agreement”).

Article 1

Basic principles

- 1.1 The Parties mentioned above deemed it necessary to conclude an agreement on the frequency use in border areas in conformity with the CEPT Recommendation T/R 25-08, based on the concept of preferential frequencies.
- 1.2 In order to reduce the administrative workload which would be caused by the great amount of co-ordination requests, to avoid the harmful interferences in radiocommunication systems, to ensure the efficient use of radio spectrum and the equal access to the spectrum resource in the border areas, the Parties decided to take the responsibility of frequency co-ordination in the frequency bands of interest based on the provisions of this Technical Agreement.
- 1.3 The Parties agreed that the frequency bands 380-385 MHz/390-395 MHz are harmonised for use by the narrow band digital PPDR radio applications designated to emergency services, according to the ECC Decision ECC/DEC/(08)05.
- 1.4 The whole frequency bands 380-385 MHz/390-395 MHz are divided into preferential frequency blocks so that the equitable access to the spectrum resource for each Party be ensured.

Article 2

Technical provisions

- 2.1 The frequency bands 380-385 MHz/390-395 MHz are divided into frequency blocks of 50 kHz each.
- 2.2 The distribution of preferential frequency blocks to Serbia and Bosnia and Herzegovina in the bilateral co-ordination areas is given in Annex 1, which is part of this Technical Agreement.
- 2.3 The center frequency of each channel shall be derived from the formula presented below, in accordance with the CEPT Recommendation T/R 25-08:

$$\text{FCH} = \text{Band Edge} - (\text{Channel Spacing}/2) + n * \text{Channel Spacing}$$

where:

- a) FCH is channel centre frequency;
- b) Band Edge is lower edge of allocated frequency band in MHz (380 MHz, 390 MHz);
- c) Channel Spacing (e.g. 12,5 kHz, 25 kHz, 50 kHz etc.) expressed in MHz;
- d) $n = 1, 2, 3, \dots$ (channel number).

2.4 The Parties may diverge from the centre frequencies defined in item 2.3 provided that neither the used carrier frequency nor any portions of its associated radio channel of one Party fall within the preferential frequency blocks belonging to the other Party.

2.5 The field strength produced by the transmitters of one country using carrier frequencies belonging to its preferential frequency blocks shall not exceed 18 dB μ V/m (for 10% of time, 50% of locations) at 10 meters above ground at a distance of 50 km from the border line of that country inside the territory of the neighbouring country involved.

2.6 The Parties may put into use, without prior co-ordination, stations operating on frequencies belonging to their own preferential frequency blocks provided that the conditions under item 2.5 are observed.

2.7 The assignments of frequencies in the preferential blocks granted to a Party shall have priority rights over assignments of the same frequencies made by the other Party.

2.8 The field strength produced by the transmitters of one country using carrier frequencies belonging to its non-preferential frequency blocks (i.e. preferential carrier frequencies of other Party) shall not exceed 18 dB μ V/m (for 10% of time, 50% of locations) at 10 meters above ground at the border line.

2.9 The Parties may put into use, without prior co-ordination, stations operating on frequencies belonging to their own non-preferential blocks provided that the conditions under item 2.8 are observed.

2.10 Each frequency designated for Direct Mode Operation (DMO) in the bands 380,000-380,200 MHz and 390,000-390,200 MHz may be used by any of the two Parties.

2.11 The maximum permissible interference field strength level shall be in accordance with the CEPT Recommendation T/R 25-08.

2.12 The calculation of the interference field strength shall be based on the current version of the ITU-R Recommendation P.1546 „Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 3000 MHz”.

Article 3

Administrative procedures

3.1 Co-ordination or notification of base stations between Parties are not required for the frequencies mentioned in item 2.2, while observing the relevant conditions provided in items 2.5 and 2.8, and item 2.9 of the Article 2.

3.2 In cases of harmful interference, the exchange of information on technical data of the base stations concerned will be done only on the explicit request of one of the involved Parties.

Article 4

Procedure for handling the harmful interferences cases

If harmful interferences will occur, the affected Party shall inform the other Party of this situation as soon as possible. Afterwards, the Parties will work closely together in order to reach a mutually accepted solution for eliminating the harmful interferences.

Article 5

Revision of the Technical Agreement

This Technical Agreement may be revised in light of administrative, regulatory or technical developments only by the consent of both Parties. The modifications and additions will be made through additional agreements which will be considered as parts of this Technical Agreement and will enter into force at the date of their signing by both Parties.

Article 6

Withdrawal from the Technical Agreement

6.1 Any Party may withdraw from this Technical Agreement by giving notice of its intention, which will be sent through diplomatic channels.

6.2 The cessation of the provisions of this Technical Agreement will become effective in the last day of the sixth calendar month from the date of transmission of the withdrawal intention.

6.3 Frequency assignments made within the framework of this Technical Agreement prior to the date of entry into force of its withdrawal shall remain valid and be protected according to their obtained status.

6.4 In case of reorganization or change of the official name of the Parties, the powers of attorney concerning the implementation of this Technical Agreement are transferred to the successors in title of the Parties.

Article 7

Language of the Agreement

This Agreement has been concluded in English in four originals, two for both Parties.

Article 8

Validity and entering into force of the Technical Agreement

This Technical Agreement enters into force at the date of its signature. The provisions of this Technical Agreement shall be implemented by licensed operators in both countries not later than 3 (three) months after date of the last signature.

on behalf of Communication Regulatory Agency	on behalf of Regulatory Agency for Electronic Communications and Postal Services
Siniša Petrović	Zoran Branković
	
Sarajevo, 11.05.2017.	

Annex 1
Preferential allotment of the frequencies in the band 380-385/390-395 MHz

Block	Centre frequency (MHz)	Centre frequency (MHz)	BIH/SRB	Block	Centre frequency (MHz)	Centre frequency (MHz)	BIH/SRB	Block	Centre frequency (MHz)	Centre frequency (MHz)	BIH/SRB
1	390.0250	380.0250	C(DMO)	35	391.7250	381.7250	BIH	69	393.4250	383.4250	BIH
2	390.0750	380.0750	C(DMO)	36	391.7750	381.7750	SRB	70	393.4750	383.4750	SRB
3	390.1250	380.1250	C(DMO)	37	391.8250	381.8250	SRB	71	393.5250	383.5250	SRB
4	390.1750	380.1750	C(DMO)	38	391.8750	381.8750	BIH	72	393.5750	383.5750	SRB
5	390.2250	380.2250	SRB	39	391.9250	381.9250	BIH	73	393.6250	383.6250	SRB
6	390.2750	380.2750	BIH	40	391.9750	381.9750	SRB	74	393.6750	383.6750	SRB
7	390.3250	380.3250	SRB	41	392.0250	382.0250	SRB	75	393.7250	383.7250	SRB
8	390.3750	380.3750	SRB	42	392.0750	382.0750	BIH	76	393.7750	383.7750	BIH
9	390.4250	380.4250	BIH	43	392.1250	382.1250	SRB	77	393.8250	383.8250	BIH
10	390.4750	380.4750	BIH	44	392.1750	382.1750	SRB	78	393.8750	383.8750	BIH
11	390.5250	380.5250	BIH	45	392.2250	382.2250	BIH	79	393.9250	383.9250	BIH
12	390.5750	380.5750	SRB	46	392.2750	382.2750	BIH	80	393.9750	383.9750	BIH
13	390.6250	380.6250	SRB	47	392.3250	382.3250	BIH	81	394.0250	384.0250	BIH
14	390.6750	380.6750	BIH	48	392.3750	382.3750	SRB	82	394.0750	384.0750	BIH
15	390.7250	380.7250	BIH	49	392.4250	382.4250	BIH	83	394.1250	384.1250	BIH
16	390.7750	380.7750	SRB	50	392.4750	382.4750	SRB	84	394.1750	384.1750	SRB
17	390.8250	380.8250	SRB	51	392.5250	382.5250	SRB	85	394.2250	384.2250	SRB
18	390.8750	380.8750	BIH	52	392.5750	382.5750	BIH	86	394.2750	384.2750	SRB
19	390.9250	380.9250	SRB	53	392.6250	382.6250	BIH	87	394.3250	384.3250	SRB
20	390.9750	380.9750	SRB	54	392.6750	382.6750	SRB	88	394.3750	384.3750	BIH
21	391.0250	381.0250	BIH	55	392.7250	382.7250	BIH	89	394.4250	384.4250	BIH
22	391.0750	381.0750	BIH	56	392.7750	382.7750	BIH	90	394.4750	384.4750	BIH
23	391.1250	381.1250	BIH	57	392.8250	382.8250	SRB	91	394.5250	384.5250	BIH
24	391.1750	381.1750	SRB	58	392.8750	382.8750	SRB	92	394.5750	384.5750	BIH
25	391.2250	381.2250	SRB	59	392.9250	382.9250	SRB	93	394.6250	384.6250	BIH
26	391.2750	381.2750	BIH	60	392.9750	382.9750	BIH	94	394.6750	384.6750	SRB
27	391.3250	381.3250	BIH	61	393.0250	383.0250	SRB	95	394.7250	384.7250	SRB
28	391.3750	381.3750	SRB	62	393.0750	383.0750	SRB	96	394.7750	384.7750	SRB
29	391.4250	381.4250	SRB	63	393.1250	383.1250	BIH	97	394.8250	384.8250	C/AGA
30	391.4750	381.4750	BIH	64	393.1750	383.1750	BIH	98	394.8750	384.8750	C/AGA
31	391.5250	381.5250	SRB	65	393.2250	383.2250	SRB	99	394.9250	384.9250	C/AGA
32	391.5750	381.5750	SRB	66	393.2750	383.2750	BIH	100	394.9750	384.9750	C/AGA
33	391.6250	381.6250	BIH	67	393.3250	383.3250	SRB				
34	391.6750	381.6750	BIH	68	393.3750	383.3750	SRB				

PREFERENTIAL BLOCKS RELATING TO ADMINISTRATIONS	BIH	46
	SRB	46
	C	8
	SUM	100

C- Common blocks

DMO- Direct Mode Operation

AGA- Air- Ground- Air