Agreement

between the Telecommunications Administrations of the Russian Federation and Finland concerning the use of the frequency band 790 - 862 MHz for terrestrial systems

Moscow, August 2011
Preamble

According to Article 6 of the Radio Regulations, the representatives of Telecommunications Administrations of Finland and the Russian Federation have concluded the present Agreement concerning the use of the frequency band 790 - 862 MHz with the purpose of avoiding mutual interference and optimising the use of the above-stated frequency band on a mutually coordinated basis.

1 PRINCIPLES

1.1 This Agreement is based on the concept of coordination threshold and the idea of symmetrical conditions for both administrations.

1.2 This agreement covers the coordination (see note 1) of stations of land mobile, fixed and aeronautical radionavigation services.

1.3 The frequency arrangement for land mobile service conforms to the FDD frequency arrangement and parameters of transmission for base and user stations in accordance with ECC/DEC(09)03. TDD frequency arrangement of land mobile services is not covered by this Agreement. The usage of the frequency band 821 - 832 MHz is not covered by this Agreement.

1.4 This Agreement applies to the stations brought into use after the date of signing of this Agreement.

1.5 This Agreement applies also to those stations which were brought into use before signing of this Agreement but of which technical characteristics including operating frequencies were changed after the date of signing this Agreement.

2 USE OF FREQUENCIES

2.1 Finland may use the frequency band 790 - 820 MHz without coordination with the Russian Federation under the following conditions:

- If the predicted mean field strength produced by a station during transmission does not exceed 50 dB(μV/m)/1 MHz at a height of 10 m above the ground at the border and 15 dB(μV/m)/1 MHz at a height of 1.5 m above the ground at the distance of 10 km from the border inside the territory of the Russian Federation;

- If the base stations are located at a distance from the border not less than 20 km and on latitude from 61N47 to 62N47 and above 67N30 (see also note 2 and note 3);

Note 1 The term «coordination» should be understood as bilateral coordination between administrations without involving BR in this process.

Note 2 Frequency bands used by user terminals operating simultaneously with common sector of the base station antenna should not be overlapped. Aggregate e.i.r.p. of all user equipment operating simultaneously with common sector of the base station antenna should not exceed 23 dBm in any band 5 MHz. Number of simultaneously active user equipment operating with one base station with 3 antenna sectors in common frequency bands should not exceed 3.

Note 3 The deployment density of base stations should not exceed 2 stations per 200 km² in border area limited from 20 km to 55 km from the border and the deployment density of base stations should not exceed 50 stations per 100 km² from 55 km to 100 km from the
- if the base stations are located on latitude less than 61N47 and at a distance from the border not less than 12 km (see also note 2 and note 4);

- if the base stations are located at a distance from the border not less than 20 km and on latitude from 62N47 to 67N30 (see also note 2 and note 5);

2.2 The Russian Federation and Finland may use the frequency band 820 - 821 MHz without coordination if the predicted mean field strength produced by a station during transmission does not exceed 4 dB(μV/m)/1 MHz to north of 65N39 and 16 dB(μV/m)/1 MHz to south of 65N39 at a height of 10 m above the ground at the border line.

2.3 The Russian Federation may use the frequency band 790 - 820 MHz without coordination with Finland under the following conditions:

- if the predicted mean field strength produced by a station during transmission does not exceed 50 dB(μV/m)/1 MHz at a height of 10 m above the ground at the border and 15 dB(μV/m)/1 MHz at a height of 1.5 m above the ground at the distance of 10 km from the border inside the territory of Finland;

- if the base stations are located at a distance from the border not less than 20 km and on latitude from 61N47 to 62N47 and above 67N30 (see also note 2);

- if the base stations are located on latitude less than 61N47 and at a distance from the border not less than 12 km (see also note 2);

- if the base stations are located at a distance from the border not less than 20 km and on latitude from 62N47 to 67N30 (see also note 2).

2.4 Finland may use the frequency band 832 - 862 MHz for user equipment of the land mobile service without coordination with the Russian Federation if compliance with Item 2.1 bullet 2, 3 or 4 is ensured. Stations of fixed service of Finland may use this frequency band without coordination with the Russian Federation, if the predicted mean field strength produced by a station during transmission does not exceed 50 dB(μV/m)/1 MHz at a height of 10 m above the ground at the border and 22 dB(μV/m)/5 MHz at a height of 40 m above the ground at the distance of 10 km from the border inside the territory of the Russian Federation.

2.5 The Russian Federation may use the frequency band 832 - 862 MHz for user equipment of the land mobile service without coordination with Finland if compliance with Item 2.3 bullet 2, 3 or 4 is ensured. Stations of fixed or aeronautical border. Service radius for base station in the border areas should not cover areas which are closer than 12 km from a border.

Note 4 The density of deployment of base stations should not exceed 1 station per 100 km² in border area limited by 20 km from the border line. The deployment density of base stations should not exceed 4 stations per 200 km² in border area limited from 20 km to 55 km from the border line and the deployment density of base stations should not exceed 50 stations per 100 km² from 55 km to 100 km from the border. Service radius for base station in the border areas should not cover areas which are closer than 4 km from a border.

Note 5 The deployment density of base stations should not exceed 4 stations per 200 km² in border area limited from 20 km to 55 km from the border line and the deployment density of base stations should not exceed 50 stations per 100 km² from 55 km to 100 km from the border. Service radius for base station in the border areas should not cover areas which are closer than 12 km from a border.
radionavigation services of the Russian Federation may use this frequency band without coordination with Finland, if the predicted mean field strength produced by a station during transmission does not exceed 50 dB(μV/m)/1 MHz at a height of 10 m above the ground at the border and 22 dB(μV/m)/5 MHz at a height of 40 m above the ground at the distance of 10 km from the border inside the territory of Finland.

3 GENERAL

3.1 A new frequency assignment exceeding the above-mentioned coordination threshold values shall be coordinated with the other Party.

3.2 The coordination procedure shall be performed in accordance with Article 4 of this Agreement.

3.3 Preliminary coordination may take place between the land mobile service operators concerned. The results of such preliminary coordination must be approved by the administrations.

3.4 In the presence of interference, the Report of harmful interference shall be presented in accordance with Appendix 10 of the Radio Regulations. The parties shall take all possible measures in order to eliminate the interference in due time.

3.5 The field strength specified in the interference report (see Item 3.4) shall be based on the median values of measurements of field strength performed at antenna height stipulated in Article 2 of this Agreement at least in two different occasions over a range of at least 100 m along the border.

3.6 The field strength values in this agreement calculated with the ITU-R Recommendation P.1546-4 are based on antenna heights corresponding to those in Article 2 of this Agreement with 10% of the time and 50% of the locations.

3.7 ITU-R Recommendation P.1546-4 "Method for point-to area predictions for terrestrial services in the frequency range 30-3000 MHz" shall be used for calculations of the field strength value produced by ground stations.

3.8 ITU-R Recommendation P.525-2 "Calculation of free space attenuation" shall be used for calculations of the field strength value produced by or to airborne stations.

3.9 Deployment density of base stations is determined for base stations of land mobile service operating simultaneously in the common frequency band.

4 COORDINATION PROCEDURE

4.1 The Administration wishing to initiate use of a frequency assignment to the station covered by this Agreement that does not correspond to the terms specified in Article 2 of this Agreement shall send to the other Administration a request to coordinate such frequency assignment. A request shall be sent by e-mail and receipt shall be confirmed by the affected administration.

4.2 The affected Administration shall provide a feedback in respect of the request to coordinate assignments within 10 weeks from the date of the request receipt. If no feedback was received, an urgent reminder shall be sent. Administrations that failed to respond within 2 weeks from the date of an urgent reminder receipt shall be deemed agreeing if the administration, a consent of which is sought, did not ask for extra time needed to coordinate the request review.

4.3 In case of a refusal of the affected administration to satisfy a request for coordination the requesting administration shall provide to the affected administration results of its calculations, or any new technical characteristics of the assignment.
4.4 If no response from the affected Administration to the proposals provided in Item 4.3 of this Agreement was received within 10 weeks from the date of proposals receipt, an urgent reminder shall be sent. Administrations that failed to respond within 2 weeks from the date of receipt of an urgent reminder shall be deemed agreed to the provided proposals on coordination.

4.5 In case of controversies originating from this document application Administrations shall be governed by provisions and procedures of the Radio Regulations, as well as applicable International and bilateral Agreements.

5 REVISION AND CANCELLATION

5.1 This Agreement may be cancelled as desired by one of the Administrations with a notice of at least one year. This does not affect the operation of stations already brought into use or coordinated under this Agreement.

5.2 After such cancellation, administrations will exchange the list of stations already brought into use or coordinated under this agreement.

5.3 This Agreement may be revised or cancelled without notice, if mutual understanding is reached between the Administrations.

5.4 Any future Agreements concerning the subject of the present Agreement will be concluded and signed by both Parties as an addendum to the present Agreement.

6 COMING INTO FORCE

6.1 This Agreement shall come into force from the date of signing.

This Agreement has been drawn up in two identical copies, one for the Russian Federation and one for Finland.

Moscow, 18 August 2011.

On behalf of the Administration of the Russian Federation

[Signature]

Andrey Mukhanov

On behalf of the Administration of Finland

[Signature]

Kirsi Karlamaa
Addendum to the Agreement between the Telecommunications Administrations of the Russian Federation and Finland concerning the use of the frequency band 790 - 862 MHz for terrestrial systems signed in Moscow 18 August 2011.

Administrations agree that Article 5.1 concerning unilateral cancellation of the Agreement shall not be applied as long as the stations of the Aeronautical Radionavigation Service require protection in the border area of the Russian Federation.

Moscow, 23 November 2011

On behalf of the Administration of the Russian Federation

Helsinki, 16 November 2011

On behalf of the Administration of Finland