COMMISSION IMPLEMENTING DECISION (EU) 2015/750

of 8 May 2015

on the harmonisation of the 1 452-1 492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union

(notified under document C(2015) 3061)

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) ([1]), and in particular Article 4(3) thereof,

Whereas:

(1) The International Telecommunication Union's Radio Regulations ([2]) allocate the 1 452-1 492 MHz frequency band to the fixed, mobile (except aeronautical mobile), broadcasting and broadcasting satellite service on a co-primary basis in Region 1, which comprises the Union. They limit use of the band by the broadcasting service and the broadcasting satellite service to digital audio broadcasting (DAB).

(2) The Maastricht special arrangement of 2002, as revised in 2007 ([3]), provides the technical and regulatory framework for the deployment of terrestrial DAB (T-DAB) in the 1 452-1 479,5 MHz band in signatory countries including all Member States. It also sets out procedures for cross-border coordination between T-DAB and wireless broadband electronic communications services.

(3) Decision No 243/2012/EU of the European Parliament and of the Council ([4]) establishes a multiannual radio spectrum policy programme (RSPP) which sets the target of identifying at least 1 200 MHz of spectrum suitable for wireless broadband in the Union by 2015, including spectrum already in use, on the basis of the spectrum inventory.

(4) The 1 452-1 492 MHz band has been designated for broadcasting use in Member States, but its use has been quite limited. The Commission's Report on the RSPP spectrum inventory ([5]) concludes that it is underutilised in the Union and should be repurposed for wireless broadband electronic communications services in line with the RSPP spectrum target. However, existing terrestrial broadcasting systems should be protected in the long term, including in the event that their authorisations are renewed.

(5) In its opinion on strategic challenges facing Europe in addressing the growing spectrum for wireless broadband ([6]), the Radio Spectrum Policy Group recommended that the Commission consider adopting complementary measures further to promote the use of the 1 452-1 492 MHz band for supplemental downlink, while still allowing Member States to use part of this band for other uses, such as broadcasting.

(6) On 19 March 2014, pursuant to Article 4(2) of the Radio Spectrum Decision, the Commission gave the European Conference of Postal and Telecommunications Administrations (CEPT) a mandate to develop harmonised technical conditions in the 1 452-1 492 MHz band for wireless broadband electronic communications services in the Union.

(7) On 28 November 2014, in response to that mandate, CEPT issued CEPT Report 54 proposing harmonisation of the 1 452-1 492 MHz band for wireless broadband supplemental downlink use, while allowing Member States to adapt to national circumstances in parts of the band (such as 1 452-1 479,5 MHz) for terrestrial broadcasting.

([1]) OJ L 108, 24.4.2002, p. 1.
([2]) To be found under: http://www.itu.int/pub/R-REG-RR
([3]) Special Arrangement of the European Conference of Postal and Telecommunications Administrations (CEPT) relating to the use of the band 1 452-1 479,5 MHz for Terrestrial Digital Audio Broadcasting (TDAB), Maastricht, 2002, Constanta, 2007 (MA02revCO07).
([4]) Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme (OJ L 81, 21.3.2012, p. 7).
([5]) Report from the Commission to the European Parliament and the Council on the Radio Spectrum Inventory (COM(2014) 536 final).
([6]) Document RSPG13-521 rev1.

Supplemental downlink is downlink-only use whereby spectrum within the band is used for unidirectional base station transmission providing electronic communications services, in combination with use of spectrum in another frequency band.

(8) Harmonised downlink-only use of the 1 452-1 492 MHz band for wireless broadband electronic communications services is important in addressing data traffic asymmetry by enhancing the downlink capability of a wireless broadband system. Taking also into account the principles of technology and service neutrality, it also facilitates coexistence with already existing terrestrial broadcasting services in the same band, which may not comply with the technical conditions set out by this Decision. Member States should therefore allocate the band on a non-exclusive basis to all types of electronic communications services and ensure the coexistence of the services according to national circumstances and in line with international agreements.

(9) The provision of wireless broadband electronic communications services in the 1 452-1 492 MHz band should be based on harmonised channelling arrangement and common minimal (least restrictive) technical conditions to foster the single market, mitigate harmful interference and ensure frequency coordination.

(10) Common technical conditions and principles are necessary to ensure coexistence, as appropriate protection, between wireless broadband electronic communications services and T-DAB within the 1 452-1 492 MHz band, and between such services in the band and other uses in adjacent bands, including tactical radio relays, coordinated fixed links and aeronautical telemetry. There is a potential need for additional national measures to ensure coexistence with uses in adjacent bands, such as uncoordinated fixed links.

(11) Cross-border agreements between administrations may be necessary to ensure implementation of the parameters set by this Decision so as to avoid harmful interference and improve spectrum efficiency and convergence in spectrum use. CEPT Report 54 sets out technical conditions and principles for cross-border coordination between wireless broadband electronic communications services and T-DAB and aeronautical telemetry services in the 1 452-1 492 MHz band, including at the borders of the Union.

(12) The use of the 1 452-1 492 MHz band by other applications in third countries, subject to international agreements, may limit its introduction and use by wireless broadband electronic communications services in some Member States. Such Member States should take all necessary steps in order to minimise the duration and geographical extent of these limitations as soon as possible and should seek the assistance of the Union, where necessary, under Article 10(2) of the RSPP. They should notify the Commission of such limitations pursuant to Article 6(2) and Article 7, and the information should be published in accordance with Article 5, of the Radio Spectrum Decision.

(13) Therefore, the measures provided in this Decision should be applied across the Union and implemented by Member States in order to ensure take-up of the 1 452-1 492 MHz band for wireless broadband electronic communications services in line with the RSPP spectrum target. Member States should report to the Commission on the implementation of the Decision and the use of the band in order to facilitate an assessment of its impact at EU level as well as its timely review, when necessary.

(14) The measures provided for in this Decision are in accordance with the opinion of the Radio Spectrum Committee,

HAS ADOPTED THIS DECISION:

Article 1

This Decision is aimed at harmonising the conditions for the availability and efficient use of the 1 452-1 492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union.

Article 2

1. No later than six months after the date of notification of this Decision, Member States shall designate and make available, on a non-exclusive basis, the 1 452-1 492 MHz frequency band for terrestrial systems capable of providing electronic communications services in compliance with the parameters set out in the Annex.

2. Member States shall ensure that the terrestrial systems referred to in paragraph 1 give appropriate protection to:

(a) systems in adjacent bands; and

(b) terrestrial broadcasting systems operating within the 1 452-1 479,5 MHz frequency band pursuant to an authorisation in force on the day of notification of this Decision or to subsequent renewal of such authorisation and in compliance with the parameters set by the Maastricht Special Arrangement of 2002, as revised in 2007.

3. Member States shall facilitate cross-border coordination agreements so as to enable operation of the systems referred to in paragraph 1, taking into account existing regulatory procedures and rights, and relevant international agreements.

Article 3

Member States shall not be bound by the obligations under Article 2 in geographical areas where coordination with third countries makes it necessary for them to deviate from the parameters set out in the Annex. They shall aim to minimise the duration and geographical scope of such deviation.

Article 4

Member States shall report on the application of this Decision no later than nine months after the date of notification.

Member States shall monitor use of the 1 452-1 492 MHz frequency band and report their findings to the Commission upon request or at their own initiative in order to allow timely review of this Decision, when necessary.

Article 5

This Decision is addressed to the Member States.

Done at Brussels, 8 May 2015.

For the Commission
Günther OETTINGER
Member of the Commission

ANNEX

PARAMETERS REFERRED TO IN ARTICLE 2(1)

A. GENERAL PARAMETERS

1. The mode of operation within the 1 452-1 492 MHz frequency band shall be limited to base station ('downlink-only') transmission.

2. Block sizes within the 1 452-1 492 MHz frequency band shall be assigned in multiples of 5 MHz. The lower frequency limit of an assigned block shall be aligned with or spaced at multiples of 5 MHz from the lower band edge of 1 452 MHz.

3. Base station transmission must comply with the block edge mask in this annex.

B. TECHNICAL CONDITIONS FOR BASE STATIONS — BLOCK EDGE MASK

The following technical parameters for base stations called 'block edge mask' (BEM) shall be used in order to ensure coexistence between neighbouring networks in the absence of bilateral or multilateral agreements between operators of such neighbouring networks. Less stringent technical parameters, if agreed among the operators or administrations concerned, may also be used provided that these parameters comply with the technical conditions applicable for the protection of other services or applications, including in adjacent bands or subject to cross-border obligations.

The BEM is an emission mask that is defined as a function of frequency in relation to the edge of a block of spectrum for which rights of use are granted to an operator. It consists of in-block and out-of-block power limits. The in-block power limit is applied to a block owned by an operator. Optional in-block requirements are set out below. The out-of-block power limits are applied to spectrum within the 1 452-1 492 MHz frequency band which is outside a block granted to an operator. They are set out in Table 1.

Furthermore, coexistence power limits are defined for wireless broadband electronic communications services within the 1 452-1 492 MHz band in order to ensure compatibility between these services and other radio services or applications either within the 1 452-1 492 MHz frequency band or in the adjacent 1 427-1 452 MHz or 1 492-1 518 MHz frequency bands. The co-existence power limits with regard to services or applications in the adjacent bands are set out in Table 2. Additional technical or procedural measures ([1]) or both may be applied at national level to ensure coexistence with services and applications in the adjacent bands. The coexistence limits for T-DAB services in the 1 452-1 492 MHz band are set out in Table 3.

In-block requirements

An in-block equivalent isotropically radiated power (EIRP) ([2]) limit for base stations is not obligatory. Member States may set an EIRP limit not exceeding 68 dBm/5 MHz which can be increased for specific deployments, for example for the aggregated use of spectrum within the 1 452-1 492 MHz band and spectrum in lower frequency bands.

Out-of-block requirements

Table 1

Base station BEM out-of-block EIRP limits within the 1 452-1 492 MHz frequency band per antenna

Frequency range of out-of-block emissions	Maximum mean out-of-block EIRP	Measurement bandwidth
– 10 to – 5 MHz from lower block edge	11 dBm	5 MHz
– 5 to 0 MHz from lower block edge	16,3 dBm	5 MHz
0 to + 5 MHz from upper block edge	16,3 dBm	5 MHz

([1]) For instance, one or more of the following: frequency planning coordination, site coordination, more stringent in-band power limits for base stations, more stringent out-of-band equivalent isotropically radiated power limits for base stations than stipulated in Table 2.
([2]) In-block EIRP is the total power radiated in any direction at a single location, independent of any base station configuration.

Frequency range of out-of-block emissions	Maximum mean out-of-block EIRP	Measurement bandwidth
+ 5 to + 10 MHz from upper block edge	11 dBm	5 MHz
Frequencies within the 1 452-1 492 MHz band spaced more than 10 MHz from the lower or upper block edge	9 dBm	5 MHz

Coexistence requirements for adjacent bands

Table 2

Base station out-of-band EIRP limits for adjacent bands

Frequency range of out-of-band emissions	Maximum mean out-of-band EIRP	Measurement bandwidth
Below 1 449 MHz	– 20 dBm	1 MHz
1 449-1 452 MHz	14 dBm	3 MHz
1 492-1 495 MHz	14 dBm	3 MHz
Above 1 495 MHz	– 20 dBm	1 MHz

Explanatory note to Table 2: these requirements are intended to ensure compatibility with coordinated fixed links, mobile services and aeronautical telemetry services limited to ground stations, deployed in adjacent frequency bands below 1 452 MHz or above 1 492 MHz.

Coexistence requirements within the 1 452-1 492 MHz frequency band

Table 3

Base-station out-of-block EIRP limits for adjacent channel coexistence with T-DAB within the 1 452-1 492 MHz frequency band

Frequency range of out-of-block emissions	Maximum mean out-of-block EIRP	Measurement bandwidth
0 to 1,3 MHz from block edge	9,3 dBm	1 MHz
1,3 to 1,5 MHz from block edge	2,8 dBm	1 MHz
1,5 to 1,8 MHz from block edge	– 6,7 dBm	1 MHz
1,8 to 2 MHz from block edge	– 12,4 dBm	1 MHz
2 to 2,3 MHz from block edge	– 13,7 dBm	1 MHz
2,3 to 5 MHz from block edge	– 14,9 dBm	1 MHz
Remaining frequencies used for T-DAB	– 14,9 dBm	1 MHz

Explanatory note to Table 3: these requirements apply only if T-DAB is in operation at national level. They are intended to ensure compatibility with T-DAB services in adjacent channels within the 1 452-1 492 MHz frequency band and assume a guard band of at least 1,5 MHz between wireless broadband electronic communications services and T-DAB services.