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► **B** ► **M1** COMMISSION IMPLEMENTING DECISION (EU) 2015/750
of 8 May 2015
on the harmonisation of the 1 427-1 517 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)

(OJ L 119, 12.5.2015, p. 27)

Amended by:

		Official Journal		
		No	page	date
► <u>M1</u>	Commission Implementing Decision (EU) 2018/661 of 26 April 2018	L 110	127	30.4.2018

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COMMISSION IMPLEMENTING DECISION (EU) 2015/750

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Article 1

This Decision is aimed at harmonising the conditions for the availability and efficient use of the 1 427-1 517 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union.

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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.

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2. No later than 1 October 2018, Member States shall designate and make available, on a non-exclusive basis, the 1 427-1 452 MHz and the 1 492-1 517 MHz frequency bands, or a portion thereof, for terrestrial systems capable of providing wireless broadband electronic communications services, in compliance with the parameters set out in the Annex.

3. If they designate and make available only a portion of the 1 427-1 452 MHz or of the 1 492-1 517 MHz frequency bands in accordance with paragraph 2, Member States:

- (a) shall ensure that any existing use is maintained to the extent strictly necessary, and with the aim to progressively make these bands available for terrestrial systems capable of providing wireless broadband electronic communications services;
- (b) shall ensure that such spectrum portion primarily constitutes together with the 1 452-1 492 MHz frequency band a contiguous frequency band;
- (c) may allow, up to 1 January 2023, and longer if no national demand has been identified for wireless broadband electronic communications services in accordance with Articles 3 and 6 of Decision No 243/2012/EU, the use of part of these bands for the continued operation of existing terrestrial fixed wireless services or of other existing use, which cannot share the use of these bands with wireless broadband electronic communications services.

▼ M1

4. Member States shall ensure that the terrestrial systems referred to in this Article give appropriate protection to systems in adjacent bands.
5. Member States shall facilitate cross-border coordination agreements so as to enable operation of systems referred to in paragraph 1, 2 and 3, taking into account existing regulatory procedures and rights, and relevant international agreements.

Article 2a

Member States shall review the application of Article 2 on a biennial basis, in order to ensure maximum availability of the 1 427-1 517 MHz frequency band for wireless broadband electronic communications services.

▼ B*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.

▼ M1*Article 4*

Member States shall monitor the use of the 1 427-1 517 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, where necessary.

Article 4a

Member States shall report to the Commission on the application of this Decision, including the extent of availability of the 1 427-1 452 MHz and 1 492-1 517 MHz frequency bands, on 1 November 2018 at the latest.

▼ B*Article 5*

This Decision is addressed to the Member States.

▼ **M1***ANNEX***PARAMETERS REFERRED TO IN ARTICLE 2(1) AND 2(2)****A. GENERAL PARAMETERS**

1. The mode of operation within the 1 427-1 517 MHz frequency band shall be limited to base station ('downlink-only') transmission.
2. Block sizes within the 1 427-1 517 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 1 427 MHz.
3. Base station transmission shall comply with the technical conditions (block edge masks) set out 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. The out-of-block power limits are applied to spectrum used for WBB ECS within the 1 427-1 517 MHz frequency band which is outside a block granted to an operator. They are set out in Table 2. The out-of-band power limits are applied to spectrum outside the portion of the 1 427-1 517 MHz frequency band, which is used for WBB ECS at national level.

Furthermore, coexistence power limits are defined for wireless broadband electronic communications services (WBB ECS) within the 1 427-1 517 MHz band in order to ensure compatibility between these services and other radio services or applications, including when a portion of the 1 427-1 452 MHz and the 1 492-1 517 MHz bands is not designated for WBB ECS. The co-existence power limits with regard to services or applications in the adjacent bands (i.e. outside the spectrum used for WBB ECS) are set out in Table 3, 4, and 5 and also cater for national flexibility in assigning spectrum for WBB ECS within the 1 427-1 517 MHz frequency band pursuant to this Decision.

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.

⁽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 5.

▼ M1**In-block requirements**

An in-block equivalent isotropically radiated power (EIRP) limit for base stations is not obligatory except for the 1 512-1 517 MHz frequency block, for which such a limit is given in Table 1. For frequency blocks other than the 1 512-1 517 MHz frequency block, 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 1 427-1 512 MHz band and spectrum in lower frequency bands.

*Table 1***Maximum in-block EIRP per cell⁽¹⁾ for WBB ECS base stations operating in the 1 512-1 517 MHz**

Frequency block	Maximum in-block EIRP	Measurement bandwidth
1 512-1 517 MHz	58 dBm	5 MHz

(¹) In a multi-sector site, the value per 'cell' corresponds to the value for one of the sectors.

Explanatory note to Table 1

These requirements are intended to ensure compatibility between WBB ECS operating in the 1 512-1 517 MHz frequency block and mobile satellite services operating in the 1 518-1 525 MHz frequency band.

Out-of-block requirements*Table 2***Base station BEM out-of-block EIRP limits per antenna within the 1 427-1 517 MHz frequency band**

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
+ 5 to + 10 MHz from upper block edge	11 dBm	5 MHz
Frequencies within the 1 427-1 517 MHz band spaced more than 10 MHz from the lower or upper block edge	9 dBm	5 MHz

▼ **M1****Coexistence requirements for adjacent bands***Table 3***Base station unwanted emission power limits in the 1 400-1 427 MHz frequency band for base stations operating in the 1 427-1 452 MHz frequency band**

Frequency range of out-of-band emissions	Maximum unwanted emission power level ⁽¹⁾	Measurement bandwidth
1 400-1 427 MHz	– 72 dBW	27 MHz

⁽¹⁾ The unwanted emission power level is to be understood here as the level measured at the antenna port.

Explanatory note to Table 3

This requirement is intended to protect radio astronomy and passive earth exploration satellite services in the 1 400-1 427 MHz passive frequency band from WBB ECS operating in the 1 427-1 452 MHz frequency band, including when only a portion of this frequency band is assigned for WBB ECS. Further national measures may be needed to improve protection of radio astronomy observations in passive frequency band 1 400-1 427 MHz from WBB ECS.

*Table 4***Base station out-of-band EIRP limits per cell⁽¹⁾ in the 1 518-1 559 MHz frequency range for base stations operating in 1 492-1 517 MHz frequency band**

Frequency range of out-of-band emissions	Maximum out-of-band EIRP	Measurement bandwidth
1 518 - 1 520 MHz	– 0,8 dBm	1 MHz
1 520 - 1 559 MHz	– 30 dBm	1 MHz

⁽¹⁾ In a multi-sector site, the value per ‘cell’ corresponds to the value for one of the sectors.

Explanatory note to Table 4

These requirements are intended to provide appropriate protection of mobile satellite services operating in the 1 518-1 559 MHz frequency band, in particular at sea ports, airports and search and rescue ground stations of the mobile satellite service, from WBB ECS operating in the 1 492-1 517 MHz frequency band, including when only a portion of this frequency band is assigned for WBB ECS. Further national measures may be needed to improve protection of mobile satellite services in the band 1 518-1 559 MHz.

*Table 5***Base station out-of-band EIRP limits per cell below 1 452 MHz and above 1 492 MHz for base stations operating in the 1 452-1 492 MHz frequency band**

Frequency range of out-of-band emissions	Maximum mean out-of-band EIRP	Measurement bandwidth
Below 1 449 MHz	– 20 dBm	1 MHz

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Frequency range of out-of-band emissions	Maximum mean out-of-band EIRP	Measurement bandwidth
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 5

These requirements are applicable when WBB ECS are not deployed either below 1 452 MHz or above 1 492 MHz, or both. They are intended to ensure compatibility of WBB ECS within the 1 452-1 492 MHz frequency band 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.

When WBB ECS are deployed within the blocks immediately below 1 452 MHz, the limits indicated in Table 5 for frequencies below 1 452 MHz are not applicable. When WBB ECS are deployed within the blocks immediately above 1 492 MHz, the limits indicated in Table 5 for frequencies above 1 492 MHz are not applicable. This is without prejudice to the out-of-band requirements laid down in Tables 3 and 4 and to the out-of-block requirements laid down in Table 2.