

Ericsson response to Ofcom consultation

Award of the 1492-1517 MHz spectrum for mobile services



About [Ericsson](#)

Ericsson is one of the leading providers of Information and Communication Technology (ICT) to service providers. We enable the full value of connectivity by creating game-changing technology and services that are easy to use, adopt, and scale, making our customers successful in a fully connected world.

Ericsson appreciates the opportunity to respond to the ongoing Ofcom consultation "[Award of the 1492-1517 MHz spectrum for mobile services](#)" from 17 February 2025. Ericsson welcomes OFCOM's initiative to allocate additional spectrum for 4G and 5G mobile use to enhance mobile connectivity and drive technological advancement.



Response Summary

Ericsson would normally recommend the allocation of the full 1.4GHz band to mobile 4G and 5G services, including not only the upper 25MHz section (1492-1517MHz) currently under consultation but also the bottom 20MHz section (1432-1452MHz). This recommendation is based on practice adopted in some European countries and as defined in the [Commission Implementing Decision \(EU\) 2018/661](#)¹.

Harmonizing the entire 1.4GHz band (B75) supports a stronger and more competitive ecosystem, accelerating time to market and enabling the development of more efficient mobile and radio access network equipment. This, in turn, allows mobile network operators to deploy the spectrum more widely and rapidly.

On the basis that the lower 20MHz segment (1432–1452MHz) cannot be allocated to mobile systems due to its current use by the Ministry of Defence, Ericsson recommends designating this portion as "in-band" while adhering to the out-of-block EIRP limits specified in Table 2 of the Commission Implementing Decision (EU) 2018/661. For reference below is a copy of Table 2 from the implementation decision.

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

Designating the 1432-1452MHz segment as "in-band" in line with Table 2 would significantly support a more efficient and cost effective mobile and radio access network ecosystem in the UK. It would also enable faster and broader spectrum deployment nationwide, ultimately improving the availability of this spectrum for the UK.

There appear to be some minor inconsistencies within the consultation documents regarding the alignment between the portion of the 1.4GHz band currently allocated to 4G and 5G mobile systems (1452-1492MHz) and the requirements specified for the newly proposed spectrum (1492-1517MHz). Specifically, the [Annex 9 – Draft License](#) outlines operational limits for the extended spectrum, and we seek clarification on how these limits relate to existing specifications, particularly emission mask limits

¹ [COMMISSION IMPLEMENTING DECISION \(EU\) 2018/661 of 26 April 2018](#)



above 1492MHz defined in existing IMT licenses (Reference [Spectrum Access 1452 – 1472 MHz License](#) and [Spectrum Access 1472 – 1492 MHz License](#)). The current specified values in the license are too stringent to allow for coexistence of the existing and new IMT system. We believe that this is addressed within [Annex 12 – IR2068](#) within this consultation for the entirety of the mobile systems part of the 1.4GHz band (1452-1517MHz, subject to the closure of the consultation), but we welcome clarification that current licences will be updated to reflect the Annex 12 – IR2068.

For reference, the Table within the Licence issued by Ofcom on 08 October 2015 to Vodafone Limited. See Pg. 7 of the [Spectrum Access 1452 – 1472 MHz License](#).

Frequency range	Maximum mean e.i.r.p.	Measurement bandwidth
1427 – 1449 MHz	-20 dBm	1 MHz
1449 – 1452 MHz	14 dBm	3 MHz
1492 – 1495 MHz	14 dBm	3 MHz
1495 – 1498.5 MHz	-20 dBm	1 MHz
1498.5 – 1518 MHz	-62.5 dBm	1 MHz

For example, the transition band/in-band/BEM type limits noted in the emission table below specified in the [Annex 9 – Draft License](#), such as the 16.3dBm/5MHz EIRP and the 11dBm/5MHz EIRP, align with EC regulatory standards. However, the -9dBm/5MHz limit below 1482MHz (at >10MHz offset) appears overly stringent compared to OBUE, necessitating additional filter attenuation to comply. We suspect this may be a typographical error, especially as Table 6.3 in the [Consultation document](#) itself, references a +9dBm/5MHz limit, which matches the EC regulatory specification, and is aligned with Table 3.3 from [Annex 12 – Draft License](#).

Frequency Range	Maximum mean EIRP	Measurement bandwidth
1427-1482 MHz	-9 dBm	5 MHz
1482-1487 MHz	11 dBm	5 MHz
1487-1492 MHz	16.3 dBm	5 MHz
1518-1520 MHz	-0.8 dBm	1 MHz
1520-1559 MHz	-30 dBm	1 MHz

Table found on pg. 7 of the [Annex 9 – Draft License](#) document

Frequency range	Maximum out-of-block EIRP per cell
0-5 MHz from edge of block	16.3 dBm/5 MHz
5-10 MHz from edge of block	11 dBm/5 MHz
Frequencies >10 MHz from edge of block within band	9 dBm/5 MHz

Table 6.3 found in [Consultation document](#)



Base Station out-of-block EIRP limits within the band 1452-1517 MHz		
Frequency range of out-of-block emissions	Maximum mean out-of-band E.I.R.P. (dBm)	Measurement Bandwidth
-10 to -5 MHz from lower block edge	11.0	5
-5 to 0 MHz from lower block edge	16.3	5
0 to +5 MHz from upper block edge	16.3	5
+5 to +10 MHz from upper block edge	11.0	5
Remaining MFCN SDL frequencies	9.0	5

Table 3.3 found in [Annex 12 – IR2068](#)