



GSME¹ POSITION ON FREQUENCY ARRANGEMENT IN THE 2500-2690MHz BAND

27 May 2004

The CEPT ECC has requested ECC PT1 to draft the response to Mandate 5 on IMT-2000/UMTS. Mandate 5 requests CEPT to develop detailed channelling arrangements for the 2500-2690MHz band. During its last meeting in April 2004, ECC PT1 agreed on the following assumptions, amongst others, for the frequency plan definition:

- Symmetric FDD paired spectrum; the amount of paired spectrum is still under discussion,
- Conventional duplex direction is preferred,
- Flexibility is maintained in the centre gap.

In order to ensure the availability of equipment, particularly terminals, operating in this frequency range in due time, it is necessary that ECC PT1 reach a consensus view on as many issues as possible by November 2004. This corresponds to the timetable requested by Mandate 5. GSME would like to help ECC PT1 by giving some guidance on the above mentioned issues.

Spectrum asymmetry and amount of paired spectrum

GSME believes that sufficient spectrum for internally paired FDD is needed to increase the capacity of the UMTS networks currently deployed at 2 GHz, in particular for symmetric traffic (e.g. videoconferencing) and to ensure a high degree of compatibility with existing systems. The assumption of an offered traffic ratio of approximately 2:1 is a good estimation at this stage. However, GSME believes that this traffic asymmetry should not be directly translated into spectrum asymmetry because some expected downlink modulations, such as HSDPA, are more spectrally efficient and may address the need for offered traffic asymmetry, leading to almost symmetrical spectrum use.

- ⇒ ***GSME supports a symmetric spectrum pairing.***
- ⇒ ***GSME believes that the amount of paired spectrum should not be less than 2*60MHz.***

Duplex direction

Reversing the duplex direction leads to an appreciable loss of coverage due to propagation conditions which are better in the low part of this band. At the same time, it is not clear that there are major advantages to be achieved by reversing the duplex direction. Balancing a clear drawback with a hypothetical advantage leads GSME to support the conventional duplex direction.

- ⇒ ***GSME supports the conventional duplex direction***

¹ GSM Europe is the European interest group of the GSM Association, the premier global body behind the world's leading wireless communications standard. GSM Europe represents around 143 operators in 50 countries/areas in Europe and counts around 416 million subscribers.



Centre gap use and spectrum flexibility

As indicated above, there is some uncertainty surrounding the offered traffic asymmetry on UMTS networks and alternative views on the appropriate way to deal with this asymmetry. However, it is critical to ensure there exist appropriate mechanisms to support asymmetric traffic either through the expected downlink modulations, such as HSDPA, in the in-band FDD spectrum, or through use of TDD or externally paired FDD downlink spectrum in the centre gap. A degree of flexibility between FDD and TDD may be needed in the centre gap.

Several options are being considered for the centre gap use and it is unlikely that there will be sufficient information to enable a conclusion on which option(s) should be incorporated into the ECC Decision before the end of 2004. This should not delay the completion of the Decision as far as is possible, but highlights the fact that the debate regarding use of the centre gap should continue in ECC PT1 in 2005.

⇒ ***GSME believes that the final CEPT response to Mandate 5 should incorporate a work plan with the associated timeframe to decide the use(s) of the centre gap.***

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