

UMTS Forum response on the Swedish consultation on 2570 – 2620 MHz

The UMTS Forum welcomes the opportunity to provide its views to Post- och telestyrelsen (PTS) on its invitation to comment on the licensing of the band 2570 – 2620 MHz reference 05-12745 dated 3 November 2005.

The UMTS Forum supports the view of the CEPT/ECC and its Decision ECC/DEC(05)05, which is also supported by most European Administrations. In the ECC(05)05, it is decided that the whole band 2500 – 2690 MHz should be available for use by IMT-2000/UMTS in accordance with market requirements, providing seamless access to services and applications also for the Swedish consumers. However, some of the views being suggested by PTS do not fully align with the recent CEPT/ECC decision to provide for the harmonized and coordinated introduction and use of the band 2500 – 2690 MHz for IMT-2000/UMTS family of technologies.

Introduction

The UMTS Forum would like to provide the following overarching opinions:

- Consumers should be awarded the “neutral choice” to be able to select between operators to get the preferred service offering, but without the need to change the end-user terminal equipment;
- Some of the proposals conveyed in the consultation would present a significant risk to the national consumers, who could find themselves without access to services and applications compared to consumers of other European countries, who would benefit from the full and harmonized availability of IMT-2000/UMTS;
- UMTS Forum is very concerned about the idea that UWB interference is included as a licence condition;
- UMTS Forum is of the view that any national license practice, with regard to timing and other conditions, should be harmonized with other CEPT member states
- Some of the proposals conveyed in the consultation are diverging from the internationally agreed Decisions for IMT-2000/UMTS;
- Interference from the uncoordinated TDD use in band 2570 – 2620 MHz could have negative impact on IMT-2000/UMTS FDD in the remaining parts of the band 2500 – 2690 MHz;
- the whole band 2500 – 2690 MHz should be licensed at the same time in coordinated manner to provide fair and equal business opportunities for all the FDD and TDD licensees
- taking into account the capacity needs of fixed wireless broadband networks those could preferably use allocations in the band 3400 – 3800 MHz.

General views

ITU-R Radio Regulations (RR) identifies the band 2500 – 2690 MHz for the use by IMT-2000 on a global basis. Based on the ITU-R RR, CEPT/ECC has subsequently decided through its Decision ECC/DEC(05)05 that the band 2500 - 2690 MHz is for IMT-2000/UMTS and that Administrations should provide for harmonization in this band and make this band available by 2008. UMTS Forum fully supports this ECC Decision ECC/DEC(05)05. Based on the ECC Decision ECC/DEC(05)05, the

sub-band 2570 - 2620 MHz can be licensed either for IMT-2000 TDD or for IMT-2000 FDD downlink usage and the band 2570 - 2620 MHz should include possible guard band. Further, the CEPT/ECC have decided that it is possible that IMT-2000 FDD downlink could be paired with an uplink in the band 1900 – 1920 MHz and/or with an uplink in band 2010 – 2025 MHz in accordance with the decision ECC/DEC(06)BB. In addition, the UMTS Forum wants to remind PTS about the ITU-R Reports M.2030 and M.2045, which are describing some of the significant coexistence problem that could be encountered between TDD and FDD systems in band 2500 – 2690 MHz being operated in the same geographical area. Also, possible TDD-FDD interference issues related to cross-border coordination should be considered at the early stage of national licensing process.

UMTS Forum is of the view that the sub-band 2570 - 2620 MHz should only be used for fully mobile radio systems as defined in ITU-R. Fixed or nomadic wireless broadband systems should not primarily be considered in any parts of the mobile band 2500 - 2690 MHz. Such usage could be referred to the range 3400 - 3800 MHz.

UMTS Forum wishes to inform that there are reasons to carefully consider the development of IMT-2000/UMTS, particularly the migration towards the HSDPA, HSUPA and the Long Term Evolution (LTE) within ETSI and 3GPP. The expected capacity performance of LTE systems suggest that there will be a firm need to allocate 20 MHz blocks per operator to achieve the highest transmission rates, particularly, in the downlink direction. UMTS Forum also represents the view that it is of great importance that PTS does not consider changing any of the technical radio requirements for IMT-2000/UMTS FDD in the paired bands 2500 – 2570 MHz and 2620 – 2690 MHz; reference is made to the technical requirements in ITU-R Recommendation M.1457. Furthermore, as stated in ECC/DEC(05)05, guard bands for adjacent band compatibility should be taken outside of these FDD paired bands. In general, it is regarded extremely important to protect IMT-2000/UMTS systems that are serving the general public with good QoS, high safety and security from any type of interference.

Responses to the specific questions

2.1 Licence based on municipal boundaries

The UMTS Forum is of the view that the internationally identified band 2500 – 2690 MHz should only be licensed for IMT-2000/UMTS operations in accordance with international treaties and decisions. In view of the fact that the band has been internationally coordinated and harmonized, PTS might find that the band is better suited for nation wide licenses. The whole band should be licensed at the same time in coordinated manner to provide fair and equal business opportunities for all the FDD and TDD licensees.

2.2 Guard bands

The UMTS Forum cannot fully share the view of the proposal made in the consultation document with regard to the studies made within both ITU-R and 3GPP, in these studies it suggested that it in some situations might take at least a guard band of 15 MHz between FDD and TDD operations.

2.3 Three licenses per geographic area

It is clear that for a commercially viable operation of fixed or nomadic wireless broadband system is very exceptionally challenging considering the limited spectrum band available in the band 2580 – 2610 MHz. Therefore, the frequency band 3400 – 3800 MHz seems to be the more suitable band for such kind of operation.

2.4 Neutrality regarding technology and use

UMTS Forum is of the view that any national license practice, with regard to timing and other conditions, should be harmonized with other CEPT member states. The whole band 2500 – 2690 MHz should be licensed in coordinated manner as to provide for fair and equal business opportunities for all the licensees. In addition to these requirements, it is important that the consumers could be awarded the "neutral choice" to be able to select between operators to get the preferred service offering, but without the need to change the end-user equipment. Therefore, the new licenses in the whole band 2500 – 2690 MHz, including associated conditions, should refer to the open recognized ITU-R family of standards of IMT-2000, of which IMT-2000/UMTS can provide seamless communications with the current public mobile communication networks to the good of users.

2.5 Term of the licences 10 years

UMTS Forum has no definite view on this point; however, a period of at least 15 years seems more acceptable, and with the option to renew the licenses.

2.6 Requirement for services to be offered within one year

UMTS Forum is of the view, that in accordance with the ECC/DEC(05)05 the band 2500 - 2690 MHz is designated for IMT-2000, and providing harmonized national regulations not later than 1 January 2008. If UWB would be allowed to be used below 6 GHz in Sweden, then it would be difficult to apply possible coverage/capacity conditions on the licensees due to the interference from UWB.

2.7 Coordination

UMTS Forum is of the opinion that the proposal for self-regulation is appropriate. This practice is already in use in the coordination process between the public mobile communication operators and is regarded to be working to their satisfaction improving the spectrum usage.

2.8 Noise level

UMTS Forum finds it unusual defining the restriction on the acceptable noise level experienced by the base station. In the ITU-R as well as the CEPT/ECC studies, it is very clear that it is the increase in noise level experienced by the terminal's receiver that represents the critical case in a situation when UWB emissions are present. Therefore, in UMTS Forum view, it would be preferred, from the national regulatory policy point of view, in concern of the radio environment, to apply regulatory coexistence conditions on the UWB devices, such as the maximum output power. The current CEPT/ECC studies indicate a maximum UWB spurious PSD level of -85 dBm/MHz in the range 1.6 - 2.7 GHz.

2.9 Other

See the comments under "General views".
