

ETNO Expert Contribution on draft decision ECC /DEC/(06)EE on the harmonised conditions for devices using Ultra-Wideband (UWB) technology in the frequency band 3.1 – 4.8 GHz

Executive Summary:

Interested parties have been invited to comment on draft ECC/DEC/(06)EE on harmonised conditions for devices using UWB technology in the frequency band 3.1-4.8 GHz. In particular, views are requested on a possible phased approach in the band 4.2 - 4.8 GHz without mitigation techniques.

ETNO has a strong preference for not allowing devices to be operated temporarily without mitigation techniques (on a phased basis), as this introduces the least risk of interference for existing radio communications services not only in this frequency band, but also in the lower band 3.1-4.2 GHz. Instead, ETNO recommends permitting only those devices which have implemented mitigation techniques such as DAA, in order to achieve a long-term solution.

Introduction

ETNO is pleased to response to the public consultation on draft decision ECC/DEC/(06)EE on the harmonised conditions for devices using Ultra-Wideband (UWB) technology in the frequency band 3.1 - 4.8 GHz. ETNO represents the voice of 40 of Europe's largest, well established telecommunications operators in 34 countries.

ETNO members provide public high quality radio communications services to their customers. This requires that radio systems used are adequately protected from harmful interference. Public network operators extensively use, amongst others, the Fixed Service band 3.4 - 4.2 GHz, and also operate FSS in the range 4.2-4.8 GHz. Furthermore, frequency bands between 3.4 and 4.8 GHz are candidates for identification for IMT-2000/IMT-Advanced in response to WRC-07 agenda item 1.4.

ETNO members are interested to use any innovative technology – i.e. also UWB applications, provided they are compatible with other radio utilisations - to supplement services to the benefit of their customers needs.

General Comments

In order to enable a long-term basis for investment and innovation in radio technology, radio spectrum utilisations avoiding harmful interference are essential. Interim solutions or spectrum designations with a high risk of interference might foster some innovation in the short-term, but at the expense of irreparable drawbacks to spectrum utilisations in the long-run. In this perspective, ETNO welcomes harmonised conditions for devices using UWB technology in frequency band 3.1 – 4.8 GHz.

UWB devices are intended to be operated on a licence-exempt, non-interference and non-protected basis in frequency bands already used by conventional radio services in accordance with the ITU-R Radio Regulations.

Phased approach versus mitigation techniques

ETNO fully supports the technical requirements contained in Annex 1 of draft ECC/DEC/(06)EE which enable the harmonised long-term introduction of UWB devices in Europe, while ensuring adequate protection of existing radio services from harmful interference.

Concerning the question of a phased approach versus a non-phased approach ETNO has the opinion that, bearing in mind the advantages and disadvantages as mentioned in the cover note, UWB devices should not be permitted to operate on a temporary basis without mitigation techniques, i.e. we do not support such a phased approach.

A phased approach has proven to be rather complex as the example of the 24 GHz Short Range Radars case has shown. Whilst we recognise that there is a risk of devices being imported illegally from the US, ETNO thinks that the risk of a significant “grey market” will be fairly low, particularly since many UWB devices will be embedded in much larger products (e.g. televisions), which are less likely to be imported on a personal basis.

Furthermore, a relaxation of the rules to permit devices to operate according to the US rules in the band 4.2 – 4.8 GHz would give rise to confusion in the marketplace, where users could mistakenly believe that US products are fully legal in Europe, even though they would only be permitted to operate in part of the band. (The MBOA system has three channels below 4.8 GHz, only one of which would be permitted to be used under this phased approach.) This could lead to additional illegal interference in the frequencies below 4.2 GHz, particularly if the user is not able to select the correct channel of operation for their equipment. It is ETNO’s believe that no phased approach leads to less interference risks.

In a phased approach it would be necessary to forbid the use of equipment from a fixed point in time. ETNO does not consider enforcement of such a prohibition as realistic. This is especially the case for usage of UWB technology in embedded systems which may have a product life of ten years or more.

Although enforcement is not realistic, the least unrealistic scenario is when equipment is supposed "Not to be sold after ...<<date>>...", instead of "Not to be used after ...<<date>>...". In the first variant enforcement is hard to implement - in the second variant enforcement cannot be implemented at all.

Instead of having a time limited approach with the risk of harmful interference, ETNO is strongly in favour of permitting only those devices which have implemented mitigation techniques such as DAA in order to achieve a long-term solution.