



GSM Europe

The European interest group of the GSM Association

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RE: GSM Europe comments to the studies of CEPT WG SE 24 on coexistence between Ultra Wide Band (UWB) applications and existing and planned Radio services.

CEPT WG SE 24 is mandated to develop an ECC report on “Technical feasibility of Coexistence between pulsed UWB systems and some selected radiocommunication applications in the 1-6 GHz frequency band”. Concerning compatibility between UWB and mobile cellular networks (GSM, UMTS), SE 24 has prepared a draft document as a part of the ECC report to be developed. As this document has been sent to ECC PT1 requesting endorsement of this part of the draft ECC report, GSME would also like to express its position concerning the coexistence between UWB applications and GSM and UMTS services

The mobile community, in particular mobile network operators, is very concerned about the impact of any deployment of UWB on 2G and 3G spectrum bands as UWB transmissions intend to use very wide-band signals and will overlap with numerous radio service allocations. Even if it is claimed that UWB devices can coexist with current “narrow-band” systems in the same frequency band, the current radio systems will perceive the UWB emissions as additional sources of interference. In addition, GSME considers it to be insufficient to consider interference from single UWB devices. The proponents of UWB estimate that up to 3-4 devices could be present in each household, mainly deployed in ‘personal area networks’ connecting up home entertainment services. UWB devices are expected to be operated on a licence exempt basis. This could lead to a mass-market scenario where no control over deployment of UWB devices in terms of location and density is possible. There is thus a high probability that mobile phones and UWB devices will be in close proximity to each other in the home and that users would want to use them simultaneously. Therefore, as UWB applications have no regulatory status comparable to cellular networks, conservative assumptions have to be applied in terms of compatibility between UWB applications and GSM and future 3G networks. Subscribers to mobile networks do not want or expect their service to be degraded by unlicensed UWB devices.

On the world wide level, the responsibility to develop ITU Recommendations on the subject of UWB has been assigned to ITU-R Task Group 1/8 under Study Group 1. Other ITU-R Study Groups have been invited to contribute the results of studies into UWB compatibility. In this regard, ITU-R WP8F will conduct studies to assess compatibility between IMT-2000 and UWB. The results of these studies will be sent to TG 1/8 for incorporation into a composite Recommendation or a family of

Recommendations. It is anticipated that Europe will also contribute to TG 1/8 via WGSE PT 24 and ECC PT1. All evidence should be considered, including a report¹ prepared by Masons Communications that was commissioned by the UK Administration and concludes that UWB will cause a certain level of interference to UMTS devices. This report will also form the basis of an input to WGSE PT 24.

GSME requests that ECC and national delegations in SE24 and PT1 proceed with extreme caution when considering UWB and its potential impact on the service delivered to mobile subscribers in Europe.

GSM Europe, London 14 February 2003

¹ Impact of UWB on Third Generation Telecommunications, December 2002