



**SAP REG (08) 66**

**SAP REG Input To Ofcom  
Re Low Power Licence Exemption Limits Above 10 GHz**

**1. General Comments:**

The consultation document of Ofcom entitled “*Low power licence-exemption limits above 10GHz* “ proposes to change EIRP spectral density limits given in the EC Decision 2007/131/EC to the effect, that Ofcom would relax conditions for licence-exempted operations of UWB above 10 GHz. This raises number of principal issues.

- a. What is the status of EC Decision relating to UWB implementation in this case? Strictly speaking UK legislation based on the Ofcom proposals would contradict this EC decision.

We are of the opinion that Ofcom’s proposals to relax conditions for licence exemption for UWB devices would clearly contradict the Commission Decision of 21 February 2007 on allowing the use of the radio spectrum for equipment using ultra-wideband technology in a harmonised manner in the Community, a document which is legally binding on each EU Member State. Indeed, we consider that Ofcom should not raise the limit in the UK for UWB emissions that was set, in the EC Decision, at a flat level above 10 GHz.

- b. The EC decision is based on the ECC Decision (06)04. This Decision deals with operations of UWB at frequencies up to 10.6 GHz. It is obvious, that in the absence of further studies only limits at 10.6 GHz can be considered at frequencies higher than 10.6 GHz.

- c. The preparation of ECC Decision (06)04 was based on extensive band-by-band deliberations within the range given by the ECC mandate. No concept of extrapolation of emission limits to other bands was considered.

- d. The extrapolation concept proposed by Ofcom cannot be valid unless a number of conditions are fulfilled. The fundamental condition for the extrapolation is that the frequency is a single variable parameter and other parameters such as the technical characteristics of the UWB device or the pattern of its deployment do not change with the frequency. Determination of these conditions is not a trivial issue and would require comprehensive studies. It seems obvious that UWB devices in different bands will have different purpose and therefore mechanical extrapolation is not realistic.

In addition the language of the document suggests, that it was written with potentially other motivation. It is noted that:

- Paragraph 2.5 alludes qualification of any device (not only UWB) for the licence-exemption.
- Paragraph 5.10 deals with aggregation of the interference from multiple UWB devices considering 4 (really only four ?) UWB devices working simultaneously.

One might conclude, that the consultation is tailored to some specific application rather than reflecting generic needs of UWB.

There is also no obvious market requirement for additional spectrum to accommodate UWB devices above 10.6 GHz. The CEPT, the EU/EC and the UK have already made provision for UWB in various bands below 10.6 GHz. There is no substantial or compelling evidence to suggest that these bands already identified below 10.6 GHz for UWB device applications are not sufficient to accommodate current and projected UWB utilisations.

Ofcom should not take such steps to apparently promote UWB utilisation above 10.6 GHz in isolation of other countries in Europe. Before, Ofcom takes any further steps in this regard at a UK national level, Ofcom should raise this matter within relevant CEPT (including WG Spectrum Engineering) and EU/EC so that all appropriate sharing and compatibility studies can be undertaken and considered which properly take into account the need to protect the operation of existing terrestrial and satellite services as well as their future evolution and development in all relevant bands above 10.6 GHz.

## **2. Specific Answers To Ofcom Consultation Questions:**

*Q1: Do you agree with this assessment of the services that do not require further analysis?*

A1: No – for reasons given above.

*Q2: Is this analysis of risk of interference to broadcasting satellite correct?*

A2: There was no relevant analysis. We also question this analysis, since no source is given for the selected building absorption values on which the conclusion is based. We have indications that measured absorption values could be much less than those selected. The protection requirements for BSS receivers should take into account both short term and long term service availability requirements.

*Q3: Is this analysis to the risk of interference to radio-navigation & location correct?*

A3: No additional comments.

*Q4: Is this approach to meteorological aids appropriate?*

A4: No additional comments.

*Q5: Do you agree with the proposed Licence-exemption limits set out above?*

A5: **We strongly disagree for reasons given above.**