



# Low power licence-exemption limits above 10GHz

Statement

Publication date: 15 December 2008



## Section 1

# Statement on low power licence exempt limits

## Introduction

- 1.1 Devices which transmit at very low power levels, such as ultra wideband (UWB) devices are exempt from licensing. In August 2008 we issued a consultation on a proposal to increase the power limits for such devices in the frequency bands above 10GHz.

## Responses

- 1.2 We received over 10 responses, some of which were confidential. These were all from licence holders in the affected frequency bands and all expressed concern at the impact that increased exemption levels might have on their use of the spectrum. The responses made the following points:
- 1.3 *Legality / fit with existing international regulation.* Some questioned whether Ofcom was legally entitled to make this change. It was pointed out that there are a number of bands where emissions are prohibited worldwide under ITU regulation 5.340 and that by allowing very low power emissions some suggested we would be in contravention of this regulation. Others suggested that we would be contravening the EC UWB regulations by “increasing the UWB limit” above 10GHz.
- 1.4 *Response:* It is worth remembering that even in bands where emissions are prohibited that there will be some electromagnetic energy as a result of unwanted spill-over from transmitters operating on adjacent channels. While the level of these may be very low, it is not physically possible to prohibit all emissions within a band. Our proposals would effectively clarify this by setting out the level of emission that would be acceptable.
- 1.5 Regarding the UWB limit, we would not introduce any change as a modification to the UWB legislation. Instead we would likely seek a new exemption which would sit alongside the UWB exemption.
- 1.6 *Need to work on a European basis.* A number of respondees suggested that changes of this sort should be made at a European level, with appropriate studies carried out in CEPT.
- 1.7 *Response.* We also see significant benefits in European harmonisation which we discuss further below.
- 1.8 *More detailed study needed.* Almost all respondees claimed that their particular service would suffer more harm from the changes than was suggested in the consultation and that further study is needed to assess this. In a few cases some analysis was presented. Areas that were mentioned for further study included fixed links, the passive service bands and radio astronomy.
- 1.9 *Response.* Where further evidence was provided we agree it is appropriate to reassess our work. In other cases, where no further evidence was provided we find it

difficult to conduct further study without some indication as to where that study should be directed.

- 1.10 *No need for this regulation.* Some respondents claimed that with the UWB legislation recently introduced there was no need for further licence exemption at this point. They claimed that there was no demand for these frequencies.
- 1.11 *Response.* If there is no demand then there will be no usage of these frequencies at low power levels and hence no change in interference levels. However, it is our view, based on research work and an assessment of the progress of technology at high frequencies that demand for these bands will grow in the coming years. It is generally good regulatory practice to modify regulation in advance of demand occurring and hence we do not accept that a lack of clear evidence of demand at this stage should imply that we do not proceed with these proposals.

### **Proposed way ahead**

- 1.12 In our consultation we indicated that we were keen to move ahead at a European level, bringing benefits such as economies of scale and roaming. Proceeding at a European level was supported by many respondents both as a way of achieving the benefits set out above and enabling further study of the interference potential, where this was felt necessary.
- 1.13 As a result, we propose to take this work forwards into Europe, seeking to have CEPT undertake additional studies with the aim of ultimately seeing a common European position emerge. We will continue to review this approach as the work moves ahead.