



## Joint response from the Radio Society of Great Britain, UK Microwave Group and Amsat-UK.

### Introduction

This response is a joint one from the Radio Society of Great Britain (RSGB, [www.rsgb.org.uk](http://www.rsgb.org.uk)) and its affiliates UK Microwave Group (UKuG, [www.microwavers.org](http://www.microwavers.org)) and Amsat-UK ([www.uk.amsat.org](http://www.uk.amsat.org)). It follows earlier responses [1, 2] made to the consultations on ECC Decisions (06)04 [3] and (06)EE [4]. Decision ECC/DEC(06)04 identified the 6-8.5GHz band for long-term UWB operation in Europe, but we remain concerned by its commendable approach being undermined by decisions in lower bands and for higher power applications. This submission provides brief comments to a number of recent ERO UWB related documents

### Draft Report 94 on Technical Requirements for UWB LDC Devices

As it states in Section-2 of the report, it is exclusively concerned with fixed Wimax protection and ignores other weak signal flux services in the 3.40-3.41GHz band, which includes both Amateur Services and Primary Airborne Radar as highlighted in previous submissions to TG3.

Furthermore we are also concerned with the subjective assumptions on LDC-UWB applications and the limited nature of UWB testing. Section-4 totally omits UWB LDC devices which could easily encompass a very large number of Wireless-USB PC devices. These include peripheral devices such as keyboards, mice, VoIP phones, certain PC display devices (where there are limited changes on screen) etc. In contrast it concentrates on UWB asset tracking systems that probably form a very small minority of overall applications (and which would probably compete with Zigbee).

Section-5 on UWB testing uses a prototype UWB device and antenna developed by FT R&D over a very short 0.5m distance. It does not use more commonplace UWB equipment from major vendors such as Freescale or Intel. In this respect whilst the work is useful, the results are rather specific to the conditions and technology used. Given the significance and often controversial nature of UWB decisions, we consider that a wider range and more representative set of hardware and conditions is undertaken if Report-94 is to serve as a reliable reference for wide ranging decisions, notably ECC/DEC(06)LL below.

### ECC/DEC(06)LL on Conditions for UWB with Low Duty Cycle (LDC) in the 3.4-4.8GHz band

This draft decision is largely based on Draft Report 94, which is stated to be applicable to all radio services. As we comment above, the report in our opinion needs further work and is too narrow a basis for this general-purpose decision. Having said that the limits in Annex-1 (< 5% in 1s and <0.5% per hour) duty cycle seem to be of the right order. However we again request as per [2] that this decision apply to 3.41GHz+ rather than 3.40GHz+.

### ECC/DEC(06)GG on Ground Probing and Wall Probing Radars (GPR & WPR)

These devices can occupy a wider range of frequencies from HF upwards compared to UWB communications SRDs. Our main comment on this is that the CEPT draft decision is predicated on modest past usage and a licensed regime (as in Considerations and Annex-2). In practice it is likely that many regulatory authorities will wish to make them licence-exempt, in which case their numbers are likely to rise considerably as both Professionals and DIY Enthusiasts will employ them far more than previous assumptions. We would therefore strongly endorse the power limits and other controls in Annex-1, and request an additional clause to cover licence-exemption situations, precautionary labelling as well as a future review.

## **ECC/DEC(06)KK on Building Material Analysis (BMA) Devices**

As per our comments on Draft Decision GG we query whether the assumptions on numbers are sound as licence-exempt concentrations of use could occur on construction sites etc. Our concern is increased as the stated power levels can be 35dB above that recommended in Report-64 [5] and may be radiated outdoors. Whilst we would support precautionary labelling, this should be more generic so that users respect requests from any victim service rather than just RAS sites.

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We again thank CEPT for this opportunity to comment. We would be pleased to provide additional information on request or participate in any future discussions.

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RSGB, UKuG & Amsat-UK, September 2006

## **References**

- [1] "Joint Response from the Radio Society of Great Britain, UK Microwave Group and Amsat-UK" to Draft ECC Decision (06)AA, 23-December 2005
- [2] "Joint Response from the Radio Society of Great Britain, UK Microwave Group and Amsat-UK" to Draft ECC Decision (06)EE, 27-May 2006
- [3] CEPT Draft ECC Decision (06)AA, "On Harmonised Conditions for Devices Using UWB Technology in Bands Below 10.6GHz", November 2005 – now adopted as ECC/DEC(06)/04, March 2006
- [4] CEPT Draft ECC Decision (06)EE, "On Harmonised Conditions for Devices Using UWB Technology in the Frequency Band 3.1-4.8GHz", March 2006
- [5] "The Protection Requirements of Radiocommunications Systems Below 10.6GHz from Generic UWB Applications", CEPT Report 64, Helsinki, February 2005