

# Cover sheet for response to an Ofcom consultation

## BASIC DETAILS

Consultation title:  Ultra-Wideband

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Representing (self or organisation/s): Self as a radio amateur and   
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Address (if not received by email):

## CONFIDENTIALITY

What do you want Ofcom to keep confidential?

Nothing is OK  Name/address/contact  
details/job title

Whole response  Organisation

Part of the response  If there is no separate annex, which parts?

If you want part of your response, your name or your organisation to be confidential, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

Yes

No

**DECLARATION**

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom's website, unless otherwise specified on this cover sheet, and I authorise Ofcom to make use of the information in this response to meet its legal requirements. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Name

John Wood

Signed (if hard copy)

## Ultra-Wideband

### Consultation Questions and Answers

Q1: Are these the appropriate topics to be consulting on?

I would agree that Ofcom should be actively consulting on this new technology since it has widespread implications for many services that presently use the 3.1 to 10.6 GHz bands.

Against the 4 points mentioned:

1. Yes Ofcom needs to understand and then conclude with a regulatory opinion on UWB.
2. It sounds like Ofcom and the other committees have by no means considered all the issues that will need to be considered. In addition, I am surprised at how many CEPT Reports are declared by Ofcom as conservative and likely to be overcome. Please participate in CEPT until agreement reached.
3. Preference should follow the conclusion of activity #1 and not be prejudged.
4. Influencing and cooperating within the UWB activities of ITU, CEPT and EC should be of the upmost importance. These international committees with technical teams will give best technical judgement rather than be weighted by commercial considerations

Given the history of radio regulation and co-operation, item 4 should be given the highest level of support. The remaining points will follow in due course. However as we all know from experience, international co-operation and consensus can take considerable time. Ofcom has not indicated timeframes for reaching its final opinion but hopefully it will stay guided by CET and EC at all times.

I find the title of section 6.2 "The balance of the evidence currently seems to favour UWB" to be very disturbing as if prejudgement has occurred within Ofcom.

Q2: Do you agree with this analysis of our statutory duties?

Are there any important factors that have been omitted?

The first statement of duty that "If UWB can be deployed without undue interference to other authorised services ..." is key. Since this statement has not been substantiated then all other suppositions are speculation. Your wording takes this for granted and then makes the benefits look worthwhile.

Q3: Do you agree with the economic study? Are there other studies that Ofcom should be conducting?

The study is described as an incomplete study so initial response is that recommendations cannot be accepted. Other issues may prevail.

Q4: Is there a better way that future use of the spectrum could be taken into account?

Polluting such a large amount of valuable spectrum with UWB does not follow previous regulatory standards. As the first chairman for the Radiocommunications Agency "Radio System Working Group" I can speak from experience that every licensed user was interested in agreeing the link planning and protection rules. -40dbm/Hz is huge and will dominate all interference estimations.

Q5: What is the most appropriate solution to the potential interference from UWB to BFWA?

BFWA is one of several services to be affected.

It should be remembered that mobile operators also use these frequencies (3-10G) for backhaul from BTS to Switch Sites. Bringing down a high capacity radio link will affect thousands of users in many operational cells.

Q6: Would it be possible to achieve sufficient isolation between radio astronomy and UWB through practical methods of physical separation?

Needs a study by experts.

Q7: Are there any other options that we should consider?

The main pressure seems to protecting mobile users only. See Q8 response.

Q8: Are there any major technical studies that we have omitted?

**No mention of amateur radio service. Are there other users in the 3 to 10G band not covered? As a minimum, as the main UK regulator I would expect Ofcom to show that all services in the 3-10G frequencies have been reviewed and present the resulting reports.**

Some input on this for your consideration:

In the amateur radio world, much work is done on weak signal operating levels both for terrestrial and satellite links. Considering that the receiver bandwidths are typically 1kHz, i.e. at least 30dB lower thresholds than wideband commercial radio links, the interference from UWB will be enormous. A radio amateur will have no control over his neighbours UWB equipment, so all he will hear is noise. There are 3 amateur bands in the 3 to 10G range. Please ensure that UK studies are made to confirm the impact of UWB.

- Q9: Have we made an accurate assessment of the existing studies?  
No. How can Ofcom differ so significantly with so many ECC conclusions. It is very important that all of Ofcom's comments are considered within CEPT and if agreed are included in the final recommendations.
- Q10: Do you agree that we should seek a common European framework for the introduction of UWB?  
Yes, it must be all or nothing.
- Q11: Have we proposed the most appropriate mask?  
Will it be possible to deliver equipment conforming to this mask?  
Technical experts to confirm.
- Q12: To what extent should we define parameters such as those listed above?  
What is the most appropriate definition for each of these parameters?  
Technical experts to confirm.
- Q13: Is our proposed approach to international bodies appropriate?  
For all of the reasons above, most definitely yes
- Q14: How should we best deal with the precedent potentially set by our proposed approach to UWB?  
**This tears up all the link planning rule books in every country. An innovative idea but to many it will generate impossible protection scenarios.**
- Q15: What should Ofcom's role be in setting and monitoring EMC standards?  
Participate in EC, CEPT etc as is the accepted norm.