



# Licence Exemption of Wireless Telegraphy Devices

Statement to second consultation

Statement

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## Section 1

# Executive summary

- 1.1 We have decided that the frequency allocation which should replace the 10.675 to 10.699 GHz band for new licence exempt Short Range (radio-determination) Devices will be 10.575 to 10.6 GHz.
- 1.2 This decision follows our recent consultations, “Licence Exemption of Wireless Telegraphy Devices” published on 26 July 2012 (the ‘Licence Exemption Consultation’)<sup>1</sup> and the subsequent “Licence Exemption of Wireless Telegraphy Devices; Statement and further consultation” (the ‘10.5 GHz Consultation’) published on 13 December 2012<sup>2</sup>.
- 1.3 In the Licence Exemption Consultation we proposed the closure of the 10.675 to 10.699 GHz band, giving eighteen months notice, after which no new Short Range Devices (SRD) would be able to be deployed. Equipment in use prior to the closure date will continue to be licence exempt. A number of respondents to that consultation advised that the proposed alternative allocation for radio-determination applications in the 10.577 to 10.597 GHz band did not provide sufficient bandwidth to meet their operational needs. Consequently, in the light of these responses, we identified a possibility to extend the current exemption for radio-determination applications at 10.577 to 10.597 GHz in order to meet industry concerns. This we proposed (in the 10.5 GHz Consultation) to do by extending the current exemption by 5 MHz to 10.575 to 10.6 GHz. All other existing requirements for operation in the 10.5 GHz band are to remain the same.
- 1.4 We received four responses to the 10.5 GHz Consultation. These are listed in Annex 1 of this document and copies of the responses are available on our website<sup>3</sup>. We have given consideration to the comments that were raised and these are addressed in Section 2 of this document.
- 1.5 In order to implement our decisions from the Licence Exemption Consultation and 10.5 GHz Consultation we will need to make licence exemption regulations under section 8 of the Wireless Telegraphy Act 2006 (the ‘WT Act’). In accordance with the requirements of sections 122(4) and (5) of the WT Act we must give notice of our proposal to make the regulations and allow a time period of at least one month for representations to be made. We expect to consult on proposed regulations shortly.

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<sup>1</sup> <http://stakeholders.ofcom.org.uk/consultations/wireless-telegraphy-devices-2/>

<sup>2</sup> <http://stakeholders.ofcom.org.uk/consultations/licence-exemption-wireless/>

<sup>3</sup> <http://stakeholders.ofcom.org.uk/consultations/licence-exemption-wireless/?showResponses=true>

## Section 2

# Responses to the 10.5 GHz Consultation

- 2.1 We received four responses to the 10.5 GHz Consultation. These were all non-confidential; however two respondents wished their identity to be withheld. The responses and our comments are summarised below under the heading of the question posed in the consultation.

## Responses

*Question 1): Do you agree with Ofcom's proposal to extend the current 10.577 to 10.597 GHz radio-determination allocation to 10.575 to 10.6 GHz?*

- 2.2 All the respondents agreed with our proposal to extend the 10.577 to 10.597 GHz by a further 5 MHz. The Low Power Radio Association (LPRA) and two anonymous respondents agreed that the proposal would satisfy the minimum technical requirements needed for their systems and that the change in frequency could be achieved in eighteen months as proposed by Ofcom. One anonymous respondent advised that the increased bandwidth of this proposed allocation would enable them to continue to offer products that are sufficiently spaced in frequency to avoid mutual interference problem.
- 2.3 The two anonymous respondents raised an issue that the new 10.575 to 10.6 GHz band is currently used by temporary outdoor traffic lights. They advise that this band has not been widely explored for use by security equipment because of the potential for interference from these systems. Since many of these systems are portable, they can be deployed at short notice, posing the potential for intermittent interference problems and potentially could be used as an intentional "jammer". They advised that the extended allocation of 10.575 to 10.6 GHz would subject equipment in this band to the same concerns.
- 2.4 We note the concern that the 10.575 to 10.600 GHz band is not exclusive to indoor applications. However, the likelihood of outdoor applications, such as temporary traffic lights (these are also radio-determination devices operating under the same standard), being within close proximity of indoor applications, such as motion sensors, remains low. In particular, the likelihood of directional antenna of indoor to outdoor systems physically pointing towards each other is likely to be even lower. The European recommendation for SRD, ERC Rec 70-03 does not restrict applications to indoor use and therefore Ofcom does not have the evidence to make this proposed restriction.
- 2.5 LPRA and the two anonymous respondents advised that they would have preferred the UK allocation to be in the 10.5 to 10.55 GHz band with a minimum allocation of 40 MHz to align with some other European countries.
- 2.6 The European recommendation for SRDs, ERC Rec (70-03) Appendix 1 and 3, clearly indicate there is not widespread harmonisation of national allocations within the 9500 to 9975 MHz and 10.5 to 10.6 GHz bands across European Member States. In many cases, Member States note there is military use in the 9 GHz bands. This is also true in the UK where high power military radar operate across these

bands. In respect of the 10.5 GHz band, as advised in paragraph 2.11 of the 10.5 GHz Consultation, it has not been possible to extend the band wider than 25 MHz, due to the need to protect primary services.

- 2.7 The LPRA acknowledged that the 10.475 to 10.575 GHz spectrum was allocated in 2007 for Fixed Wireless Access (FWA) applications, but requests information on the subsequent take up of licenses and actual usage of this spectrum.
- 2.8 As part of our award of spectrum in 2008 two national licences were issued to the companies listed in Table 1.

**Table 1 – 10.5 GHz licence details**

Licensee	Frequency
Digiweb Limited	TX: 10.205 GHz - 10.225 GHz RX: 10.555 GHz - 10.575 GHz
Mobile Broadband Network Limited as Agent of Everything Everywhere and Hutchison 3G UK Limited	TX: 10.125 GHz - 10.205 GHz RX: 10.475 GHz - 10.555 GHz

- 2.9 Ofcom does not routinely collect or hold information on actual usage of this spectrum and it should be noted that the terms of the original award did not place any coverage or rollout obligations on licensees. These licences can be traded and licensees have the ability request a variation that would permit them to lease all or part of their spectrum to other users.
- 2.10 The LPRA also was of the opinion that co-existence of indoor radio determination applications (possibly with a reduced maximum EIRP limit) with FWA applications in the 10.5 to 10.55 GHz is possible and urged Ofcom to investigate this further.
- 2.11 Ofcom is an evidence-based regulator and will consider cases for change if evidence is provided. In the case of licence exempt SRDs this is based on compatibility analysis. Carrying out such compatibility assessments can take significant resources, for this reason most of this work is carried out by CEPT and European Telecommunications Standards Institute (ETSI). These bodies are open to industry and we would urge the LPRA and others to approach these organisations in order to instigate the appropriate work items. The benefit to industry of this approach is that it may lead to greater harmonisation of the band across Europe.

## Our decision

- 2.12 Based on the responses we have received, we are going to go ahead with our proposals to extend the 10.577 to 10.597 GHz band by 5 MHz. In line with our earlier decision we will be closing the 10.68 to 10.7 GHz band to new deployments eighteen months after the regulations come into force.

## Next steps

- 2.13 In accordance with the requirements of sections 122(4) and (5) of the WT Act we must give notice of our proposal to make the regulations and allow a time period of at

least one month for representations to be made. It is our current expectation that we will publish our draft regulations by spring 2013.

## **Annex 1**

# **Responses**

**BEAMA Limited**

**Low Power Radio Association (LPRA)**

**Name withheld**

**Name withheld 2**