

The Consultation

Wireless Telegraphy Licence Exemption

The Response of Motorola Ltd.

Motorola is grateful for the opportunity to contribute to the process of amendment of the licence-exemption arrangements in the UK. We are pleased to offer the following points:

Overview of Key Points

1. Motorola supports the extension of licence-exemption to the greatest extent possible in order to promote efficiency and ease of access for consumers and enterprise users to communications solutions. However, over-extension of the scope of licence-exemption can, in certain applications lead to interference (in various forms) that may result in loss of communications leading to inefficiencies that far outweigh the potential gains or are even potentially dangerous (depending on the application).
2. Motorola has examined the proposals and agrees with them in the main.
3. Motorola agrees with the policy to extend the PMR446 band to include the range 446.1 to 446.2MHz for licence-exempt operation. However, we do not agree that it is appropriate to introduce two mutually incompatible channel raster schemes in the same band as that significantly increases the probability of interference between the 6.25kHz and 12.5kHz systems to the detriment of the new users and the incumbents. We request that both the rasters be aligned to the centre frequencies of the 12.5kHz pattern (as used by the incumbents) to reduce this problem substantially.
4. We note the proposal to introduce RFIDs into the 2.4GHz band operating at 500mW. We consider this has implications on other critical applications like WiFi and so we are pleased with the opportunity to contribute to the current review of power levels¹ with a recommendation to increase power levels.
5. **Motorola strongly supports the proposals to remove the restriction against fixed operation in Bands A and B (page 36).** We regard this as an essential step towards making practical access solutions in the 5GHz range due to the need to connect to the final access point.

¹ Consultation on: Higher power limits for licence-devices (12th July). Motorola believes that there is a valid case for a general increase in licence-exempt power levels for RLANs at 2.4GHz (to 500mW or even perhaps 1W) but higher power levels should be restricted to rural applications subject to a light licensing regime. We further agree with the additional proposals to increase power levels at 5GHz to 4W.

Detailed Questions

Question 1) Do you agree with Ofcom's proposal to exempt users of Citizen's Band (CB) radio (and other related applications such as Community Audio Distribution) from the need to possess a Wireless Telegraphy Licence.

No comment.

Question 2) Do you agree with Ofcom's proposals to permit the use of "Micro" FM transmitters in the UK, and to authorise that use by licence exemption.

No comment.

Question 3) Do you agree with Ofcom's proposals to exempt users of High Density Fixed Satellite Services (HDFSS) terminals from the need to possess a Wireless Telegraphy Licence.

Motorola notes that the band proposed by Ofcom for HDFSS does not overlap with the bands recently proposed for broadband operation. Instead the proposed licence-exempt use is restricted to spectrum already set aside for satellite purposes. We therefore support this proposed arrangement.

Question 4) Do you agree with Ofcom's proposals to exempt users of Inmarsat GAN terminals from the need to possess a Wireless telegraphy Licence.

No comment.

Question 5) Do you agree with Ofcom's proposals to make available the frequency 24.05-24.25 GHz for use by short range radar (including automotive applications) devices on a licence-exempt basis.

No comment

Question 6) Do you with Ofcom's proposals to make available the band 2.4 GHz-2.4385 GHz for movement detection systems.

No comment

Question 7) Do you with Ofcom's proposals to remove the need for users of most radar level gauge equipment to possess a Wireless Telegraphy Licence.

Yes

Question 8) Do you agree with Ofcom's proposals to exempt users Digital PMR 446 from the need to possess a Wireless telegraphy Licence.

With the power limitations etc. of figure 4 we believe that proposals (modified as below) for licence exemption could be beneficial.

We are concerned that the proposed scheme will require two new technologies to have misaligned centre frequencies whereby the probability of overlapping pass-bands is doubled thus resulting in not only increased interference to the incumbents but also between both the new technologies being deployed.

We are concerned that the inclusion of technologies operating on 6.25kHz channel spacing will lead to confusion if not addressed. This is because even though there is an ETSI standard covering the operation of such equipment, the standard is extremely clear that operation is not limited to apparatus having an integral antenna. Socket antennae are by implication assumed by the specification².

We would propose the application of the parameters of figure 4 (transmit power limit etc.) and with the 6.25kHz centre frequencies aligned to be on-channel and between 12.5kHz channels to maximise the opportunity for the new services and limit the interference to the incumbents. In relation to the use of integral antenna, we would assume that this would be reinforced and mandatory.

If it is impossible to have regulations that align centre frequencies in the manner proposed, we would secondarily propose that for the purposes of the new equipment, half the new 100kHz band be arranged for one channel raster and the other half for the second channel raster.

We consider that introducing regulations that will clearly act to unnecessarily increase interference in this band is an unwelcome potential precedent that could influence other bands directly or indirectly³.

Question 9) Ofcom would welcome comments on its proposals to implement these changes concerning short range devices.

In general Motorola supports the proposals for short range devices (including that the term RLANS will be replaced by WDTS). We are concerned that the new term should not be applied to exclude the introduction of VoIP schemes that already operate in large numbers in this band through the use of portable computers. The VoIP systems are neither wideband nor 'data' in the traditional sense.

Therefore we would prefer that the situation regarding the use of this term in the title be clarified such that it definitely does preclude the use of data-encoded voice communication which operate at rates even less than 5kB/s (for lower quality VoIP schemes).

² EN 310 166-2 The Scope refers

³ The Consultation on Business Radio Trading and Liberalisation (6th July 2006) has very similar proposals that also result in mixed rasters in the same band. In this case the proposals are for licensed spectrum. Motorola considers this development most unwelcome and that it may act to significantly reduce the economic and societal value of the band.

In this regard we are very supportive of the proposal to remove the requirement for a minimum aggregate bit rate of 250kB/s.

Question 10) Ofcom would welcome comments on its proposals to implement EC Decision 2005/928/.

No comment

Question 11) Ofcom would welcome comments on its proposals to implement EC Decision 2005/513/.

Motorola is encouraged by the proposal to align with the Decision. And thus remove the restriction against fixed operation in bands A and B. We strongly support this as an essential requirement for the deployment of services, recognising the practical need to provide a connection to the final access point.

We further acknowledge the necessity of removing the restrictions on the modulation types that can be used.

The other proposals to remove restriction currently in place and which go beyond the Decision would appear entirely appropriate in the interests of harmonisation.

Question 12) Ofcom would welcome comments on any of the minor changes set out in this chapter and any other broader issues in relation to its approach to licence exemption.

Motorola broadly supports these proposals.

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No comment.

If there are any questions relating to this response please refer them (in the first instance) to

Tim Cull
Motorola Ltd.