

Response from Dave Sims
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Re: Q7 “Which, if any, frequency bands identified in Appendix B are not suitable for the introduction of public telecommunication services and why?”

458.5 to 458.95 MHz Band.

This band is currently used predominately by industrial systems with relatively simple equipment and protocols. Many of the channels within the band can be safely shared with other users as transmissions tend to be short and a protocol which allows for re-tries normally overcomes collision problems. This would not be the case if high density traffic were allowed on the band.

Most systems using this band use ‘off the shelf’ modems and the techniques mentioned in the second bullet point of paragraph 2.2 of the paper are not generally available on this equipment. If these techniques were introduced they would probably be costly to develop and apply to existing systems. This would be exacerbated as the modifications would only be required for the UK.

We are involved in the provision of variable message signs for traffic information, car parking capacity information and real time passenger information signs for local authorities and public transport operators. These systems typically need a number of channels with an operating range of 1 to 5 kilometres. Our investigations lead us to believe that it is almost impossible to be allocated licensed frequencies for this type of use, particularly as we need to be able to locate systems anywhere in the UK.

This band is particularly suitable for these types of equipment as the propagation characteristics permit communication across a few kilometres even with aerials 3 or 4 metres above ground level in urban areas. However, the restricted maximum power (500mW) ensures that channel reuse a few kilometres away is possible.