

# UK Interface Requirement 2006

Wireless Access Systems (WAS) including RLANs operating in the 5150-  
5725 MHz band

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## Section 1

# References

- 1.1 ECC/DEC/(04)08      ECC Decision of 12 November 2004 on the harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/ RLANs)
- 1.2 2005/513/EC      Commission Decision of 11 July 2005 on the harmonised use of radio spectrum in the 5 GHz frequency band for the frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs)
- 1.3 EN 301 489      Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17; Specific conditions for Wideband data and HIPERLAN equipment
- 1.4 EN 301 893      Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

## Section 2

# Foreword

- 2.1 The Radio Equipment and Telecommunications Terminal Equipment Directive 99/5/EC (R&TTE Directive) was implemented in the United Kingdom (UK) on the 8 April 2000 by The Radio Equipment and Telecommunications Terminal Equipment Regulations 2000, Statutory Instrument 2000 No. 730. In accordance with Articles 4.1 and 7.2 of Directive 1999/5/EC, this UK Interface Requirement contains the requirements for the use of Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band.
- 2.2 Nothing in this UK Radio Interface Requirement shall preclude the need for equipment to comply with Directive 1999/5/EC.
- 2.3 It is required by the Wireless Telegraphy Act 1949 that no radio equipment is installed or used in the UK except under the authority of a licence granted by or otherwise exempted by regulations made by Ofcom. It is a condition of such a licence or exemption regulations as appropriate that, in order to be installed or used in the UK, the equipment must meet the minimum requirements specified in this UK Interface Requirement for the stated equipment types and for the stated frequency bands. Nothing in this UK Interface Requirement shall preclude equipment from being placed on the market in the UK that complies with the 'essential requirements' specified in Directive 1999/5/EC.
- 2.4 The requirements given in the main body of this UK Radio Interface Requirement will apply to the use of Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band.
- 2.5 This UK Radio Interface Requirement will be revised as necessary, for example to follow:
  - i) current technology developments for reasons related to the effective and appropriate use of the spectrum in particular maximising spectrum utilisation; and
  - ii) changes to the available spectrum allocated for use of Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band.
- 2.6 All UK Radio Interface Requirements notified under Directive 1998/34/EC will be published and will be made available free of charge from the Ofcom web-site at [http://www.ofcom.org.uk/radiocomms/ifi/tech/interface\\_req/](http://www.ofcom.org.uk/radiocomms/ifi/tech/interface_req/).
- 2.7 Further information on this UK Radio Interface Requirement can be obtained from the technical enquiry contact given at the back of this document.

### Section 3

# Minimum requirements for operation within the UK

- 3.1 The minimum requirements in this document are made for reasons related to the effective and appropriate use of the radio spectrum, in particular maximising spectrum utilisation.
- 3.2 This UK Radio Interface Requirement gives a high level description of how the spectrum in the UK is used for Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band. It does not prescribe technical interpretation of the 'essential requirements' of Directive 1999/5/EC.
- 3.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the use of Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band. Tables 3.1 and 3.2 contain the relevant equipment parameters. These taken together with the 'essential requirements' detailed in Article 3.2 of Directive 1999/5/EC constitute the minimum requirements for use of Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band. Nothing in this UK Interface Requirement shall preclude equipment from being placed on the market in the UK that complies with the 'essential requirements' specified in Directive 1999/5/EC.
- 3.4 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility within Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band and with other radiocommunications services, whilst promoting enterprise, innovation and competition.
- 3.5 This UK Radio Interface requirement provides the necessary technical information which facilitates access to spectrum allocated to Wireless Access Systems (WAS) including RLANs operating in the 5150-5725 MHz band in the UK. It is not the intention of this UK Radio Interface Requirement to duplicate or impose any additional 'essential requirements' of the Directive 1999/5/EC on products. Any specified parameters within this document are for the purpose of identifying product options and not as a national de facto product requirement.

**Table 3.1: Minimum requirements for the use of: - Wireless Access Systems (WAS) including RLANs operating in the 5150 - 5350 MHz band.**

| <b>Mandatory (1-9)</b>     |                                   |  |
|----------------------------|-----------------------------------|--|
| 1                          | Frequency band                    | 5150-5350 MHz  |
| 2                          | Radio service                     | N/A  |
| 3                          | <b>Application</b>                | RLAN   |
| 4                          | Channelling modulation            | N/A  |
| 5                          | Maximum transmit power limit      | Maximum mean e.i.r.p. of 200 mW<br><br>Maximum mean e.i.r.p. density of 10mW/MHz in any 1 MHz band |
| 6                          | Channel occupation rules          | N/A  |
| 7                          | Duplex type/separation            | N/A  |
| 8                          | Licensing Regime                  | Licence exempt (indoor only)   |
| 9                          | Additional essential requirements | N/A  |
| <b>Informative (10-13)</b> |                                   |  |
| 10                         | Frequency planning assumptions    | DFS and TPC are assumed to be implemented as specified in EN 301 893                               |
| 11                         | Reference                         | EN 301 893   |
| 12                         | Remarks                           | N/A  |
| 13                         | EU Notification Number            | 2006/421/UK  |

**Table 3.2: Minimum requirements for the use of: - Wireless Access Systems (WAS) including RLANs operating in the 5470 - 5725 MHz band.**

| <b>Mandatory (1-9)</b>     |                                   |  |
|----------------------------|-----------------------------------|--|
| 1                          | Frequency band                    | 5470-5725 MHz  |
| 2                          | Radio service                     | N/A  |
| 3                          | <b>Application</b>                | RLAN   |
| 4                          | Channelling modulation            | N/A  |
| 5                          | Maximum transmit power limit      | Maximum mean e.i.r.p. of 1W<br><br>Maximum mean e.i.r.p. density of 50mW/MHz in any 1 MHz band |
| 6                          | Channel occupation rules          | N/A  |
| 7                          | Duplex type/separation            | N/A  |
| 8                          | Licensing Regime                  | Licence exempt   |
| 9                          | Additional essential requirements | N/A  |
| <b>Informative (10-13)</b> |                                   |  |
| 10                         | Frequency planning assumptions    | DFS and TPC are assumed to be implemented as specified in EN 301 893                           |
| 11                         | Reference                         | EN 301 893   |
| 12                         | Remarks                           | N/A  |
| 13                         | EU Notification Number            | 2006/421/UK  |

## Section 4

# Additional performance parameters

(Informative) Table 4.1: Nominal Carrier Frequency

| <b>Band designation</b> | <b>Carrier centre frequency <math>f_c</math> (MHz)</b> |
|-------------------------|--|
| A                       | 5180   |
| A                       | 5200   |
| A                       | 5220   |
| A                       | 5240   |
| A                       | 5260   |
| A                       | 5280   |
| A                       | 5300   |
| A                       | 5320   |
| B                       | 5500   |
| B                       | 5520   |
| B                       | 5540   |
| B                       | 5560   |
| B                       | 5580   |
| B                       | 5600   |
| B                       | 5620   |
| B                       | 5640   |
| B                       | 5660   |
| B                       | 5680   |
| B                       | 5700   |

## Section 5

# Contact details

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- Website: <http://www.ofcom.org.uk/radiocomms/>

## Section 6

# Document history

| Version | Date       | Changes   |
|---------|------------|---|
| 1.0     | 15 12 2000 | First Publication   |
| 2.0     | 04 08 2006 | Changes implemented to reflect EC Decision 2005/513/EC. Changes include removal of mandatory channel plans, service usage and modulation restrictions as well as moving maximum e.i.r.p. density levels to the mandatory part of the Interface Requirement. |
| 3.0     | 14 11 2006 | Service changed from "Mobile" to "N/A", "Draft" removed   |
|         |            |   |