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## **UK Interface Requirement (IR) 2000**

Point-to-Point Fixed Wireless Systems Operating in  
Fixed Service Frequency Bands Administered by Ofcom

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# 1. Foreword

- 1.1 The Radio Equipment Directive (Directive 2014/53/EU) was implemented in the United Kingdom (UK) by the Radio Equipment Regulations 2017. In accordance with Articles 8 and 7 of Directive 2014/53/EU, this UK Interface Requirement contains the requirements for the licensing and use of point to point fixed link radio systems in the specified frequency bands.
- 1.2 Nothing in this UK Interface Requirement shall preclude the need for equipment to comply with Directive 2014/53/EU.
- 1.3 It is required by the Wireless Telegraphy Act 2006 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 the equipment must meet the minimum requirements specified in this UK Interface Requirement.
- 1.4 The requirements given in the main body of this UK Interface Requirement will apply to the licensing of point to point fixed link systems. All frequency bands administered by Ofcom in the UK for point to point fixed link services are covered. Note: Licence exempt fixed wireless systems within the frequency range 57.1 – 70.875 GHz are not included in this IR but are covered by IR 2078.
- 1.5 This UK Interface Requirement will be revised as necessary to reflect changing requirements.
- 1.6 UK operators and manufacturers have been consulted through the development of this UK Interface Requirement, including the assumptions made for the technical Frequency Assignment Criteria (based on the planning and propagation aspects required to assign point to point fixed link systems).
- 1.7 All UK Interface Requirements notified under Directive 2015/1535/EU will be published and will be made available free of charge from the Ofcom web-site at <http://www.ofcom.org.uk>.
- 1.8 Further information on this UK Interface Requirement can be obtained from the technical enquiry contact given at the back of this document.

## 2. Assignment conditions and frequency planning within the UK

- 2.1 The requirements in this document are made for reasons related to the effective and appropriate use of the radio spectrum, in particular maximising spectrum utilisation.
- 2.2 This UK Interface Requirement gives a high-level description of how the spectrum in the UK is used for point to point fixed link systems. It does not prescribe technical interpretation of the 'essential requirements' of Directive 2014/53/EU.
- 2.3 This UK Interface Requirement therefore sets out the channel occupation rules and frequency planning assumptions appropriate to each of the frequency bands set out in Table 2.1.
- 2.4 Conformance with Harmonised Standards provides a presumption of compliance with those 'essential requirements' of Directive 2014/53/EU as covered by the said Harmonised Standards.
- 2.5 Directive 2014/53/EU requires Member States to notify technical regulations, such as this Interface Requirement, to the European Commission in advance in order to give the Commission and other Member States the opportunity to consider and, if thought fit, object to their implementation.
- 2.6 The Technical Frequency Assignment Criteria, referenced in Annex A1, Table A, describe the principles used in the EIRP/channel assignment process. Assignment methodology is based on reasonable use of equipment and assignment principles to encourage efficient use of the radio spectrum. Ofcom may, for spectrum management purposes, preclude systems that are not considered suitable for deployment in the UK.
- 2.7 The UK believes that this UK Interface Requirement brings maximum benefit to the point to point fixed links industry while promoting enterprise, innovation and competition.
- 2.8 This UK Interface Requirement therefore sets out the (high level) assignment conditions and planning assumptions made with respect to the planning of point to point fixed link systems in the UK.

**Table 2.1: Minimum equipment requirements**

2015/535/EU Notification number/ Date	Frequency Range (M/GHz)	Channelling	Channel Occupation Rules	Assignment Conditions	Remarks
2008/0363/UK	1350 –1517 MHz	CEPT Recommendation T/R 13-01E		See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	The 1.4 GHz band was closed on 5 January 2019 to new assignments and technical variations.
2008/0363/UK	3600 –4200 MHz	CEPT Recommendation 12-08E		See notes 1, 4, 5, 6, 10, 12 and 14 in Table A1 of Annex A	
2008/0363/UK	5925 –6425 MHz	CEPT Recommendation 14-01E		See notes 1, 4, 5, 6, 10, 12 and 14 in Table A1 of Annex A	
2008/0363/UK	6425 –7125 MHz	CEPT Recommendation 14-02E CEPT Recommendation 14-06E		See notes 1, 4, 5, 6, 10, 12 and 14 in Table A1 of Annex A See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	

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2008/0363/UK	7425 –7900 MHz	ITU-R Recommendation F.385-6, Annex 4	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	
2016/328/UK	7900 –8500 MHz	ITU-R Recommendation F.386-9 Annex 5	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	Assignments are subject to shared access and co- ordination with the MoD.
2008/0363/UK	12.75 – 13.25 GHz	CEPT Recommendation 12-02E	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	
2008/0363/UK	14.50 – 15.35 GHz	CEPT Recommendation 12-07E	See notes 1, 3, 5, 6, 7, 10, 12 and 14 in Table A1 of Annex A	
2008/0363/UK	17.7 - 18.45625GHz paired with 18.70 - 19.46625 GHz	CEPT Recommendation 12-03 E	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	
2008/0363/UK	18.4625 - 18.7 GHz paired with 19.4705 - 19.70 GHz	ITU-R Recommendation F.595 (for 3.5 MHz and 7 MHz assignments)	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A	

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2008/0363/UK	22.00 – 23.60 GHz	CEPT Recommendation T/R 13-02E	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A
2008/0363/UK	24.50 – 26.50 GHz	CEPT Recommendation T/R 13-02E, Annex B	See notes 1, 3, 5, 6, 10, 12 and 14 in Table A1 of Annex A
2008/0363/UK	31.00 – 31.80 GHz	Technical Frequency Assignment Criteria OfW31 National channel plan based on 28 MHz raster with duplex spacing equal to 500.5 MHz	See notes 2, 6, 10, 12 and 15 in Table A1 of Annex A
2008/0363/UK	37.00 – 39.50 GHz	CEPT Recommendation T/R 12-01E	See notes 1, 3, 5, 6, 10,12 and 14 in Table A1 of Annex A

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2008/0363/UK	51.40 – 52.60 GHz	CEPT Recommendation 12-11E	See notes 1, 3, 5, 6, 8, 10, 12 and 14 in Table A1 of Annex A
2008/0363/UK	55.78 – 57.00 GHz	CEPT Recommendation 12-12E	See notes 1, 3, 5, 6, 9, 10, 12 and 14 in Table A1 of Annex A
2013/0679/UK	73.375-75.875 and 83.375-85.875 GHz	N/A	See notes 1, 11, 12 and 13 in Table A1 of Annex A
2013/0679/UK	71.125 – 73.125 GHz and 81.125 – 83.125 GHz	CEPT/ECC Recommendation (05).07	See notes 1, 5, 6, 10,12,13 and 14 in Table A1 of Annex A



## A1. Annex A

**Table A1: Assignment and Planning Conditions**

1. For frequency planning purposes it is assumed that the appropriate specifications set out in ETSI EN 302 217 are met but there is no regulatory requirement for operators to use equipment specified in this ETSI standard.
2. For frequency planning (spectrum management) purposes It is assumed that the appropriate specifications set out in ETSI EN 300 632 and ETSI EN 302 217 (antennas) are met but there is no regulatory requirement for operators to use equipment specified in these documents.
3. Frequency Planning - Radio systems meeting ETSI spectral efficiency class 2 and above which meet the stated channel arrangements may be deployed in this band.
4. Frequency Planning - Radio systems meeting ETSI spectral efficiency class 4 and above which meet the stated channel arrangements may be deployed in this band.
5. Operators will be encouraged to use higher performance antenna options on congested sites. They may also be advised to use a higher performance antenna when assignments are otherwise impossible.
6. The operational EIRP will be determined on the basis of the minimum power required to meet the propagation availability requirements of the applicant and will be specified as a licence condition.
7. National Co-ordination with the Ministry of Defence will be required due to a 1 MHz incursion into the NATO band 14.62 – 15.23 GHz by the lower edge of the sub-band 15.229 – 15.35 GHz, for the lowest specified channel.
8. Staged band release: the first stage covers sub-bands 51.40 – 51.608 GHz duplexed with 52.056 – 52.224 GHz.
9. Staged band release: the first stage covers sub-bands 55.780 – 56.010 GHz duplexed with 56.458 – 56.626 GHz.
10. Licensed band - inter and intra service sharing studies and co-ordination functions performed by Ofcom (or on behalf of Ofcom).
11. Light licensed band - no formal sharing studies or co-ordination functions performed by Ofcom.
12. Ofcom will consult and agree frequency band management strategies with industry regarding the use of state of the art radio equipment and antennas in the UK.
13. Based on consultation with industry, maximum transmitter output power is limited to a value of 30 dBm for the 71-76 and 81-86 GHz frequency bands. EIRP is limited to 55 dBW in these bands as per Article 21 of the Radio Regulations.

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14. Technical Frequency Assignment Criteria is specified in document ofw446, published by Ofcom.

15 Technical Frequency Assignment Criteria is specified in document ofw31, published by Ofcom.

## A2. Document history

Version	Date	Changes
5.0	09 2003	<ul style="list-style-type: none"> <li>▪ Published.</li> </ul>
6.0	07 2005	<ul style="list-style-type: none"> <li>▪ Revision of Assignment and Planning Conditions at 58 GHz plus editorial changes.</li> </ul>
7.0	09 2006	<ul style="list-style-type: none"> <li>▪ Removal of Minimum Path Length constraint from Channel Occupation Rules.</li> <li>▪ Editorial corrections.</li> </ul>
8.0	06 2008	<ul style="list-style-type: none"> <li>▪ Removal of regulatory arrangements for the 31.8 to 33.4 GHz frequency band.</li> <li>▪ Removal of Assignment &amp; Planning conditions associated with the 'site clearance process'.</li> <li>▪ Editorial changes.</li> </ul>
9.0	07 2010	<ul style="list-style-type: none"> <li>▪ Removal of regulatory arrangements for the 57 – 59 GHz frequency band from this IR. These arrangements are now covered by IR 2078 "Fixed Wireless Systems in the frequency band 57.1– 63.9 GHz".</li> </ul>
9.1	05 2011	<ul style="list-style-type: none"> <li>▪ Editorial changes.</li> </ul>
10.0	08 2012	<ul style="list-style-type: none"> <li>▪ Relaxation of Assignment and Planning Conditions for the 4 and 6 GHz frequency bands.</li> </ul>
11.0	12 2013	<ul style="list-style-type: none"> <li>▪ Includes new regulatory arrangements for the 71 – 76 GHz and 81 – 86 GHz frequency bands.</li> </ul>
12.0	03 2014	<ul style="list-style-type: none"> <li>▪ Updated following the EC consultation</li> </ul>
13.0	11 2018	<ul style="list-style-type: none"> <li>▪ Removal of regulatory arrangements for the 64-66 GHz frequency band from this IR. These arrangements are now covered by IR 2030 and IR 2078.</li> <li>▪ Includes regulatory arrangements for the 71-76 GHz and 81-86 GHz frequency bands.</li> <li>▪ Removal of references associated with the Radio Equipment and Telecommunications Terminal Equipment Directive and replace these with the Radio Equipment Directive</li> <li>▪ Editorial changes</li> </ul>
14.0	12 2019	<ul style="list-style-type: none"> <li>• Addition of regulatory arrangements for the 7900-8500 MHz band.</li> <li>• Addition of explanatory text to the 1350 – 1517MHz band entry to highlight the band was closed on 5 January 2019.</li> <li>• Minor document editorial corrections.</li> </ul>
15.0	02 2020	<ul style="list-style-type: none"> <li>• Addition of CEPT Recommendation 14-06E to add low capacity channel options in the upper 6GHz band.</li> </ul>

## A3. Abbreviations

CEPT	European Conference of Postal and Telecommunications Administrations
EN	European Normative (European Standard)
ETSI	European Telecommunications Standard Institute
GHz	Gigahertz
Ofcom	Office of Communications
ITU	International Telecommunications Union
ITU-R	ITU Radiocommunications Sector
MHz	Megahertz
N/A	Not Applicable
NATO	North Atlantic Treaty Organisation

## A4. Contact details

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