

IR 2014 - UK Interface Requirement 2014

Public Wireless Networks

Publication date: August 2005
Date Amended: January 2018
2015/1535/EU Notification number: 2005/245/UK

Contents

Section	Page
1 References	3
2 Foreword	4
3 Minimum equipment requirements for operation within the UK	5
4 Additional performance parameters	10
5 Contact details	11
6 Document history	12

Section 1

References

- 1.1 EN 301 502 - Harmonized EN for Global System for Mobile communications (GSM); Base Station and Repeater equipment covering essential requirements under article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU).
- 1.2 EN 301 511 - Global System for Mobile communications (GSM); Harmonized standard for mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU).
- 1.3 GSM 05.05 - Digital cellular telecommunications system (GSM); Radio transmission and reception.
- 1.4 ERC Report 100 - Compatibility between certain radiocommunications systems operating in adjacent bands. Evaluation of DECT / GSM 1800 compatibility.
- 1.5 Note 1 - These references are included for information purposes only. Compliance with these referenced standards is not mandatory.
- 1.6 Note 2 - Documents listed above are not produced by Ofcom, therefore interested parties should source the documentation by their own means. For information;
 - The ETSI website for technical standard documentation is located at <http://www.etsi.org>
 - The ERO website for technical regulatory documentation including ERC Reports is located at <http://www.ero.dk>
- 1.7 Note 3 - Ofcom is not responsible for the content of external internet sites.

Section 2

Foreword

- 2.1 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 public wireless networks in the specified frequency bands.
- 2.2 Nothing in this UK Radio Interface Requirement shall preclude the need for equipment to comply with Directive 2014/53/EU.
- 2.3 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 for the stated equipment types and for the stated frequency bands.
- 2.4 The requirements given in the main body of this UK Radio Interface Requirement will apply to the licensing of public wireless networks.
- 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 public wireless networks.
- 2.6 All UK Radio 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>
- 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 equipment 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 public wireless networks. It does not prescribe technical interpretation of the 'essential requirements' of Directive 2014/53/EU.
- 3.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the licensing or licence exemption of public wireless networks in the UK. Tables 3.1, 3.2, 3.3 and 3.4 contain the relevant equipment parameters. These together with the 'essential requirements' detailed in Article 3.2 of Directive 2014/53/EU constitute the minimum equipment requirements for public wireless networks within the UK.
- 3.4 The technical parameters specified in the UK radio Interface Requirement are applied to achieve the desired level of compatibility within the public wireless networks 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 the public wireless networks spectrum by making clear the assumptions that are made in planning the use of the public wireless networks spectrum 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 2014/53/EU 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 equipment requirements for mobile stations and repeaters operating in the 880 MHz to 915 MHz band

1	Frequency band (or bands)	880 MHz to 915 MHz
2	Radio service	Mobile Service
3	Application	Public wireless networks
4	Channelling modulation	GMSK or 8-PSK 200 kHz channel raster
5	Transmit power limit	39 dBm Power class 2 37 dBm Power class 3 33 dBm Power class 4 29 dBm Power class 5
6	Channel occupation rules	Time division multiple access (TDMA)
7	Duplex type/separation	Mobile station transmit Repeater transmit/receive Paired carriers 45 MHz above (Table 3.2)
8	Licensing Regime	Network user equipment meeting the minimum requirements outlined in this Interface Requirement is exempt from licensing provided that it meets the requirements of the relevant exemption regulations. WT Act Public Mobile Operator licence required for repeaters.
9	Additional essential requirements	-
10	Frequency planning assumptions	GSM 05.05
11	Reference	EN 301 511
12	Remarks	-
13	Notification Number	2005/245/UK

Table 3.2: Minimum equipment requirements for base stations and repeaters operating in the 925 MHz to 960 MHz band

1	Frequency band (or bands)	925 MHz to 960 MHz
2	Radio service	Mobile Service
3	Application	Public wireless networks
4	Channelling modulation	GMSK or 8-PSK 200 kHz channel raster
5	Transmit power limit	62 dBm EIRP per carrier
6	Channel occupation rules	Time division multiple access (TDMA)
7	Duplex type/separation	Base station transmit Repeater transmit/receive Paired carriers 45 MHz below (Table 3.1)
8	Licensing Regime	WT Act Public Mobile Operator licence
9	Additional essential requirements	-
10	Frequency planning assumptions	GSM 05.05
11	Reference	EN 301 502
12	Remarks	Not all frequencies within this range are available for licensing. Ofcom may impose additional restrictions on the maximum power used for specific frequencies and locations
13	Notification Number	2005/245/UK

Table 3.3: Minimum equipment requirements for mobile stations and repeaters operating in the 1710 MHz to 1785 MHz band

1	Frequency band (or bands)	1710 to 1785 MHz
2	Radio service	Mobile Service
3	Application	Public wireless networks
4	Channelling modulation	GMSK or 8-PSK 200 kHz channel raster
5	Transmit power limit	36 dBm Power class 3 30 dBm Power class 1 24 dBm Power class 2
6	Channel occupation rules	Time division multiple access (TDMA)
7	Duplex type/separation	Mobile station transmit Repeater transmit/receive Paired carriers 95 MHz above (Table 3.4)
8	Licensing Regime	Network user equipment meeting the minimum requirements outlined in this Interface Requirement is exempt from licensing provided that it meets the requirements of the relevant exemption regulations. WT Act Public Mobile Operator licence required for repeaters.
9	Additional essential requirements	-
10	Frequency planning assumptions	GSM 05.05
11	Reference	EN 301 511
12	Remarks	-
13	Notification Number	2005/245/UK

Table 3.4: Minimum equipment requirements for base stations and repeaters operating in the 1805 MHz to 1880 MHz band

1	Frequency band (or bands)	1805 MHz to 1880 MHz
2	Radio service	Mobile Service
3	Application	Public wireless networks
4	Channelling modulation	GMSK or 8-PSK 200 kHz channel raster
5	Transmit power limit	62 dBm EIRP per carrier for the frequency range 1805 to 1879.1 MHz 54 dBm EIRP per carrier for the frequency range 1879.1 to 1880 MHz Use of the frequency range 1876.7 to 1880 MHz may be limited to a maximum EIRP of 23 dBm. See the licences for information on whether this limit is applied.
6	Channel occupation rules	Time division multiple access (TDMA)
7	Duplex type/separation	Base station transmit Repeater transmit/receive Paired carriers 95 MHz below (Table 3.3)
8	Licensing Regime	WT Act Public Mobile Operator licence
9	Additional essential requirements	-
10	Frequency planning assumptions	GSM 05.05
11	Reference	EN 301 502
12	Remarks	Not all frequencies within this range are available for licensing. Ofcom may impose additional restrictions on the maximum power used for specific frequencies and locations.
13	Notification Number	2005/245/UK

Section 4

Additional performance parameters

(informative)

None specified

Section 5

Contact details

Ofcom Spectrum Licensing
PO Box 1285
Warrington. WA1 9GL

Tel: 020 7981 3131

Email: spectrum.licensing@ofcom.org.uk

Website: <https://www.ofcom.org.uk/>

Section 6

Document history

Version	Date	Changes
1.0	15 Dec 2000	Publication
2.0	15 May	Revision to include GSM plus other technical changes
2.1	11 April	Updated cover page and Section 5: contact details
3.0	January 2018	Replaced R&TTE Directive 1999/5/EC and Directive 98/34/EC with Radio Equipment Directive and Directive (EU) 2015/1535 respectively. Minor editorials