

UK Interface Requirements 2015.1 to IR 2015.3

Spectrum Access in the 3400 MHz to 4009 MHz band

Interface Requirement	2015/1535/EU Notification number	Date
IR 2015.1	2011/189/UK	December 2011
IR 2015.2	2011/189/UK	December 2011
IR 2015.3	2011/189/UK	December 2011

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Section 1

References

- 1.1 UK Spectrum Co-ordination Document OfW188 - Co-ordination of licensed services in the band 3605 to 3689 MHz paired with 3925 to 4009 MHz
- 1.2 ETSI EN 302 326: Fixed Radio Systems; Multipoint Equipment and Antennas; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU)
- 1.3 ETSI EN 302 623: Broadband Wireless Access Systems (BWA) in the 3400 MHz to 3800 MHz frequency band; Mobile Terminal Stations; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU)
- 1.4 Commission decision 2008/411/EC of 21 May 2008 on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community

Note: ETSI harmonized ENs can be obtained from the ETSI website at:

<http://www.etsi.org/Website/Standards/Standard.aspx>

Details on how to obtain access to the spectrum noted within this IR are shown at:

<http://spectruminfo.ofcom.org.uk/spectrumInfo/ukpfa>

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 Spectrum Access 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, 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 2014/53/EU.
- 2.4 The requirements given in the main body of this UK Radio Interface Requirement will apply to Spectrum Access in frequency bands within 3400 MHz to 4009 MHz.
- 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 Spectrum Access in frequency bands within 3400 MHz to 4009 MHz.
- 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://stakeholders.ofcom.org.uk/spectrum/technical/interface-requirements/>
- 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 Spectrum Access in frequency bands within 3400 MHz to 4009 MHz. 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 of Spectrum Access in frequency bands within 3400 MHz to 4009 MHz in the UK. IR 2015/1, IR 2015/2 and IR 2015/3 contain the relevant equipment parameters. These taken together with the 'essential requirements' detailed in Article 3.2 of Directive 2014/53/EU constitute the minimum requirements for Spectrum Access in frequency bands within 3400 MHz to 4009 MHz in the UK. 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 2014/53/EU.
- 3.4 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility for Spectrum Access in frequency bands within 3400 MHz to 4009 MHz 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 in frequency bands within 3400 MHz to 4009 MHz by making clear the assumptions that are made in planning the use of Spectrum Access within the bands 3400 – 4009 MHz 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.

IR 2015.1

Minimum requirements for central stations (and repeater stations) operating in the 3400 MHz to 4009 MHz band		
Mandatory (1-10)		
1	Frequency band	3400 MHz to 4009 MHz
2	Radiocommunication Service	Fixed
3	Application	Technology neutral (TRA-ECS)
4	Channelling	n/a
5	Modulation / Occupied bandwidth	n/a
6	Direction / Separation	FDD / TDD
7	Maximum in block power spectral density	Central station (and repeater station downlink) + 53 dBm/MHz EIRP Repeater station uplink +50 dBm/MHz EIRP (see Note 1 and 2)
8	Channel access and occupation rules	n/a
9	Authorisation regime	Licence required
10	Additional essential requirements	n/a
Informative (11-15)		
11	Frequency planning assumptions	Note 1: Out of block limits defined in licence mask. The mask is based on the annex of the Commission Decision 2008/411/EC, a 20 MHz block size and 16 dBi antenna Note 2: Co-ordination considerations may impose additional restrictions on the maximum e.i.r.p. allowed on specific frequencies, directions and locations. See the relevant co-ordination and co-existence guidelines in Ofcom document OfW188 for details.
12	Planned changes	
13	Reference	EN 302 326
14	Notification number	2011/189/UK
15	Remarks	n/a

IR 2015.2

Minimum requirements for fixed and nomadic terminal stations operating in the 3400 MHz to 4009 MHz band		
Mandatory (1-10)		
1	Frequency band	3400 MHz to 4009 MHz
2	Radiocommunication Service	Fixed / Nomadic
3	Application	Technology neutral (TRA-ECS)
4	Channelling	n/a
5	Modulation / Occupied bandwidth	n/a
6	Direction / Separation	FDD / TDD
7	Maximum in block power spectral density	Fixed and nomadic outdoor + 50 dBm/MHz EIRP Fixed and nomadic indoor + 42 dBm/MHz EIRP
8	Channel access and occupation rules	n/a
9	Authorisation regime	3400 to 3800 MHz licence exempt (see note 3) 3800 to 4009 MHz license required Note 3: Terminal stations which connect to a licensed network meeting the minimum requirements outlined in this Interface Requirement are exempt from licensing
10	Additional essential requirements	n/a
Informative (11-13)		
11	Frequency planning assumptions	n/a
12	Planned changes	n/a
13	Reference	EN 302 326
14	Notification number	2011/189/UK
15	Remarks	n/a

IR 2015.3

2015.3: Minimum requirements for mobile terminal stations operating in the 3400 MHz to 3800 MHz band		
Mandatory (1-10)		
1	Frequency band	3400 MHz to 3800 MHz
2	Radiocommunication Service	Mobile
3	Application	Technology neutral (TRA-ECS)
4	Channelling	n/a
5	Modulation / Occupied bandwidth	n/a
6	Direction / Separation	FDD / TDD
7	Maximum in block power spectral density	25 dBm/MHz
8	Channel access and occupation rules	n/a
9	Authorisation regime	Terminal stations which connect to a licensed network meeting the minimum requirements outlined in this Interface Requirement are exempt from licensing
10	Additional essential requirements	n/a
Informative (11-13)		
11	Frequency planning assumptions	n/a
12	Planned changes	n/a
13	Reference	EN 302 623
14	Notification number	2011/189/UK
15	Remarks	n/a

Section 4

Additional performance parameters

(informative)

None specified

Section 5

Contact details

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Section 6

Document history

Version	Date	Changes
6.0	Aug 2004	2 GHz band – removed Redrafted into common agreed format Updated to include harmonised multipart standards Updated to include point-to-point technology Version 5 available on request
6.1	Oct 2004	Added cross reference table. Added MP approval for P-P deployment text
6.2	Jan 2005	Deleted number of “NOTES”, following Commission comments during stand-still process
6.3	September 2006	Removed the 10 GHz band section Revised to reflect liberalisation changes
6.4	December 2011	Updated licence class reference to include all spectrum access services in the 3400 to 4009 MHz bands, including mobile elements. Removed NFAP and Site Clearance references.
6.5	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