

[Draft] UK Interface Requirement (IR) 2068

Spectrum Access in 1452-1517 MHz

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1. References

- 1.1 Commission Implementing Decision (EU) 2018/661 of 26 April 2018 amending Implementing Decision (EU) 2015/750 on the harmonisation of the 1452-1492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union as regards its extension in the harmonised 1427-1452 MHz and 1492-1517 MHz frequency bands
- 1.2 ETSI EN 301 908 Title: IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU); Part 18: "E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS)".
- 1.3 ETSI EN 301 908 Title: IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU); Part 14: "Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)".
- 1.4 ETSI EN 301 908 Title: IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU); Part 3: "CDMA Direct Spread (UTRA FDD) Base Stations (BS)".
- 1.5 ETSI TS 136 104 Title: LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception.
- 1.6 ETSI TS 125 104 Title: Universal Mobile Telecommunications System (UMTS); Base Station (BS) radio transmission and reception (FDD).
- 1.7 ECC Decision (17)06
- 1.8 ECC Report 299

2. Foreword

- 2.1 This UK Interface Requirement contains the requirements for the licensing and use of systems capable of providing electronic communications services in the specified frequency bands.
- 2.2 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.
- 2.3 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 Radio Equipment Regulations 2017 (SI 2017/1206).
- 2.4 The requirements given in the main body of this UK Radio Interface Requirement will apply to the licensing of terrestrial systems capable of providing electronic communications services in the 1.4 GHz (1452-1517 MHz) band.
- 2.5 This UK Radio Interface Requirement will be revised as necessary, for example to follow:
 - a) current technology developments for reasons related to the effective and appropriate use of the spectrum in particular maximising spectrum utilisation; and
 - b) changes to the available spectrum allocated for terrestrial systems capable of providing electronic communications services in the 1.4 GHz band.
- 2.6 All UK Radio Interface Requirements will be published and will be made available free of charge from the Ofcom website 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.

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 electronic communications services in the 1.4 GHz band. It does not prescribe technical interpretation of the 'essential requirements' of Radio Equipment Regulations 2017 (SI 2017/1206).
- 3.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the authorisation of terrestrial systems capable of providing electronic communications services in the 1.4 GHz band in the UK. Table 3.1 contains the relevant equipment parameters. These, taken together with the 'essential requirements' detailed in the Radio Equipment Regulations 2017 (SI 2017/1206), constitute the minimum requirements for terrestrial systems capable of providing electronic communications services in the 1.4 GHz band in the UK.
- 3.4 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 Radio Equipment Regulations 2017 (SI 2017/1206).
- 3.5 The technical parameters specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility within the spectrum for terrestrial systems capable of providing electronic communications services in the 1.4 GHz band and with other radiocommunications services, whilst promoting enterprise, innovation and competition.
- 3.6 This UK Radio Interface requirement provides the necessary technical information which facilitates access to spectrum by making clear the assumptions that are made in planning the use of the spectrum for terrestrial systems capable of providing electronic communications services in the 1.4 GHz 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 Radio Equipment Regulations 2017 (SI 2017/1206). 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: terrestrial systems capable of providing electronic communications services operating in the 1452 to 1517 MHz band

Mandatory (1 – 10)	
1. Radiocommunication Service	Fixed service
2. Application	TRA-ECS (Terrestrial radio applications capable of providing electronic communication services)
3. Frequency band(s)	1452-1517 MHz
4. Channelling	See Table 3.2
5. Modulation / Occupied bandwidth	N/A
6. Direction / Separation	Supplementary Downlink (SDL)
7. Maximum Mean Transmit Power	Base & repeater stations EIRP 68 dBm/ 5MHz in 1452-1492 MHz 58 dBm/ 5MHz in 1492-1517 MHz See Table 3.3 for base station out of block EIRP limits
8. Channel access and occupation rules	Licensee shall ensure that the Radio Equipment is operated in compliance with any Synchronisation Procedures as notified under the Licence.
9. Authorisation regime	WT Act licence required for base stations, repeaters and fixed installations.
10. Additional essential requirements	N/A
Informative (11 – 15)	
11. Frequency planning assumptions	Co-ordination and site clearance considerations may impose additional restrictions on the maximum system e.i.r.p. allowed on specific frequencies, directions and locations.
12. Planned changes	-
13. Reference	-
14. Remarks	.
15. Notification Number (in respect of Northern Ireland)	-

Table 3.2: Band Plan

Band Plan for the 1452-1517MHz band							
1452-1457	1457-1462	1462-1467	1467-1472	1472-1477	1477-1482	1482-1487	1487-1492
1492-1497	1497-1502	1502-1507	1507-1512	1512-1517			
Downlink (Base Station Transmit)							
65 MHz (13 blocks of 5 MHz)							

Table 3.3: Base Station out of block EIRP limits

Base Station out-of-block EIRP limits within the band 1452-1517 MHz		
Frequency range of out-of-block emissions	Maximum mean out-of-band E.I.R.P. (dBm)	Measurement Bandwidth
-10 to -5 MHz from lower block edge	11.0	5
-5 to 0 MHz from lower block edge	16.3	5
0 to +5 MHz from upper block edge	16.3	5
+5 to +10 MHz from upper block edge	11.0	5
Remaining MFCN SDL frequencies	9.0	5

4. Additional performance parameters

Informative

4.1 None specified

5. Contact details

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Tel: 0300 123 1000 or 020 7981 3131

Website: [Ofcom | Spectrum](#)

Email: spectrum.licensing@ofcom.org.uk

6. Document history

Version	Date	Changes
1.0	March 2008	Original published
2.0	September 2015	Revised as a consequence of licence variation and EC Decision.
3.0	x	Revised to include 1492-1517 MHz