

# IR 2097 - UK Interface Requirement 2097

Terrestrial systems capable of providing electronic  
communications services in the 3.4 to 3.8 GHz band

<b>Interface Requirement</b>	<b>2015/1535/EU Notification</b>	<b>Date</b>
IR 2097.1	2015/291/UK	February 2016
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## Section 1

# References

- 1.1 European Commission Decision 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 (2008/411/EC)
- 1.2 Commission Implementing decision of 2 May 2014 on amending Decision 2008/411/EC on the harmonisation of the 3400 - 3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (2014/276/EU)
- 1.3 ECC/DEC (11)06 (December 2011) which harmonised the frequency arrangements for mobile/fixed communications networks (MFCN) operating in the bands 3400 to 3600 MHz and 3600 to 3800 MHz
- 1.4 CEPT Report 49: Technical conditions regarding spectrum harmonisation for terrestrial wireless systems in the 3400-3800 MHz frequency band
- 1.5 ECC Report 203 on Least Restrictive Technical Conditions suitable for Mobile/Fixed Communication Networks (MFCN), including IMT, in the frequency bands 3400-3600 MHz and 3600-3800 MHz
- 1.6 ECC Report 216 on Practical guidance for TDD networks synchronisation
- 1.7 ETSI EN 301 908: IMT cellular networks; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU)

## 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 terrestrial systems capable of providing electronic communications services 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 the licensing of terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz band (3400 – 3800 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 terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz band.
- 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 website at [www.ofcom.org.uk](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 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 terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz band. 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 authorisation of terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz band in the UK. 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 2014/53/EU constitute the minimum requirements for terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz band within 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 within the spectrum for terrestrial systems capable of providing electronic communications services in the 3.4 to 3.8 GHz 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 the 3.4 to 3.8 GHz 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 3.4 to 3.8 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 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 2097.1

Table 3.1: Minimum requirements for the use of: - terrestrial systems capable of providing electronic communications services operating in the 3400-3800 MHz band		
Mandatory (1-10)		
1	Frequency band(s)	3400 to 3800 MHz
2	Radiocommunication Service	Mobile or Fixed service
3	Application	TRA-ECS (Terrestrial radio applications capable of providing electronic communication services)
4	Channelling	N/A
5	Modulation / Occupied bandwidth	N/A
6	Direction / Separation	N/A
7	/Maximum Transmit Power / Power Density	Base station transmit Repeater transmit  65 dBm/ 5 MHz EIRP*  Mobile/ Nomadic Repeaters  25 dBm TRP*  Fixed or installed terminal stations or repeaters  35 dBm/5 MHz EIRP*  <small>* The maximum mean power relates to the EIRP or TRP of a specific piece of Radio Equipment irrespective of the number of transmit antennas.</small>
8	Channel access and occupation rules	Licensee shall ensure that the Radio Equipment is operated in compliance with any Inter-operator Synchronisation Procedures as notified within the Licence
9	Authorisation regime	WT Act licence required for base stations, repeaters and fixed installations.
10	Additional essential requirements	None
Informative (11-13)		
11	Frequency planning assumptions	EU Decision 2008/411/EC EU Decision 2014/276/EU ECC/DEC (11)06 ECC Report 203 ECC Report 216
12	Planned changes	
13	Reference	ETSI EN 301 908
14	Notification	2015/291/UK
15	Remarks	





# IR 2097.2

Table 3.2: Minimum requirements for the use of: - terrestrial systems capable of providing electronic communications services operating in the 3400-3800 MHz band		
Mandatory (1-10)		
1	Frequency band(s)	3400 to 3800 MHz
2	Radiocommunication Service	Mobile or Fixed service
3	Application	TRA-ECS (Terrestrial radio applications capable of providing electronic communication services)
4	Channelling	N/A
5	Modulation / Occupied bandwidth	N/A
6	Direction / Separation	N/A
7	/Maximum Transmit Power / Power Density	Mobile/ Nomadic terminal stations  25 dBm TRP per device*  * Irrespective of the number of transmit antennas.
8	Channel access and occupation rules	Licensee shall ensure that the Radio Equipment is operated in compliance with any Inter-operator Synchronisation Procedures as notified within the Licence
9	Authorisation regime	The use of mobile / nomadic terminal stations meeting the minimum requirements outlined in this Interface Requirement is exempt from licensing provided that it meets the requirements of the relevant exemption regulations.
10	Additional essential requirements	None
Informative (11-13)		
11	Frequency planning assumptions	EU Decision 2008/411/EC EU Decision 2014/276/EU ECC/DEC (11)06 ECC Report 203 ECC Report 216
12	Planned changes	
13	Reference	ETSI EN 301 908
14	Notification	2015/291/UK
15	Remarks	

## Section 4

# Additional performance parameters

**(informative)**

None specified

## Section 5

# Contact details

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# Document history

Version	Date	Changes
1.0	February 2016	Published
1.1	January 2018	Replaced R&TTE Directive 1999/5/EC and Directive 98/34/EC with Radio Equipment Directive 2014/53/EU and Directive (EU) 2015/1535 respectively. Minor editorials