

## **UK Interface Requirement (IR) 2078**

Fixed Wireless Access systems in the frequency band 57.1 to 70.875 GHz

Publication Date: June 2021

2015/1535/EU Notification Number: 2018/315/UK

## Contents

Section	
1. References	5
2. Foreword	1
3. Minimum requirements for operation within the UK	2
4. Additional performance parameters	4
5. Contact details	5
6. Document history	7

#### 1. Foreword

- 1.1 The Radio Equipment Regulations 2017 (SI 2017/1206) set out the obligations on economic operators for placing radio equipment on the market. This UK Interface Requirement contains the requirements for the licensing and use of Fixed Wireless Systems (FWS) in the specified frequency bands.
- 1.2 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.
- 1.3 The requirements given in the main body of this UK Radio Interface Requirement will apply to the authorisation of FWS.
- 1.4 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 FWS.
- 1.5 All UK Radio Interface Requirements will be published and will be made available free of charge from the Ofcom website.
- 1.6 Further information on this UK Radio Interface Requirement can be obtained from the technical enquiry contact given at the back of this document.

# 2. Minimum requirements for operation within the UK

- 2.1 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.
- 2.2 This UK Radio Interface Requirement gives a high-level description of how the spectrum in the UK is used for FWS. It does not prescribe technical interpretation of the 'essential requirements' of the Radio Equipment Regulations 2017.
- 2.3 This UK Radio Interface Requirement therefore stipulates the necessary equipment parameters for the licensing or licence exemption of FWS in the UK. The table in 2.1 contains the relevant equipment parameters. These together with the 'essential requirements' detailed in Regulation 6 of Radio Equipment Regulations 2017 constitute the minimum equipment requirements for public wireless networks within the UK.
- 2.4 The technical parameters specified in the UK radio Interface Requirement are applied to achieve the desired level of compatibility within FWS and with radiocommunications services, whist promoting enterprise, innovation and competition.
- 2.5 This UK Radio Interface requirement provides the necessary technical information which facilitates access to the 57.1 70.875 GHz spectrum by making clear the assumptions that are made in planning the use of the 60 GHz 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 Radio Equipment Regulations 2017 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 2.1: Minimum requirements for the use of: FWS operating in the 57.1 – 70.875 GHz band

Manda	Mandatory (1 – 10)				
1.	Radiocommunication Service	Fixed			
2.	Application	Fixed Wireless Access			
3.	Frequency band(s)	57.1 – 70.875 GHz			
4.	Channelling	-			
5.	Occupied bandwidth	-			
6.	Direction / Separation	-			
7.	Maximum Transmit Power / Power Density	Maximum transmit power of 10 dBm and a maximum EIRP of 55 dBm.  Minimum antenna gain of 30 dBi. Transmission not permitted in certain areas (See table 3.1)			
8.	Channel access and occupation rules	-			
9.	Authorisation regime	Licence exempt. These licences are issued on a non-protection and non-interference basis.			
		NB: From 30 November 2021 the licence exemption will no longer be applicable. After this date use will only be authorised if a Spectrum Access EHF licence is held.			
10.	Additional essential requirements	-			
Informa	ative (11-13)				
11.	Frequency Planning	-			
12.	Planned changes	From 30 November 2021 the licence exemption will no longer be applicable. After this date use will only be authorised if a Spectrum Access EHF licence is held.			
13.	Reference	ETSI EN 302 217 - Fixed Radio Systems; Characteristics and requirements for point-to- point equipment and antennas. (NB This standard does not cover the frequency range 66 – 70.875 GHz)			
14.	Notification	2018/315/UK			
15.	Remarks	Definition of outdoor use			
		Any device operating in an environment which does not meet the definition of "indoor" is required to meet the technical conditions for outdoor use. "Indoor" means inside premises which: (i) have a ceiling or a roof; and (ii) except for any doors, windows or passageways, are wholly enclosed.			

## 3. Additional performance parameters

#### **Mandatory**

#### Exclusion zones in 59 - 63.9 GHz band

In the three geographical areas outlined in Table 4.1 no transmissions are permitted.

Table 3.1: 59 – 63.9 GHz transmission exclusion zones

Site name	Site location	Radius of exclusion zone from the centre of the site location
Site 1	07° 23′ 36.6″ W, 57° 21′ 3.6″ N	6 Km
Site 2	04° 58′ 21″ W, 51° 37′ 16.8″ N	6 Km
Site 3	00° 36′ 22.8″ W, 52° 38′ 1.8″ N	6 Km

### 4. References

ETSI EN 302 217 - Fixed Radio Systems; Characteristics and requirements for point-to-point equipment and antennas.

ECC Recommendation (09)01 - Use of the 57 - 64 GHz frequency band for point- to-point fixed wireless systems.

### 5. Contact details

Ofcom Spectrum Licensing Team

PO Box 1285,

Warrington,

WA1 9GL

Email: <a href="mailto:spectrum.licensing@ofcom.org.uk">spectrum.licensing@ofcom.org.uk</a>

Tel: 0300 123 1000 or 020 7981 3131

Website: Ofcom | Spectrum

## 6. Document history

Version	Date	Changes
0.1	11 December 2009	Document drafted
1.0	October 2010	Document published
1.1	January 2018	Replaced R&TTE Directive 1999/5/EC and Directive 98/34/EC with Radio Equipment Directive and Directive (EU) 2015/1535 respectively.
1.2	November 2018	Extend the frequency band from 63.9 GHz to 70.875 GHz
1.3	June 2021	Updated with note of the removal of the licence exemption.