

IR 2099 - UK Interface Requirement 2099

**Licensed Manually Configurable White Space
Devices operating in the 470 MHz to 790 MHz band**

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Section 1

References

[1]	ETSI EN 301 598 V1.1.1 (2014-04)	White Space Devices (WSD); Wireless Access Systems operating in the 470 MHz to 790 MHz TV broadcast band; Harmonized EN covering the essential requirements of article 3.2 of the Radio Equipment Directive (Directive 2014/53/EU)
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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. .
- 2.2 In accordance with Articles 8 and 7 of Directive 2014/53/EU, this UK Interface Requirement contains minimum requirements for the establishment, installation and use of licensed Manually Configurable White Space Devices in the UK in the 470 MHz to 790 MHz band.
- 2.3 Nothing in this UK Radio Interface Requirement shall preclude the need for equipment to comply with Directive 2014/53/EU.
- 2.4 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.
- 2.5 The requirements given in the main body of this UK Radio Interface Requirement will apply to the licensing of Manually Configurable White Space Devices in the 470 MHz to 790 MHz band.
- 2.6 This UK Radio Interface Requirement will be revised as necessary, for example to follow
 - i) future 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 for White Space Devices.
- 2.7 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/spectrum/information.
- 2.8 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 and avoidance of harmful interference.
- 3.2 This UK Radio Interface Requirement gives a high level description of how the radio spectrum in the UK is used by Manually Configurable White Space Devices in the 470 MHz to 790 MHz 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 licensing of Manually Configurable White Space Devices in the 470 MHz to 790 MHz band within the UK. Table 3.1 contains 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 the use of Manually Configurable White Space Devices in the 470 MHz to 790 MHz 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 minimum requirements specified in the UK Radio Interface Requirement are applied to achieve the desired level of compatibility of Manually Configurable White Space Devices operating in the 470 MHz to 790 MHz band with other radiocommunication services in the band and adjacent to the band, -whilst promoting enterprise, innovation and competition.
- 3.5 In this document, the following terms shall have the following meanings:
- **Dedicated Antenna:** means a removable antenna which has been designed for use and supplied with a device;
 - **External Antenna:** means a removable antenna which is not a Dedicated Antenna;
 - **Discoverable List of White Space Databases:** means the list of White Space Databases qualified by Ofcom to provide services to MCWSDs that will be hosted on a domain that is under the control of Ofcom and that will be discoverable by White Space Devices via an internet connection.
 - **Integral Antenna:** means a fixed antenna forming part of a device.
 - **Manually Configurable Master Device:** means Manually Configurable White Space Devices which are capable of communicating with and obtaining

operational parameters from a White Space Database for the purpose of transmitting within the frequency band 470 MHz to 790 MHz.

- **Manually Configurable Slave Device:** means Manually Configurable White Space Devices which are capable of transmitting within the frequency band 470 MHz to 790 MHz after receiving slave operational parameters from a Master Device.
- **Manually Configurable White Space Device:** means a White Space Device which is configured such that it enables a user of the Device to input, reconfigure or alter any technical or operational settings or features of the Device in a way which:
 - o would alter the technical characteristics of the Device which are communicated to a White Space Database, including the Device Parameters; or
 - o would cause the Device to operate other than in accordance with operational parameters.
- **Type A equipment:** means a device which has an Integral Antenna, a Dedicated Antenna or an External Antenna and is intended for fixed location use only.
- **Type B equipment:** means is a device which has an Integral Antenna or a Dedicated Antenna and is not intended for fixed location use.
- **White Space Database:** means a database which is approved by Ofcom to support operation of Manually Configurable White Space Devices and listed as such on the Discoverable List of White Space Databases.
- **White Space Device:** means wireless telegraphy stations or wireless telegraphy apparatus which:
 - o transmit within the frequency band 470 to 790 MHz;
 - o are Master Devices or Slave Devices; and
 - o are Type A equipment or Type B equipment.

Table 3.1: Minimum requirements for the use of Manually Configurable Master Devices and Manually Configurable Slave Devices

Mandatory (1-10)		
1	Frequency band(s)	470 MHz to 790 MHz
2	Radiocommunication Service	Mobile service or fixed service
3	Application	TRA-ECS (Terrestrial radio applications capable of providing electronic communications services)
4	Channelling	Specified by a White Space Database
5	Modulation / Occupied bandwidth	Not specified
6	Direction / Separation	Not specified
7	Maximum Transmit Power / Power Density	Specified by a White Space Database but in all cases subject to a maximum limit of 36 dBm/(8 MHz)
8	Channel access and occupation rules	Specified by a White Space Database
9	Authorisation regime	Licensed
10	Additional essential requirements	Not applicable
Informative (11-13)		
11	Frequency planning assumptions	Not applicable
12	Planned changes	Not applicable
13	Reference	ETSI EN 301 598 (See note below)
14	Notification	2015/0563/UK
15	Remarks	Not specified

Note: Clause 4.2.9 “Software, Firmware and User Access Restrictions” in ETSI EN 301 598 v1.1.1 is not applicable to Manually Configurable Master Devices or Manually Configurable Slave Devices

Section 4

Contact details

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Section 5

Document history

Version	Date	Changes
0.1	October 2015	Notified to European Commission
1.0	January 2016	Document published
1.0	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