

Annex 2

Draft licence for manually configurable white space devices

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Licence for manually configurable white space devices

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| Licence number | |
| Licensee | |
| Licensee address | |
| Licence first issue date | |
| Licence version date | |
| Payment interval | |

1. This Licence is issued by the Office of Communications (“Ofcom”) on <date> and replaces any previous authority granted in respect of the service subject to this Licence by Ofcom or the Secretary of State.
2. This Licence authorises <name> (the “Licensee”) to establish, install and/or use radio equipment transmitting and/or receiving stations and/or radio apparatus as described in the schedule (the “Radio Equipment”) subject to the terms set out below.

Licence term

3. This Licence shall continue in force until revoked by Ofcom in accordance with paragraph 4 below or surrendered by the Licensee.

Licence variation and revocation

4. Pursuant to schedule 1, paragraph 8 of the Wireless Telegraphy Act 2006 (the “Act”), Ofcom may not revoke this Licence under schedule 1, paragraph 6 of the Act except:
 - a) at the request of, or with the consent of, the Licensee;
 - b) if there has been a breach of a term of this Licence;
 - c) if, in connection with the transfer or proposed transfer of rights and obligations arising by virtue of the Licence, there has been a breach of any provision of

regulations made by Ofcom under powers conferred by section 30 (1) and (3) of the Act²⁷;

- d) in accordance with schedule 1, paragraph 8(5) of the Act;
 - e) if it appears to Ofcom to be necessary or expedient for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act or section 5 of the Communications Act 2003; or
 - f) for reasons related to the management of the radio spectrum, provided that in such a case the power to revoke may only be exercised after at least one year's notice is given in writing, such notice not to be given before the end of a period of three years following the date of issue of this Licence.
5. Ofcom may only revoke or vary this Licence by notification in writing to the Licensee in accordance with paragraphs 6, 6A and 7 of Schedule 1 to the Act.

Transfer

6. This Licence may not be transferred. The transfer of rights and obligations arising by virtue of this Licence may however be authorised in accordance with regulations made by Ofcom under powers conferred by section 30 of the Act²⁸.

Changes

7. The Licensee must give Ofcom prior notice in writing of any proposed change to the Licensee's name and address from that recorded in the Licence.

Fees

8. The Licensee shall pay Ofcom the relevant sums as provided in section 12 of the Act and the Regulations made there under:
- a) on or before the date of issue of the Licence; and
 - b) on or before the payment date shown on the Licence for subsequent payments or such other dates as shall be notified in writing to the Licensee, in accordance with those regulations and any relevant terms, provisions and limitations of the Licence.
9. The Licensee shall also pay interest to Ofcom on any amount which is due to Ofcom under the terms of this Licence or provided for in any regulations made by Ofcom under section 12 of the Act from the date such amount falls due until the date of payment, calculated with reference to the Bank of England base rate from time to time. In accordance with section 15 of the Act any such amount and any such interest is recoverable by Ofcom.

²⁷ These are regulations on spectrum trading.

²⁸ See Ofcom's website for the latest position on spectrum trading and the types of trade which are permitted.

10. If the Licence is surrendered or revoked, no refund, whether in whole or in part of any amount which is due under the terms of this Licence or provided for in any Regulations made by Ofcom under section 12 of the Act will be made, except at the absolute discretion of Ofcom.

Radio Equipment use

11. The Licensee must ensure that the Radio Equipment is established, installed and operated in accordance with the provisions of this Licence including the schedules to the Licence. Any proposal to amend any detail specified in the schedules to this Licence must be agreed with Ofcom in advance and implemented only after this Licence has been varied or reissued accordingly.
12. The Licensee must ensure that the Radio Equipment is operated in compliance with the terms of this Licence and is used only by persons who have been authorised in writing by the Licensee to do so on behalf of the Licensee and that such persons are made aware of, and of the requirement to comply with, the terms of this Licence.

Access and inspection

13. The Licensee shall permit a person authorised by Ofcom:
- a) to have access to the Radio Equipment; and
 - b) to inspect this Licence and to inspect, examine and test the Radio Equipment at any and all reasonable times or, when in the opinion of that person an urgent situation exists, at any time to ensure the Radio Equipment is being used in accordance with the terms of this Licence.

Modification, restriction and closedown

14. A person authorised by Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment to be modified or restricted in use or temporarily or permanently closed down immediately if in the opinion of the person authorised by Ofcom:
- a) a breach of a term of this Licence has occurred; and/or
 - b) the use of the Radio Equipment is causing or contributing to undue interference to the use of other authorised radio equipment.
15. Ofcom may require any of the radio stations or radio apparatus that comprise the Radio Equipment to be modified or restricted in use or temporarily closed down either immediately or on the expiry of such period as may be specified in the event of a national or local state of emergency being declared. Ofcom may only exercise this power after a written notice is served on the Licensee or a general notice applicable to holders of a named class of Licence is published.

Geographical boundaries

16. The Licence authorises the Licensee to establish, install and use the Radio Equipment in the United Kingdom.

Interpretation

17. In this Licence, except where otherwise specified or where the context requires otherwise, the meaning of defined terms shall be as set out in Schedule [5].

18. The schedules to this Licence form part of this Licence together with any subsequent schedules that Ofcom may issue as a variation to this Licence at a later date.

19. The Interpretation Act 1978 shall apply to this Licence as it applies to an Act of Parliament.

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ISSUED BY OFCOM

SCHEDULE 1 TO LICENCE NUMBER: [licence number]

Description of Radio Equipment licensed

1. The Radio Equipment means wireless telegraphy stations or apparatus as defined in paragraphs 4 to 10 of Schedule 2 (“Manually Configurable White Space Devices”).

Use of the Radio Equipment

2. Use of the Radio Equipment shall be in accordance with Schedule 2 to this Licence and with the requirements of the following Interface Requirement:

IRXXX: Licensed Manually Configurable White Space Device operating in the 470 MHz to 790 MHz band.

3. The Radio Equipment shall at all times be installed, maintained and used in such a way that its use does not cause or contribute to any undue interference with the authorised use of any other radio equipment.

Accurate configuration

4. The Licensee must ensure that the Radio Equipment is configured correctly, so that on establishment, installation or use of the Radio Equipment the Device Parameters of the Radio Equipment, as well as any other parameters to be reported by the Radio Equipment to a White Space Database as specified in Table 1 of Schedule 4, are accurately communicated to a White Space Database.

Quality assurance procedure

5. During the period that this Licence remains in force, the Licensee shall have in place a written quality assurance procedure to ensure the correct configuration of the Radio Equipment as required in accordance with paragraph 4 above.
6. The Licensee shall submit to Ofcom information regarding the quality assurance procedure it has in place in accordance with paragraph 5 above in such manner and at such times as Ofcom may request.

Installation records

7. During the period that this Licence remains in force, the Licensee shall compile and maintain an accurate record of the current configuration of each Manually Configurable White Space Device established, installed or used under this Licence, which must include all of the information listed in Table 1 of Schedule 4 (an “Installation Record”).
8. The Licensee must submit the information included in the Installation Record for a Manually Configurable White Space Device to every White Space Database to which the Device will connect, in the form and manner agreed with the respective White Space Databases, before that Device may be operated.

9. Each time there is a change in any of the information specified in Table 1 of Schedule 4 in respect of a Manually Configurable White Space Device, the Installation Record for that Device must be updated accordingly, and the updated Installation Record must be submitted to every White Space Database to which the Device will connect, in the form and manner agreed with the respective White Space Databases, before the Device may be operated.

Provision of information

10. The Licensee must submit to any person authorised by Ofcom, in such manner and at such times as Ofcom may request, all information relating to the establishment, installation or use of the Radio Equipment, including copies of the Installation Records as detailed in paragraph 7 above, whether stored in hard copy or electronic form, as reasonably requested for the purposes of verifying compliance with this Licence or for statistical or interference management purposes.
11. Any person authorised by Ofcom may request from a White Space Database copies of any information provided by the Licensee or communicated to the White Space Database by one of its Manually Configurable White Space Devices, including without limitation copies of the Installation Records submitted to the database in accordance with paragraphs 8 and 9 above or information communicated by a device when requesting operational parameters in accordance with Schedule 2, for the purposes of verifying compliance with this Licence or for statistical or interference management purposes.

SCHEDULE 2 Conditions for the use of the Radio Equipment

1. The Radio Equipment authorised under this Licence must be used in accordance with the conditions set out in this schedule.

General requirements

2. The Radio Equipment must not be used airborne.
3. The Licensee shall operate the Radio Equipment on a 'non-interference, non-protected' basis.

Master Devices and Slave Devices

4. The Radio Equipment must be White Space Devices which are Manually Configurable.
5. White Space Devices are wireless telegraphy stations or wireless telegraphy apparatus which—
 - a) transmit within the frequency band 470 to 790 MHz;
 - b) are Master Devices or Slave Devices; and
 - c) are Type A equipment or Type B equipment.
6. Master Devices are wireless telegraphy stations or wireless telegraphy apparatus 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.
7. Slave Devices are wireless telegraphy stations or wireless telegraphy apparatus which are capable of transmitting within the frequency band 470 MHz to 790 MHz after receiving Slave Operational Parameters from a Master Device.
8. "Type A equipment" means a White Space Device which is intended for fixed use only and which has an Integral Antenna, a Dedicated Antenna or an External Antenna.
9. "Type B equipment" means a White Space Device which is not intended for fixed use and which has a Dedicated Antenna or an Integral Antenna.
10. A White Space Device is "Manually Configurable" if it allows a user of the Device to input, configure, reconfigure or alter any technical or operational settings or features of the Device in a way which would affect the device parameters or any other technical characteristics of the Device which are communicated to a White Space Database, or its operation in accordance with Operational Parameters.

Master Device requirements

11. A Master Device must only transmit within the frequency band 470 MHz to 790 MHz:

- a) after requesting and receiving Master Operational Parameters from a White Space Database;
 - b) in accordance with the limits specified in the Master Operational Parameters it has received from that White Space Database; and
 - c) on the frequencies and within the power limits specified in the Channel Usage Parameters which the Master Device has communicated to that White Space Database.
12. Master Devices which are Type B equipment and which transmit while mobile must have an Automatic Geo-location Capability.
13. When requesting Master Operational Parameters from a White Space Database, a Master Device must communicate to that White Space Database the Master Device Parameters of that Master Device.
14. The Unique Identifier of a Master Device may not be a manually configured device parameter.
15. After receiving Master Operational Parameters from a White Space Database, a Master Device must communicate its Channel Usage Parameters to the White Space Database.
16. A Master Device must cease transmitting, and instruct all Slave Devices to which the Master Device has communicated Slave Operational Parameters to cease transmitting, if the Master Operational Parameters it has received are no longer valid.
17. Master Operational Parameters cease to be valid if:
- a) a White Space Database communicates an instruction to the Master Device that those Master Operational Parameters are not valid; or
 - b) the Master Device is unable to verify that those Master Operational Parameters are still valid in accordance with paragraph [18].
18. After receiving Master Operational Parameters from a White Space Database, a Master Device must communicate with that White Space Database every Update Period for confirmation that those Master Operational Parameters remain valid.
19. "Master Operational Parameters" means the following information:
- a) the lower and upper boundaries of each of the DTT channels within which a Master Device may transmit;
 - b) the maximum permitted EIRP spectral density, in dBm over a bandwidth of 0.1 MHz, within each DTT channel within which a Master Device may transmit;
 - c) the maximum permitted EIRP, in dBm, within each DTT channel within which a Master Device may transmit;

- d) limits on the maximum total number of DTT channels that may be used at any given time and the maximum number of contiguous DTT channels that may be used at any given time;
 - e) the time period during which the Master Operational Parameters are valid;
 - f) the geographic area within which the Master Operational Parameters are valid;
 - g) the time period (in seconds) within which and frequency with which a Master Device must check with a White Space Database that the Master Operational Parameters it has received from that Database are still valid; and
 - h) information indicating if the simultaneous channel operation power restriction applies as specified in Schedule 3.
20. “Automatic Geo-location Capability” means, in respect of a White Space Device, the ability of that Device to determine the latitude and longitude coordinates of its antenna and the geo-location uncertainty in those latitude and longitude coordinates:
- a) without the need for a user of the device to access its hardware or software settings; and
 - b) in a way which does not allow a user to input, configure, reconfigure or alter how those location parameters are determined or communicated to a White Space Database.
21. “Master Device Parameters” means the following information:
- a) information specifying that it is a Master Device;
 - b) that Master Device’s Unique Identifier;
 - c) information specifying that the Master Device is Type A equipment or Type B equipment;
 - d) the location of the Master Device expressed as its antenna latitude and longitude coordinates; and
 - e) the geo-location uncertainty in the Master Device’s antenna latitude and longitude coordinates.
22. “Unique Identifier” means a set of characters comprising the unique serial number of a White Space Device, a White Space Device’s model number or other identifier of the product family to which the White Space Device belongs and the Unique Identifier of the manufacturer of the White Space Device.
23. A device parameter is “manually configured” if the information about the relevant technical characteristic of the device is input into the hardware or software settings of the device by the Licensee or a person duly authorised by the Licensee.

24. "Channel Usage Parameters" means the following information:

- a) the lower and upper frequency boundaries of each DTT channel within which the White Space Device will transmit; and
- b) the maximum in-block EIRP spectral density, in dBm over a bandwidth of 0.1 MHz, at which the White Space Device will transmit between each lower frequency boundary and its corresponding upper frequency boundary in each DTT channel; and
- c) the maximum EIRP, in dBm, at which the White Space Device will transmit in each DTT channel.

25. "Update Period" means the time period (in seconds) specified by a White Space Database as part of the Master Operational Parameters referred to in paragraph [19(g)].

Slave Device requirements

26. A Slave Device must only transmit within the frequency band 470 MHz to 790 MHz:

- a) after receiving Slave Operational Parameters from a Master Device which are either:
 - i) parameters that can be used by all Slave Devices operating in the coverage area in which communications from the Master Device can be received ("Generic Slave Operational Parameters"); or
 - ii) parameters that are specific to a particular Slave Device ("Specific Slave Operational Parameters");
- b) in accordance with the limits specified in Slave Operational Parameters which have been communicated by a Master Device; and
- c) on the frequencies and within the power limits specified in Channel Usage Parameters that have:
 - i) been determined by the Slave Device and communicated to a Master Device; or
 - ii) been determined by a Master Device for the Slave Device.

27. Slave Devices which are Type B equipment and which transmit while mobile must have an Automatic Geo-location Capability to transmit using Specific Slave Operational Parameters.

28. A Slave Device must cease transmitting if the Slave Operational Parameters it has received are no longer valid.

29. Slave Operational Parameters cease to be valid if:

- a) the Slave Device receives an instruction to cease transmissions from the Master Device from which it has received its Slave Operational Parameters; or
 - b) the Slave Device has not received any transmission from the Master Device from which it has received its Slave Operational Parameters for longer than five seconds.
30. A Slave Device which transmits using Generic Slave Operational Parameters must communicate to the Master Device which has communicated those Generic Slave Operational Parameters the information specified at paragraph [35(a)] and [35(b)].
31. If a Slave Device requests Specific Slave Operational Parameters from a Master Device, it must communicate its Slave Device Parameters to the Master Device when requesting the Specific Slave Operational Parameters.
32. The Unique Identifier of a Slave Device may not be a manually configured device parameter.
33. After receiving Slave Operational Parameters from a Master Device, a Slave Device must communicate its Channel Usage Parameters (as defined in paragraph [24] above) to that Master Device, unless its Channel Usage Parameters have been determined by the Master Device.
34. "Slave Operational Parameters" means the following information which may take the form of Generic Slave Operational Parameters or specific Slave Operational Parameters:
- a) the lower and upper boundaries of the DTT channels within which a Slave Device may transmit;
 - b) the maximum permitted EIRP spectral density, in dBm over a bandwidth of 0.1 MHz, within each DTT channel within which a Slave Device may transmit;
 - c) the maximum permitted EIRP, in dBm, within each DTT channel within which a Slave Device may transmit;
 - d) limits on the maximum total number of DTT channels that may be used at any given time and the maximum number of contiguous DTT channels that may be used at any given time;
 - e) the time period during which the operational parameters are valid;
 - f) the geographic area within which the operational parameters are valid; and
 - g) information indicating if the simultaneous channel operation power restriction applies as specified in Schedule 3.
35. "Slave Device Parameters" means the following information:
- a) information specifying that it is a Slave Device;

- b) the Slave Device's Unique Identifier;
- c) information specifying that the Slave Device is Type A equipment or Type B equipment;
- d) the location of the Slave Device expressed as its antenna latitude and longitude coordinates; and
- e) the geo-location uncertainty in the Slave Device's antenna latitude and longitude coordinates.

Further requirements for a Master Device relating to Generic Slave Operational Parameters

- 36. A Master Device which communicates Generic Slave Operational Parameters to a Slave Device must have requested and received those Generic Slave Operational Parameters from a White Space Database.
- 37. When requesting Generic Slave Operational Parameters from a White Space Database, a Master Device must communicate its Master Device Parameters to that White Space Database.
- 38. A Master Device must communicate to the White Space Database from which it has received Generic Slave Operational Parameters the Unique Identifiers which have been communicated to the Master Device in accordance with paragraph [30] by Slave Devices which are transmitting using those Generic Slave Operational Parameters, together with the Master Device's own Unique Identifier.
- 39. A Master Device must communicate to the White Space Database from which it has received Generic Slave Operational Parameters, its Unique Identifier, together with the Channel Usage Parameters of any Slave Devices that transmit using the Generic Slave Operational Parameters, which must be either:
 - a) Channel Usage Parameters determined by the Slave Device and communicated to the Master Device in accordance with paragraph [33]; or
 - b) Channel Usage Parameters determined by the Master Device for that Slave Device.

Further requirements for a Master Device relating to specific Slave Operational Parameters

- 40. A Master Device which communicates Specific Slave Operational Parameters to a Slave Device must have requested and received those Specific Slave Operational Parameters from a White Space Database.
- 41. When requesting Specific Slave Operational Parameters from a White Space Database, a Master Device must communicate to that White Space Database the Slave Device

Parameters of the Slave Device which have been communicated to the Master Device in accordance with paragraph [31], together with the Master Device's Unique Identifier.

42. After receiving Specific Slave Operational Parameters from a White Space Database, a Master Device must communicate to that White Space Database:

- a) the Channel Usage Parameters of the Slave Device, which must be either Channel Usage Parameters determined by the Slave Device and communicated to the Master Device in accordance with paragraph [33], or Channel Usage Parameters determined by the Master Device for that Slave Device; and
- b) the Master Device's Unique Identifier.

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SCHEDULE [3] Simultaneous channel operation

The simultaneous channel operation power restriction can take a value of 0 or 1.

A value of 1 indicates that, in case of simultaneous operation in multiple DTT channels, a White Space Device must restrict its maximum total EIRP to $\{P_{1,i}\}$ dBm, where $P_{1,i}$ is the in-block EIRP provided by the Designated White Space Database in the operational parameters for DTT channel i specified by the frequency pair $f_{l,i}$, $f_{u,i}$ and where $f_{l,i}$ is the frequency at the lower edge of the i th channel and $f_{u,i}$ is the frequency at the upper edge of the i th channel.

A value of 0 indicates that this restriction does not apply.

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SCHEDULE 4 Installation Records

The information in Table 1 must be included in the Installation Record for a Manually Configurable White Space Device and provided by the Licensee to White Space Databases as required in accordance with paragraphs [7] to [9] of Schedule 1.

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Table 1 - Device Installation Record

| Device details | Description | Parameter is: Manually configured ²⁹ / Automatically configured ³⁰ / Not applicable ³¹ | Value | Comments |
|--|--|--|-------|--|
| Licensee ID | Licence number of the licensee who controls the device | N/A | | Please state the licence number |
| Unique Identifier (UniqueID) of a device | Manufacturer identifier, | N/A | | Each of the Manufacturer identifier, Model identifier and Serial number must be provided. Please note that the UniqueID of a device may not be manually configured. |
| | Model identifier | N/A | | |
| | Serial number | N/A | | |
| Manufacturer name | | N/A | | Please complete the full name of the manufacturer |
| Model name | | N/A | | Please give the full model name |

²⁹ A device parameter is “manually configured” if the information about the relevant technical characteristic of the device is input into the hardware or software settings of the device by the Licensee or a person duly authorised by the Licensee

³⁰ A device parameter is “automatically configured” if the information about the relevant technical characteristic of the device which will be communicated to the database is not manually configured

³¹ Some parameters do not need to be provided by Slave Devices which will only transmit using Generic Slave Operational Parameters, or do not need to be reported to databases because they are non-mandatory device parameters

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| Slave or Master | | Manually configured / Automatically configured | | You must state whether this parameter is manually or automatically configured, as well as identifying whether the device is a 'Slave' or 'Master' in the 'value' column. |
| Type A or Type B device | Type A Type B | Manually configured / Automatically configured | | The manufacturer of the equipment will declare whether the device is Type A or Type B. If you are entering this parameter into the device you must enter the Type declared by the manufacturer. You must state whether this parameter is manually configured or automatically configured, as well as identifying the type (i.e. A or B) in the 'value' column. |
| Fixed use or mobile use | Fixed (device will only transmit at a fixed location) Mobile (device may transmit while in motion) | N/A | | You must state whether the device will (i) only transmit at a fixed location or (ii) may transmit while in motion. If a device can be moved, but is intended to transmit from a fixed location only, it should be recorded as 'fixed' (even if Type B). A device which may transmit while in motion should be recorded as 'mobile'. Please note that a new installation record is required each time a fixed device is moved to a new location. |
| Antenna location: (a) latitude and (b) longitude | in WGS84 format | Manually configured / Automatically configured / Not applicable | | You must state whether these parameters are manually configured, automatically configured or not applicable. If the device is a Slave Device that only uses Generic Slave Operational Parameters then please enter Not Applicable (N/A) The location values themselves must be provided only if manually configured. |

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| | | | | <p>Please note that:</p> <ul style="list-style-type: none"> (i) a Master Device which is intended to transmit while mobile is not permitted to have manual configuration of location (i.e. it must have an automatic geo-location capability); (ii) if a Slave Device is intended to transmit while mobile using specific Slave Operational Parameters it must have automatic geo-location capability; and (iii) a Slave Device which is intended to transmit while mobile but without automatic geo-location capability may only use Generic Slave Operational Parameters. |
| <p>Uncertainty in antenna location: (a) latitude and (b) longitude</p> | <p>in metres, corresponding to a 95 % confidence level</p> | <p>Manually configured / Automatically configured / Not applicable</p> | | <p>You must state whether these parameters are manually configured, automatically configured or not applicable.</p> <p>If the device is a Slave Device that only uses Generic operational parameters then please enter Not Applicable (N/A)</p> <p>The location uncertainty values themselves must be provided only if these parameters are manually configured.</p> <p>Please note that:</p> <ul style="list-style-type: none"> (i) a Master Device which is intended to transmit while mobile is not permitted to have manual configuration of location (i.e. it must have an automatic geo-location capability); (ii) if a Slave Device is intended to transmit while mobile using Specific Slave Operational Parameters it must have automatic geo-location capability; and (iii) a Slave Device which is intended to transmit while mobile but without automatic geo-location capability may only use Generic Slave Operational Parameters. |

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| Location determination method | Method of determining the longitude/latitude, including the device/tech used if relevant | N/A | | If location is manually configured, please explain the method by which the location is determined (including any equipment used in establishing the location of a device). Please also indicate whether the device is to be used indoor or outdoor. |
| Antenna height AGL/ASL | in metres. If manually configured, state whether height is given above ground level (AGL) or above sea level (ASL) | Manually configured / Automatically configured / Not applicable | | <p>Note that this is not a mandatory device parameter and does not need to be communicated to a database when a device requests Operational Parameters. If it is not provided to a database, please record 'not applicable'.</p> <p>The value itself must be provided only if these parameters are manually configured.</p> <p>If antenna height is manually configured, you must also record whether the reported height is calculated from above ground level (AGL) or above sea level (ASL). Please note that if antenna height is manually configured and this information is not provided, the database will treat the antenna height as not provided.</p> <p>Please note that if this parameter is not communicated by a device, the database will apply a default value.</p> |
| Antenna type | Integral, Dedicated, External | N/A | | Please indicate if the antenna is Integral, Dedicated or External |
| Technology identifier | A set of characters representing the technology | Manually configured / Automatically configured / Not applicable | | <p>Note that this is not a mandatory device parameter and does not need to be communicated to a database when a device requests Operational Parameters. If it is not provided to a database, please record 'not applicable'.</p> <p>The value itself must be provided only if this parameter is manually configured. If this parameter is manually configured you must enter the technology identifier</p> |

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| | | | | <p>provided by the device manufacturer.</p> <p>Please note that if this parameter is not communicated to the database by a device, the database will apply a default value.</p> |
| Device Emission class | Class 1, Class 2, Class 3, Class 4 or Class 5 | Manually configured / Automatically configured / Not applicable | | <p>Note that this is not a mandatory device parameter and does not need to be communicated to a database when a device requests Operational Parameters. If it is not provided to a database, please record 'not applicable'.</p> <p>The value itself must be provided only if this parameter is manually configured. If this parameter is manually configured you must enter the emission class provided by the device manufacturer.</p> <p>Please note that if this parameter is not communicated to the database by a device, the database will apply a default value.</p> |
| Maximum output power capability | in dBm | N/A | | Please state the maximum output power capability |
| Application description | Text description of the intended use of this particular device, e.g. the operating times | N/A | | Please provide any information here about what the device is to be used for and how it is to be used. It would be helpful to include information about when/how often the device is likely to be used and whether it will be used indoor/outdoor. |

SCHEDULE 5 Interpretation

In this Licence the following terms shall have the following meaning (unless otherwise specified):

- a) The “Act” means the Wireless Telegraphy Act 2006;
- b) “automatically configured device parameter” means a device parameter which is not a manually configured device parameter within the meaning of Schedule 2, paragraph [23];
- c) “Automatic Geo-location Capability” has the meaning given to it in Schedule 2, paragraph [20];
- d) “Channel Usage Parameters” has the meaning given to it in Schedule 2, paragraph [24];
- e) “dbm” means decibels of power referenced to one milliWatt;
- f) “Dedicated Antenna” means a removable antenna which has been designed for use and supplied with a specific type of White Space Device;
- g) “Discoverable List of White Space Databases” means the list of White Space Databases 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;
- h) “DTT channel” is an 8 MHz frequency channel in accordance with the European harmonised DTT channel raster;
- i) “EIRP” means equivalent isotropic radiated power, which is the product of the power supplied to an antenna and the absolute or isotropic antenna gain in a given direction relative to an isotropic antenna;
- j) the establishment, installation and use of the Radio Equipment shall be interpreted as establishment or use of wireless telegraphy stations and installation or use of wireless telegraphy apparatus as specified in section 8 of the Act;
- k) “External Antenna” means a removable antenna which is not a dedicated antenna;
- l) “Generic Slave Operational Parameters” has the meaning given at Schedule 2, paragraph [26(a)(i)];
- m) “geo-location uncertainty” means, in respect of a White Space Device, the uncertainty (in metres) of its reported antenna latitude and longitude co-ordinates;
- n) “in-block EIRP spectral density” means the EIRP specified in dBm over a bandwidth of 0.1 MHz and the EIRP specified in dBm over a bandwidth of 8 MHz

where both EIRPs are measured within the DTT channels used by a White Space Device;

- o) "inspect" includes examine and test;
- p) "Installation Record" has the meaning given to it in Schedule 1, paragraph [7];
- q) "Integral Antenna" means a permanent, fixed antenna forming part of a White Space Device;
- r) the expression "interference" shall have the meaning given by section 115 of the Act; and
- s) "kHz" means kilohertz;
- t) "manually configured device parameter" has the meaning given to it in Schedule 2, paragraph [23];
- u) "Manually Configurable White Space Device" has the meaning given to it in Schedule 2, paragraph [10];
- v) "Master Device" has the meaning given to it in Schedule 2, paragraph [6];
- w) "Master Device Parameters" has the meaning given to it in Schedule 2, paragraph [21];
- x) "Master Operational Parameters" has the meaning given to it in Schedule 2, paragraph [19];
- y) "MHz" means megahertz;
- z) "non-interference, non-protected" means that the Radio Equipment must not cause undue interference to any other authorised wireless telegraphy stations or apparatus and no claim may be made for protection from undue interference originating from other authorised wireless telegraphy stations or apparatus;
- aa) "Operational Parameters" means Master Operational Parameters or Slave Operational Parameters;
- bb) "Slave Device" has the meaning given to it in Schedule 2, paragraph [7];
- cc) "Slave Device Parameters" has the meaning given to it in Schedule 2, paragraph [35];
- dd) "Slave Operational Parameters" has the meaning given to it in Schedule 2, paragraph [34];
- ee) "Specific Slave Operational Parameters" has the meaning given to it in Schedule 2, paragraph [26(a)(ii)];
- ff) "Type A equipment" has the meaning given to it in Schedule 2, paragraph [8];

- gg) “Type B equipment” has the meaning given to it in Schedule 2, paragraph [9];
- hh) “Unique Identifier” has the meaning given to it in Schedule 2, paragraph [22];
- ii) “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;
- jj) “White Space Devices” means wireless telegraphy stations or apparatus as defined in paragraph 5 of Schedule 2;
- kk) the expressions “wireless telegraphy apparatus” and “wireless telegraphy station” shall have the meanings given by section 117 of the Act.

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