
**Implementing Ofcom's decisions on the 57
– 71 GHz band:
Notice of proposal to make the Wireless
Telegraphy (Exemption and Amendment)
(Amendment)(No. 2) Regulations 2018**

CONSULTATION:

Publication Date: 5 July 2018

Closing Date for Responses: 6 August 2018

About this document

This document consults on Ofcom's proposal to make new regulations by statutory instrument. The new regulations change and extend the existing technical conditions and exemption from the requirement to obtain a Wireless Telegraphy Act licence for short range devices and fixed wireless systems.

The regulations are intended to implement Ofcom's decisions in its Statement on the review of spectrum used by fixed wireless services ("FWS Statement")¹ as follows:

- a) For short range wideband data transmission:
 - (i) extend the current licence exemption and technical conditions (from 57 – 66 GHz) up to 71 GHz; and
 - (ii) introduce new technical conditions to allow licence exempt use of lower power equipment operating in a fixed outdoor installation in the 57 – 71 GHz band.

- b) For fixed wireless systems:
 - (i) extend the current licence exemption (from 57.1 GHz – 63.9 GHz) to 70.875 GHz, and by doing so, change the current authorisation approach for fixed wireless systems operating in the 64 – 66 GHz band from light licence to licence exempt; and
 - (ii) extend the current technical conditions (from 57.1 – 63.9 GHz) up to 70.875 GHz.

The deadline to submit responses for this consultation is 5pm on 6 August 2018.

¹ https://www.ofcom.org.uk/data/assets/pdf_file/0017/115631/statement-fixed-wireless-spectrum-strategy.pdf

1. Notice

Notice of proposals

- 1.1 This notice follows from the FWSS Consultation², in which Ofcom consulted on technical proposals to facilitate new use cases in the 57 – 66 GHz band under a single authorisation approach.
- 1.2 On 5 July 2018, we published our FWS Statement³ setting out our decisions (and reasoning) to change the authorisation approach for fixed wireless systems in the 64 – 66 GHz band to licence exempt and to implement common technical conditions across the 57- 71 GHz band for fixed and mobile use on a licence exempt basis.
- 1.3 This notice is given in accordance with section 122(4) and (5) of the Wireless Telegraphy Act 2006 (the “2006 Act”) and explains our proposal to make a statutory instrument (see Annex A1).
- 1.4 This statutory instrument is intended to amend the Wireless Telegraphy (Exemption and Amendment) Regulations 2010 (the “2010 Exemption Regulations”) to implement the decisions we have taken in the FWS Statement regarding technical conditions and licence exempt use in the 57 – 71 GHz band.

Background to notice

- 1.5 Ofcom is responsible for authorising use of the radio spectrum. We permit the use of the radio spectrum either by granting wireless telegraphy licences under the 2006 Act or by making statutory regulations exempting users of particular equipment from the requirement to hold such a licence. It is unlawful and an offence to install or use wireless telegraphy apparatus without holding a licence granted by Ofcom, unless the use of such equipment is exempted.

Existing use and regulation of the 57 – 71 GHz band and proposed changes: first change (short range wideband data transmission)

- 1.6 At present, the frequencies from 57 GHz to 66 GHz are available and used on a licence exempt basis for short range wideband data transmission. For these uses, the maximum EIRP permitted is 40 dBm and the minimum mean EIRP density is 13 dBm/MHz. Fixed outdoor installation is not permitted.
- 1.7 The relevant legislation which permits this licence exempt use is the 2010 Exemption Regulations. These regulations have been amended several times, including recently in

² https://www.ofcom.org.uk/data/assets/pdf_file/0027/108594/Fixed-Wireless-Spectrum-Strategy.pdf

³ https://www.ofcom.org.uk/data/assets/pdf_file/0017/115631/statement-fixed-wireless-spectrum-strategy.pdf

2018. Regulation 5 of these regulations authorises this use by referring to the description of equipment in Ofcom's Interface Requirement publication "IR 2030 – UK Interface Requirements 2030 Licence Exempt Short Range Devices" published by Ofcom in February 2018.⁴

- 1.8 Ofcom, following consultation in December 2017, has decided to extend the current licence exemption (from 57 GHz up to 66 GHz) up to 71 GHz under existing technical conditions. Ofcom will also make technical changes permitting low power outdoor installations and use operating at up to 40 dBm EIRP to operate at a maximum transmit output power of 27 dBm without a minimum antenna gain requirement.⁵
- 1.9 This Notice sets out the proposed legislation which is proposed to achieve this change. The legislation will achieve this by making changes to refer to an updated version of the Interface Requirement which contains the technical changes.

Existing use and regulation of the 57 – 71 GHz band and proposed changes: second change (fixed wireless systems)

- 1.10 At present, the frequencies from 57.1 GHz to 63.9 GHz are available and used on a licence exempt basis for fixed wireless systems. For these uses, the maximum EIRP permitted is 55 dBm, the maximum transmit output power is 10 dBm and the minimum antenna gain is 30 dBi.
- 1.11 The relevant legislation which permits this licence exempt use is the 2010 Amendment Regulations. Regulation 6 of these regulations authorises this use by referring to the description of equipment in Ofcom's Interface Requirement publication "IR 2078 - UK Interface Requirement 2078 Fixed Wireless Systems in the frequency band 57.1 to 63.9 GHz", published by Ofcom in October 2010.⁶
- 1.12 The frequencies from 64 GHz to 66 GHz are also available and used on a licensed basis (self coordinated) for fixed wireless systems. The maximum EIRP is 55 dBW.
- 1.13 Ofcom, following consultation in December 2017, has decided to extend the licence exemption from 57.1 GHz up to 66 GHz, and beyond up to 70.875 GHz under the existing technical conditions.⁷
- 1.14 This Notice sets out the proposed legislation which is proposed to achieve these changes. The legislation will achieve this by making changes to refer to the updated versions of the Interface Requirements which contain the technical changes.

⁴ The current version of IR 2030 is available at: https://www.ofcom.org.uk/data/assets/pdf_file/0028/84970/ir-2030-july-2017.pdf

⁵ See proposed changes underlined in tracked changes in Annex A2 of this document.

⁶ The current version of IR 2078 is available at: https://www.ofcom.org.uk/data/assets/pdf_file/0028/84646/ir_2078.pdf

⁷ See proposed changes underlined in tracked changes in Annex A3 of this document.

Earlier policy consultation

- 1.15 These two changes follow from the FWSS Consultation, in which we consulted on technical proposals to facilitate new use cases in the 57 – 66 GHz band under a single authorisation approach.
- 1.16 On 5 July 2018, we published our FWS Statement setting out our decisions to change the authorisation approach for fixed wireless systems in the 64 – 66 GHz band to licence exempt and to implement common technical conditions across the 57 - 71 GHz band for fixed and mobile use on a licence exempt basis. A summary of the technical conditions which we propose to permit under this new legislation are shown in Figure 1.

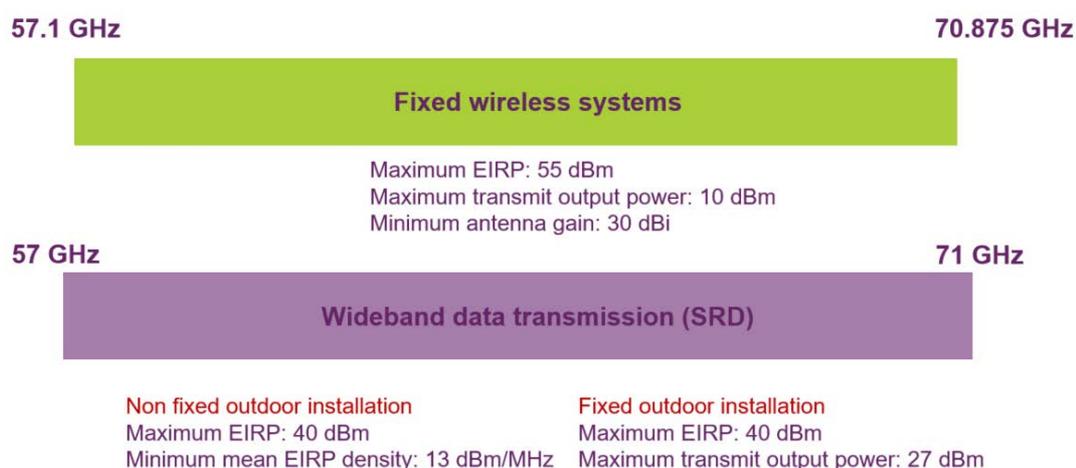


Figure 1: Technical conditions in the 57 – 71 GHz band

- 1.17 The general effect of the Proposed Regulations would be to implement this decision. Equipment must meet the minimum parameters as set out in IR 2030 and IR 2078 (see Annex A2 and A3) to qualify for exemption under the 2006 Act. The substantive requirements for, and detailed effects of, the exemption are set out in the FWS Statement.
- 1.18 As discussed in the FWS Statement, Ofcom will make the appropriate changes to the 65/70/80 GHz Self Coordinated licences to reflect the authorisation changes proposed in this document in due course.

Proposed regulations

- 1.19 To give effect to these decisions, we are proposing to make the Wireless Telegraphy (Exemption and Amendment) (Amendment)(No. 2) Regulations 2018 (the “Proposed Regulations”), set out in Annex A1 to this document.
- 1.20 The Proposed Regulations are intended to amend the 2010 Exemption Regulations as follows:
- For short range wideband data transmission: amend regulation 5 of the 2010 Exemption Regulations to refer to an updated version of IR 2030; and

- b) For fixed wireless systems: amend regulation 6 of the 2010 Exemption Regulations to refer to an updated version of IR 2078.
- 1.21 The proposed amendments to the relevant section of Interface Requirement 2030 (are set out in Annex A2 to this document and shown underlined in tracked changes. The full Interface Requirement 2030 with the proposed amendments is published on the Ofcom website⁸.
- 1.22 The proposed amendments to IR 2078 are set out in Annex A3 to this document and shown underlined in tracked changes. The full Interface Requirement 2078 with the proposed amendments is published on the Ofcom website⁹.

Question:

Do you have any comments on the drafting of the Proposed Regulations in Annex A1?

Entry into force of the Proposed Regulations

- 1.23 Following this consultation period, Ofcom will take into account any comments received on the drafting of the Proposed Regulations and may amend them, if considered appropriate. Ofcom plans to publish its final statement relating to the Proposed Regulations in October 2018. This statement will confirm the final version of the Proposed Regulations.
- 1.24 The Proposed Regulations will come into force as soon as practical after making the final statement.

Comments and representations

- 1.25 In accordance with the requirements of section 122(4) and (5) of the 2006 Act, this document gives statutory notice of our proposal to make the Proposed Regulations (as set out in Annex A1). We are seeking comments on whether the Proposed Regulations correctly implement our decisions in the FWS Statement but are not seeking comments on the policy decisions themselves.
- 1.26 Comments on the Proposed Regulations are invited by 5pm on 6 August 2018.

⁸ See: https://www.ofcom.org.uk/_data/assets/pdf_file/0021/115653/Draft-IR-2030.pdf

⁹ See: https://www.ofcom.org.uk/_data/assets/pdf_file/0022/115654/Draft-IR-2078.pdf

2. General legislative background

- 2.1 Under section 8 (1) of the 2006 Act, it is unlawful to establish or use a wireless telegraphy station or install or use wireless telegraphy apparatus except under and in accordance with a wireless telegraphy licence granted under the 2006 Act.
- 2.2 Under section 8 (3) of that Act, Ofcom may make regulations exempting from the licensing requirements under section 8 (1) the establishment, installation or use of wireless telegraphy stations or wireless telegraphy apparatus of such classes or description as may be specified in the regulations, either absolutely or subject to such terms, provisions and limitations as may be specified.
- 2.3 Under section 8(4) of the 2006 Act, we must make regulations to exempt equipment if its installation or use is not likely to:
- involve undue interference with wireless telegraphy;
 - have an adverse effect on technical quality of service;
 - lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
 - endanger safety of life;
 - prejudice the promotion of social, regional or territorial cohesion; or
 - prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 2.4 In accordance with the requirements of section 8(3B) of the 2006 Act, the terms, provisions and limitations specified in the regulations must be:
- objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate;
 - not such as to discriminate unduly against particular persons or against a particular description of persons;
 - proportionate to what they are intended to achieve; and
 - transparent in relation to what they are intended to achieve.
- 2.5 We make exemption regulations by means of a statutory instrument. Before making any such regulations, we are required by section 122(4) of the 2006 Act to give notice of our proposal to do so. Under section 122(5), the notice must state that we propose to make the regulations in question, set out their general effects, specify an address from which a copy of the proposed regulations or order may be obtained, and specify a time period of at least one month during which any representations with respect to the proposal must be made to us.

A1. Draft of Proposed Regulations

STATUTORY INSTRUMENTS

2018 No.

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Exemption and Amendment) (Amendment) (No. 2) Regulations 2018

Made - - - -

Coming into force - -

1. The Office of Communications (“OFCOM”) make the following Regulations in exercise of the powers conferred by sections 8(3) and 122 of the Wireless Telegraphy Act 2006(
2. ¹⁾(the “Act”).

Before making these Regulations, OFCOM have given notice of their proposal to do so in accordance with section 122(4)(a) of the Act, published notice of their proposal in accordance with section 122(4)(b) of the Act, and have considered the representations made to them before the time specified in the notice in accordance with section 122(4)(c) of the Act.

Citation and commencement

1.—(1) These Regulations may be cited as the Wireless Telegraphy (Exemption and Amendment) (Amendment) (No. 2) Regulations 2018 and shall come into force on [] 2018.

Amendment of the Wireless Telegraphy (Exemption and Amendment) Regulations 2010

2.—(1) The Wireless Telegraphy (Exemption and Amendment) Regulations 2010⁽²⁾ shall be amended in accordance with the following provisions of these Regulations.

(2) In regulation 5 (short range devices), for ““IR 2030—UK Interface Requirements 2030 Licence Exempt Short Range Devices”, published by OFCOM in February 2018”, substitute ““IR 2030—UK Interface Requirements 2030 Licence Exempt Short Range Devices”, published by OFCOM in xx 2018”.

(3) In regulation 6 (fixed wireless systems), for ““IR 2078, UK Interface Requirement 2078, Fixed Wireless Systems in the frequency band 57.1 to 63.9 GHz(c)” substitute ““IR 2078—UK Interface Requirement 2078, Fixed Wireless Systems in the frequency band 57.1 to 70.875 GHz published by OFCOM in xx 2018”.

⁽¹⁾ 2006 c.36; sections 8(3), 12 and 122 were extended to the Bailiwick of Guernsey by article 2 of the Wireless Telegraphy (Guernsey) Order 2006 (S.I. 2006/3325); to the Bailiwick of Jersey by article 2 of the Wireless Telegraphy (Jersey) Order 2006 (S.I. 2006/3324); and to the Isle of Man by article 2 of the Wireless Telegraphy (Isle of Man) Order 2007 (S.I. 2007/278).

⁽²⁾ S.I. 2010/2512 as amended by S.I. 2011/3035, S.I. 2013/1253, S.I. 2014/1484, S.I. 2017/746 and S.I. 2018/263.

Group Director of Spectrum Group
For and by the authority of the Office of Communications

EXPLANATORY NOTE

(This note is not part of the Regulations)

A2. Draft updated IR 2030 (showing proposed amendments underlined in tracked changes)¹²

Table 3.1: Minimum requirements for the use of Short Range Devices									
Normative Part									Informative Part
Interface / Notification number / Date	Application	Comments to application	Frequency band	Comments to frequency band	Maximum transmit power / Power spectral density / Field strength	Comments to Maximum transmit power / Power spectral density / Field strength	Channelling	Channel access and occupation rules	Reference
IR2030/7/2 2010/0168/UK Oct 2010	Wideband Data Transmission Systems	Equipment must not form part of a fixed outdoors installation. Equipment may be used airborne	57 – 66 <u>71</u> GHz		40 dBm e.i.r.p. / 13 dBm/MHz e.i.r.p.			Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 2014/53/EU must be used	EN 302 567 2013/752/EU Band No.75

¹² The full version of IR 2030 with proposed amendment is available at: https://www.ofcom.org.uk/_data/assets/pdf_file/0021/115653/Draft-IR-2030.pdf

Wireless Telegraphy (Exemption and Amendment) (Amendment)(No. 2) Regulations 2018

<p><u>IR2030/7/4</u></p>	<p><u>Wideband Data Transmission Systems</u></p>	<p><u>Equipment forming part of a fixed outdoor installation.</u></p>	<p><u>57 – 71 GHz</u></p>	<p><u>For operation in the 59 – 63.9 GHz band, transmission not permitted within six kilometres of any of the following locations (expressed by latitude and longitude coordinates)-</u> <u>(i)07° 23' 36.6" W, 57° 21' 3.6" N;</u> <u>(ii)04° 58' 21" W, 51° 37' 16.8" N; and</u> <u>(iii)00° 36' 22.8" W, 52° 38' 1.8" N.</u></p>	<p><u>40 dBm e.i.r.p. / 27 dBm maximum transmit output power*</u> <u>*total conducted power delivered to antenna port/ports</u></p>			<p><u>Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 2014/53/EU must be used</u></p>	<p><u>EN 302 567</u></p>
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A3. Draft updated IR 2078 (showing proposed amendments underlined in tracked changes)¹³

Table 3.1: Minimum requirements for the use of: FWS operating in the 57.1 – 63.9 <u>70.875</u> GHz band		
Mandatory (1-10)		
1	Frequency band(s)	57.1 – 63.9 <u>70.875</u> GHz
2	Radiocommunication Service	Fixed
3	Application	Fixed Links
4	Channelling	
5	Modulation / 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 4.1)
8	Channel access and occupation rules	
9	Authorisation regime	Licence exempt
10	Additional essential requirements	N/A
Informative (11-13)		
11	Frequency planning assumptions	
12	Planned changes	
13	Reference	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.
14	Notification	
15	Remarks	None

¹³ The full version of IR 2078 with proposed amendments available at:
https://www.ofcom.org.uk/_data/assets/pdf_file/0022/115654/Draft-IR-2078.pdf

A4. Responding to this consultation

How to respond

- A4.1 Ofcom invites views and comments on the issues raised in this document, to be made by 5pm on 6 August 2018.
- A4.2 You can download a response form from <https://www.ofcom.org.uk/consultations-and-statements/category-3/implementing-decisions-57-71-ghz-band>. You can return this by email or post to the address provided in the response form.
- A4.3 If your response is a large file, or has supporting charts, tables or other data, please email it to 60GHz@ofcom.org.uk, as an attachment in Microsoft Word format, together with the cover sheet (<https://www.ofcom.org.uk/consultations-and-statements/consultation-response-coversheet>).
- A4.4 Responses may alternatively be posted to the address below, marked with the title of the consultation:
- Paul Chapman
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- A4.5 We welcome responses in formats other than print, for example an audio recording or a British Sign Language (“BSL”) video. To respond in BSL:
- Send us a recording of you signing your response. This should be no longer than 5 minutes. Suitable file formats are DVDs, wmv or QuickTime files; or
 - Upload a video of you signing your response directly to YouTube (or another hosting site) and send us the link.
- A4.6 We will publish a transcript of any audio or video responses we receive (unless your response is confidential).
- A4.7 We do not need a paper copy of your response as well as an electronic version. We will acknowledge receipt if your response is submitted via the online web form, but not otherwise.
- A4.8 It would be helpful if your response could include direct answers to the question asked in the consultation document. The question is listed at Annex 6. It would also help if you could explain why you hold your views, and what you think the effect of Ofcom’s proposals would be. We also welcome joint responses.
- A4.9 If you want to discuss the issues and question raised in this consultation, please contact Paul Chapman on 020 7981 3069 or email 60GHz@ofcom.org.uk.

Confidentiality

- A4.10 Consultations are more effective if we publish the responses before the consultation period closes. In particular, this can help people and organisations with limited resources or familiarity with the issues to respond in a more informed way. So, in the interests of transparency and good regulatory practice, and because we believe it is important that everyone who is interested in an issue can see other respondents' views, we usually publish all responses on our website, www.ofcom.org.uk, as soon as we receive them.
- A4.11 If you think your response should be kept confidential, please specify which part(s) this applies to, and explain why. Please send any confidential sections as a separate annex. If you want your name, address, other contact details or job title to remain confidential, please provide them only in the cover sheet, so that we don't have to edit your response.
- A4.12 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and try to respect it. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A4.13 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's intellectual property rights are explained further at <https://www.ofcom.org.uk/about-ofcom/website/terms-of-use>

Next steps

- A4.14 Following this consultation period, Ofcom plans to publish a final statement relating to the Proposed Regulations in October 2018.
- A4.15 If you wish, you can register to receive mail updates alerting you to new Ofcom publications; for more details please see <https://www.ofcom.org.uk/about-ofcom/latest/email-updates>

Ofcom's consultation processes

- A4.16 Ofcom aims to make responding to a consultation as easy as possible. For more information, please see our consultation principles in Annex A5.
- A4.17 If you have any comments or suggestions on how we manage our consultations, please email us at consult@ofcom.org.uk. We particularly welcome ideas on how Ofcom could more effectively seek the views of groups or individuals, such as small businesses and residential consumers, who are less likely to give their opinions through a formal consultation.
- A4.18 If you would like to discuss these issues, or Ofcom's consultation processes more generally, please contact Steve Gettings, Ofcom's consultation champion:

Steve Gettings
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA
Email: corporationsecretary@ofcom.org.uk

A5. Ofcom's consultation principles

Ofcom has seven principles that it follows for every public written consultation:

Before the consultation

- A5.1 Wherever possible, we will hold informal talks with people and organisations before announcing a big consultation, to find out whether we are thinking along the right lines. If we do not have enough time to do this, we will hold an open meeting to explain our proposals, shortly after announcing the consultation.

During the consultation

- A5.2 We will be clear about whom we are consulting, why, on what questions and for how long.
- A5.3 We will make the consultation document as short and simple as possible, with a summary of no more than two pages. We will try to make it as easy as possible for people to give us a written response. If the consultation is complicated, we may provide a short Plain English / Cymraeg Clir guide, to help smaller organisations or individuals who would not otherwise be able to spare the time to share their views.
- A5.4 We will consult for up to ten weeks, depending on the potential impact of our proposals.
- A5.5 A person within Ofcom will be in charge of making sure we follow our own guidelines and aim to reach the largest possible number of people and organisations who may be interested in the outcome of our decisions. Ofcom's Consultation Champion is the main person to contact if you have views on the way we run our consultations.
- A5.6 If we are not able to follow any of these seven principles, we will explain why.

After the consultation

- A5.7 We think it is important that everyone who is interested in an issue can see other people's views, so we usually publish all the responses on our website as soon as we receive them. After the consultation we will make our decisions and publish a statement explaining what we are going to do, and why, showing how respondents' views helped to shape these decisions.

A6. Consultation coversheet

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing

Name/contact details/job title

Whole response

Organisation

Part of the response

If there is no separate annex, which parts? _____

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)

A7. Consultation question

Question:

Do you have any comments on the drafting of the Proposed Regulations in Annex A1?