

# Point to point fixed link licence application form – OfW85

## Guidance for completing this form

### Who should use this form?

You may use this form to apply, vary or surrender for a Terrestrial Point to Point Fixed Link.

### Conditions

Under the Wireless Telegraphy Act 2006, you must have a licence issued by Ofcom before you establish or use any Point to Point Fixed Link equipment.

### Communication preference

Where possible, all correspondence will be sent to licensees electronically. If you do not wish to receive documents electronically, you must opt out by ticking the box against each contact.

### Completing this form

When completing this application please refer to the notes and complete in dark ink in BLOCK CAPITALS.

All fields are mandatory unless stated otherwise.

### Batch applications

For large numbers of links, we provide an electronic batch -load process, if this is agreed in advance. Only applications submitted in this form will be processed electronically. Any other formats or batches with incomplete information will be returned unprocessed. To find out about this method then please contact us.

### Payment

Payments must include all bank charges. If Ofcom does not receive full payment, it will return any partial payments received.

### Important

When making a new application, you are advised not to commit to the purchase of the equipment until you have received your licence documentation.

The Wireless Telegraphy (Licence Charges) regulations set out the fees for licences to use equipment issued under the Wireless Telegraphy Act. Additionally, information can be found on the Ofcom website detailing how to calculate your licence fee.

### How Ofcom handles personal data

We require this information in order to carry out our spectrum licensing duties under the Wireless Telegraphy Act 2006. Please see [Ofcom's General Privacy Statement](#) for further information about how Ofcom handles your personal information and your corresponding rights.

### For help contact:

Ofcom  
FAO Spectrum Licensing  
PO Box 1285  
Warrington  
WA1 9GL

Email: [spectrum.licensing@ofcom.org.uk](mailto:spectrum.licensing@ofcom.org.uk)

Website: [www.ofcom.org.uk/manage-your-licence](http://www.ofcom.org.uk/manage-your-licence)

Phone: 020 7981 3131

# Guidance notes

If these notes do not answer your query, please contact Ofcom Spectrum Licensing using the details on page 1

To provide the very best service it is vital that you provide the most accurate information you can in this application form. If you are in any doubt or are unsure about any of the questions, please seek technical advice from your radio supplier or another technical expert.

It is also crucial to provide accurate contact information so that we can send you any licence documents successfully and contact you if required. Where possible, provide a valid email address as we can send you any letters automatically by this method.

## General information

Under the terms of the Wireless Telegraphy Act 2006, it is an offence to install or use radio apparatus, unless:

- you do so under and in accordance with a licence issued by Ofcom (the Office of Communications); or
- the apparatus is specifically exempt from licensing.

Responsibility for obtaining and paying for a licence rests with the user of the system, not with the supplier of the equipment. Due to the technical nature of some of the sections of the application form it would be prudent to complete the application with assistance from your appointed radio supplier, engineer, or technician. Submitting a licence application does not permit you to use or even install any equipment until you have been issued with a fully authorised licence from Ofcom. Also, it is the licensee's responsibility to confirm that the details in the licence are correct and accurate.

Ofcom can inspect base stations for compliance against the permitted licensing terms and conditions stated under the licence. Breaches against the terms and conditions are taken seriously and if you operate outside your terms and conditions you will invalidate your licence and be using your system unlawfully. This can lead to you being issued with a fixed penalty notice or being prosecuted in a criminal court, depending on the circumstances of the breach.

## Radio Interference

Since the operation of a new system may cause interference to existing users, your supplier may consider it necessary to carry out compatibility tests before you apply for your licence. Once installed and operating, your system must operate always within the parameters of the terms and conditions of your licence and not cause undue interference to any other wireless telegraphy equipment. If it does, you may need to stop operating until the cause of the interference has been rectified. Ofcom cannot offer any protection against interference radiated by other authorised services; however, if you do experience interference, please contact [spectrum.licensing@ofcom.org.uk](mailto:spectrum.licensing@ofcom.org.uk).

## International coordination

A fixed link operating outside the UK mainland, such as in the North Sea, or with one of the transmitting stations in a neighbouring country will be subject to international coordination with one or more countries. This permits the assessment of a suitable channel. The coordination advances transparent decisions, before licensing and assignment of frequencies. The UK mainland refers to the United Kingdom and Northern Ireland and includes England, Wales and Scotland but excludes the Channel Islands and Isle of Man which are Crown dependencies.

**The remainder of these guidance notes provide advice on the questions in Sections A to E.**

## Section B – Customer details

### Question B1a – Existing customers

If you already hold an Ofcom radio licence, you should write your customer reference number in the box provided. Your customer reference number will be quoted in licence documentation or correspondence that we have previously sent to you.

### Question B1b – Harmonising a licence

Ofcom can align invoices for similar licence products to one consolidated date. This makes invoicing and payments easier to manage.

The conditions for harmonising a licence are:

- The licence must be under an existing customer reference number;
- Must be the same licence product;
- Must have identical payment terms (e.g. 1 to 5 years);
- Must have an identical payment contact, and;
- Must be no outstanding invoice against the licence.

### Question B2 – New customers

A licence can only be issued to a legal entity (including an individual person). You should complete the appropriate option provided or if none of these applies, then provide your details under other legal entities. The declaration in Section F should also be signed. For a partnership, please give the full name of one partner and supply a list of all other partners. The main partner is also required to sign the declaration in Section F.

### Question B3 – Licensee address

If you are applying on behalf of a Limited Company, a Public Limited Company or a Registered Charity, the registered address of the organisation must be used. The licensee will receive all licensing documentation and correspondence.

#### Question B4 – Licence contact name and address

This can be an additional contact who should also receive licensing documentation and correspondence.

#### Question B5 – Payment and billing contact

The payment (billing) contact may be different from either the licensee or licence contact.

#### Question B6 – Third-party contact

If the licence is being handled by a third-party contact such as a radio supplier, then this can be provided.

#### Question B7 – Contact for licence trades

Spectrum trading is a process that allows holders to transfer or lease the licence rights to another. It is only permitted for those licences, such as this, where Ofcom has made regulations under section 30 of the Wireless Telegraphy Act. For all spectrum trading enquiries please email [spectrum.tradingdesk@ofcom.org.uk](mailto:spectrum.tradingdesk@ofcom.org.uk).

### Section C – Station details

#### Question C1 – New links

You must enter your own unique customer reference. You can use any combination of up to 10 alpha/numeric characters. We will consider any characters such as '\*' and '/' as a valid part of the Customer System Reference.

#### Question C2 – Variations and surrenders

For a variation or surrender it is mandatory to provide the existing licence number.

#### Question C3 – Frequency band

Select one of the available band options.

#### Question C4 – Tuning range

The tuning range is an optional question, but this allows you to provide any equipment carrier tuning range for consideration. This frequency range may be the equipment frequency range and must be specified between lower and upper frequency limits in the upper duplex range if using duplex operation. If you specify a carrier tuning range in MHz, Ofcom will attempt to assign the frequency (channel) in this range. If your assignment is unsuccessful then we will automatically assign you the nearest available.

#### Question C5 – Polarisation

Select your preferred polarisation. If you tick no preference, then we will attempt on vertical first before horizontal for linear requirements.

#### Question C6 – Propagation availability

The propagation availability level which determines the receiver median signal level (receiver sensitivity level plus fade margin) and ultimately your assigned transmit power. The Effective Isotropically Radiated Power (EIRP) is determined in dBW using:

**EIRP = Rx Median signal level + Rx station feeder losses – Rx antenna gain + median path loss**

Availability can be any value from 99.9% to 99.999%.

#### Question C7 – Directionality

You can select whether the link transmits in one direction (uni-directional) or transmits and receives in both directions (bi-directional).

### Section D – Station details

#### Questions D1 and D2 – Path length and site locations

The accuracy of the station locations is a critical parameter that will dramatically affect the modelling of your radio system and any errors could result in potential interference to your system and to other users. Please take care in ensuring that these details are as accurate as possible to mitigate this risk. All locations must have 1 metre accuracy. When submitting NGR's on the application please provide in the following format: National Grid Reference – NGR (e.g. TQ 32284 80497). When providing latitude and longitude values then please provide the information in the following format: Latitude/Longitude (WGS84) 51:30:28.540N 0:5:43.005W.

We check that there is reasonable correlation between the path length value you provide and our calculation of the path length from the provided coordinates. This is a safety measure which helps ensure the link is in the correct part of the country. If we have a problem, then we will contact you to confirm the positions of the stations.

#### Questions D3 – Station name and address

Provide the name and address of each station.

#### Questions D4 – Antenna height

Provide the height in metres to the centre of the antenna above ground level or mean sea level if offshore.

#### Questions D5 – Transmit convention

Specify which of the stations A or B transmits high.

#### Questions D6 – International coordination

If at least one of the stations is not within the United Kingdom of Great Britain and Northern Ireland including England, Wales and Scotland. then tick this box.

## Section E – System details

### Questions E1 – Equipment compliance

Tick to confirm that your equipment complies with one of the licensing options listed in UK Interface Requirement 2000. Applications will not be processed if this is not answered.

### Questions E2 – Equipment details

The Equipment Reference Code should be used from the Master Equipment list published on the Ofcom website and helps to simplify the licensing process. If the equipment is not listed, then please contact us before making your application. The Equipment Reference Code is a unique reference which identifies ETSI spectral efficiency, bit rate, bandwidth, modulation level, frequency band and type. Additionally, we ask for the equipment manufacturer and model number. Occasionally manufacturers change their name from time to time and sometimes this confuses the identification of equipment.

### Questions E3 and E4 – Antenna details

The Antenna Reference Code should be used from the Master Antenna list published on the Ofcom website and again helps to simplify the licensing process. If the antenna is not listed, then please contact us before making your application. The Antenna Reference Code is a unique reference which identifies the performance, frequency band and type. Additionally, we ask for the antenna manufacturer and model number. Occasionally manufacturers change their name from time to time and sometimes this confuses the identification of equipment. If you are providing a copy of the radiation pattern diagram, then you should also tick the relevant box.

### Questions E5 and E6 – Station losses

Losses should be provided in dB rounded to the nearest whole dB. The loss may be 0dB as in the case of an integrated transceiver with parabolic antenna operating above 25 GHz or the equipment might be connected by a run of waveguide with typically 2dB feeder loss. At lower frequencies, we normally expect a value much greater than 0dB for feeder losses connecting the terminal indoor and outdoor units. In exceptional conditions this might exceed 15dB to 20dB where the units are connected by waveguide or coaxial cable.

System losses, such as branching or hot standby losses, which are acceptable are stated on a band-by-band basis in our published Technical Frequency Assignment Criteria. We use this criterion to judge whether your requirements are reasonable. Ofcom does not generally permit the use of frequency diversity for standby purposes nor does it encourage the use of N+1 systems.

We make a judgement on unreasonable losses and retain the right to challenge or refuse any losses which seem high. Generally, acceptable feeder losses are no more than 10 dB and combined other losses no more than 4 dB. Justification for values greater than these limits should be provided and we consider these on a case-by-case basis.

## A. Application purpose

### A.1 Please tick the relevant box:

Fixed link new application - now complete sections B to F

Fixed link licence variation - now answer B1, and sections C to E (as appropriate) and F

Surrender a fixed link licence - now answer B1, C2 and complete section F

### A.2 If you require a licence for less than 12 months, then indicate both the start and end dates

Start date:

End date:

## B. Applicant details

### B.1a Customer Reference Number (for existing licensees only)

You can harmonise the renewal date of your licence with the renewal date of an existing licence providing the conditions are met in the guidance.

### B.1b To harmonise a licence please provide:

Existing licence number

Required renewal date (DD/MM/YYYY)

Now go to question B.4

### B.2 Who is the licence to be issued to?

A licence can only be issued to a legal entity (with the named person with contact details entered in question B.3).

Ofcom recognises the following types of entities and you should provide your name and answer any other details as appropriate to the legal entity:

**Individual or sole trader** (Please provide full name and go to Question B.3):

**Business partnership other than a limited company** (Please provide the full name and go to Question B.3):

**Registered Company (UK or non-UK)** (Please answer all parts and go to Question B.3):

Full name of company

Company registration number

**Limited Liability Partnership** (Please answer all parts, then go to question B.3)

Named partner who should be named on the licence

Full name of the limited liability partnership

Company registration number



Cert: FS 549403

## B.2 (continued)

### Unincorporated Association (Please answer all parts, then go to question B.3)

Named member who should be responsible for the licence

Full name of the unincorporated association

### Please specify other legal entity if not listed above (Please provide details, then go to question B.3)

Named person responsible for the licence

The full name of the legal entity (if different to above)

Company registration number (if appropriate)

## B.3 Licensee address details

- Companies should use the registered address from [Companies House](#)
- Registered charities should use the address from the [Charity Commission](#)

For all other Licensees, please use your main business address

NB: This is the person who is responsible for the licence and will receive all important documents including:

- Validation notice (licence amendment reminder)
- Notice of Proposed Revocation (where applicable)
- Revocation notice (where applicable)
- Surrender letters
- Trade documents (if no details are added in question B.7)

Trading name

Address

Telephone

Mobile

Postcode

Email

Country

Please tick here only to receive documents by post instead of electronically.

## B.4 Licence contact details (where different from above)

This is an additional contact who can receive the same important documents as the licensee listed in question B.3.

Name

Address

Telephone

Mobile

Postcode

Email

Country

Please tick here only to receive documents by post instead of electronically.

**B.5 Contact details for payments, billing or account queries (where different from above):**

NB: This is the person who will receive invoices and reminders when payments are due.

Please do not include payment with this application, as you will be invoiced later.

Name  
Address  
Telephone  
Mobile  
Postcode  
Email  
Country

Please tick here only to receive documents by post instead of electronically.

**B.6 If you are applying via a third party (e.g. radio supplier, consultant etc.) please complete the following:**

Name  
Address  
Telephone  
Mobile  
Postcode  
Email  
Country

Please tick here only to receive documents by post instead of electronically.

**B.7 Contact name and address for licence trades:**

Name  
Address  
Telephone  
Mobile  
Postcode  
Email  
Country

Please tick here only to receive documents by post instead of electronically.

## C. Technical characteristics

**C.1 For a new application, please enter your unique link reference**

**C.2 For a variation or surrender, provide your existing licence number**

For a surrender you can now go straight to the declaration in Section F

**C.3 Please indicate your preferred choice of frequency band (tick one option only)**

4 GHz	13 GHz	38 GHz
Lower 6 GHz	15 GHz	52 GHz
Upper 6 GHz	18 GHz	55 GHz
7.5 GHz	23 GHz	70/80 GHz
8 GHz		

**C.4 If appropriate, please specify the equipment tuning range in the upper duplex**

to \_\_\_\_\_ MHz (Lower frequency)  
to \_\_\_\_\_ MHz (Upper frequency)

**C.5 Polarisation (tick one option only)**

Vertical  
Horizontal  
Co-channel dual polar  
No preference

**C.6 Availability (tick one option only)**

99.9%  
99.95%  
99.99%  
99.995%  
99.999%  
Other- please specify: \_\_\_\_\_ %

**C.7 Link directionality (tick one option only)**

Unidirectional (one-way)  
Bi-directional (two-way)



## D. Station details

### D.1 Path length

Estimated path length in kilometres

km

### D.2 Site locations (inaccurate information will lead to the application being declined):

Choose one of the following possibilities to input the data

#### GB National Grid Reference Station A

(1-metre accuracy, e.g. TQ 32284 80497)

#### GB National Grid Reference Station B

(1-metre accuracy, e.g. TQ 32262 80474)

or

#### WGS84 Latitude/Longitude Station A

(e.g. 51:30:28.540N 0:5:43.005W)

N

E  
W

(select E or W as appropriate)

#### WGS84 Latitude/Longitude Station B

(e.g. 51:30:28.539N 0:5:43.004W)

N

E  
W

(select E or W as appropriate)

### D.3 Station name and address

#### Station A

Name

Address

County

Postcode

#### Station B

Name

Address

County

Postcode

### D.4 Antenna height in metres above ground level (or mean sea level if offshore):

metres (Station A)

metres (Station B)

### D.5 Tick which station transmits high (tick one option only)

Station A

Station B

### D.6 Tick only if at least one of the stations is outside the UK mainland



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## E. System details

### E.1 Tick to confirm that all equipment complies with UK Interface Requirement IR 2000

### E.2 Equipment details

Provide the Equipment Reference Code from the [Ofcom website](http://www.ofcom.org.uk) at [www.ofcom.org.uk](http://www.ofcom.org.uk).  
For unlisted equipment, then either enclose the equipment specification sheet or contact us.

E/ (e.g. 06GL/DT/16/021/NE)

Equipment manufacturer

Equipment model

ETSI spectrum efficiency class

Channel separation

MHz

### E.3 Station A antenna details

Provide the Antenna Reference Code from the [Ofcom website](http://www.ofcom.org.uk) at [www.ofcom.org.uk](http://www.ofcom.org.uk).  
For unlisted antenna, then either enclose the antenna specification sheet or contact us.

A/ (e.g. 06GL/H/18/010/RF)

Station A antenna manufacturer

Station A antenna model

Tick if the antenna radiation pattern is included

### E.4 Station B antenna details

Provide the Antenna Reference Code from the [Ofcom website](http://www.ofcom.org.uk) at [www.ofcom.org.uk](http://www.ofcom.org.uk).  
For unlisted antenna, then either enclose the antenna specification sheet or contact us.

A/

Station B antenna manufacturer

Station B antenna model

Tick if the antenna radiation pattern is included

### E.5 Station A losses

Feeder losses dB

Other losses dB

Please justify if either the feeder loss is greater than 10 dB or other losses are greater than 4 dB

## E.6 Station B losses

Feeder losses                      dB

Other losses                         dB

Please justify if either the feeder loss is greater than 10 dB or other losses are greater than 4 dB

## F. Declaration

**By signing this form, I confirm that I have read and understood all the notes. Any information provided is correct and complete to the best of my knowledge and I have the authority to make this declaration and sign this application.**

I understand and accept that:

- The body (if any) I represent will be responsible for compliance with the licence and has the control and supervision of the station;
- It may be an offence to knowingly make a false statement in support of this application and may lead to the licence being refused or revoked under the Wireless Telegraphy Act;
- Ofcom will not give anyone my information except in accordance with the law;
- Ofcom may share my information to publish a register of licences under the Wireless Telegraphy Act;
- Ofcom may transfer my information to other countries in accordance with commitments entered by Her Majesty's Government;
- Where I have provided an email address, I consent to receiving notifications, documents and correspondence in electronic form to that email address.

Full name

Position in organisation

Signature of applicant

Date of application (DD/MM/YYYY)

For self and partners (tick if applicable)

- Partnerships must be applied for by one partner signing 'for self and partners'. A director or authorised person must sign for public limited companies, limited companies and other legal entities;
- If the number of partners exceeds the space, then for each additional partner please provide the name and signature.

Partner 1 name

Partner 3 name

Partner 1 signature

Partner 3 signature

Partner 2 name

Partner 4 name

Partner 2 signature

Partner 4 signature

## Where to send this form

**Please do not include payment with this form, as you will be invoiced at a later date.  
Ensure that you enclose all relevant certification and any attached pages as applicable.**

If needed a member of the team will contact you to clarify any requirements of this application.

When you have completed this form you can submit this application in a number of ways:

- by pressing the 'Submit form' button below (please ensure you also attached any relevant certification or attached pages);
- by emailing it as an attachment to our email address shown below, or;
- by posting it to the address shown below.

**Please use one method only**

### **Ofcom**

FAO Spectrum Licensing  
PO Box 1285  
Warrington  
WA1 9GL

**Allow 42 days from posting your application for receipt of your licence.**

If you need assistance, then please email

[spectrum.licensing@ofcom.org.uk](mailto:spectrum.licensing@ofcom.org.uk).

There is also information available on our website at [www.ofcom.org.uk](http://www.ofcom.org.uk).