



Application for a Licence to operate a Fixed UHF Network for Telemetry, Telecontrol or Data Services in Accordance with MPT 1411

- This form should also be used for additions or amendments to an existing system
- Before completing this form please read the accompanying Guidance Notes
- Please retain a photocopy of the completed application form
- A form RA37 is required for **each separate point to multipoint network**
- Please complete this form in block capitals in dark ink or typescript
- All sections **must** be completed

Section A

Applicant's details

If you already possess a scanning telemetry or point-to-multipoint licence, please quote your file reference (AF, DZ, RR or FSS followed by several numbers)

Please give full name of Company or authority in whose name the licence is required.

1 Name of applicant

2 Applicant's address

Postcode

2a Address for correspondence
(if different from usual)

Postcode

3 If the Agency needs to obtain any further information who may they contact?

Name

Telephone

Fax

4 What is the nature of the applicant's business?

Section B

System details

5 Type of data to be transmitted

6 Will the system be used and controlled exclusively by your company, both as regards physical operation and content of transmissions?

Please tick correct box

Yes

No

If No please give details

Please use a separate sheet if necessary

7a Will the system use duplicated receivers?

Base station Yes

No

Outstations Yes

No

7b If **yes**, please state antenna configuration (refer to MPT 1411, part 4, figure 3)

8 What is the signalling speed?

_____ Bit/s _____ Baud

Section C Base Station details

Please give geographical area if an address cannot be quoted

9 Address of base station and name by which it will be known. Include postcode where available.

_____ Postcode

10 Do you propose a remotely controlled base station?

Yes

No

10a If yes, please give address from which it will be operated

_____ Postcode

11 National Grid Reference of base station site
Two letters and six figures

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This figure is taken from current 1:50,000 Ordnance Survey Map. The application may be delayed if this information is not given or proves to be incorrect

12a What is height of ground above sea level?
_____metres

b What is height of base of mast above sea level?
_____metres

c What is height of top of mast above sea level?
_____metres

13a Is a new mast to be established? (see note 4)

Yes

No If **No** please go to Q15b

13b Will it be of lattice construction?

Yes

No

13c Has local authority planning permission been obtained?

Yes

No Please note that your application may be delayed or rejected if permission has not been obtained.

If Yes please give name of local authority, serial number and date obtained.

Name _____

Serial No. _____

Date obtained _____

13d If an existing mast is to be used, please give the name and address of the current site owner.

13e If a new mast is to be used will it be shared by other users of radio systems:

Yes

No

Section D

Equipment and Antenna details

Note: All equipment and antennas must be type approved to Radiocommunications Agency specification MPT 1411. If you have any doubt regarding the approval status of equipment or antennas please contact the Agency

Please State:

14 Equipment manufacturer

15 RA type approval number or manufacturer's type number of equipment

16 Antenna type (e.g. yagi)

17 Antenna manufacturer

18 RA type approval number or manufacturer's type number of antenna

19 Antenna gain (dBi)

Note: If base station antenna is not omnidirectional, please attach polar diagram and specify antenna gain in the direction of each outstation in column 32 of RA37A.

20 What is the height of antenna above ground level?

_____metres

21 Direction of maximum radiation (where applicable)

a azimuth oE of grid North

b elevation angle

22 What will be the antenna feeder loss?

_____dB

23 What will be the additional losses? (For example, feeder tails, connectors etc.)

_____dB

24 Please specify the required EIRP if known

_____dBW

Note: This value will be subject to subsequent verification by the Radiocommunications Agency.

25 Please state preferred polarisation of emissions (if applicable): Please give reasons

Section E

Outstation details

Note: A computer generated printout following the same format as RA 37A will be acceptable in lieu of a completed RA 37 attachment.

26 Enter the site name and NGR for each outstation in the first two columns of the RA37A attachment.

27 Enter the path length from the base station for each outstation in the third column of RA37A.

28 For each **outstation**, enter the site, equipment and antenna details corresponding to the RA37 question number specified at the head of each column.

29 Enter the free space path loss (FSPL), terrain obstruction loss and clutter loss for each outstation in columns 29a, 29b and 29c respectively.

Note: Depending upon the technique used to determine the path losses, terrain obstruction loss may be included in the FSPL or clutter loss figures, or may be specified separately. Please indicate which is the case:

FSPL includes terrain obstruction loss

Clutter includes terrain obstruction loss

Clutter and terrain loss separately itemised

If no terrain or clutter loss data is available, please enter zero in the relevant columns.

30 Enter total end-to-end circuit loss for each outstation path.

31 Enter required EIRP for each outstation, where known. These values will be subject to subsequent RA verification.

32 Enter base station antenna gain in the direction of the outstation.

Note: This is not required for omnidirectional base station antennas.

Section F Future Extensions

33 If your application is approved do you foresee any future extension of the system?

Yes

No

If Yes please give proposed location(s) of scanning stations and the approximate timescale. A map or diagram showing the proposed extensions would be useful.

If you do not have enough space please use a separate sheet.

Declaration

I certify that the information on this form, and any other information given in support of this application, is correct to the best of my knowledge.

Signed _____

Position held _____
(See Guidance Note 10)

Name (BLOCK LETTERS) _____

Date _____

The information on this application form is being collected on the authority of the Secretary of State for Trade and Industry. The point of contact is the Enquiry Point at the:
Radiocommunications Agency
Wyndham House
189 Marsh Wall
London E14 9SX
Tel: 020 7211 0211

The information given on this form is to be processed for the purpose of approving this application and issuing a Fixed UHF Network for Telemetry, Telecontrol or Data Services radio licence.

Checklist

Have you enclosed ?

- completed Form RA37A
- For future extensions, included a map or diagram
- Retained a photocopy of this completed form

Where to Return Your Form

RA2/Fixed Links Terrestrial and Satellite Links Unit
Radiocommunications Agency
Wyndham House
189 Marsh Wall
London E14 9SX

Fax: 020 7211 0113

Enquiries

If you have any queries in completing the application form or require further information please contact:

Licensing and administrative matters: **020 7211 0300**
Technical matters: **020 7211 0315**

Website www.radio.gov.uk
We will be happy to help you.

Guidance Notes for the Completion of the form RA37 and RA37A

Conditions governing the licensing and operation of private fixed telemetry and telecontrol systems in the bands 457.5 - 458.5 and 463.0-464.0MHz.

Note 1

A limited number of UHF radio channels are available for fixed telemetry telecontrol or data services. Such a system typically comprises a scanning base station interrogating a number of outstations. The Agency is prepared to consider proposals for other types of point to multipoint data systems including those which mix radio and other media such as landline. Details of such systems should be provided in a covering letter.

Note 2

The frequencies assigned may be shared with other systems in other areas of the country. However, assignments will be made in such a manner as to minimise interference between different systems using the same frequency. Systems should be so designed to minimise the total requirement for RF channels. In the case of the Fuel Power and Water industries, the systems will normally use channels defined by the Adaptable Cellular Plan (MPT 1411 Part 4 Chapter 2 refers). In the interests of spectrum economy the Agency will generally consider only those outstations which are grouped within a 30 km radius of the associated base station. The Agency will consider outstations up to 40 km from the base station on a case by case basis. Where the path lengths to one or more of the outstations within a group are considerably in excess of the average path lengths, consideration should be given to the use of a second scanning station linked to the first. Where it is considered that more than one two-frequency scanning channel is required for the whole scheme, full details of the reasons must accompany the application.

Note 3

Radio equipment and antennas for private fixed telemetry and telecontrol systems must meet the requirements of the Specification MPT 1411 Issue 2 Parts 1 and 2. Copies are available from The Library, Radiocommunications Agency, Wyndham House, 189 Marsh Wall, London E14 9SX. Telephone 020 7211 0502/0505. The requirements of the specification are intended to ensure maximum practicable economy in the use of the frequency spectrum, to facilitate the orderly development and utilisation of telemetry and telecontrol systems and to minimise interference between them.

Note 4

The antennas and masts must conform to any requirement regarding height, structural design, etc stipulated by local planning authorities or other interested bodies (eg the Civil Aviation Authority). In order that proliferation of radio masts may be avoided, it is Government policy that the

establishment of new radio masts should be minimised. Applicants are therefore required to explore thoroughly the possibility of sharing an existing radio mast or using an existing structure for the placing of their antennas. Site clearance may be delayed or declined if these aspects have not been addressed. Site and antenna details are also required for technical and frequency planning purposes.

Note 5

To determine the maximum equivalent isotropically radiated power (EIRP) for the base station and the outstations, the Agency may request a suitable scaled path profile for each outstation. This profile shall correspond to a ratio of the effective earth radius to real earth radius of $K=4/3$. The profile shall show terrain features and also buildings and vegetation, etc. together with their relative positions and heights along the path. Predicted free space and terrain obstruction losses, together with the building and vegetation clutter losses, and the consequent end-to-end circuit loss shall be given for each path. Alternatively a directly measured end to end circuit loss may be provided. A maximum overriding path loss of 143 dB and a maximum overriding end to end circuit loss of 134 dB shall apply.

Note 6

The Agency will calculate the maximum permitted EIRP on the assumption that the median signal level at the receiver input does not exceed -117 dBW where duplicated receivers are employed, i.e. as defined in specification MPT 1411 (issue 2), part 4, figure 3(c). For all other receiver configurations, the level at the receiver input shall not exceed -122 dBW.

Note 7

The calculation of the permitted maximum EIRP will be based on the appropriate end to end circuit loss as determined in note 5 above and the receiver input level as determined in note 6 above, for the base station and each outstation.

Note 8

Full frequency assignment information can be found in MPT 1411 Issue 2 Part 3. A discussion of the designing of telemetry and telecontrol systems in accordance with the specification can be found in MPT 1411 Issue 2 Part 4.

Note 9

The Agency must be notified at one of any changes in the details of the proposed system.

Note 10

This form must be signed by an authorised representative of the applicant company. Details of the signatory's position within the company should also be provided.

