Commission for
Communications Regulation

APPLICATION FORM

Fixed Satellite Earth Station Licences in the Fixed Satellite Service in Spectrum Above 3GHz

Large Earth Station Licence – Non-Transportable

Document No:	**ComReg 00/65R2**
Date:	**December, 2002**

An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation
Abbey Court Irish Life Centre Lower Abbey Street Dublin 1 Ireland
Telephone +353 1 804 9600 *Fax* +353 1 804 9680 *Email* info@comreg.ie *Web* www.comreg.ie

APPLICATION FORM FOR FIXED SATELLITE EARTH STATION LICENCES IN THE FIXED SATELLITE SERVICE IN SPECTRUM ABOVE 3GHZ. 1

NOTES FOR APPLICANTS 3

PART 1 4

PART 2 7

SECTION I: GENERAL TECHNICAL ASPECTS 7
SECTION II: COORDINATION INFORMATION 10

PART 3 13

ANNEX 1: GUIDE TO COMPLETING APPLICATION FORM. 16

SATELLITE APPLICATION STRUCTURE. 16
PART 2 – SECTION I: GENERAL TECHNICAL DETAILS 16
PART 2 - SECTION II: COORDINATION. 18

NOTES FOR APPLICANTS FOR LARGE EARTH STATION (NON-TRANSPORTABLE) LICENCE

1. Please refer to the Guidelines (00/64) prior to completing this application form.

2. Part 1 of the application form covers details of the applicant and must be completed in all cases.

3. Part 2 of the application form relates to the technical aspects of the service provided. Part 2 Section I must be completed in all cases and Section II must also be completed if co-ordination is needed. A complete guide to individual questions contained within Part 2 can be found in Annex 1.

4. Part 3 of the application form is a declaration by the applicant and must be completed in all cases.

5. Your application will be evaluated on the material in the application form together with any supplementary information requested by the Commission for Communications Regulation ("the Commission").

6. The issuing of a Wireless Telegraphy Licence under these regulations does not absolve the licensee from complying with any other statutory obligations. Thus, a telecommunications service licence may also be required[1].

7. Every effort will be made to process applications quickly so that licences can be issued at the earliest possible date. To facilitate speed of processing, please ensure that your application is complete and clearly set out. Incomplete applications may be returned requiring resubmission.

[1] See ComReg web site: http://www.comreg.ie/ for information on telecommunications service licences.

APPLICATION FOR LARGE EARTH STATION (NON-TRANSPORTABLE) LICENCE

ALL SHADED SECTIONS MUST BE COMPLETED

PART 1

GENERAL INFORMATION

Contact Details

APPLICANT DETAILS

1. Full Name of the Company, firm or person	
2. Registered Number in the Companies Registration Office	
3. Business Address	
4. Phone No.	
5. Fax No.	
6. E-mail	
7. Address to which the licence is to be sent, if different from above	

CONTACT DETAILS[2]

1. Name	
2. Business Address	
3. Phone No.	
4. Fax No.	
5. E-Mail	

[2] If the contact person is not the same as the person(s) in the Applicant Details section, the applicant must nominate a technical contact who will be in a position to act for the applicant and to furnish information about the application if called upon to do so.

GENERAL LICENCE DETAILS

1. Type of Service

Please specify details of the type of service being provided[3]:

- ☐ Provision of telecommunications network system (please specify)
- ☐ Provision of services ancillary to broadcasting (please specify)
- ☐ Other (please specify)

2. Other Licences

Please indicate which of the following licences are held/have been applied for by the applicant:

- ☐ General Telecommunications Licence
- ☐ Basic Telecommunications Licence
- ☐ Other Licence(s) – Please specify, giving details including reference number and date of issue:

[3] For example: SNG, Data, Video, etc.

3. Duration

Please state the duration of the licence

☐ Annual Licence

☐ Short-Term[4] (Please state the required duration)_____

[4] Short-Term Licences can be issued for periods of one month up to a maximum of eleven months

PART 2

SECTION I: General Technical Details

1. Number of earth station Licences applied for[5]: ☐☐

2. (Please tick the appropriate box)

☐ New Earth Station Licence

☐ Modification to an existing earth station licence

3. Circuit Type

☐ Receive only ☐ Transmit only ☐ Transmit & Receive

4. Space Station Details

4.1: Name of Space Station[6]: _____

4.2: Nominal Orbital Longitude:
Degrees ☐☐☐.☐☐ E/W ☐

4.3: Name of Satellite Operator or Agency _____

4.4: Carrier Modulation System:
_____
_____

4.5: Multiple Access Technique(s) (if applicable):
_____
_____

[5] It may be necessary to apply for more than one licence if requested BW is not contiguous or exceeds 80MHz, see guidelines Section 3.12.

[6] Space stations in geostationary orbits.

5. Earth Station Details

5.1: Station Reference Name: _____

5.2: Address :_____

_____

5.3: Intended date of bringing Earth Station into operation: D☐☐ M☐☐ Y☐☐

5.4: Longitude:

Degrees ☐☐ W ☐☐ ☐☐

5.5: Latitude:

Degrees ☐☐ N ☐☐ ☐☐

5.6: Site Height (a.s.l) ☐☐☐☐ Metres

5.7: Antenna Height (a.g.l) ☐☐☐☐ Metres

6. Equipment Information

6.1: Modulator:

6.1.1 Manufacturer: _____

6.1.2: Model/Type: _____

6.1.3: Type Reference:_____

6.2: Up/Down converter:

6.2.1 Manufacturer: _____

6.2.2 Model/Type:_____

6.2.3 Type Reference: :_____

6.3: HPA:

6.3.1 Manufacturer: _____

6.3.2 Model/Type: _____

6.3.3 Type Reference: _____

7. Antenna Details

7.1: Manufacturer: _____

7.2: Model/Type: _____

7.3: Type Reference: _____

7.4: Diameter: ☐☐ Metres

7.5: Max. isotropic gain, Transmitting:

☐☐ dBi (dBic[7])

7.6: Max. isotropic gain, Receiving:

☐☐ dBi (dBic)

7.7: Polarisation:

Transmit:_____

7.8: Radiation Pattern[8]:

Attachment Number ☐☐

[7] For a circularly polarized antenna the gain should be expressed relative to a circularly polarized isotropic antenna.

[8] Any reference patterns submitted must comply with ITU-R S-465

7.9: Beamwidth:

Transmit:

Horiz. ☐☐.☐☐ Degrees

Vert. ☐☐.☐☐ Degrees

Receive:

Horiz. ☐☐.☐☐ Degrees

Vert. ☐☐.☐☐ Degrees

7.10: Operating angles:

Azimuth:

From ☐☐.☐☐ Degrees

to ☐☐.☐☐ Degrees

Elevation: ☐☐.☐☐ Degrees

8. Frequency, Bandwidth & Emission Details

8.1[9]**:** Transmit Frequency (GHz) | Bandwidth (kHz)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

More on attachment number[10] : ☐☐

8.2: Max. Effective Isotropic Radiated Power:

☐☐☐ dBW

☐☐☐ dBW

☐☐☐ dBW

☐☐☐ dBW

☐☐☐ dBW

More on attachment number : ☐☐

8.3[11]**:** Receive Frequency (GHz) | Bandwidth (kHz)

_____ _____

_____ _____

_____ _____

_____

[9] This section is not applicable in the case of a receive only large earth station. If Section II is being submitted as part of this application, 8.1 need not be completed.

[10] If more entries exist than there is space for please attach further detail

[11] This section is not applicable in the case of a transmit only large earth station. If Section II is being submitted as part of this application, 8.3 need not be completed.

Note: If co-ordination is required please complete PART 2 SECTION II.

PART 2

SECTION II: Co-ordination Information

1. Earth Station Beam Designation[12]

1.1: Transmit beam designation: _____

1.2: Receive beam designation: _____

2. Earth Station Transmit & Receive Details

2.1: Transmit Frequency (GHz)	Bandwidth (kHz)	**2.2:** Receive Frequency (GHz)	Bandwidth (kHz)

2.3: Emission designation[13]: (Transmit)

Bandwidth	Emission	Designation

2.4: Emission designation : (Receive)

Bandwidth	Emission	Designation

[12] If more than one beam is to be used please give details of each additional beam on a separate form.

[13] See ITU-R RR Appendix S1 for emission designations

3. Transmit Power Details

Max. Peak Power		*Max Power Density*		*Min. Peak Power*		*Min Power Density*	
±	dBW	±	dBW/Hz	±	dBW	±	dBW/Hz

4: **Max. Aggregate Power (Transmit):** ☐☐☐ dBW

5. Receive Power Details

C/N Objective	
±	dB

6. Receiver Noise Temperature[14] : ☐☐☐☐☐☐ Kelvin

7. Earth Station Details

[14] See Annex 1

7.1: Horizontal (Site Survey) Diagram: Attachment Number ☐☐

7.2: Elevation Angle (of antenna):

☐☐.☐☐ Degrees

7.3: Operating Azimuthal Angles

From: Degrees ☐☐☐.☐☐ East of true North

To: Degrees ☐☐☐.☐☐ East of true North

8. Site Shielding

Please give details of any planned site shielding measures taken for the purposes of minimising interference that may occur to, or from, existing terrestrial or other earth stations.

PART 3

DECLARATION BY THE APPLICANT

I have read the Guidelines for applicants for Fixed Satellite Earth Stations in the Fixed Satellite Service in spectrum above 3 GHz (00/64).

I accept that the Commission may publish information relating to licensed fixed satellite earth stations, for the purposes of orderly and efficient spectrum management, and that certain information relating to any licence issued pursuant to this application may be contained in any such publication.

I agree to comply fully with all the terms and conditions of the licence, if granted, in accordance with the Wireless Telegraphy (Fixed Satellite Earth Stations) Regulations, 2000.

The Commission will endeavour to minimise the potential for interference. I accept that the Commission will not be liable for any interference received from other licensed users and that I will comply with whatever the Commission requests in preventing interference being caused by this satellite earth station(s) to other licensed users of the radio spectrum.

I accept that a licence does not confer any right of ownership of the frequency spectrum. It allows the assigned frequency channel to be used during the term of the licence in accordance with the conditions of the licence.

I certify that all information provided on this form, including all documentation attached, is true and accurate.

Signature of Applicant:

Name in Block Letters:

Date:

(If applicant is a company, please state position held):

Completed Application Forms should be sent to:

The Commission for Communications Regulation

Abbey Court

Irish Life Centre

Lower Abbey Street

Dublin 1

Each application will be technically examined, at which time an invoice will be issued. On receipt of payment the licence will be issued.

METHODS OF PAYMENT

❒ **Cheque**	Cheques should be crossed and made payable to The Commission for Communications Regulation
❒ **Postal Order**	Postal Orders should be crossed and made payable to The Commission for Communications Regulation
❒ **Direct Debit/ Standing Order**	For details of these payments please contact our Accounts Division on (01) 8049618
❒ **Bank Transfer**	Transfers should be made to: Bank of Ireland, 28 Lower O'Connell Street, Dublin 1. Account Number: 17806887. Sort Code: 90-00-33. Please forward details of date and payment and amount of payment to our Accounts Division.
❒ **Credit Card**	**Visa** ❒ **Access/Mastercard** ❒ **Laser** ❒

❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒ ❒

Cardholder's Name:_____

Cardholder's Address:_____

_____

Expiry Date: ___ ___ / ___ ___

Signature:_____

For ComReg Use Only

ComReg File Ref.:	
Pre - Consultation Date	
Date Application Received	
Date Application Acknowledged	

Meeting / correspondence	**Sent by ComReg**	**Received by ComReg**	**Comment**
Date			
Date			
Date			
Date			

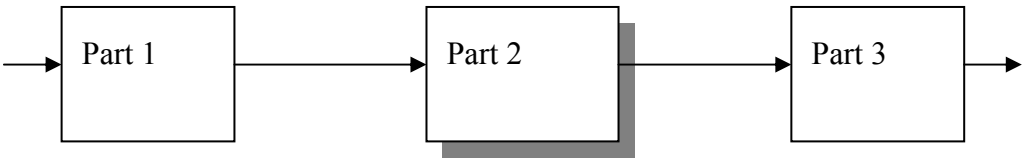
Date applicant advised of **Outcome of application assessment and invoice issued.**	
Date Payment Received	

Licence Issued **Date:** **Number:**

Annex 1: Guide to completing application form

Satellite Application Structure.

Parts 1, 2 and 3 must be completed in all cases.



Part 2

Section I (General)	Must be completed in all cases.
Section II (Co-ordination)	Must be completed if co-ordination is needed.

See below for individual explanations to sections contained within Part 2.

PART 2 – Section I: General Technical Details

1. More than one licence may be needed for a single fixed satellite earth station if more than the maximum 80MHz of bandwidth is needed, or if requested band segments are not contiguous.

2. Applications for new fixed satellite earth stations and for modifications to existing fixed satellite earth stations (or applications currently being processed) use the same application forms.

3. Is the earth station a receive only, transmit only or a transmit and receive earth station?

4.1 The name of the Space Station as registered with the ITU.

4.2 The orbital position of the Geostationary satellite.

4.3 The name of the Satellite operator or agency (Refer to Table 12A/12B of the Preface to the ITU IFL &SRS)

4.4 Details of modulation scheme used in the Satellite link.

4.5 Details of multiple access techniques used; e.g. FDMA, TDMA, CDMA, Random Access Techniques (ALOHA, etc.)**.**

5.1 The reference name of the Satellite Earth Station.

5.2 The name of the location of the fixed satellite earth station, e.g. name of town or area/ address.

5.3 The date that it is planned to bring the fixed satellite earth station into operation, or that it is planned to bring any modifications on line.

5.4 The longitude of the fixed satellite earth station (WGS84).

3.5 The latitude of the fixed satellite earth station (WGS84).

5.6 The height of the fixed satellite earth station above mean sea level.

5.7 The height of the fixed satellite earth station antenna above ground level.

6.1 The manufacturer of the radio equipment used must be specified.

6.2 The particular equipment model must be specified here.

6.3 Any EMC or R&TTE certification for radio equipment used should be quoted here. Copies of the certificates (in English) should also be included with the application.

7.1 The manufacturer of the antenna used must be specified.

7.2 The particular antenna model must be specified here.

7.3 Any EMC or R&TTE certification for antennas used should be quoted here. Copies of the certificates (in English) should also be included with the application.

7.4 The diameter of the antenna, expressed in metres.

7.5 The maximum gain of the fixed satellite earth station antenna, in the transmitting direction, relative to an isotropic radiator. Note that in the case of a circularly polarized antenna the gain is expressed relative to a circularly polarized isotropic radiator (dBic).

7.6 The maximum gain of the fixed satellite earth station antenna, in the receiving direction, relative to an isotropic radiator. Note that in the case of a circularly polarised antenna the gain is expressed relative to a circularly polarised isotropic radiator (dBic).

7.7 Details of any polarisations being used must be specified. In the case of circular, the direction must be given (i.e. Left Handed/ Right Handed). In the case of linear polarisation the orientation must specified (e.g. Horizontal, Vertical, etc.). If elliptical polarisation is being used more details may be required.

7.8 The half power beamwidth of the antenna in degrees.

7.9 Radiation patterns for any antennas used are required, it may be required to provide cross-polarised radiation patterns. Note that any patterns submitted must account for the pointing accuracy.

8.1 Details of all transmitting frequencies and bandwidths being applied for are needed here. Please note that 80MHz is the maximum allowable bandwidth in any band. This section is not applicable to receive only large earth stations.

8.2 The maximum effective isotropic radiated power.

EIRP = Antenna Gain (relative to an isotropic radiator) x Transmitter Power.

8.3 Details of all receiving frequencies and bandwidths being applied for are needed here. Please note that 80MHz is the maximum allowable bandwidth in any band. It is not necessary to complete this section if Section II is being submitted.

PART 2 Section II: Co-ordination.

1.1 The designation of the satellite beam (transmit) to be used should be that published in the relevant satellite BR IFIC circular appertaining to the direction requested as seen from the satellite. If more than one beam is to be used in either or both directions Part 2 Section II must be filled out for each additional beam.

1.2 The designation of the satellite beam (receive).

2.1 Details of the earth station transmit frequencies and bandwidths are needed here.

2.2 Details of the earth station receive frequencies and bandwidths are needed here.

2.3 The emission designation must be specified in terms of the following (Transmit):

Emissions are designated according to their necessary bandwidth and classification and are classified and symbolised according to their basic characteristics and any optional additional characteristic. Modulation used only for short periods and for incidental purposes (such as for identification or calling) may be ignored, provided that the necessary bandwidth as indicated is not increased.

For classification of emissions and necessary bandwidths see ITU RR Appendix S1.

2.4 The emission designation must be specified for all receive frequencies.

3 Transmit power details of the earth station are needed for each for each carrier supplied to the input of the antenna. Maximum and minimum peak powers are expressed in dBWs. The figures for power density are expressed in dBW/Hz and are calculated by averaging over the worst 4kHz band for carriers below 15GHz or averaged over the worst 1MHz for carriers above 15GHz in accordance with ITU Recommendation SF 675-3.

4 The maximum aggregate power of all carriers (per transponder, if applicable) supplied to the input of the antenna.

5 The receiver carrier to noise objective is expressed in dB, considering clear-sky operation, for each carrier type.

6 Indicate the lowest total receiving noise temperature, in Kelvin (K) referred to the output of the receiving antenna of the earth station under quiet sky conditions.

7.1 A horizontal site survey is needed showing the elevation of the horizon for 0 to 360 degrees, at 5 degree intervals, around the fixed satellite earth station.

The horizon elevation angle is the angle viewed from the centre of the earth station antenna, between the horizontal plane and a ray that grazes the natural physical horizon in the direction concerned.

7.2 The planned elevation angle of the antenna in the direction of maximum radiation in degrees form the horizon.

7.3 The planned range of operating azimuthal angles for the direction of maximum radiation in degrees, East of true North.

8 Details of any site shielding measures being taken for the purposes of minimising interference that may occur to, or from, existing terrestrial or other earth stations. In addition it may also be useful to provide a Horizontal Plot including the significant manmade structures.