Ofcom application form OfW453

Application for clearance of an earth station operating within a Satellite (Earth Station Network) Licence

Please ensure this form is signed and dated at the bottom and use capitals throughout.

How we use your data

We require this information in order to carry out our licensing duties under the Wireless Telegraphy Act.

Please see Ofcom's General Privacy Statement for further information about how Ofcom handles your personal information and your corresponding right:

www.ofcom.org.uk/about-ofcom/foi-dp/general-privacy-statement

Before completing this form please read the Guidance Notes on pages 7-9.
Please note the technical information contained in this application form will be used in the co-ordination procedure with other users of the radio spectrum. Please keep a copy of the completed application form.

1 Applicant details

Please quote your licence number	☐☐☐☐☐☐☐☐

Please give the full name of the Company or Authority to which the licence is issued.		
Applicant's address	Address	
	Postcode	
Address for correspondence (if different from above)	Address	
	Postcode	
Correspondence e-mail address		

2 Station details

Site ID

Address of network terminal

Address

Postcode

National Grid Reference (preferred)

Minimum two letters and ten figures

Geographical co-ordinates

	Degrees	E/W	Min	Sec
Longitude				

	Degrees	N/S	Min	Sec
Latitude				

Site radius Metres

Antenna name

Antenna type

Diameter of antenna Metres

Maximum isotropic gain of antenna dBi

Antenna beamwidth Degrees

Antenna radiation pattern

	From	To
Antenna pointing azimuth Degrees		
Antenna pointing elevation Degrees		

Height details

What is the height above ground (rounded up to nearest whole metre) of the highest point of new external works, including the antenna? A Measured in metres above ground level

What is the height above ground (rounded down to nearest whole metre) of the highest point of any existing structure (enter 0 if totally new structure)? B Measured in metres above ground level

For each type of transmit emission please indicate the peak power and power density supplied to the INPUT OF THE ANTENNA.

Designation of Emission	Antenna I/P Power +/- dBW	Maximum Power Density +/- dBW/Hz
	*	*
	*	*
	*	*
	*	*
	*	*
	*	*
	*	*

Bandwidth of associated transponder MHz

List of assigned frequencies having the above common characteristics

Assigned frequency of transponder in GHz

			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						
			•						

EIRP

dBW

		•		

Antenna stabilised pointing accuracy Degrees

Antenna pointing update time Degrees/second

Antenna polarisation

3 Declaration to be signed by all applicants

I declare that all the information that I have provided in this application form is correct, to the best of my knowledge and belief.

Signature of applicant

Name of applicant (BLOCK CAPITALS)

Position of applicant in organisation (if applicable)

(Partners are taken to be signing on behalf of all partners)

Date of signature

4 Checklist

Have you

- ☐ **completed all sections of the form applicable to you?**
- ☐ **attached and listed diagrams required?**
- ☐ **signed the declaration?**
- ☐ **made a copy for reference?**

5 Where to send your form

Please send your completed application form to:

Ofcom
FAO Spectrum Licensing
PO Box 1285
Warrington
WA1 9GL

E-mail spectrum.licensing@ofcom.org.uk
Tel 020 7981 3131

Guidance Notes for the application for clearance of an earth station operating within a Satellite (Earth Station Network) Licence

General

These notes and application form relate to the clearance and registration of an earth station against a Satellite (Earth Station Network) Licence.

Clearance and registration of earth stations is required depending on the radiated power (EIRP) and location. Further details can be found in your Satellite (Earth Station Network) Licence.

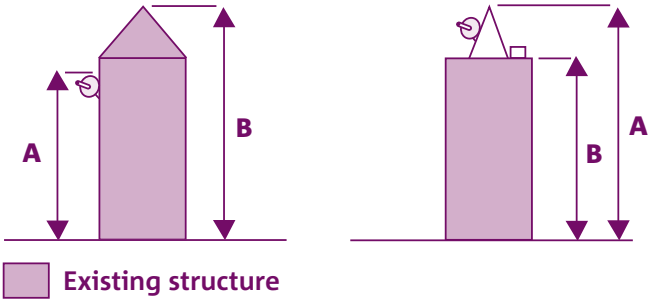
Notes on completing this form

The processing of the application may be delayed if any of the details given on the Form are not complete or correct.

Any variation to your licence requires the prior consent of Ofcom. If you are applying for a variation to your current Satellite (Earth Station Network) Licence, please complete application form OfW103.

Section 2 Station details

Site ID	Please enter an identifier for future reference.
Site radius	Enter the radius of the site in metres. The site radius is only applicable where the earth station is mobile and operating within a confined area.
Antenna name	Enter a unique name/identifier for the antenna.
Antenna type	Enter the type of antenna (e.g. Cassegrain, Gregorian, Offset Front Fed, Prodelin, other).
Diameter of antenna	Enter the largest dimension (diameter) of the antenna aperture.
Maximum isotropic gain of antenna	Enter the gain of the antenna in the direction of maximum radiation, expressed in dBi.
Antenna beamwidth	Enter the total beamwidth at the mean half-power points of the main lobe, expressed in decimal degrees. Describe in detail in attachment if not symmetrical.
Antenna radiation pattern	If a reference radiation pattern cannot be indicated by one of the symbols below, or the measured radiation diagram of the antenna is available, give the relevant information in an attachment. If an attachment is provided, enter a Figure number identifying its presence. Indicate the reference radiation pattern, preferably by means of the following symbols or similar symbols not exceeding 12 characters. **Symbol Description of the Radiation Pattern** REC-465 Current version of ITU-R Recommendation S.465: 'Reference earth station radiation pattern for use in coordination and interference assessment in frequency range from 2 to about 30 GHz.' REC-580 Current version of ITU-R Recommendation S.580: 'Radiation diagrams for use as design objectives for antennas of earth stations operating with geostationary satellites.' 29-25LOG(θ) Represents a reference radiation pattern similar to that in ITU-R Rec. S.465 with side lobe radiation reduced by 3dB. 27-25LOG(θ) As above with side lobe radiation reduced by 5dB.

Antenna pointing azimuth	Enter the antenna pointing angle of azimuth in degrees from and to. For fixed sited antennas, the value for degrees from and to will be equal.
Antenna pointing elevation	Enter the antenna pointing angle of elevation in degrees from and to. For fixed sited antennas, the value for degrees from and to will be equal.
Height details  	A) New external works: changes associated with the installation of the terminal not wholly contained within an existing structure – including equipment cabinets, masts, towers and antennas, cables and ducting. B) Existing structure: a building, mast or tower that has neither been built specifically to host the antenna or other parts of the installation, nor been subject of exceptional planning procedures in relation to this radio installation. In case of doubt, applicants should declare the highest point of the structure under (A) above, and enter zero here. Local planning restrictions may apply for alterations of existing structures.
Designation of emission	Is made up of three parts, Bandwidth (four characters), Emission (three characters) and Description of Emission (two characters). This makes a nine character emission code. Refer to OfW84 guidance. e.g. 30M0F8FHN is **30M0** = 30 MHz, F = Frequency modulated, 8 = Composite system with one or more channels containing analogue information, F = Television (video), H = Sound of broadcasting quality (stereophonic or quadraphonic), N = No multiplexing employed.
Antenna I/P power	Enter the appropriate sign (+ or -) and the value of the total peak envelope power (RR 1.157) expressed in dBW for the corresponding emission.
Maximum power density	Enter the appropriate sign (+ or -) followed by the value of the maximum power density per Hertz (expressed in dBW/Hz) supplied to the input of the antenna averaged over the worst 4 kHz band. For narrow band carriers with a necessary bandwidth RR 1.152 **less** than the reference bandwidth, the peak power should be averaged over the reference bandwidth (4 kHz) to obtain this value of maximum power density. The most recent version of ITU-R Rec. SF.675 should be used to the extent applicable in calculating the maximum power density per Hz.
Bandwidth of associated transponder	Enter the bandwidth of the associated satellite transponder to which the earth station transmits to.
List of assigned frequencies	Enter the centre frequencies of each satellite transponder to which the earth station transmits to.
EIRP	Enter the maximum radiated power of the transmission.
Antenna stabilised pointing accuracy	Enter the stabilised pointing accuracy in degrees. This is only applicable for mobile antennas installed on stabilised platforms.
Antenna pointing update time	Enter the pointing update time in degrees per second. This is only applicable for mobile antennas installed on stabilised platforms.
Antenna polarisation	Enter the polarisation of the transmitting antenna (e.g. horizontal, vertical, circular left, circular right, dual).

Radiation hazard

Applicants are advised to obtain information concerning safety precautions relating to intense radio frequency radiation from the local Area Office of HM Factory Inspectorate. The address and telephone number may be found under 'Health and Safety Executive' in the telephone directory also at www.hse.gov.uk/radiation/

Enquiries

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

Ofcom
FAO Spectrum Licensing
PO Box 1285
Warrington
WA1 9GL

Email: spectrum.licensing@ofcom.org.uk
Tel: 020 79891 3131