INSTITUT LUXEMBOURGEOIS
DE RÉGULATION

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Application for an implementation of a Satellite Earth Station

EARTH STATION

1. Application reason

☐ New licence

☐ Modification of licence No.: _____

2. Customer Information

Company Name:	
Contact person:	
Street, number:	
Postcode:	Place:
P.O. box:	
Phone No:	Fax No:
E-mail:	

3. Billing Address:

Company Name:	
Contact person:	
Street, number:	
Postcode:	Place:
P.O. box:	
Phone No:	Fax No:
E-mail:	

4. Earth Station Parameters

Remark: The underlined numbers listed in the tables here behind refer to items as defined according to Appendix 4, annex 2 of the Radio Regulations

A - GENERAL CHARACTERISTICS OF THE EARTH STATION		
A.1 - IDENTITY OF THE EARTH STATION		
A.1.e.2 - Earth station name:		
Type of earth station:	☐ VSAT ☐ SNG	☐ Specific earth station ☐ Typical earth station
A.1.e.3.b - Geographical Coordinated [WGS84]:	°E ’ ” WGS84 °N ’ ” WGS84	

Date of start and end of service:	From:	Until:

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EARTH STATION

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4. Earth Station Parameters (cont. 1)

A.4 - ORBITAL INFORMATION			
A.4.c.1 - Associated Space Station:			
Type of Space Station:	☐ Geostationary	A.4.c.2 - Orbital position:	° ☐ E / ☐ W
	☐ Non-Geostationary		

A.7 - SPECIFIC EARTH STATION SITE CHARACTISTICS

A.7.a - Horizon elevation angle, in degrees, for each azimuth around the earth station and Distance, in kilometers, from the earth station to the horizon for each azimuth around the earth station:

Azimuth [°]	A.7.a.1 - Elevation angle [°]	A.7.a.2 - Distance [km]
°	°	km
°	°	km
°	°	km
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°	°	km
°	°	km

A.7.b.1 - Minimum angle of elevation of the antenna's main beam axis, in degrees, from the horizontal plane:	°	
A.7.c - Range of operating azimuthal angles for the antenna's main beam axis, in degrees, clockerwise from True North:	A.7.c.1:	From: °
	A.7.c.2:	To: °

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4. Earth Station Parameters (cont. 2)

<u>A.7.d</u> - Altitude, in meters, of the antenna above mean sea level:	m
Antenna height, in meters, above Ground level:	m

<u>A.7.e</u> - Minimum angle of elevation of the antenna's main beam axis, in degrees, from the horizontal plane for each azimuth around the earth station <u>that is operating to associated non-geostationary space stations</u>

Azimuth [°]	**Elevation angle [°]**
°	°
°	°
°	°
°	°
°	°
°	°
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°	°
°	°
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°	°

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3. Earth Station Parameters (cont. 3)

RECEIVING BEAM PARAMETERS

B - CHARACTERISTICS TO BE PROVIDED FOR EACH EARTH STATION

B.1 - IDENTIFICATION AND DIRECTION OF THE SATELLITE ANTENNA BEAM	
B.1.a - Designation of the satellite antenna beam of the associated space station:	

B.5 - EARTH STATION ANTENNA CHARACTERISTICS	
B.5.a - Maximum isotropic gain, in dBi	dBi
B.5.b - Half-power beamwidth, in degrees:	°
B.5.c - Antenna radiation pattern*:	
CoefA:	
CoefB:	
CoefC:	
CoefD:	
Phi:	
Antenna diameter, in meters	m

* or provide co- and cross-polar measured antenna diagram

C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR AN EARTH STATION

C.2 - ASSIGNED FREQUENCIES

C.2.a.1 - The assigned frequencies	C.2.b - The center of the frequency band observed	
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz

C.3 - ASSIGNED FREQUENCY BAND	
C.3.a - The bandwidth of the assigned frequency band, in kHz:	kHz

C.4 - CLASS OF STATION AND NATURE OF SERVICE	
C.4.a - The class of station	
C.4.b - The nature of service performed	

C.5 - RECEIVING SYSTEM NOISE TEMPERATURE	
C.5.b - The lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the space station	K

C.6 - POLARIZATION	
C.6.a - The type of polarization	
C.6.b - If linear polarization is used, the angle, in degrees, measured counter-clockwise in a plane normal to the beam axis from the equatorial plane to the electric vector of the waves as seen from the satellite	°

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4. Earth Station Parameters (cont. 4):

RECEIVING BEAM PARAMETERS (cont. 1)

C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR AN EARTH STATION (cont. 1)

C.7 - NECESSARY BANDWIDTH AND CLASS OF EMISSION /
C.8 - POWER CHARACTERISTICS OF THE TRANSMISSION

C.7.a The necessary bandwidth and the class of emission: for each carrier	C.8.e.1 For each carrier type, the greater of either the carrier-to-noise, in dB, required to meet the performance of the link under clear-sky conditions or the carrier-to-noise ratio, in dB, required to meet the short-time objectives of the link inclusive of necessary margins
	dB
	dB
	dB
	dB
	dB
	dB
	dB
	dB
	dB
	dB

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4. Earth Station Parameters (cont. 5)

TRANSMITTING BEAM PARAMETERS

B - CHARACTERISTICS TO BE PROVIDED FOR EACH EARTH STATION

B.1 - IDENTIFICATION AND DIRECTION OF THE SATELLITE ANTENNA BEAM	
B.1.a - Designation of the satellite antenna beam of the associated space station:	

B.5 - EARTH STATION ANTENNA CHARACTERISTICS	
B.5.a - Maximum isotropic gain, in dBi	dBi
B.5.b - Half-power beamwidth, in degrees:	°
B.5.c - Antenna radiation pattern*:	
CoefA:	
CoefB:	
CoefC:	
CoefD:	
Phi:	
Antenna diameter, in meters:	m

* or provide co- and cross polar measured antenna diagram

C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR AN EARTH STATION

C.2 - ASSIGNED FREQUENCIES

C.2.a.1 - The assigned frequencies	C.2.b - The center of the frequency band observed	
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz
		☐ kHz / ☐ MHz / ☐ GHz

C.3 - ASSIGNED FREQUENCY BAND	
C.3.a - The bandwidth of the assigned frequency band, in kHz:	kHz

C.4 - CLASS OF STATION AND NATURE OF SERVICE	
C.4.a - The class of station:	
C.4.b - The nature of service performed:	

C.6 - POLARIZATION	
C.6.a - The type of polarization:	
C.6.b - If linear polarization is used, the angle, in degrees, measured counter-clockwise in a plane normal to the beam axis from the equatorial plane to the electric vector of the waves as seen from the satellite	°

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4. Earth Station Parameters (cont. 6)

TRANSMITTING BEAM PARAMETERS (cont. 1)

C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR AN EARTH STATION (cont. 1)

C.7 - NECESSARY BANDWIDTH AND CLASS OF EMISSION / C.8 - POWER CHARACTERISTICS OF THE TRANSMISSION

C.7.a[1]	C.8.a.1[1] / C.8.b.1[1] [dBW]	C.8.a.2[1] / C.8.b.2[1] [dB(W/Hz)]	C.8.c.1[1] [dBW]	C.8.c.3[1] [dB(W/Hz)]

[1]Remarks

C.7.a - The necessary bandwidth and the class of emission, for each carrier

C.8.a - For the case where individual carriers can be identified:

C.8.a.1 - The maximum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type.

C.8.a.2 - The maximum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type.

C.8.b - For the case where it is not appropriate to identify individual carriers:

C.8.b.1 - The total peal envelope power, in dBW, supplied to the input of the antenna.

C.8.b.2 - The maximum power density, in dB(W/Hz), supplied to the input of the antenna.

C.8.c.1 - The minimum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type.

C.8.c.3 - The minimum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type.

C.8.g.1 - The maximum aggregate power, in dBW, of all carriers (per transponder, if applicable) supplied to the input of the transmitting antenna of the earth station or the associated earth station	dBW

5. General conditions

The data is saved electronically in a database at the Institute. The technical data is exchanged with the Administrations in a defined coordination zone according to the regulations prescribed from the Radio regulations of International Telecommunications Union.

Every change that could lead to a modification of licence must be notified by mail without delay in order to ensure the establishment of a new licence.

The subscriber agrees to accept the legal prescriptions and administrative regulations issued or to be issued on the use and operation of radio stations.

The subscriber certifies the accuracy of the information indicated previously and declares that he has taken cognisance of the general conditions and commits to respect them.

Place: Date:

Signature

Save As

Print

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