Guidelines for

Satellite Radio Spectrum Licenses

Contents

DEFINITIONS & ABBREVIATIONS

EIRP:	Effective Isotropic Radiated Power (EIRP) means the amount of power that a theoretical isotropic antenna would emit to produce the peak power density observed in the direction of maximum antenna gain.
IBS:	Intelsat business service (IBS) is a framing standard used in satellite communications.
ictQATAR:	Supreme Council of Information & Communication Technology (ictQATAR) is the regulator in Qatar established under Amiri decree Law No. 36 for 2004 and as further defined in Amiri decree Law No. 34 of 2006.
IDR:	Intermediate Data Rate (IDR) is a framing standard used in satellite communications.
ITU:	International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies – ICTs. It allocates global radio spectrum and satellite orbits and develops the technical standards that ensure networks and technologies seamlessly interconnect.
ITU-R:	ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.
VSAT	Very Small Aperture Terminal (VSAT), is a two-way satellite ground station with a dish antenna that is smaller than 3 meters.

Satellite stations are used to transmit and receive radio, television and telephone transmissions anywhere via satellite. Satellite communication has been considered as the most reliable means of communications. Due to its global nature, most of the spectrum management is done internationally through ITU-R. Satellite operators intending to deploy their space station in space are required to launch coordination request to ITU-R via national administrations. Similarly, coordination may also be required before deployment of large earth stations. Small Earth Stations such as VSATs as being low powered terminals are not required to be coordinated. In Qatar, space station licenses are required for only Qatari registered satellite networks. The terms & conditions for operating space station(s) are agreed and issued for the Qatari registered satellite operator as and when required. However, for operation of Earth Stations following licenses are available:

a) Fixed Earth Stations (FES)

b) Satellite Earth Station Network Link

c) Transportable Earth Stations (TES)

Please note that these licenses are for transmitters while receive only satellite stations do not require any individual license.

Annex A to these guidelines provides the templates of the licenses alongwith the specific terms and conditions and technical schedule(s).

Annex B to these guidelines provides the application processing procedure.

Annex C to these guidelines provides application form to be used for license applications, modifications, renewals or cancellations. The application form describe the information and any documents that need to be provided for the application to be processed.

1. SUMMARY OF LICENSEE'S RESPONSIBILITIES

Licensees are generally responsible to ensure that:

a) equipment is deployed, operated and maintained to meet the regulations and the terms of the license and to prevent undue interference

b) relevant operational staff of the licensee are trained and certified by the licensee to be competent to undertake their roles

c) records of the operational characteristics of all satellite earth stations are maintained, which shall be made available to ictQATAR for inspection on request

d) the license is current and renewed in a timely manner

e) transmissions at any terminal are disabled if requested by ictQATAR.

f) the clearance to operate at a location should be acquired from the concerned authorities before deployment of the station

Please see Annex A for detailed terms and conditions.

2. FIXED EARTH STATION

This section provides information on the technical considerations for issuing fixed earth station licenses. Fixed earth stations are sited at fixed locations and may be used to provide fixed services or as feeder links to satellites, which provide broadcast satellite services, mobile satellite services or aeronautical mobile services accordingly. VSAT hub stations are also covered under the fixed earth station license.

Operation of Satellite earth stations on-board vessels is covered under the Ship Radio Station license and on aircraft under the Aircraft Radio Station license respectively and the respective guidelines may be consulted for further details.

2.1 Eligibility criteria

Eligible persons who may apply for a permanent earth station license are:

a) Fixed and broadcast satellite service providers that are licensed in Qatar

b) Government ministries and government agencies for fulfilling their own communication needs.

c) Public commercial service providers

2.2 Technical details

It is internationally recognised that there is a need to protect aircraft avionics from the possibility of interference arising from earth stations operating in close proximity to airports. Consequently, the deployment and operation of satellite earth stations in areas around and within the perimeter fences of following airports is not allowed:

a) Civil airports: Al Khor Airport, Doha International Airport and New Doha International Airport

b) Military airport: Al Udeid Air Base

The following technical conditions are to be followed for operating the satellite Earth Stations in Qatar:

The antenna radiation pattern is required to meet the minimum performance specified by ITU Recommendation ITU-R S.580.

Earth stations can only transmit to and receive from the satellite which is specified in the license.

All transmissions are required to comply with the technical parameters mentioned in the technical schedule (1) of the license. ictQATAR may require the licensee to provide additional screening at the installation. Site shielding may also be required which can be a natural or manufactured obstruction positioned between the earth station and potentially interfering stations and / or stations potentially being interfered with.

It is also required that relevant satellite data shall have been submitted to the ITU in accordance with established ITU procedures before deployment of the earth station.

3. SATELLITE EARTH STATION NETWORK LINK

This section provides information on the technical considerations for the issuing of satellite earth station network link licenses. Satellite earth stations operating as a part of a VSAT network (VSAT) or as a part of any such network of terminals where all traffic is routed via satellite are required to be issued a satellite earth station network link license. The communication may be to and

from a central control hub earth station in a star configuration, or as mesh network, which in its simplest form may be a point to point VSAT link. The appropriate topology will be selected, by the licensee, depending on the applications and traffic flow requirements. After the issuance of VSAT Service Licenses[1], this licensing option is available for only foreign missions & Embassies (on reciprocal grounds) and government organizations & security agencies.

3.1 Eligibility criteria

The satellite earth station network link license cannot be used for the provision of commercial services and is available only for fulfilling the internal communication needs for:

a) Foreign missions and embassies

b) Government organizations and security agencies.

3.2 Technical details

Earth station antennas are required to be employed for transmission at elevation angles of not less than 10 degrees measured from the horizontal plane to the direction of maximum radiation as per ITU-R radio regulation as per ITU-R RR 21.14.

The level of off-axis equivalent isotropically radiated power (e.i.r.p.) emitted by any earth station must not exceed those limits specified in ITU-R Radio Regulations RR 22.26-22.39 in bands where these limits are applied.

The Antenna Radiation Pattern Envelope must meet the minimum performance specified by ITU Recommendation S.580.

It is internationally recognised that there is a need to protect aircraft avionics from the possibility of interference arising from earth stations operating in close proximity to airports. Consequently, the deployment and operation of satellite earth stations in areas around and within the perimeter fences of the following airports is not allowed:

a) Civil airports

   i) Al Khor Airport

   ii) Doha International Airport and New Doha International Airport

b) Military airport

   i) Al Udeid Air Base

The maximum transmitter power is restricted to 50 dBW.

4. TRANSPORTABLE EARTH STATION

This section provides information on the technical considerations for the issuing of transportable earth station licenses. TES operations are commonly associated with the broadcasting industry, where they are used to provide outside broadcast links either back to a studio or directly to a broadcasting satellite. Installations range from small flyaway terminals to terminals carried by large vehicles.

[1] Ooredoo, Vodafone, Rignet, Qsat, Harris Salam are the five licensed VSAT service providers.

A Transportable Earth Station (TES) License authorizes the deployment of any number of TES terminals in the assigned exclusive channel(s) at any location except the restricted locations mentioned in the technical schedule (1) of the license. However, the planned locations and technical parameters for each station are to be submitted to ictQatar 10 working days prior to their deployment as per the format provided in the technical schedule (2) of the license.

The applicants that need to use TES terminals during an event can apply for the temporary license.

4.1 Eligibility criteria

Eligible persons who may apply for Transportable Earth Station License are

a) Organizations registered in the state of Qatar for providing broadcasting services

b) organisations which are authorised to provide broadcasting services in the State of Qatar via an authorization issued by the Ministry of Culture, Arts and Heritage.

4.2 Technical details

Licensees are required to meet the following conditions while deploying / operating the transportable earth stations:

Earth station antennas are required to be employed for transmission at elevation angles of not less than 10 degrees measured from the horizontal plane to the direction of maximum radiation as per ITU-R radio regulation RR21.14.

The component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU-R Radio Regulations and not exceed those limits specified by ITU-R RR Nos. 21.8 – 21.15.

The level of off-axis equivalent isotropic radiated power (e.i.r.p.) emitted by any earth station must not exceed those limits specified in ITU-R RR 22.26-22.39 in bands where these limits are applied.

In the band 13.78-14 GHz, an earth station of a geostationary fixed-satellite service network must have a minimum antenna diameter of 1.2m. Earth stations with an antenna diameter of less than 4.5m will be operated on a non-interference basis with respect to maritime radiolocation stations in accordance with ITU-R radio regulation RR 5.502.

The operator is required to acquire all necessary permissions at each notified location where the transportable earth station will be deployed prior to commencing operation.

All transmissions in the fixed satellite service must be terminated prior to any change of location.

The apparatus is required to be attended at all times during TES operation, and an emergency contact be identified for the designated site.

The Antenna Radiation Pattern Envelope is required to meet the minimum performance specified by ITU-R Recommendation ITU-R.S.580.

5. NOTE ON APPLICABLE STANDARDS

Earth station systems must meet the type approval requirements defined by the ictQATAR Type Approval Guidelines for Radio Equipment and Telecommunications Terminal Equipment[2].

6. COORDINATION REQUIREMENTS

Frequency allocations for space radiocommunication services in the State of Qatar are in accordance with the ITU Allocations for Region 1. A significant number of the bands which are allocated to the space radiocommunication services are also allocated internationally to one or more terrestrial services. This is particularly relevant in the case of bands used for telecommunication applications and it is important therefore that the allocations between satellite and terrestrial services are coordinated. The specific utilisation for the various bands is subject to particular implementation arrangements, such as the relevant intra / inter-service sharing and co-ordination considerations which are mainly derived from ITU specified criteria. Therefore for the uplink (Earth to Space) communication there will be coordination requirements which will be facilitated by ictQATAR.

For Organizations planning to launch filing through or on behalf of ictQATAR the Coordination Guidelines for Satellite Network are to be followed.

7. SPECTRUM FEES

Please see the "Schedule of Radio Spectrum Fees" available on ictQATAR's website for details.

8. CONTACT DETAILS

For further queries, please contact:

Manager Spectrum Affairs,
Regulatory Authority,
The Supreme Council of Information & Communication Technology (ictQATAR)
P.O. Box 23264, Al Nassr Tower, Post Office Roundabout, Al Corniche,
Doha, Qatar
Fax: 44830630
Email: spectrumaffairs@ict.gov.qa

[2] http://www.ictqatar.qa/sites/default/files/documents/Type_Approval_Guidelines.pdf

ANNEX A: LICENSE TEMPLATES AND TERMS & CONDITIONS

دولـة قطـر
State of Qatar
المجلس الأعلى للاتصالات وتكنولوجيا المعلومات
ictQATAR
Regulatory Authority

Fixed Earth Station License

The Supreme Council of Information and Communication Technology ("ictQATAR"), in exercising the powers conferred on it by Articles (3) and (4) of Decree Law No. (34) of 2006, grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use one or more fixed satellite earth stations sited at specified fixed locations as per the general terms and conditions for radio spectrum licensing, specific terms & conditions, special conditions (if any) and technical schedule (s) of this License.

License Number.....
Licensee: .....
Address: .....
License Type: .....

Commencement and Termination Dates:

The License comes into effect on DD/MM/YY and subject to revocation or suspension, expires on DD/MM/YY unless renewed in accordance with the Regulations.

Signed:.....
On behalf of the Supreme Council of Information and Communication Technology ("ictQATAR")

Date: ..... **Official Stamp**

Specific Terms & Conditions

1. **Radio equipment operation**

1.1. Deployment of earth stations regarding which the relevant satellite data has not been submitted to ITU through ictQATAR in accordance with established ITU procedures is not allowed.

1.2. Deployment of earth stations belonging to satellites that are not operational at an orbital location known to ictQATAR is not allowed.

1.3. The licensee shall implement independent local control and monitoring functions at the terminal, and be authorised, supervised and administered by a Network Control and Monitoring centre. An emergency contact must be identified for the Network control and Monitoring Centre.

2. **Technical conditions**

2.1. Where appropriate, ictQATAR may require the licensee to provide additional screening[3] at the installation.

2.2. Earth station antennas shall not be employed for transmission at elevation angles of less than 3 degrees measured from the horizontal plane to the direction of maximum radiation.

2.3. The Antenna Radiation pattern Envelope must meet the minimum performance specified by ITU-R Recommendation S.580.

2.4. The equipment shall comply with the relevant ITU Radio Regulations and associate Appendices

2.5. The component of EIRP directed towards the horizon and the minimum elevation angle above the horizontal shall comply with ITU-R Radio Regulations and shall not exceed those limits specified by ITU-R RR Nos. 21.8 – 21.15 as applicable to the relevant frequency band. The level of off-axis EIRP emitted by any earth station shall not exceed those limits specified in ITU-R RR 22.26-22.39 in bands where these limits are applied.

2.6. The following are requirements that are specific to the 13.75 – 14.5 GHz band:

a) Between 13.75 and 14 GHz an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2m and an earth station of a non-geostationary fixed-satellite service system shall have a minimum antenna diameter of 4.5m. Earth stations with an antenna diameter of less than 4.5m shall operate on a non-interference basis with respect to maritime radiolocation stations and be in compliance with the pfd limits in ITU-R RR 5.502. The EIRP of any emission from an earth station with an antenna diameter greater than 4.5m should not exceed 85 dBW.

b) Between 13.77 and 13.78 GHz the EIRP emissions shall comply with ITU-R RR 5.503.

2.7. In order to protect airport avionics, the deployment and operation of satellite earth stations in areas around and within the perimeter fences of civil and military airports as specified by the competent authorities is not allowed.

[3] Site shielding may be a natural or manufactured obstruction positioned between the earth station and potentially interfering stations and / or stations potentially being interfered with.

3. Definitions

3.1. EIRP: Effective Isotropic Radiated Power (EIRP) means the amount of power that a theoretical isotropic antenna would emit to produce the peak power density observed in the direction of maximum antenna gain.

3.2. ictQATAR: The regulator in Qatar established under Amiri decree Law No. 36 for 2004 and as further defined in Amiri decree Law No. 34 of 2006.

3.3. ITU: The International Telecommunication Union is the United Nations specialized agency for information and communication technologies – ICTs. It allocates global radio spectrum and satellite orbits and develops the technical standards that ensure networks and technologies seamlessly interconnect.

3.4. ITU-R: ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.

3.5. License: The permission issued by the Board or the General Secretariat to an individual or class of individuals to own or operate a telecommunications network, provide telecommunications services, or use radio frequency spectrum and it does not constitute a contract or bilateral agreement.

3.6. Licensee: A person who holds a License pursuant to the provisions of the Telecom Law and the executive by-law.

Special Conditions

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Technical Schedule (1)

This schedule forms part of the Fixed Earth Station License No. XXXX issued to XXXX, the Licensee on [Date].

Earth station details						
E Stn name:						
E Stn Lat:			E Stn Long:			
E Stn height (base):			Antenna height (centre):			
Antenna type / reference:			Antenna details:			
Antenna manufacturer:			Antenna diameter:			
Name of satellite						
Orbital location (longitude):						
Satellite operator:						
Carrier characteristics						
Tx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW	
Rx frequency:	GHz	Bandwidth:	MHz			
Tx ant. beamwidth (deg):			Tx ant. radiation pattern:			
Antenna orientation						
Operating angles:	Azimuth (from):		Azimuth (to):		Elevation:	

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State of Qatar
المجلس الأعلى للاتصالات وتكنولوجيا المعلومات
ictQATAR
Regulatory Authority

Earth Station Network Link License

The Supreme Council of Information and Communication Technology ("ictQATAR"), in exercising the powers conferred on it by Articles (3) and (4) of Decree Law No. (34) of 2006, grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use satellite earth station network links sited at fixed locations as per the general terms and conditions for radio spectrum licensing, Specific Terms & Conditions, special conditions (if any) and technical schedule (s) of this License.

License Number.....
Licensee: .....
Address: .....
License Type: .....

Commencement and Termination Dates:

The License comes into effect on DD/MM/YY and subject to revocation or suspension, expires on DD/MM/YY unless renewed in accordance with the Regulations.

Signed:.....
On behalf of the Supreme Council of Information and Communication Technology ("ictQATAR")

Date: .....

Official Stamp

Specific Terms & Conditions

1. **Radio equipment operation**

   1.1. Deployment of earth stations belonging to satellites that are not operational at an orbital location known to ictQATAR is not allowed.

2. **Technical conditions**

   2.1. Earth station antennas shall not be employed for transmission at elevation angles of less than 10 degrees measured from the horizontal plane to the direction of maximum radiation.

   2.2. The component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal shall comply with ITU-R Radio Regulations and shall not exceed those limits specified by ITU-R RR Nos. 21.8 – 21.15. The level of off-axis EIRP emitted by any earth station shall not exceed those limits specified in ITU-R RR 22.26-22.39 in bands where these limits are applied.

   2.3. The Antenna Radiation pattern Envelope must meet the minimum performance specified by ITU-R Recommendation S.580.

   2.4. In the case of mobile operation, the radio equipment shall employ a stabilised platform with the ability to maintain a pointing accuracy of +/- 0.2 degrees towards the relevant Geostationary Satellite.

3. **Definitions**

   3.1. **EIRP:** Effective Isotropic Radiated Power (EIRP) means the amount of power that a theoretical isotropic antenna would emit to produce the peak power density observed in the direction of maximum antenna gain.

   3.2. **ictQATAR**: The regulator in Qatar established under Amiri decree Law No. 36 for 2004 and as further defined in Amiri decree Law No. 34 of 2006.

   3.3. **ITU:** The International Telecommunication Union is the United Nations specialized agency for information and communication technologies – ICTs. It allocates global radio spectrum and satellite orbits and develops the technical standards that ensure networks and technologies seamlessly interconnect.

   3.4. **ITU-R:** ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.

   3.5. **License**: The permission issued by the Board or the General Secretariat to an individual or class of individuals to own or operate a telecommunications network, provide telecommunications services, or use radio frequency spectrum and it does not constitute a contract or bilateral agreement.

   3.6. **Licensee:** A person who holds a License pursuant to the provisions of the Telecom Law and the executive by-law.

Special Conditions

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Technical Schedule (1)

This schedule forms part of the Satellite Earth Station Network Link License No. XXXX issued to XXXX, the Licensee on [Date].

Number of VSAT earth stations in network:											
Network details											
Network configuration (e.g. Star, Mesh):											
Location of hub:				Lat:			Long:				
Hub bite rate:		kbit/s									
Dependant VSAT uplink:		kbit/s		Dependent VSAT downlink:				kbit/s			
Satellite operator:											
Name of space station:				Orbital longitude:							
Carrier modulation system:											
Earth station details (For Each Earth Station)											
E Stn name:											
E Stn location:											
E Stn Lat:				E Stn Long:							
E Stn height (base):				Antenna height (centre):							
Antenna type / reference:				Antenna details:							
Antenna manufacturer:				Antenna diameter:							
Carrier characteristics:											
Tx frequency:		GHz	Bandwidth:		MHz	Max. eirp:		dBW			
Rx frequency:		GHz	Bandwidth:		MHz						
Tx ant. beamwidth (deg):				Tx ant. radiation pattern:							
Antenna orientation											
Operating angles:	Azimuth (from):			Azimuth (to):			Elevation:				

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State of Qatar
المجلس الأعلى للاتصالات وتكنولوجيا المعلومات
ictQATAR
Regulatory Authority

Transportable Earth Station License (Permanent)

The Supreme Council of Information and Communication Technology ("ictQATAR"), in exercising the powers conferred on it by Articles (3) and (4) of Decree Law No. (34) of 2006, grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use transportable earth stations that can be deployed anywhere within the State of Qatar as per the general terms and conditions for radio spectrum licensing, specific terms & conditions, special conditions (if any) and technical schedule (s) of this License.

License Number.....
Licensee: .....
Address: .....
License Type: .....

Commencement and Termination Dates:

The License comes into effect on DD/MM/YY and subject to revocation or suspension, expires on DD/MM/YY unless renewed in accordance with the Regulations.

Signed:.....
On behalf of the Supreme Council of Information and Communication Technology ("ictQATAR")

Date: ..... **Official Stamp**

Specific Terms & Conditions

1. Radio equipment operation

1.1. The licensee shall not operate any Transportable Earth Station at any restricted location which is defined in the technical schedule (1).

1.2. Deployment of earth stations belonging to satellites that are not operational at an orbital location known to ictQATAR is not allowed.

2. Technical conditions

2.1. Earth station antennas shall not be employed for transmission at elevation angles of less than 10 degrees measured from the horizontal plane to the direction of maximum radiation.

2.2. The component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU-R Radio Regulations and not exceed those limits specified by ITU-R RR Nos. 21.8 – 21.15.

2.3. The level of off axis EIRP emitted by any earth station shall not exceed those limits specified in ITU-R RR 22.26-22.39 in bands where these limits are applied.

2.4. In the band 13.78-14 GHz, an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2m. Earth stations with an antenna diameter of less than 4.5m shall operate on a non-interference basis with respect to maritime Radiolocation stations.

2.5. The operator shall acquire all necessary permissions at each notified location where the earth station will be deployed prior to commencing operation.

2.6. All transmissions on the earth station(s) must be terminated prior to any change of location.

2.7. The apparatus shall be attended at all times during earth station operation, and an emergency contact identified for the designated site for each time it is deployed.

2.8. The Antenna Radiation Pattern Envelope meets the minimum performance specified by ITU-R Recommendation ITU-R.S.580.

3. Definitions

3.1. **EIRP:** Effective Isotropic Radiated Power (EIRP) means the amount of power that a theoretical isotropic antenna would emit to produce the peak power density observed in the direction of maximum antenna gain.

3.2. **ictQATAR**: The regulator in Qatar established under Amiri decree Law No. 36 for 2004 and as further defined in Amiri decree Law No. 34 of 2006.

3.3. **ITU:** The International Telecommunication Union is the United Nations specialized agency for information and communication technologies – ICTs. It allocates global radio spectrum and satellite orbits and develops the technical standards that ensure networks and technologies seamlessly interconnect.

3.4. **ITU-R:** ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.

3.5. **License**: The permission issued by the Board or the General Secretariat to an individual or class of individuals to own or operate a telecommunications network, provide telecommunications services, or use radio frequency spectrum and it does not constitute a contract or bilateral agreement.

3.6. **Licensee:** A person who holds a License pursuant to the provisions of the Telecom Law and the executive by-law.

3.7. **Technical Schedule (1)**: Part of a radio spectrum license where the technical conditions for using the radio frequencies are defined.

Special Conditions

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Technical Schedule (1)

This schedule forms part of the Transportable Earth Station License No. XXXX issued to XXXX, the Licensee on [Date].

Frequency Channel (s)	
Maximum power allowed	
Restricted Locations	

Technical Schedule (2)

This schedule forms part of the Transportable Earth Station License No. XXXX issued to XXXX, the Licensee on [Date].

Earth station details							
E Stn name:							
E Stn location:							
E Stn Lat:			E Stn Long:				
Registration Number of The vehicle (if mounted)							
E Stn height (base):			Antenna height (centre):				
Antenna type / reference:			Antenna details:				
Antenna manufacturer:			Antenna diameter:				
Name of satellite							
Orbital location (longitude):							
Satellite operator:							
Carrier characteristics							
Tx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW		
Rx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW		
Tx ant. beamwidth (deg):			Tx ant. radiation pattern:				
Antenna orientation							
Operating angles:	Azimuth (from):		Azimuth (to):		Elevation:		
Date: start of transmissions							
Date: end of transmissions							

دولـة قطـر
State of Qatar
المجلس الأعلى للاتصالات وتكنولوجيا المعلومات
ictQATAR
Regulatory Authority

Transportable Earth Station License (Temporary)

The Supreme Council of Information and Communication Technology ("ictQATAR"), in exercising the powers conferred on it by Articles (3) and (4) of Decree Law No. (34) of 2006, grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Transportable Earth Stations than can be deployed anywhere within the State of Qatar as per the general terms and conditions for Radio Spectrum licensing, Specific Terms & Conditions, special conditions (if any) and technical schedule (s) of this License.

License Number……
Licensee: ……
Address: ……
License Type: ……

Commencement and Termination Dates:

The License comes into effect on DD/MM/YY and subject to revocation or suspension, expires on DD/MM/YY unless renewed in accordance with the Regulations.

Signed:……
On behalf of the Supreme Council of Information and Communication Technology ("ictQATAR")

Date: …….. **Official Stamp**

Specific Terms & Conditions

1. **Radio equipment operation**

   1.1. The licensee shall not operate any Transportable Earth Station at any restricted location which is defined in the technical schedule (1).

   1.2. Deployment of earth stations belonging to satellites that are not operational at an orbital location known to ictQATAR is not allowed.

2. **Technical conditions**

   2.1. Earth station antennas shall not be employed for transmission at elevation angles of less than 10 degrees measured from the horizontal plane to the direction of maximum radiation.

   2.2. The component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU-R Radio Regulations and not exceed those limits specified by ITU-R RR Nos. 21.8 – 21.15.

   2.3. The level of off axis EIRP emitted by any earth station shall not exceed those limits specified in ITU-R RR 22.26-22.39 in bands where these limits are applied.

   2.4. In the band 13.78-14 GHz, an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2m. Earth stations with an antenna diameter of less than 4.5m shall operate on a non-interference basis with respect to maritime Radiolocation stations.

   2.5. The operator shall acquire all necessary permissions at each notified location where the earth station will be deployed prior to commencing operation.

   2.6. All transmissions on the earth station(s) must be terminated prior to any change of location.

   2.7. The apparatus shall be attended at all times during earth station operation, and an emergency contact identified for the designated site for each time it is deployed.

   2.8. The Antenna Radiation Pattern Envelope meets the minimum performance specified by ITU-R Recommendation ITU-R.S.580.

3. **Definitions**

   3.1. **EIRP:** Effective Isotropic Radiated Power (EIRP) means the amount of power that a theoretical isotropic antenna would emit to produce the peak power density observed in the direction of maximum antenna gain.

   3.2. **ictQATAR**: The regulator in Qatar established under Amiri decree Law No. 36 for 2004 and as further defined in Amiri decree Law No. 34 of 2006.

   3.3. **ITU:** The International Telecommunication Union is the United Nations specialized agency for information and communication technologies – ICTs. It allocates global radio spectrum and satellite orbits and develops the technical standards that ensure networks and technologies seamlessly interconnect.

   3.4. **ITU-R:** ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.

3.5. **License**: The permission issued by the Board or the General Secretariat to an individual or class of individuals to own or operate a telecommunications network, provide telecommunications services, or use radio frequency spectrum and it does not constitute a contract or bilateral agreement.

3.6. **Licensee:** A person who holds a License pursuant to the provisions of the Telecom Law and the executive by-law.

3.7. **Technical Schedule (1)**: Part of a radio spectrum license where the technical conditions for using the radio frequencies are defined.

Special Conditions

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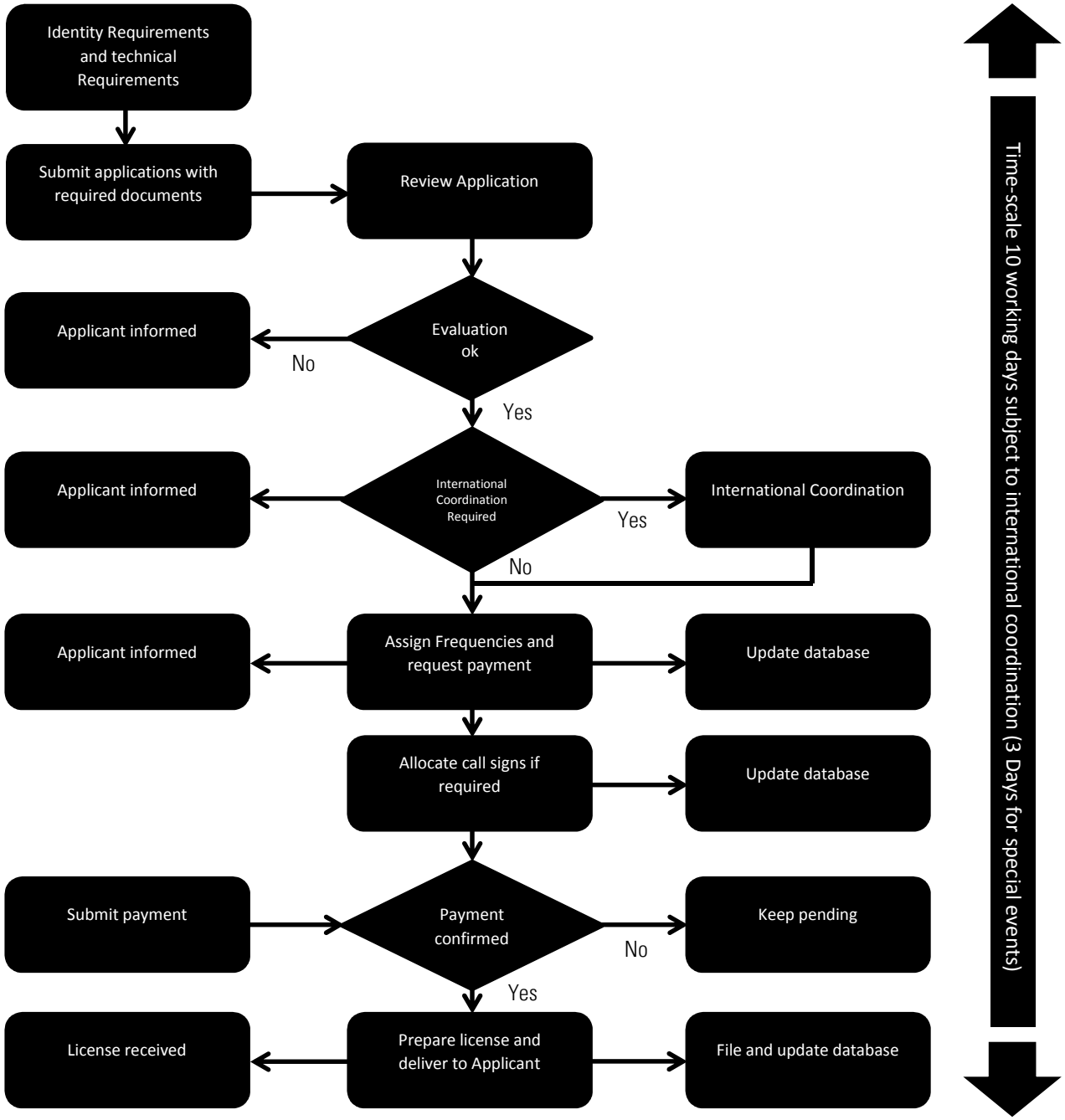
Technical Schedule (1)

This schedule forms part of the Transportable Earth Station License No. XXXX issued to XXXX, the Licensee on [Date].

Earth station details					
E Stn name:					
E Stn location:					
E Stn Lat:			E Stn Long:		
Registration Number of The vehicle (if mounted)					
E Stn height (base):			Antenna height (centre):		
Antenna type / reference:			Antenna details:		
Antenna manufacturer:			Antenna diameter:		
Name of satellite					
Orbital location (longitude):					
Satellite operator:					
Carrier characteristics					
Tx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW
Rx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW
Tx ant. beamwidth (deg):			Tx ant. radiation pattern:		
Antenna orientation					
Operating angles:	Azimuth (from):		Azimuth (to):	Elevation:	

ANNEX B: APPLICATION PROCESSING PROCEDURE


Identity Requirements and technical Requirements
Submit applications with required documents
Review Application
Evaluation ok
No
Applicant informed
Yes
International Coordination Required
Yes
International Coordination
Applicant informed
No
Assign Frequencies and request payment
Update database
Applicant informed
Allocate call signs if required
Update database
Payment confirmed
No
Keep pending
Submit payment
Yes
Prepare license and deliver to Applicant
File and update database
License received
Time-scale 10 working days subject to international coordination (3 Days for special events)

ANNEX C: APPLICATION FORM

	ICTQATAR REGULATORY AUTHORITY **APPLICATION FOR SATELLITE RADIO SPECTRUM LICENSES**	**FORM:** SE/01

APPLICANT'S DECLARATION

1.1 I declare that:

- the information provided in this application is complete and correct;
- any equipment and / or radio spectrum licensed as a result of this application will be used in compliance with ictQATAR Laws and Regulations;
- I / we will notify ictQATAR of any changes to the information provided;
- I am authorized to sign this application on behalf of the applicant.

1.2 Name:		1.6 Company stamp (if applicable):
1.3 Position:		
1.4 Signature:	1.5 Date:	

APPLICANT INFORMATION

2.1 ictQATAR Customer Number:

Please note. If you have an existing customer number and have previously provided the following information you need only complete the Applicant Information sections if your details need to be amended in our records.

2.2 Name / Company / Organisation:	
2.3 Nationality / Place of registration:	
2.4 Profession:	
2.5 PO Box:	
2.6 Address:	
2.7 Main contact:	2.10 Position:
2.8 Contact email:	2.11 Mobile Tel:
2.9 Office Tel:	2.12 Fax:

INVOICING INFORMATION (IF DIFFERENT FROM ABOVE)

3.1 Name / Company / Organisation:	
3.2 PO Box:	
3..3 Address:	
3.4 Invoicing contact:	3.7 Position:
3.5 Contact email:	3.8 Mobile Tel:
3.6 Office Tel:	3.9 Fax:

APPLICATION TYPE (TICK AS APPROPRIATE)

New Application:		Renewal:		Modification:		Cancellation:	

APPLICATION SUBMISSION

Please send* completed applications to: * by fax, post, courier or hand deliver.	Regulatory Authority – Technical Affairs The Supreme Council of Information & Communication Technology (ictQATAR) P.O. Box 23264, Al Nassr Tower, Post Office Roundabout, Al Corniche, Doha, Qatar

FOR ictQATAR INTERNAL USE	
For Spectrum Planning Section:	
Date Received:	
Approved:	Not Approved:
License Number:	Staff No.
Remarks:	
Date Completed:	
For Spectrum Management Section:	
Date Received:	
Approved:	Not Approved:
License Number:	Staff No.
Remarks:	
Date Completed:	

FOR FIXED EARTH STATION					
Site details					
1.1 Purpose of operation:					
1.2 Site name:					
1.3 Site location:					
FOR SATELLITE EARTH STATION NETWORK LINKS (For diplomatic missions & National Security Organizations)					
2.1 Number of VSAT earth stations in network:					
Network details:					
2.2 Network configuration (e.g. Star, Mesh):					
2.3 Location of hub:		Lat:		Long:	
2.4 Hub bit rate:	kbit/s				
2.6 Dependent VSAT uplink:	kbit/s	2.7 Dependent VSAT downlink:			
2.8 Satellite operator:					
2.9 Name of space station:		2.10 Orbital longitude:			
2.11 Carrier modulation system:					
FOR TRANSPORTABLE EARTH STATION					
Vehicle Details:					
Registration No:		Make and Model			

SPACE STATION & EARTH STATION DETAILS (Please provide for each Earth Station)			
3.1 E Stn name:			
3.2 Name of space station:			
3.3 Orbital longitude:			
3.4 Satellite operator:			
3.5 E Stn Operation start date (if known):			
3.6 E Stn Lat:		3.7 E Stn Long:	
3.8 E Stn height (base):		3.9 Antenna height (center):	
3.10 Antenna type / reference:		3.11 Antenna details:	

3.12 Antenna manufacturer:		3.13 Antenna diameter:			
3.14 Carrier characteristics:					
Tx frequency:	GHz	Bandwidth:	MHz	Max. eirp:	dBW
Rx frequency:	GHz	Bandwidth:	MHz		
Tx ant. beamwidth (deg):		Tx ant. radiation pattern:			
3.15 If more than one carrier, please provide details of all carriers:					
Tx frequency:	GHz GHz GHz	Bandwidth:	MHz MHz MHz	Max. eirp:	dBW dBW dBW
Rx frequency:	GHz GHz GHz	Bandwidth:	MHz MHz MHz		
Rx ant. beamwidth (deg):		Rx ant. radiation pattern:			
3.16 Antenna orientation					
Operating angles:	Azimuth (from):		Azimuth (to):	Elevation:	
ADDITIONAL INFORMATION					

DOCUMENTS TO BE ENCLOSED
Copy of CR
Copy of Corporate card
Detailed Technical specifications
Copy of Approval/authorization from Ministry of Culture Arts and Heritage (For Earth Stations transmitting broadcasting Content)
Copy of the Individual License for telecommunication service provision (For Earth stations providing telecom services)
Note: Filled-in application form must be routed through MoFA (For Satellite Network Link License)
DOCUMENTS TO BE ENCLOSED (FOR CANCELLATION)
Copy of receipt of final payment
Original license
Copy of the shipment document (Airway bill & packing list) or Declaration that equipment will be written-off under the supervision of ictQATAR staff