

Month Day, Year

The Managing Director,
Company Nigeria Limited,
Street, District,
City,
State.

Dear Sir,

GATEWAY EARTH STATION (GES) FREQUENCY LICENCE

Following your acceptance of the provisional offer of the Commission vide your letter dated Month, Year and your payment of the stipulated fee, the Commission hereby assigns Frequency pairs to you for the deployment of a **Gateway Earth Station** in **XXX** State, subject to the conditions stated below:

(1) EARTH STATION PARAMETERS:

- a. Type of Earth Station: GES/TELEPORT/TT&C
- b. Brand Manufacturer:
- c. Frequency Band of Operation:
- d. Earth Station Facility Type: Transmit/Receive

(2) TRANSMITTER PARAMETERS:

- a. Transmitter (Tx) Center Frequency:
- b. Polarization:
- c. Bandwidth:
- d. Frequency Range of Operation: From:
- e. ITU Class of Emission Designator:
- f. Max. EIRP/Carrier (dBW):
- g. Max. ERP Density per Carrier (dBW/4KHz):

(3) RECEIVER PARAMETERS:

- a. Receiver (Rx) Center Frequency:
- b. Polarization:
- c. Bandwidth of Receive Signal:
- d. Frequency Range of Operation:
- e. Minimum Elevation Angle (Degree above Horizontal):
- f. Height of Antenna above mean ground level (Meters):

(4) ANTENNA PARAMETERS:

- a. Antenna Manufacturer:
- b. Antenna Model:
- c. Antenna Diameter:
- d. Antenna Gain:

- e. Azimuth:
- f. Total Input Power to Antenna:
- g. Off-axis e.i.r.p Limits: In accordance with ITU-R. S.524.9 for GSO
- h. Antenna Beamwidth (3dB) (Degree):
- i. Maximum Antenna Height:

(5) LOCATION PARAMETERS:

- a. Earth Station Site Name/id:
- b. Site Address:
- c. Town/City:
- d. Country:
- e. Latitude:
- f. Longitude:
- g. Site Elevation, Above Sea Level (ASL):

(6) ASSOCIATED SPACE SATELLITE:

- a. Name of Space Satellite:
- b. Orbital Position: Degree E:_____ Degree W:_____

(7) TELEMETRY AND TRACKING (If applicable)

a. Command Frequencies: Uplink Frequency, MHz)

- Command 1 (On-Station): _____MHz
- Command 2 (On-Station): _____MHz
- Command 1 (Transfer Orbit): _____MHz
- Command 2 (Transfer Orbit): _____MHz

b. Telemetry Frequency (Downlink Frequency, MHz)

- TTX 1 (On-Station): _____MHz
- TTX 2 (On-Station): _____MHz
- TTX 1 (Transfer Orbit): _____MHz
- TTX 2 (Transfer Orbit): _____MHz

(8) LIMITATIONS ON THE USE:

The Stations shall use only:

- a) the classes of emission specified in the Designation of Emission of the equipment (*to be specified when issuing frequency Licence*);
- b) the frequencies specified in the Transmit Frequency and Receive Frequency of the equipment (*to be specified when issuing frequency Licence*);
- c) a power not exceeding that specified in the Equivalent Isotropically Radiated Power (EIRP) of the equipment (*to be specified when issuing frequency Licence*);
- d) the antenna type specified in the Antenna Type of the equipment (*to be specified when issuing frequency Licence*);

e) a power density not exceeding that specified in the Spectral Power Density of the equipment *(to be specified when issuing frequency Licence)*;

f) The Station shall be operated only from the location specified in (5) above;

(9). EARTH STATION EQUIPMENT

The Licensee shall ensure that:

a) The earth station equipment should be designed, constructed, maintained and operated, that it does not cause any undue interference to other users of the spectrum;

b) The earth station equipment should comply with (and is maintained in accordance with) the relevant performance specification(s) published by the operator of the Satellite with which it is communicating;

c) The earth station antenna shall not be employed for transmission at elevation of less than 3 degrees measured from the horizontal plane to the direction of maximum radiation as specified in ITU Radio Regulation ITU - RR ART. 21.14;

d) The component of EIRP directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU Radio Regulations and not exceed those limits specified by Radio Regulations ITU-RR ART. 21.8 -ART. 21.15;

e) in the band 13.75GHz - 14GHz, earth stations with an antenna diameter of less than 4.5m operate in compliance with the pfd limits in RR 5.502, that the e.i.r.p. of any emission from an earth station in the fixed satellite service does not exceed 85dBW and that the e.i.r.p. density of emissions in the band 13.77-13.78 GHz complies with RR 5.503;

f) in the bands 27.8185-28.4545 GHz and 28.8265-29.4625 GHz, the power flux density produced by the earth station does not exceed -108.5db(W/(m² • 1 MHz) for more than 50% of the time produced at 6m above ground level at a distance of 6 kms from the earth station;

g) the Antenna Radiation Pattern Envelope meets the minimum performance specified by ITU Recommendation ITU-R S.465, or ITU-R S.580 for antennas installed after 1995;

Where appropriate, NCC may require that the Assignee provide additional screening at the installation as a condition of the assignment.

(10). NATIONAL AND INTERNATIONAL OBLIGATIONS

a) The earth station must undergo national coordination and site clearance for operation at the specified location.

b) The relevant satellite data shall have been submitted to ITU in accordance with established ITU procedures.

c) All transmissions in the Fixed Satellite Service must be terminated prior to any change of location; unless operating under a specific exemption authorized by NCC.

(11). INTERPRETATION

In this Licence:

- a) "Earth Station" means a radio transmitter located on the surface of the earth and intended for communication with one satellite.
- b) "Geostationary Satellite" means a satellite in geostationary orbit which remains approximately in a fixed position relative to a position on the surface of the earth.

Notes

1. This Frequency Assignment does not affect the requirement, where necessary, to obtain licenses or authorizations under Nigerian Communications Act (NCA 2003).
2. The Assignee must apply for a variation of the Licence from the Commission before making any changes which may contravene the Assignment.
3. Technical terms used in this assignment shall have the meanings assigned to them in the Radio Regulations.

- (12) Effective Date shall be **Month Day, Year**.
- (13) The next renewal will be due by **Month Day, Year**. The renewal fee shall be based on the Frequency License Fee and Pricing Regulation in force at the time of renewal.
- (14) The frequency spectrum to be used by the Gateway Earth Station has also been assigned to other terrestrial services with co-primary allocation. You are to ensure that there is proper coordination with these services to avoid harmful interference.
- (15) The Earth Station is to be used as a Gateway Earth Station for XXX Geostationary Satellite purposes only and not to provide data or other services directly to customers' premises irrespective of the class of customers.
- (16) The Earth Station shall be used to provide services only to licensed telecommunications operators authorized to provide **telecommunications services**.
- (17) The Earth Station Operator is required to comply with Resolution 22 WRC' 19 resolves 3 of the ITU WRC-19.
- (18) XXX is to submit to the Commission, data on the telecommunications operators you provide services to. A copy of the template for submission can be downloaded from the Commission's website through the path: <http://www.ncc.gov.ng/technology/spectrum/eartstation-report-templates>.

XXX is required to complete all the fields and submit in both hard and soft copies. The soft copy should be sent to spectrum-space@ncc.gov.ng. A CD copy should also be sent to the Commission. You are to comply strictly with this template when sending your data to the Commission.

- (19)** XXX is also required to submit regular updates of the data referred to in **(18) above** to the Commission **twice** every year.
- (20)** Updates should be submitted on **January 7** and **July 7** of each year. In situations where these dates fall on weekends or Public Holidays, the submission will be due on the next working day following the due dates.
- (21)** XXX are hereby reminded that all equipment must be **Type Approved** by the Commission before installation.
- (22)** The Commission may withdraw this assignment and invoke sanctions if it is used contrary to the stipulated conditions without prior written approval from the Commission, or if false information on the actual usage of the frequency is provided to the Commission.

Thank you.

Yours faithfully,

For: Nigerian Communications Commission

EXECUTIVE VICE CHAIRMAN/CEO