INSTRUCTION MANUAL

This instruction provided for helping applicants in completing VSAT Application Form (VS Application Form)

Antenna site Item-Group 1		This section covers provides data items of communication site and antenna characteristics	
Item No. 1.1	Name of the Transmitting Antenna Site	Give the name of transmitting antenna site which is commonly assigned by applicant.	Applicant
Item No. 1.2	Geographical Coordinates (Long/Lat)	The geographical coordinates of transmitting antenna in degrees/minutes/seconds. Please take note that none of the boxes in this item shall be left blank.	Applicant
Item No. 1.3	(Antenna) Site Altitude above see level	Give the altitude of the ground where the base of transmitting antenna or antenna tower placed in such a way that summation of this value and value in Item 8.6 conclude the actual height of antenna above sea level in meter. Include the height of building in this value, if it is rooftop. In case of transportable earth station leave this item blank.	Applicant
Item No. 1.4	Nature of Service	Indicate the nature of service from following options: CO Station open to official correspondence exclusively CP Station open to public correspondence CR Station open to limited public correspondence CV Station open exclusively to correspondence of a private agency FS Land station established solely for the safety of life OT Station open exclusively to operational traffic of the service concerned Up to three codes can be provided.	Applicant
Item No. 1.5	Class of station	Indicate the appropriate class of station, up to three code, using codes given in Tables A	Applicant
Item No. 1.6	Height above ground level	Provide the height of the center of the antenna above its base in meter. Summation of this value and the value in 8.3 shall conclude the height of Antenna center above see level in meter. Include the height of antenna tower in this Item.	Applicant
Item No. 1.7	Antenna Diameter	Provide the diameter of antenna in meters.	Applicant
Item No. 1.8	Polarization	Enter one of the following options (for second box refer to explanation of L): V *Vertical linear*: the electric field vector is in a plane normal to the equatorial plane H *Horizontal linear*: the electric field vector is in a plane parallel to the equatorial plane D *Dual*: When substantially equal-amplitude vertically – and horizontally - polarized components are radiated without particular control of the phase relation between them. Typically, the vertically - and horizontally – polarized sources may be displaced one from the other so that the resultant polarization varies between circular and slant, according to azimuth angle CR *Right-hand circular or Direct*: The electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a right-hand or clockwise direction. CL *Left-hand circular or Indirect*: The electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a left-hand or anti-clockwise direction. SL *Left-hand slant*: The electric field vector is in the plane rotated 45 degrees anti-clockwise from the vertical position, as seen from the transmitting point SR *Right-hand slant*: The electric field vector is in the plane rotated 45 degrees clockwise from the vertical position, as seen from the transmitting point. M *Mixed*: The collective term applied when both vertical and horizontal components are radiated, embracing slant, circular and dual polarization. L999*Linear*: The electric field vector, observed in any fixed plane, normal to the beam axis, whilst looking in the direction of propagation, remains in the direction specified by the angle measured anti-clockwise from a line parallel to the equatorial plane; the value of this angle follows the symbol L and is expressed in degrees from 0 to 359. Put this value in the second box (in degrees)	Applicant
Items No. 1.9 and 1.10	Maximum Gain of transmission and reception	Give the maximum isotropic gain of the antenna, in transmission and reception modes, in the direction of main lobe in dBi.	Applicant
Item No. 1.11	(Main beam) Azimuth (deg)	The angle of the direction of the Transmitting Antenna's Maximum Gain (items 8.9 and 8.10), measured in the horizontal plane from True North in a clockwise direction.	Applicant
Item No. 1.12	Elevation Angle (deg.)	Angle measured in the vertical plane between the direction of the Transmitting Antenna Maximum Gain and the horizontal plane.	Applicant
Item No. 1.13	Beamwidth (deg.)	The angular width of the main lobe of radiation within which the off-axis gain in any direction does not fall more than 3 dB below the value of the Transmitting Antenna's Maximum Gain.	Applicant
Item No. 1.14	Radiation pattern	Indicate the reference radiation pattern, preferably by means of the symbols in table B or similar symbols not exceeding 12 characters. Provide the radiation pattern diagram if non of the available symbols in Table B is matched with antenna characteristics.	Applicant

Item Group 2 Frequency		This section provides working frequency bands	
Items No.2.1 to 2.3	Designation of Emission	Provide the designation of emission in accordance with the used modulation type and necessary bandwidth.	Applicant
Item No. 2.2	Maximum peak power (dBW)	Enter the appropriate sign (+ or -) and the maximum value of the total peak envelope power, expressed in dBW, supplied to the input of the antenna for the corresponding emission.	Applicant
Item No. 2.3	Maximum power density (dBW/Hz)	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 carriers below 15 GHz, or averaged over the worst 1 MHz band for carriers above 15 GHz. For narrow band carriers with a necessary bandwidth less than the reference bandwidth, the peak power should be averaged over the reference bandwidth (4 kHz or 1 MHz) to obtain this value of maximum power density.	Applicant
Item No. 2.4	Receiving system noise temperature (Kelvins)	Enter the value of the lowest total receiving system noise temperature expressed in kelvins, referred to the output of the earth station antenna under clear sky conditions. When the associated space transmitting station is on board a geostationary satellite the value to be entered is that for the nominal antenna elevation.	Applicant
Item No. 2.5 and 2.6	Transitting and Receiving Frequency or Frequency band	Insert the egde frequencies of bands designated for transmission and reception.	Applicant
Item No. 2.7	C/N(Total-Clear Sky)	Enter the required carrier to noise ratio, in decibels, for the overall link for each carrier when clear sky propagation conditions apply.	Applicant
Item Group 3 Equipment		This section provides equipment information	
Item No. 3.1 to 3.3	Equipment manufacturer, serial number and model	Provide the equipment manufacturer, serial number and model.	Applicant
Item No. 3.4	Data rate of transmission (Kbit/s)	Provide the maximum data rate of transmission.	Applicant
Item group 4 Satellite		Associated satellite information should be entered in this secion	
Item No. 4.1	Name of Satellite	Enter the name of satellite which provides bandwidth.	Applicant
Item No. 4.2	Nominal orbital longitude (deg)	If the associated space station with which communication is to be established is on board a geostationary satellite, enter the nominal longitude of the orbital position of that satellite expressed in decimal degrees E or W (the value should not exceed 180 degrees); otherwise leave blank.	Applicant
Items No. 4.3 and 4.4	Transmitting and Receiving beam designation	Enter the transmitting and receiving beam designation by a symbol assigned to that internationally. For practical reasons, there are different approaches for the designation of the beam. It may consist of: (a) numbers such as 1, 2, 3, etc., which refer to the number of the figure representing the corresponding antenna gain contours diagram published in the relevant Special Section; or (b) numbers such as 195, which identify a beam having a maximum gain of 19.5 dB; or (c) a symbol of up to four letters (or a letter and a figure), which is used to represent the abbreviated beam name, such as “GBL” for global, “NWQ” for North West Quadrant, “WH” for West Hemisphere, “Z1” for zone 1, “O” for omnidirectional. For steerable beams, the last character shall always be the letter "R".	Applicant