

## Format for Self-Certificate of Antenna Parameters

**Name of the Operator:**  
**Name of ESUT (Earth Station under Test):**

**Site In-Charge Name:**  
**Fixed No.:**

**PARTICULARS:**

**1. ESUT PARTICULARS:**

(a) Latitude(N): (b) Longitude(E): (c) HASL (Mtr):

**2. HPA PARTICULARS:**

(a) Make: (b) Gain (dB): (c) Rating (Watt):

**3. LNA PARTICULARS:**

(a) Make: (b) Gain (dB): (c) Noise temp(°K):

**4. LNB/ LNBC PARTICULARS:**

(a) Make: (b) Gain (dB): (c) Noise temp(°K):

**5. ANTENNA PARTICULARS:**

(a) Make: (b) Mount: (c) Polarization:  
(d) No. of Ports: (e) Size (M): (f) Feed Loss (dB):

**6. SATELLITE PARTICULARS:**

(a) Spacecraft: (b) Transponder: (c) Look Angle: AZ: EL:  
(d) Uplink freq (MHz): (e) Downlink Freq (MHz):

**7. UPLINK MEASUREMENT AT ESUT obtained under Self-test:**

(a) C/No of Carrier (dB-Hz):  
(c) HPA O/P Power (dBW):  
(d) Power Delivered to Antenna Port (dBW):  
(e) Uplink EIRP (dBW):

**8. ESUT MEASUREMENT ANALYSIS:**

a)	Expected Test Antenna Trans Gain (GT <sub>xe</sub> ) (dBi)	
b)	Computed Test Antenna Trans Gain (GT <sub>xc</sub> )(Based on 3dB & 10dB B/W)(dBi)	
c)	Expected Figure of Merit (G/T) (dB/K)	
e)	Computed G/T w.r.t. Carrier (dB/K)	

**9. POLARIZATION DISCRIMINATION:**

a)	Trans CPD of ESUT (dB) w.r.t. Downlink Freq (MHz):	
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**10. FREQUENCY & EIRP STABILITY TEST:**

Date: Frequency Downlink (MHz):

Results of Test are: (i) Frequency Stability within (Hz):  
(ii) EIRP Stability within (dBW):

**11.** First side lobe suppression in dB (a) AZ: L: R: (b) EL: L: R:

**12:** ITU Mask (29-15 Log  $\theta$ ) based on computed GT<sub>xc</sub> [ref. 8(b)].

**13:** AZ Trans Radiation Pattern Meeting/ Not Meeting the ITU-RS 580-VI Specifications  
(attach the pattern obtained during the self-test).

**14.** EL Trans Radiation Pattern Meeting/ Not Meeting the ITU-RS 580-VI Specifications  
(attach the pattern obtained during the self-test).

**(Authorized Signatory)**  
**M/s Company**