

Applicant:

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Certificate:

CH-FLY-HOL-120-595

Antenna model:

TP120 Fly Away antenna

Diameter:

120 cm

Standard:

M

Characterization Date:

05-01-2022

Last test data submitted on:

08-11-2022

System Description:

The TP120 by Holkirk is a 120cm Ku band Fly Away antenna, with offset front fed optic ($f/D = 0.78$). The feed polarization is linear (2 ports). The carbon fibre reflector is segmented (6 pieces). The antenna can be motorized for auto-pointing with a ACU (AIM) or use manual pointing.

Maximum Allowed EIRP: For digital carriers transmitted under a satellite receive contour of 0 dB/K (EESS 502 refers):

Frequency bands	13.75 – 14.00 GHz	14.00- 14.50 GHz
≥ 1.5°	36.3 [dBW/40KHz]	38.9 [dBW/40KHz]
≥ 2.0°	41.0 [dBW/40KHz]	42.6 [dBW/40KHz]
≥ 2.5°	41.1 [dBW/40KHz]	43.3 [dBW/40KHz]

Tx Frequency:

13.75 - 14.50 GHz

Rx Frequency:

10.70 - 12.75 GHz

Tx Gain (at BUC flange):

43.5 dBi (typical at 14.25 GHz)

Rx Gain:

41.33 dBi (typical at 11.70 GHz)

Tx XPD:

≥ 30 dB within -1 dB contour (worst case)

Rx XPD:

≥ 22.9 dB within -1 dB contour (worst case)

G/T:

21.0 dB/K theoretical assuming LNB NF=0.9 dB at 11.70 GHz and 30° elevation.

Restrictions and remarks:

- 1 The authorization to operate the terminal is conditioned to the approval to access the Eutelsat S.A. Space Segment (ref. <http://www.eutelsat.com/files/contributed/satellites/pdf/esog110.pdf>, ESOG 110).
- 2 The measurements for Characterization have been done at the at the test range of Catapult, Didcot, Oxfordshire, UK, on 2nd November 2021 on one sample.
- 3 The efficiency of the dish is 70 %, estimated at 14.25 GHz.
- 4 The mounting structure should be stabilized applying ballasts or anchors.
- 5 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.