

Applicant: The Boeing Company

File Number: 1752-EX-CN-2023

Correspondence Reference Number: 81766

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(1) Please provide the size (meter), antenna gain (dBi), input power at antenna flange (watts), and EIRP (dBW) of the proposed Datapath CTT-120 experimental antenna that will be used to communicate with the Empresa Argentina de Soluciones Satelitales S.A.'s ARSAT-2@81 W.L. (call sign S2956) (Argentina Administration) FSS GSO satellite.

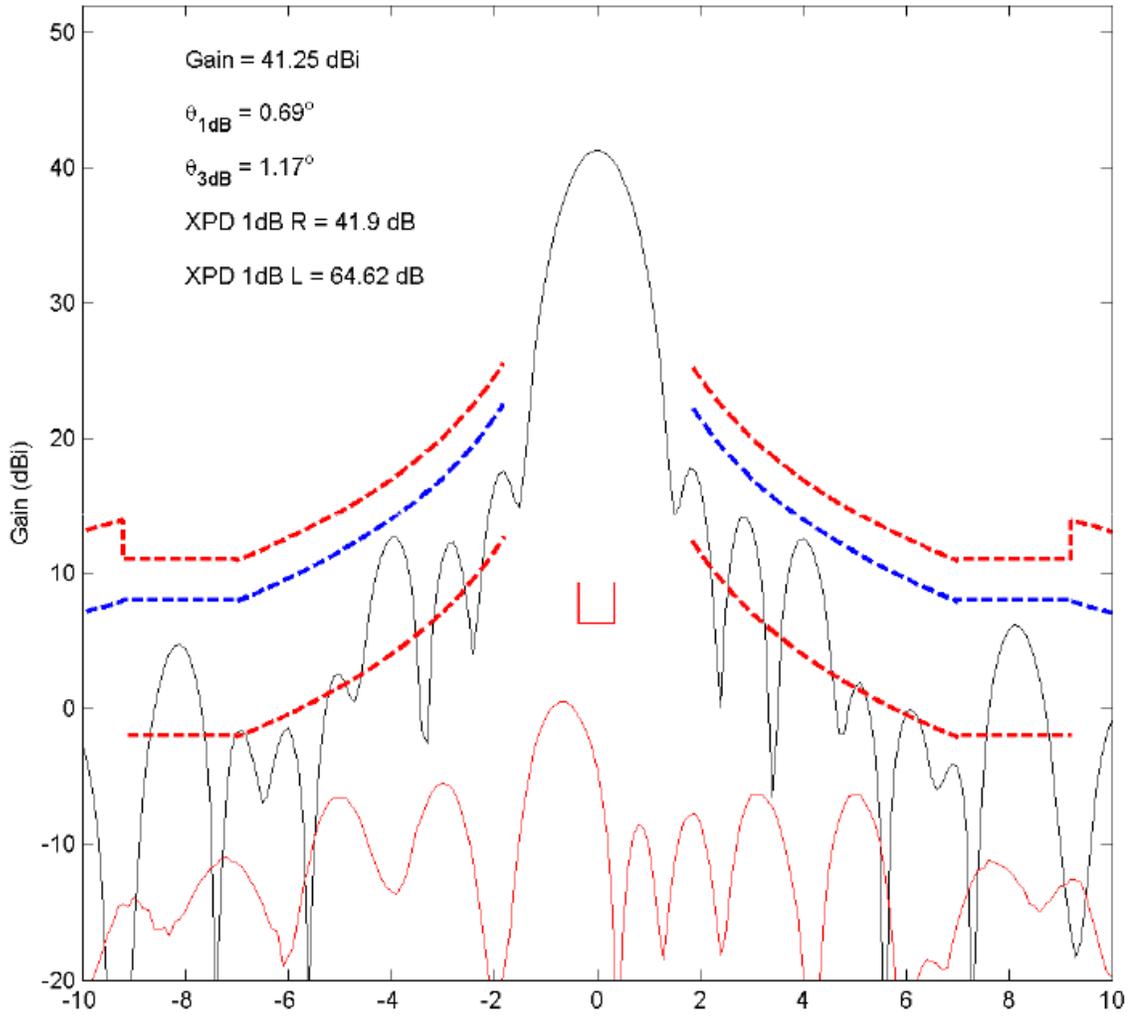
CCT 120		
Antenna Diameter	1.2	meters
Transmit Antenna Gain	41.25	dBi
Input Power at antenna flange	50	Watts
EIRP	57.7	dBW

(2) Please provide a manufacture specification sheet or submit antenna's gain pattern performances of the Datapath CTT-120 experimental antenna that will be used to communicate with ARSAT-2@81 W.L. satellite: (a) Please provide the gain (dBi) patterns set-forth in the most recent Section 25.209 rules, plus and minus from 0 to 10 degrees, 0 to 45 degrees, and 0 to 180 degrees with FCC 25.209 envelop superimposed on each measured pattern, in the plane tangent to the GSO arc and in the plane perpendicular to the GSO arc. Please provide the on-axis and off-axis gain that exceeded the FCC 25.209 gain envelop. (b) If the Experimental antennas do not meet the Section 25.209 rules, please provide the Off-axis EIRP density envelopes (dBW/4 kHz) (ESD mask) set-forth in the most recent Section 25.218 rules, plus and minus from 0 to 10 degrees, 0 to 45 degrees, and 0 to 180 degrees with FCC 25.218 envelop superimposed on each measured pattern, in the plane tangent to the GSO arc and in the plane perpendicular to the GSO arc. Please provide the Off-axis EIRP density that exceeded the 25.218 envelop. If experimental antennas with antenna gain greater than the gain defined in FCC 25.209 envelop, the EIRP must be reduced by the amount of antenna gain that exceeded the gain/FCC limits defined in FCC 25.209 envelop. If Experimental antennas operate EIRP density greater than the Off-axis EIRP density defined in FCC 25.218 (x) envelop, the EIRP density (power spectral density) must be reduced by the amount of Off-axis EIRP density that exceeded the FCC limits defined in FCC 25.218 (x) envelop.

CCT120 patterns from Datapath.

Tx Azimuth vertical polarization, $\pm 10^\circ$, $\pm 180^\circ$

Ku-band Tx V pol Azim 13.75 GHz



Ku-band Tx V pol Azim 13.75 GHz, Gain = 41.25dBi

