Exhibit B

Technical Annex

Technical Annex

1. Scope

This Annex contains additional information regarding the Yet Another Mission 30 (YAM-30) non-geostationary satellite orbit ("NGSO") constellation.

2. General Description (Section 25.114(d)(1))

The YAM-30 mission is comprised of a single satellite. The YAM-30 spacecraft has a maximum six-year operational lifetime from launch to deorbit.

The spacecraft will operate in the frequencies listed below.

Table 1 Frequencies

Usage	Link Direction	Spectrum Range
S-band RX	Uplink (Earth-space)	2064-2072 MHz
S-band TX	Downlink (space-Earth)	2243-2256 MHz
X-band TX	Downlink (space-Earth)	8028-8338 MHz
S-band RX (LDRS)	Uplink (Earth-space)	2049.9875-2050.0125 MHz
S-band TX (LDRS)	Downlink (space-Earth)	2229.9875-2230.0125 MHz

3. Orbital Parameters

The spacecraft are expected to operate at the following target orbital parameters:

- Apogee: 530 km nominal ± 10 km
- Perigee: 530 km nominal ± 10 km
- Target Inclination: 97.5° ± 1.0°
- (injection[1]) LTAN: 10:30 ± 30 minutes

YAM-30 has on-board propulsion and may change its orbit. The deployment parameters and transition to the target operating orbital parameters are discussed in the Orbital Debris Assessment Report ("ODAR"), attached as Exhibit C.

4. Telemetry, Tracking and Control and Payload Links

The YAM-30 spacecraft includes an S-band subsystem that supports both bus communications (the "S-band Bus") and payload communications (the "S-band Hub").

[1] YAM-30 will be inserted into a near-SSO orbit but will not actively control inclination or LTAN via station keeping. YAM-30 will maintain orbit altitude.

The S-band Bus telecommand uplink and telemetry downlink are the primary means of TT&C for the YAM-30 spacecraft for first acquisition, bus commissioning and safe mode recovery. S-band telecommand transmissions are received by the spacecraft through patch antennas with near-omni directional patterns during all phases of spacecraft operation. The S-band Bus uplink channels have a bandwidth of 120 kHz. The S-band Bus downlink channels have a bandwidth of 120 kHz (low rate) and 964 kHz (high rate). The S-band receive beam has a peak gain of 6.5 dBiC, and the S-band transmit beam also has a peak gain of 6.5 dBiC. Pursuant to Section 25.114(c)(4)(vi)(A) of the Commission's rules, contours for these beams are provided in Section 9, below, as well as in the associated GXT files included in Schedule S.

The S-band Bus TT&C channels will be used primarily for LEOP, commissioning, and anomaly resolution operations. The S-band Bus telemetry downlink will transmit with a maximum duty cycle of 10% during nominal operations and a maximum duty cycle of 95% during LEOP. The S-band Bus command uplink will transmit with a maximum duty cycle of 10% during nominal operations and a maximum duty cycle of 95% during LEOP.

The S-band Hub uplink channels have a bandwidth of 600 kHz and downlink channels have a bandwidth of 120 kHz (low rate) or 964 kHz (high rate). The S-band Hub channels will be the primary TT&C link during nominal operations, and the S-band Bus channels will serve as backup links. Only one set of S-band uplink/downlink channels (Bus or Hub) will be operational at the same time. The S-band Hub telemetry downlink will transmit with a maximum duty cycle of 20% during operations. The S-band Hub command uplink will transmit with a maximum duty cycle of 20% during operations. During each ground station contact, the S-band uplink will also be active.

The specific, representative S-band commanding channel and telemetry channels are listed in the Schedule S and reproduced below for convenience. Planned command channel information is provided below in Table 2 and planned telemetry channel information is provided below in Table 3. All planned Bus and Payload communications will be conducted from the ground stations identified in Exhibit D.

The Hub X-band link is used for payload downlink only. The X-band channel has a maximum bandwidth of 288 MHz, a representative, carrier center frequency of 8183 MHz, and a peak EIRP of 16.0 dBW. The X-band downlink has an alternate channel bandwidth of 135 MHz with representative carrier center frequencies of 8096 MHz and 8270 MHz. The X-band downlink beam has an iso-flux pattern with peak gain of 6.0 dBiC. Pursuant to Section 25.114(c)(4)(vi)(A) of the Commission's rules, contours for these beams are provided in Section 9, below, as well as in the associated GXT files included in Schedule S. The X-band downlink is expected to transmit with a maximum duty cycle of 20%.

The YAM-30 spacecraft will use a sufficiently unique telemetry marker at deployment to ensure that its telemetry stream can be unambiguously identified.

The YAM-30 spacecraft includes an LDRS hosted payload that also communicates in the S-band Earth-space (2025-2110 MHz) and space-Earth (2200-2290 MHz) bands. The S-band LDRS uplink channels and downlink channels have a bandwidth of 25 kHz. The S-band receive beam has a peak gain of 4.2 dBiC in an iso-flux pattern, and the S-band transmit beam has a peak gain of 3.4 dBiC also in an iso-flux pattern. Pursuant to Section 25.114(c)(4)(vi)(A) of the Commission's rules, contours for these beams are provided in Section 9, below, as well as in the associated GXT files included in Schedule S. The LDRS channels will communicate only with a single Earth station in Beaver Creek, OH, and communication tests are only expected for 5-10 minutes per transmission with approximately two transmissions per week over the course of a maximum of one year.

Contact details for the control center are provided below:

Alexander B. Greenberg
Co-Founder and Chief Operating Officer
321 11th Street
San Francisco, CA 94103
917-744-4718

5. Frequency Plan

A. S-Band

The following tables list representative uplink and downlink S-band channels planned for the YAM-30 spacecraft. Final frequency channels are subject to coordination with federal spectrum managers.

Table 2 S-Band (Bus/Hub) Uplink Frequency Plan (SRX beam)

Channel ID	Uplink Link Type	Bandwidth (MHz)	Center Frequency (MHz)	Polarization
SU11	Bus	0.120	2065.35	L/R
SU12	Bus	0.120	2067.35	L/R
SU13	Bus	0.120	2069.35	L/R
SU14	Bus	0.120	2071.35	L/R
SU21	Hub	0.600	2064.35	R
SU22	Hub	0.600	2066.35	R
SU23	Hub	0.600	2069.35	R
SU24	Hub	0.600	2071.35	R

Table 3 S-Band (Bus/Hub) Downlink Frequency Plan (STX beam)

Channel ID	Downlink Link Type	Bandwidth (MHz)	Center Frequency (MHz)	Polarization
SD11	Hub	0.120	2244.35	R
SD12	Bus	0.120	2245.35	L/R
SD13	Hub	0.120	2246.35	R
SD14	Bus	0.120	2247.35	L/R
SD15	Hub	0.120	2248.35	R
SD16	Bus	0.120	2249.35	L/R
SD17	Hub	0.120	2250.35	R
SD18	Bus	0.120	2251.35	L/R
SD19	Bus/Hub	0.120	2253.35	L/R
SD20	Bus/Hub	0.120	2255.35	L/R
SD21	Hub	0.964	2244.35	R
SD22	Bus	0.964	2245.35	L/R
SD23	Hub	0.964	2246.35	R
SD24	Bus	0.964	2247.35	L/R

SD25	Hub	0.964	2248.35	R
SD26	Bus	0.964	2249.35	L/R
SD27	Hub	0.964	2250.35	R
SD28	Bus	0.964	2251.35	L/R
SD29	Bus/Hub	0.964	2253.35	L/R
SD30	Bus/Hub	0.964	2255.35	L/R

Table 4 S-Band (LDRS) Uplink Frequency Plan (SRX2 beam)

Channel ID	Uplink Link Type	Bandwidth (MHz)	Center Frequency (MHz)	Polarization
SLU1	LDRS	0.025	2050	L/R

Table 5 S-Band (LDRS) Downlink Frequency Plan (STX2 beam)

Channel ID	Downlink Link Type	Bandwidth (MHz)	Center Frequency (MHz)	Polarization
SLD1	LDRS	0.025	2230	L/R

B. X-Band

The following table lists the downlink X-band channel planned for the YAM-30 spacecraft.

Table 4 X-Band Downlink Frequency Plan (XTX beam)

Channel ID	Bandwidth (MHz)	Center Frequency (MHz)	Polarization
XD1H	288	8183	L/R
XD2H	135	8096	L/R
XD3H	135	8270	L/R

Frequency Tolerance

The frequency tolerance requirements of Section 25.202(e) that the carrier frequency of each space station transmitter be maintained within 0.002% of the reference frequency will be met.

6. Out of Band Emissions

The out-of-band emission limits of Section 25.202(f)(1), (2), and (3) will be met.

7. Cessation of Emissions

All downlink transmissions can be turned on and off by ground telecommand, thereby achieving cessation of emissions from the satellite, as required by Section 25.207 of the FCC's rules.

8. Power Flux Density ("PFD") Analysis

A. 2200-2290 MHz

The Commission's rules do not specify a PFD limit in the 2200–2290 MHz band; however, there are PFD limits specified in rule No. 21.16 of the International Telecommunication Union (ITU) Radio Regulations. The maximum PFD levels for YAM-30 spacecraft transmissions were calculated for the 2200–2290 MHz band, and the results are provided in Schedule S and demonstrate that the downlink PFD levels of YAM-30 spacecraft carriers do not exceed the limits specified in rule No. 21.16 of the ITU Radio Regulations.

Figure 1 below illustrates the S-band Bus downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 120 kHz, the EIRP is -4.28 dBW, and the perigee altitude of the primary operational orbit is 540 km. Figure 2 below illustrates the S-band Bus downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 120 kHz, the EIRP is -8.28 dBW, and the orbit altitude is 350 km (the lowest planned operational altitude).

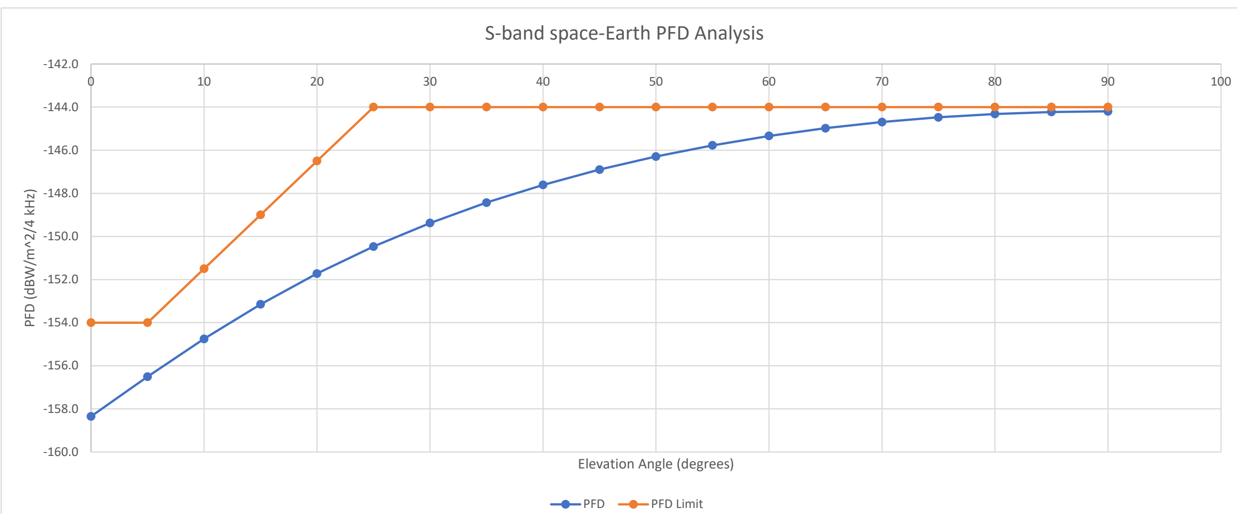

Figure 1 S-band Bus Downlink PFD Analysis – 120 kHz Emission, -4.28 dBW EIRP, and 530 km orbit altitude

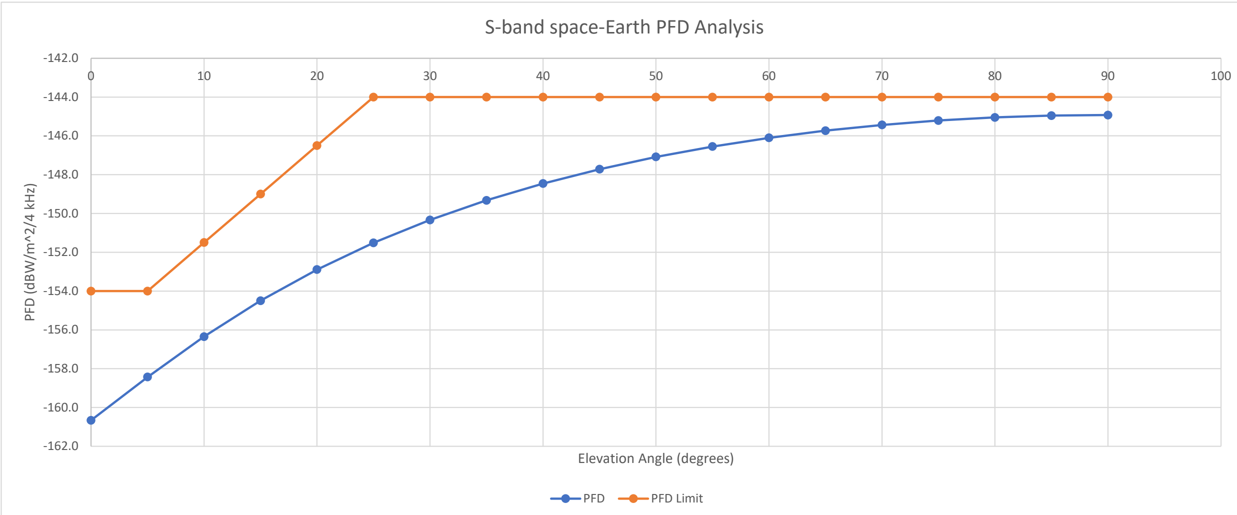

Figure 2 S-band Bus Downlink PFD Analysis – 120 kHz Emission, -8.28 dBW EIRP, and 350 km orbit altitude

Figure 3 below illustrates the S-band Hub downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 964 kHz, the EIRP is 2.33 dBW, and the perigee altitude of the primary operational orbit is 530 km. Figure 4 below illustrates the S-band Hub downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 964 kHz, the EIRP is 1.33 dBW, and the orbit altitude is 350 km (the lowest planned operational altitude).

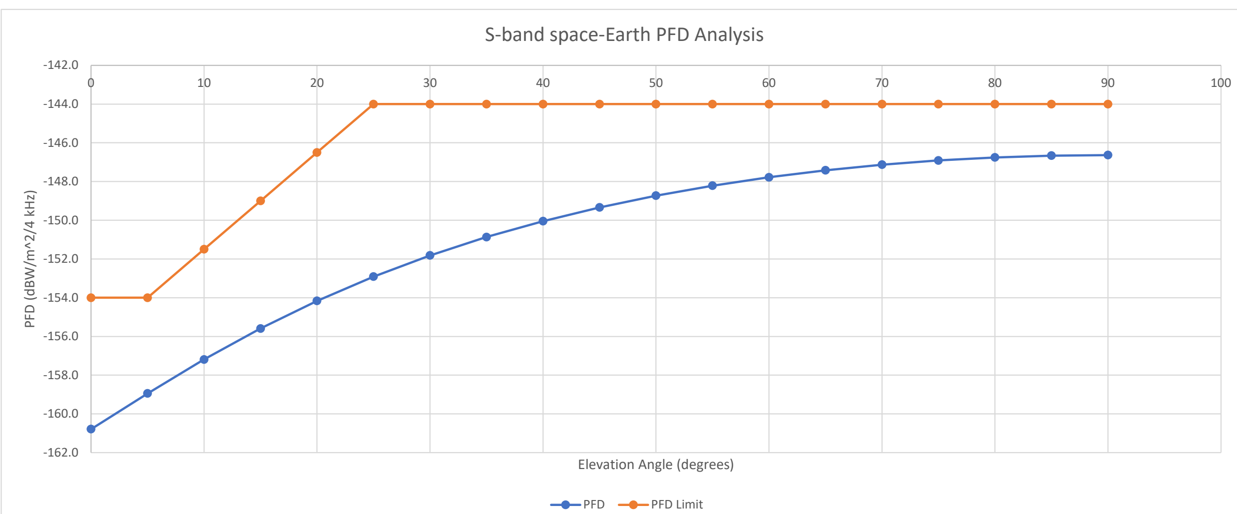

Figure 3 S-band Hub Downlink PFD Analysis – 964 kHz Emission,2.33 dBW EIRP, and 530 km orbit altitude

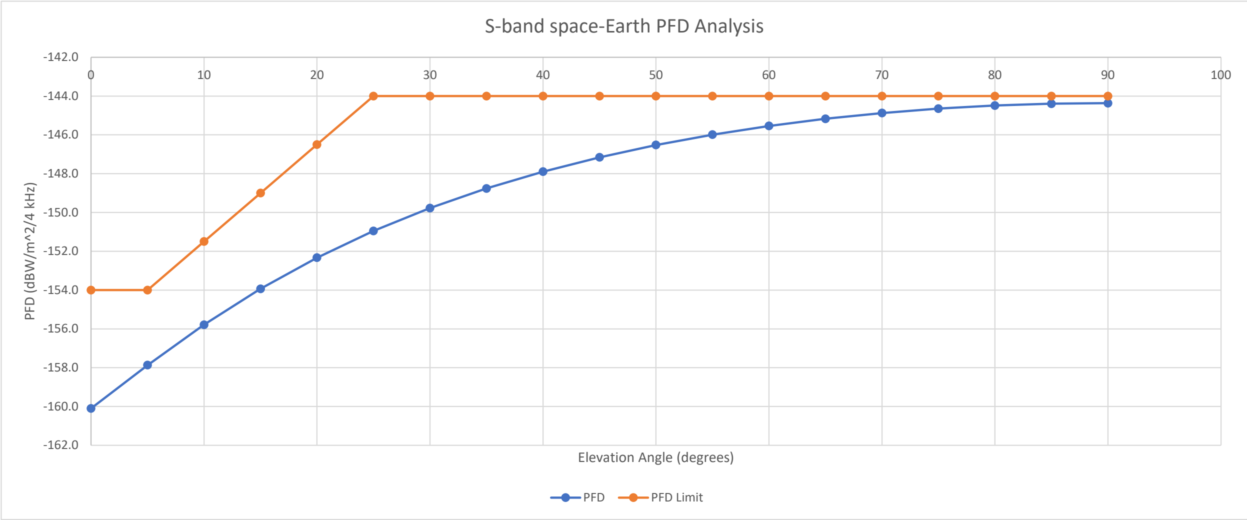

Figure 4 S-band Hub Downlink PFD Analysis – 964 kHz Emission, 1.33 dBW EIRP, and 350 km orbit altitude

Figure 5 below illustrates the S-band LDRS downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 25 kHz, the EIRP is 18.4 dBW, and the perigee altitude of the primary operational orbit is at its potential lowest altitude, 520 km. Loft Orbital will not conduct transmissions using the LDRS payload below the nominal operating orbit as the satellite is de-orbiting.

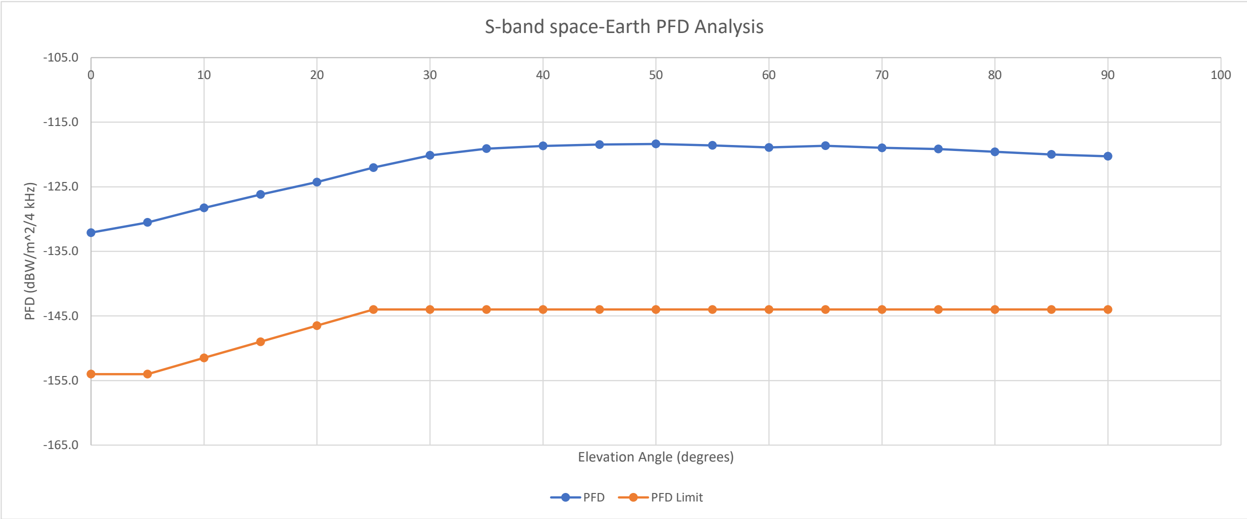

Figure 5 S-band SDRDownlink PFD Analysis – 25 kHz Emission,18.4 dBW EIRP, and 520 km orbit altitude

As explained in the narrative, Loft Orbital requests waiver of the PFD limit for the limited testing of the LDRS payload.[2]

[2] *See* Narrative, at Section III.A.2.

B. 8025-8400 MHz

The Commission's rules do not specify a PFD limit in the 8025–8400 MHz band; however, there are PFD limits specified in rule No. 21.16 of the International Telecommunication Union (ITU) Radio Regulations. The maximum PFD levels for YAM-30 spacecraft transmissions were calculated for the 8025–8400 MHz band, and the results are provided in Schedule S and demonstrate that the downlink PFD levels of YAM-30 spacecraft carriers do not exceed the limits specified in rule No. 21.16 of the ITU Radio Regulations.

Figure 6 below illustrates the X-band downlink PFD values in comparison with the ITU PFD limits in No. 21.16 when the emission bandwidth is 135 MHz, the EIRP is 16 dBW, and the orbit altitude is 350 km (the lowest planned operational altitude). Since we are able to operate at peak EIRP down to the lowest operational altitude, a PFD curve is not provided for the operational orbit altitude.

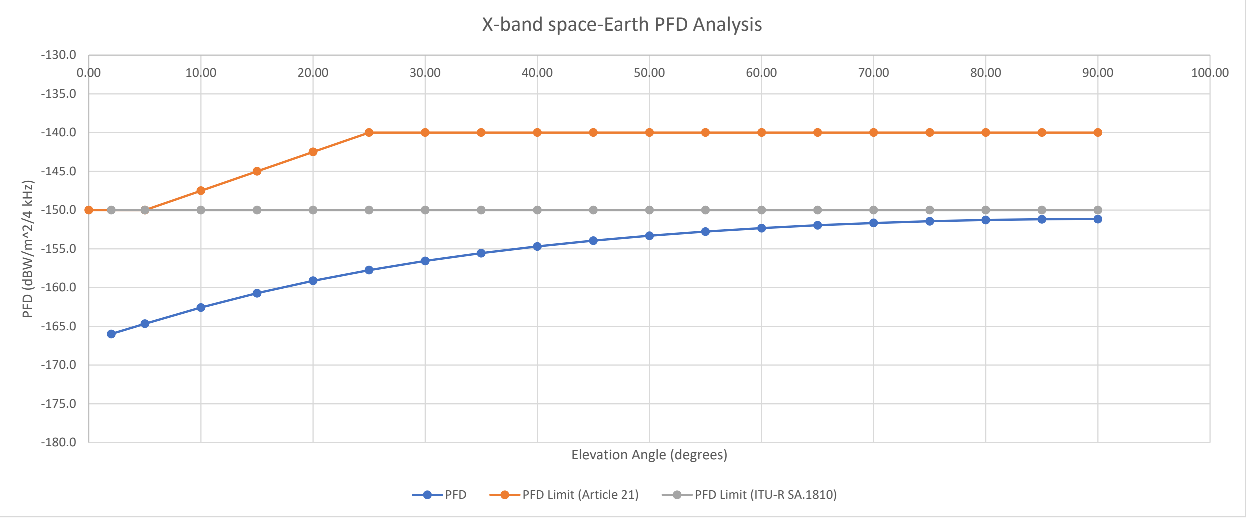

Figure 6 X-band Downlink PFD Analysis – 135 MHz Emission, 16 dBW EIRP, and 350 km orbit altitude

C. X-band PFD at the Geostationary-Satellite Orbit

ITU RR 22.5 states that in 8025-8400 MHz band "the maximum power flux-density produced at the geostationary-satellite orbit by any Earth exploration-satellite service space station shall not exceed −174 dB(W/m^2) in any 4 kHz band." At the maximum 540 km[3] altitude for YAM-30 spacecraft, assuming the spacecraft is pointed directly at geostationary orbit, the PFD would be approximately -194.5 dBW/m^2, which complies with the limit.

PFD Calculation
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EIRP = 16 dBW

EIRP Density = -29.3 dBW per 4.0 kHz Ref BW

θ = 0°

[3] The highest plan orbit altitude is 540 km based upon a mission orbit altitude of 530 km +/- 10 km.

D = 35246.0 km

PFD = -191.2 dBW/m^2 @ 4.0 kHz Ref BW

D. Out-of-band emissions in the 8400-8450 MHz band

ITU-R Recommendation SA-1157-1 specifies a maximum allowable interference power spectral flux density level ("PSFD") at the Earth's surface to protect ground receivers in the deep-space research band operating in the 8400-8450 MHz frequencies.[4] The YAM-30 spacecraft comply with this requirement by using a combination of baseband digital filtering and hardware radio frequency (RF) filtering, which is projected to provide 80 dB of out of band attenuation. Moreover, Loft Orbital's highest band edge is approximately 70 megahertz below the lowest band edge for the 8400–8450 MHz band, which would result in further attenuation.

Loft Orbital calculates a maximum PSFD at the Earth's surface of -272.4 dB(W/m^2 / Hz), which is below the maximum allowable interference power spectral flux-density level at the Earth's surface of -255.1 dB(W/m^2/Hz) at 8.4-8.45 GHz.[5] The maximum interference PSFD was calculated as follows:

YAM-30 maximum PFD (at 350 km altitude) = -154.4 dB(W/m^2*4 kHz)

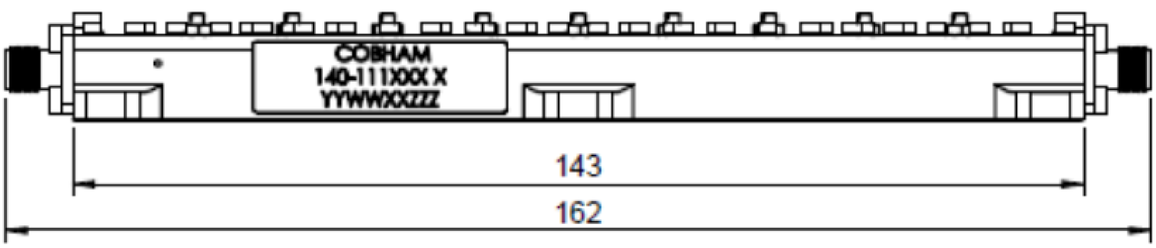
Total Minimum Attenuation from 8.4 GHz to 8.45 GHz (DSN filtering – 55 dB and Baseband digital filtering – 25 dB) = 80 dB

PSFD = PFD - 10*log(4000) – Attenuation

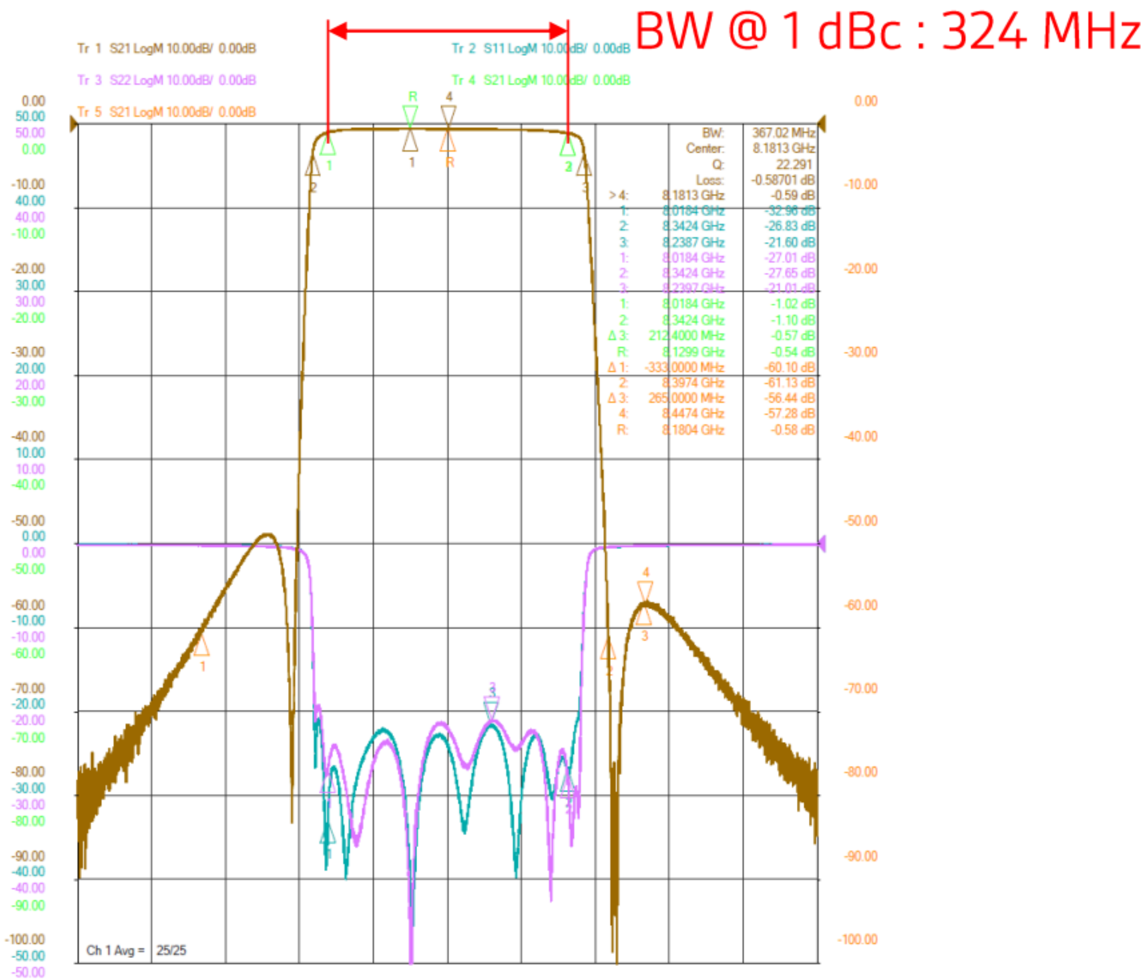
PSFD = -154.4 dB(W/m^2/4000 Hz) - 10*log(4000) dB - 80 dB

PSFD = -270.4 dB(W/m^2/Hz)

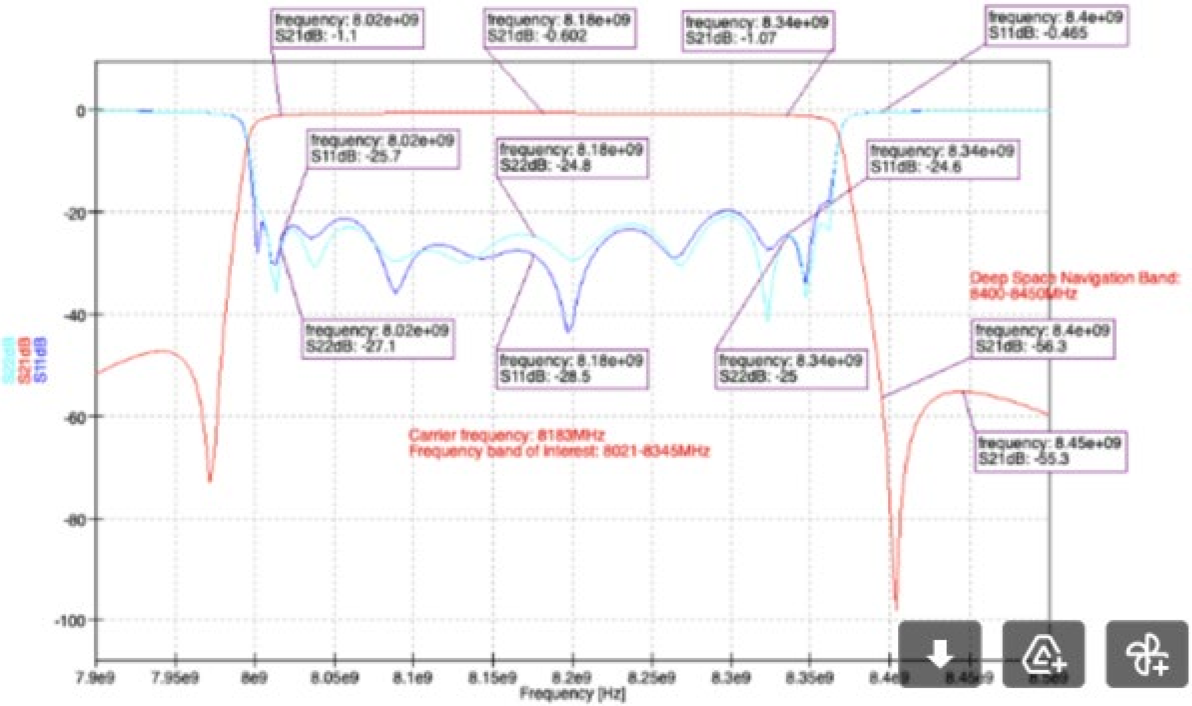
Below is a diagram showing the 55 dB OOB filtering capability of the DSN filter.



[4] *See* Recommendation ITU-R SA.1157-1 (Protection criteria for deep-space research) (2006).
[5] *Id*.



BW @ 1 dBc : 324 MHz
Tr 1 S21 LogM 10.00dB/ 0.00dB
Tr 2 S11 LogM 10.00dB/ 0.00dB
Tr 3 S22 LogM 10.00dB/ 0.00dB
Tr 4 S21 LogM 10.00dB/ 0.00dB
Tr 5 S21 LogM 10.00dB/ 0.00dB
BW: 367.02 MHz
Center: 8.1813 GHz
Q: 22.291
Loss: -0.58701 dB
Ch 1 Avg = 25/25



9. Satellite Antennas

The S-band uplink employs patch receive antennas for both the Bus and the Hub. An antenna pattern cut for the antenna in the vicinity of the planned uplink carriers, 2072 MHz, is shown in Figure 7. Projections of the TT&C S-band uplink antenna pattern, pointed towards Nadir, are illustrated in Figure 8 and Figure 9. The peak uplink antenna gain is 6.5 dBi towards Nadir.

The S-band downlink employs patch transmit antennas for both the Bus and the Hub. An antenna pattern cut for the antenna in the vicinity of the planned downlink carriers, 2252 MHz, is shown in Figure 10. Projections of the S-band downlink antenna pattern, pointed towards Nadir, are illustrated in Figure 11 below. The peak downlink antenna gain is 6.5 dBi towards Nadir.

The X-band downlink antenna is an isoflux tri-filar helix antenna with maximum gain of 6.0 dBi. The antenna pattern for the downlink X-band antenna is illustrated in Figure 13 and projections of the X-band downlink antenna pattern, pointed towards Nadir, are illustrated in Figure 14 and Figure 15 .

The S-band uplink (LDRS) antenna is an isoflux antenna with maximum gain of 4.2 dBi. The antenna pattern for the uplink LRDS S-band antenna is illustrated in Figure 16 and projections of the S-band LDRS uplink antenna pattern, pointed towards Nadir, are illustrated in Figure 17 and Figure 18.

The S-band downlink (LDRS) antenna is an isoflux antenna with maximum gain of 3.4 dBi. The antenna pattern for the downlink LRDS S-band antenna is illustrated in Figure 19 and projections of the S-band LDRS downlink antenna pattern, pointed towards Nadir, are illustrated in Figure 20 and Figure 21.

The antenna projections provided below and in the accompanying Schedule S reflect the beam projection towards Nadir from an NGSO satellite with nominal orbital altitude of 530 +/-10 km and minimum operational altitude of 350 km. For certain contour maps, the missing contours are beyond the horizon and, accordingly, are not depicted in the images.

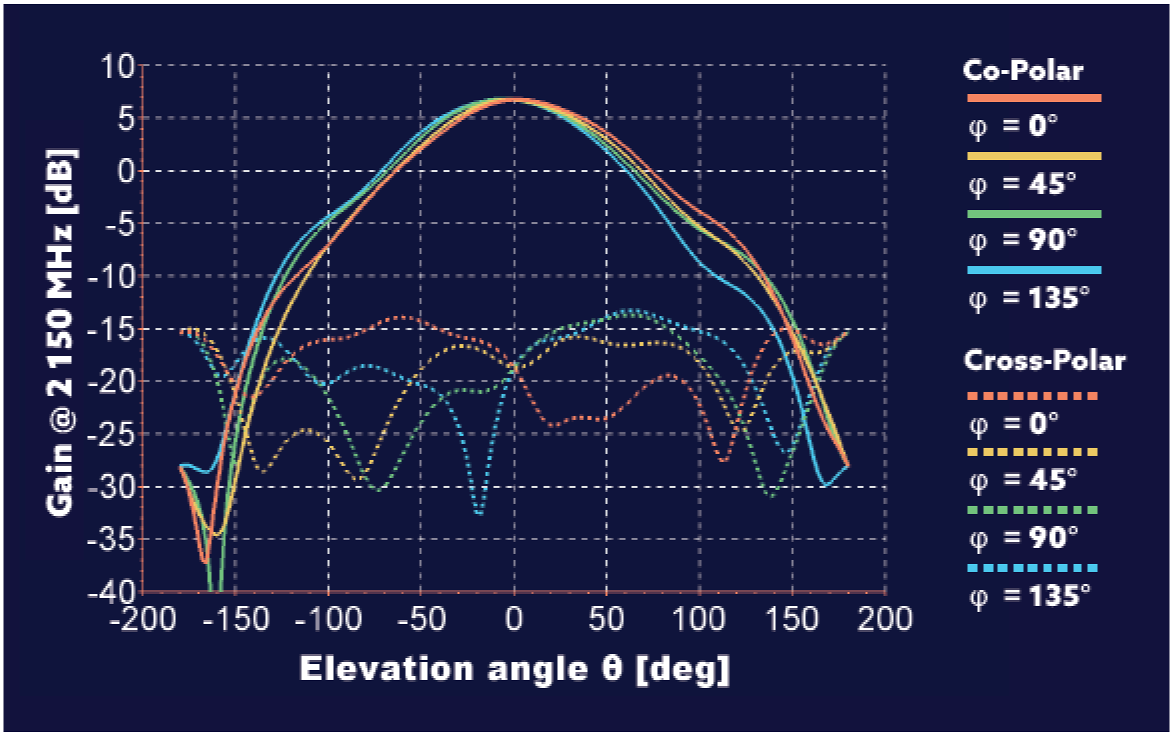


Figure 7 S-band Uplink SRX – Antenna Pattern

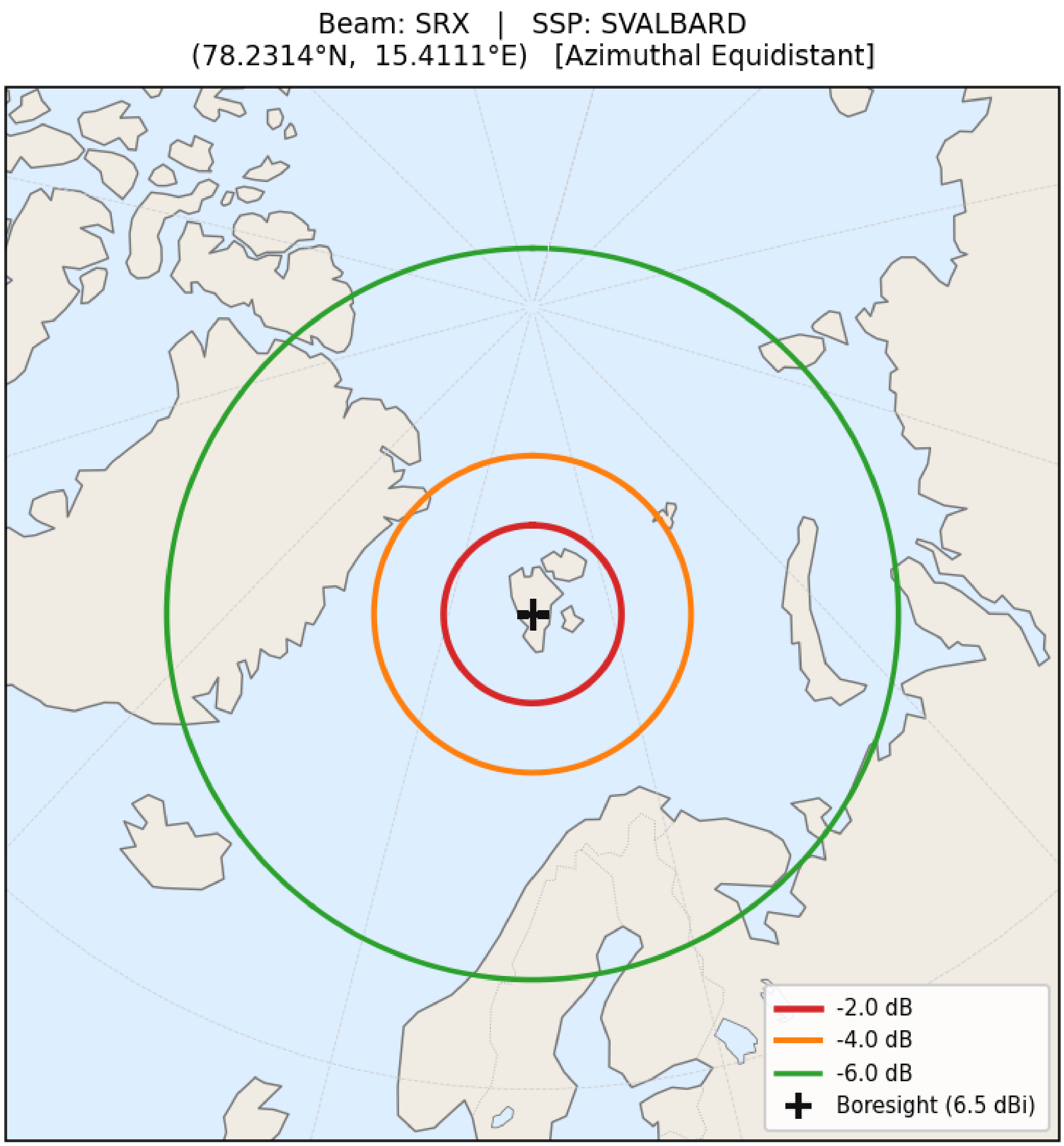


Figure 8 Projection of Nadir S-band Uplink Beam SRX 530 km over Svalbard, Norway

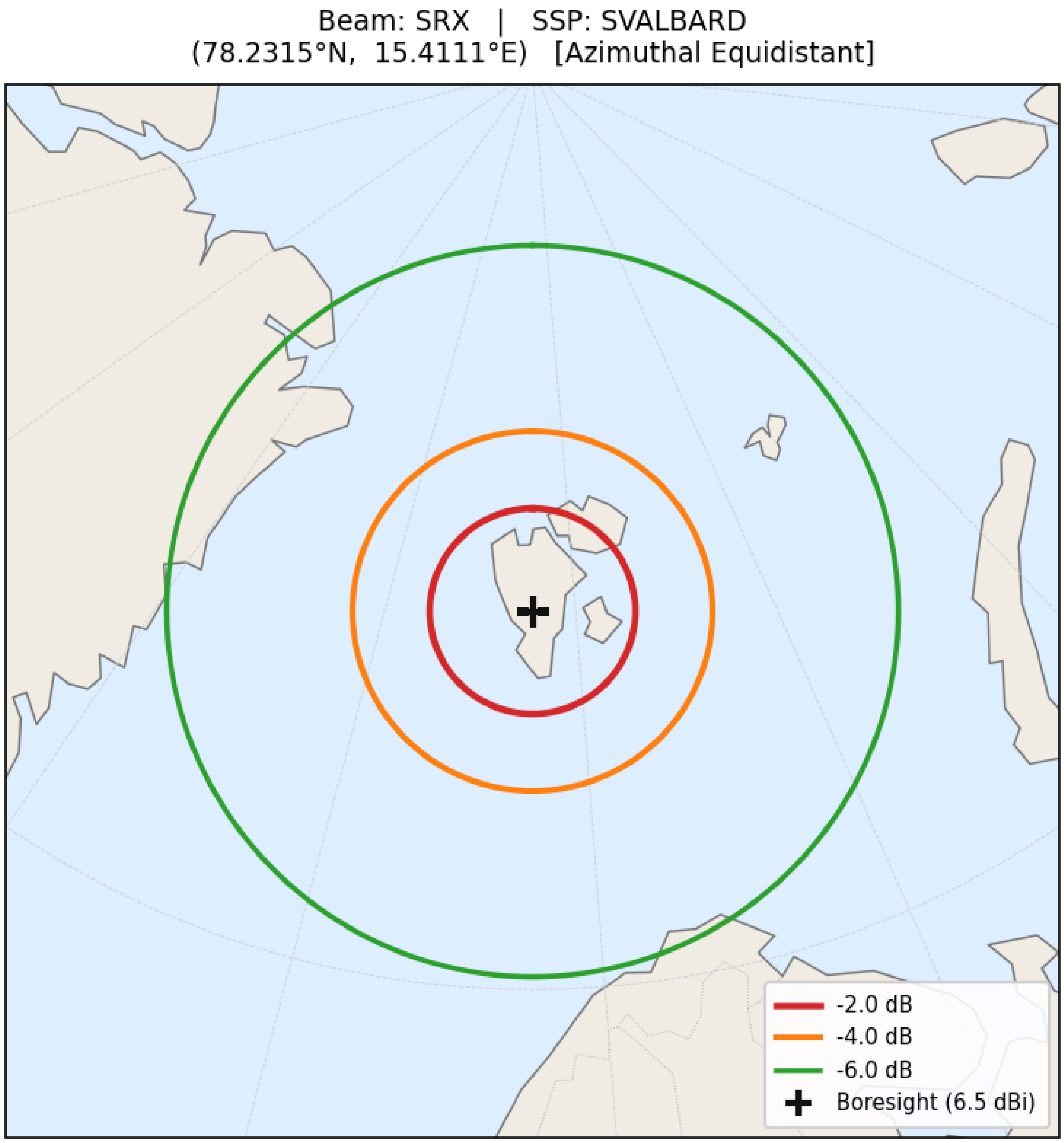


Figure 9 Projection of Nadir S-band Uplink Beam SRX 350 km over Svalbard, Norway

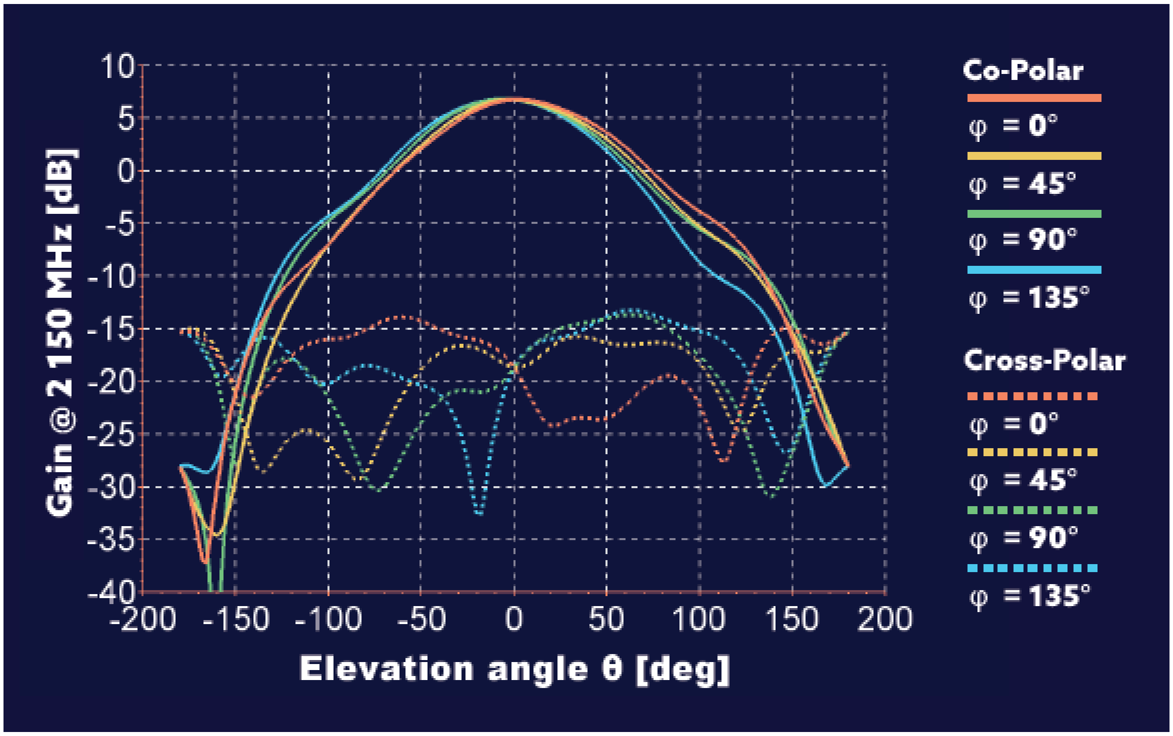


Figure 10 S-band Downlink STX) – Antenna Pattern

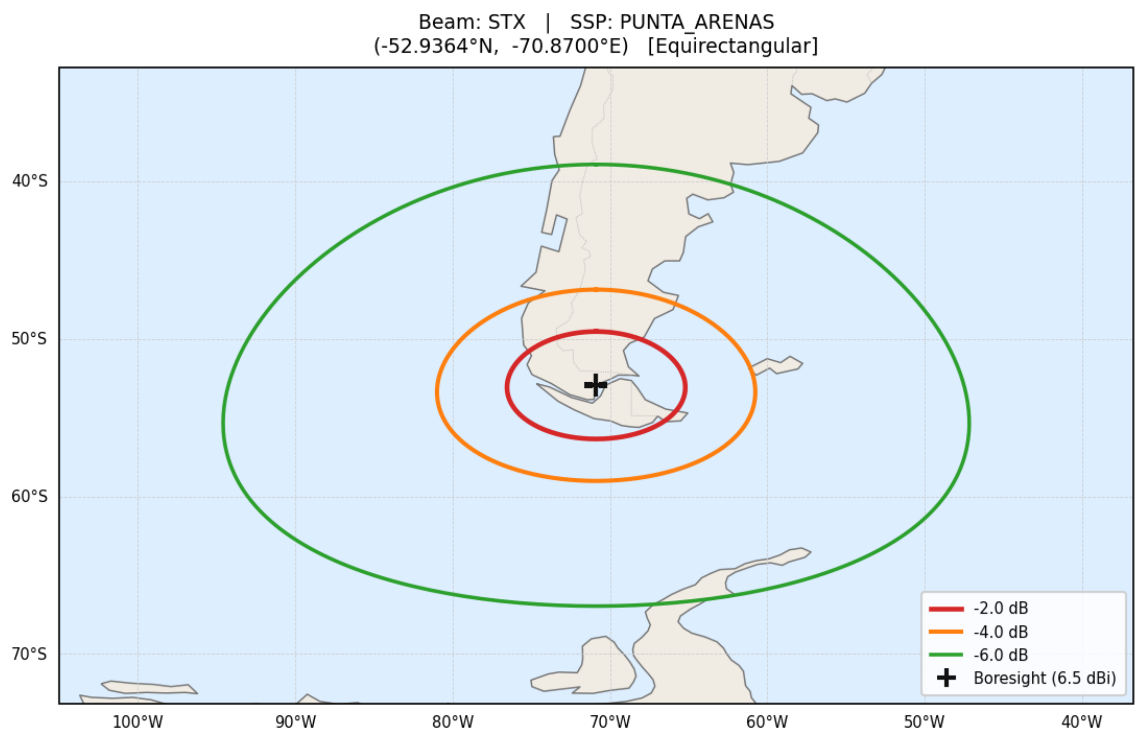


Figure 11 Projection of Nadir S-band Downlink Beam STX 530 km over Punta Arenas, Chile

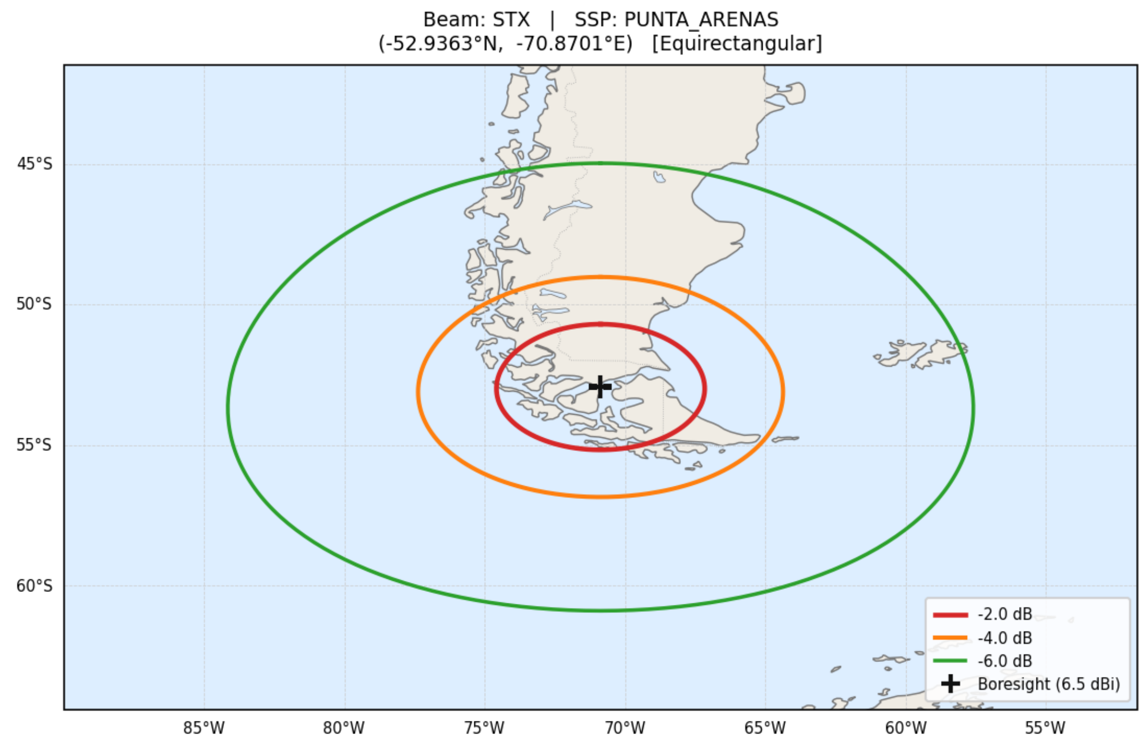


Figure 12 Projection of Nadir S-band Downlink Beam STX) 350 km over Punta Arenas, Chile

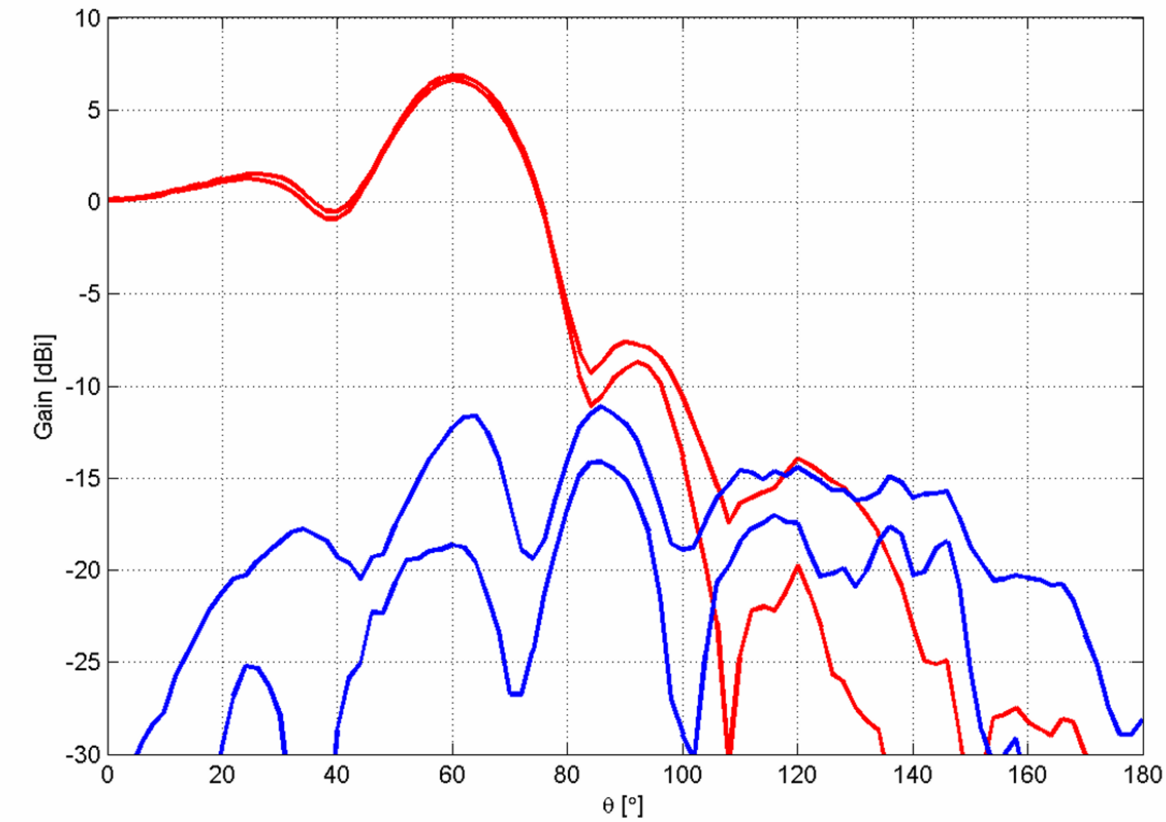


Figure 13 X-band Downlink Mission Data - Antenna Pattern

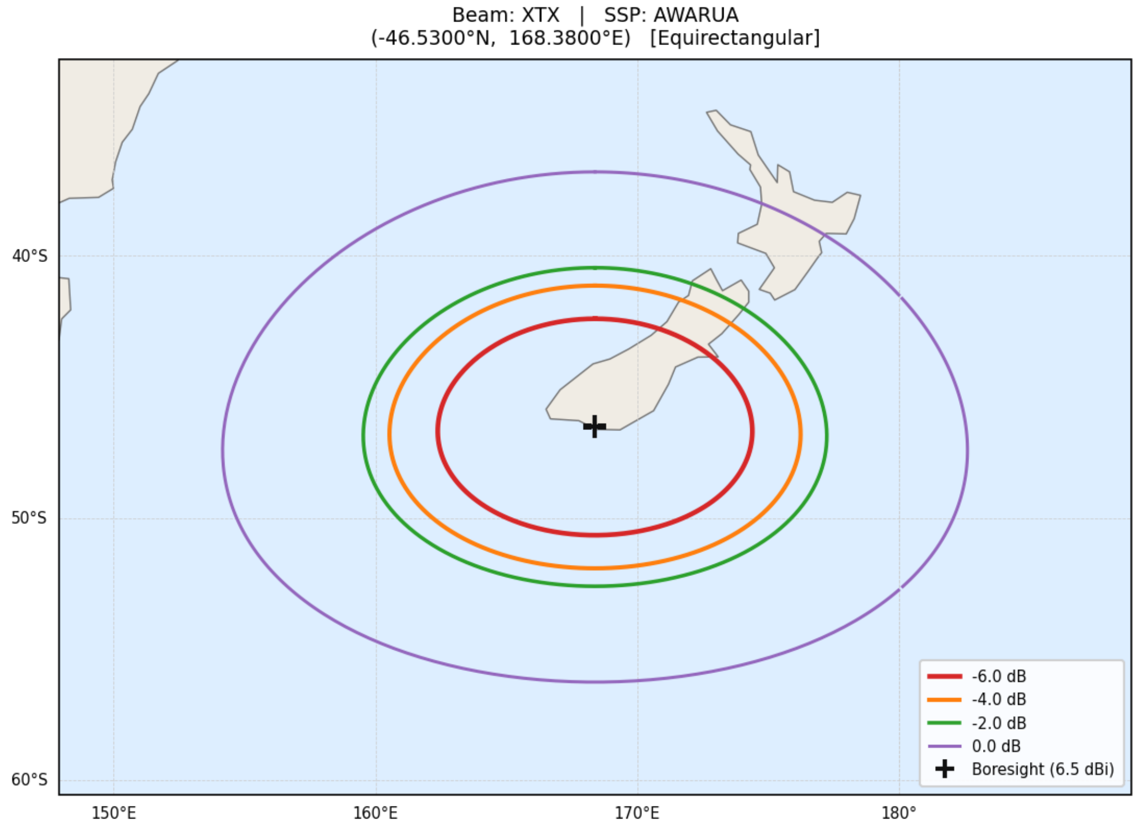


Figure 14 Projection of Nadir X-band Downlink Beam (XTX) 530 km over Awarua, New Zealand

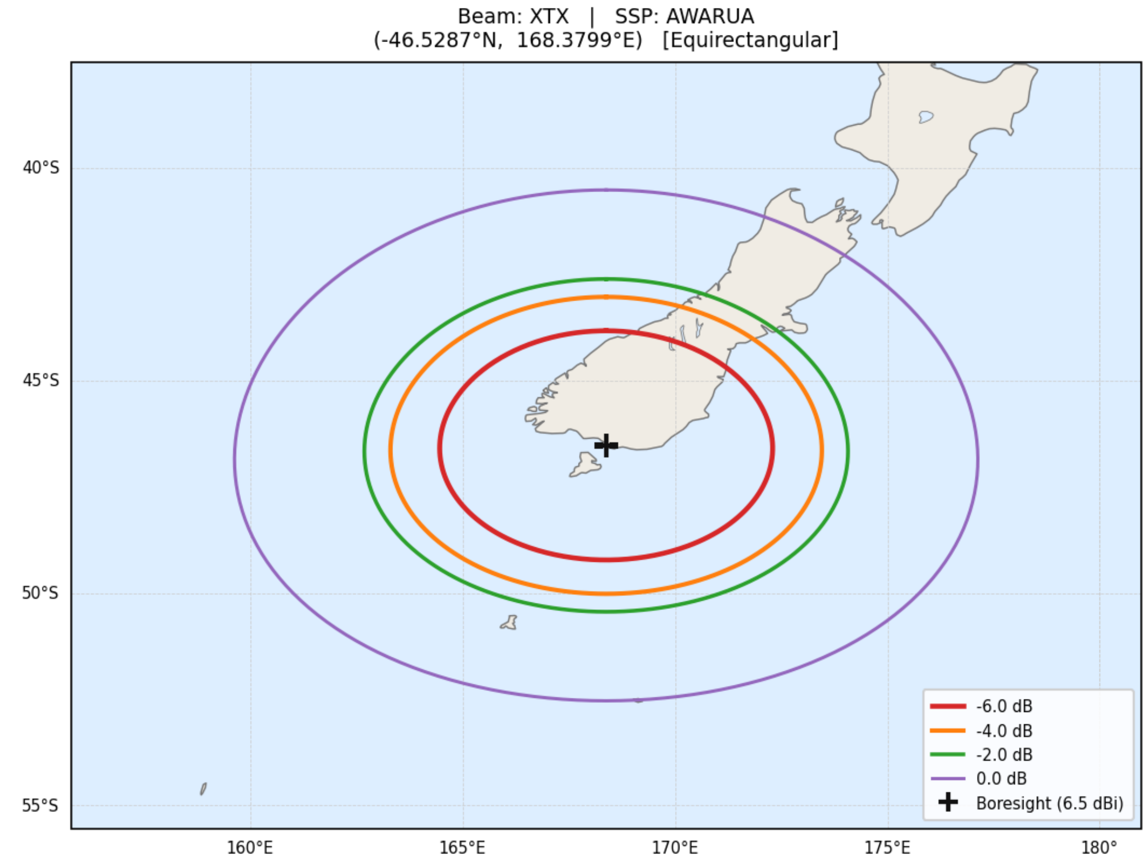


Figure 15 Projection of Nadir X-band Downlink Beam (XTX) 350 km over Awarua, New Zealand

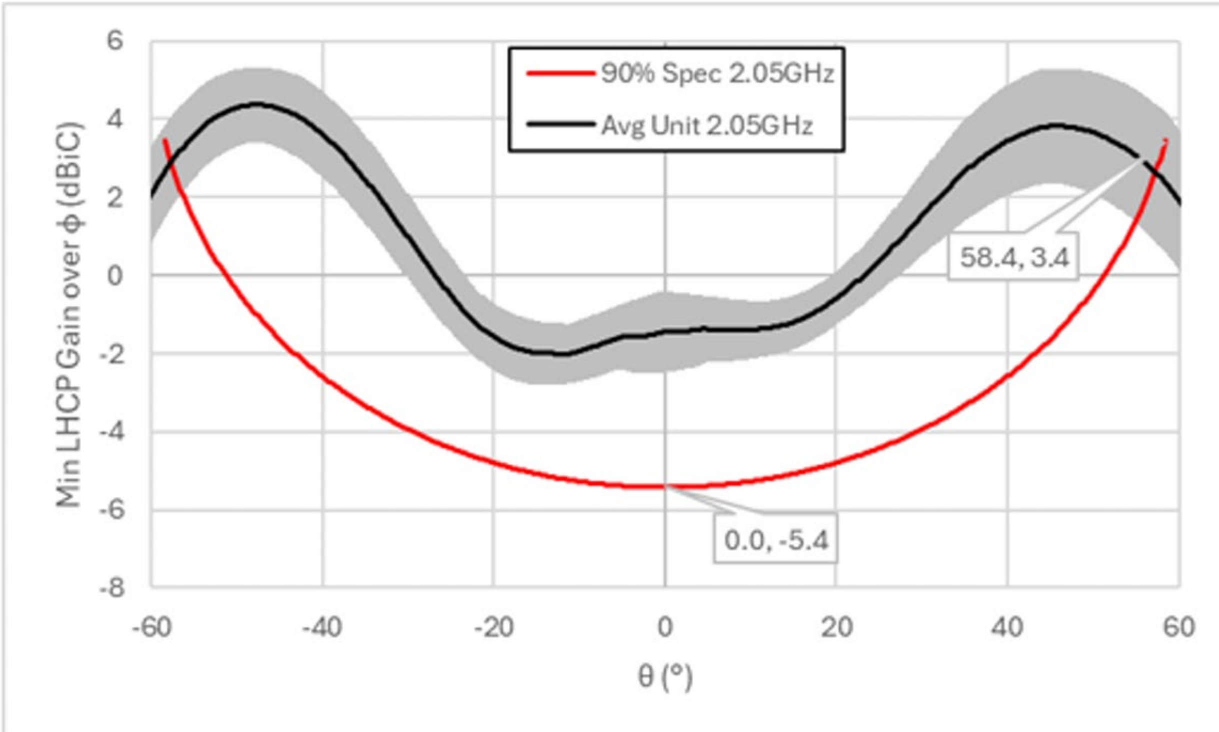


Figure 16 S-band Uplink SRX2 – Antenna Pattern

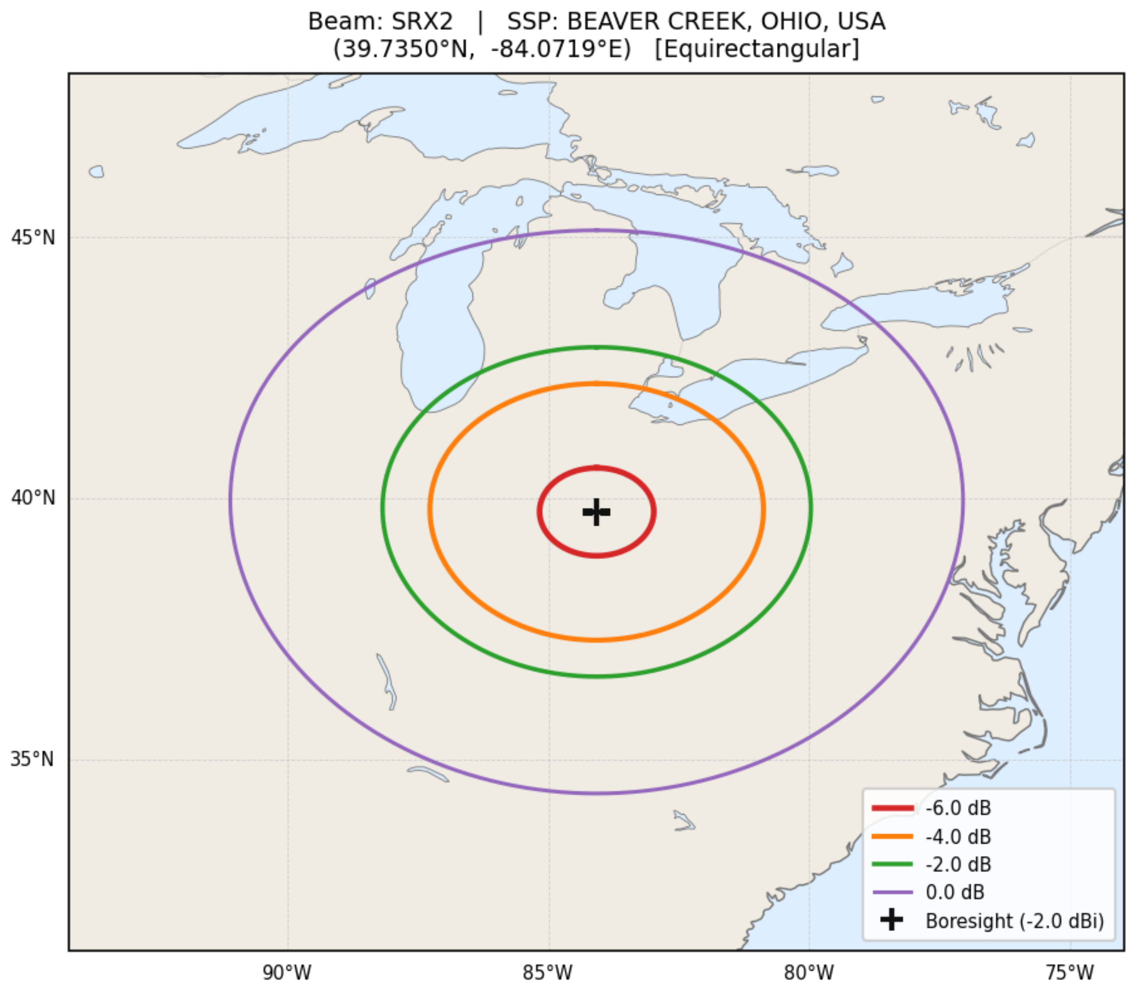


Figure 17 Projection of Nadir S-band Uplink Beam SRX2 530 km over Beaver Creek, Ohio, USA

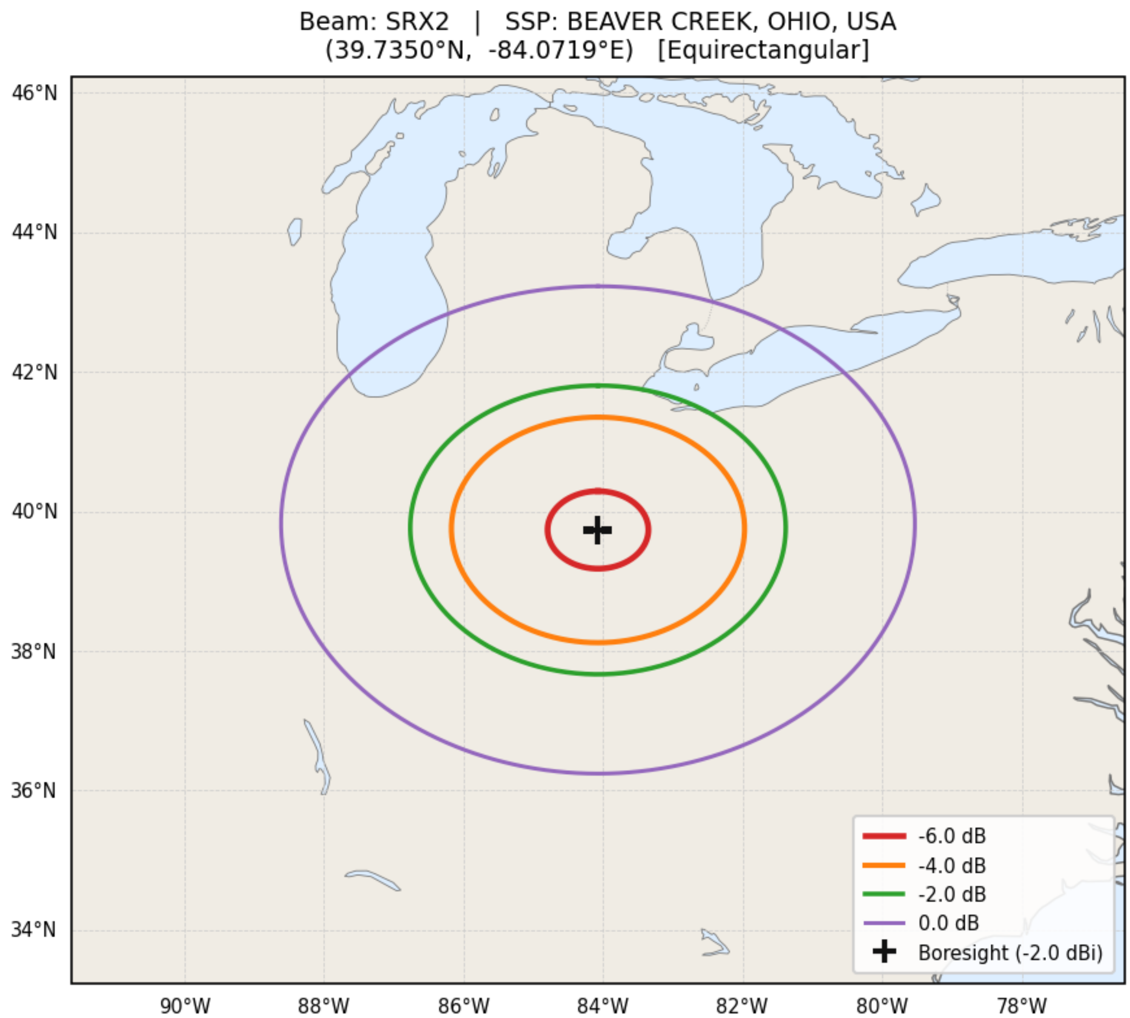


Figure 18 Projection of Nadir S-band Uplink Beam SRX2 350 km over Beaver Creek, Ohio, USA

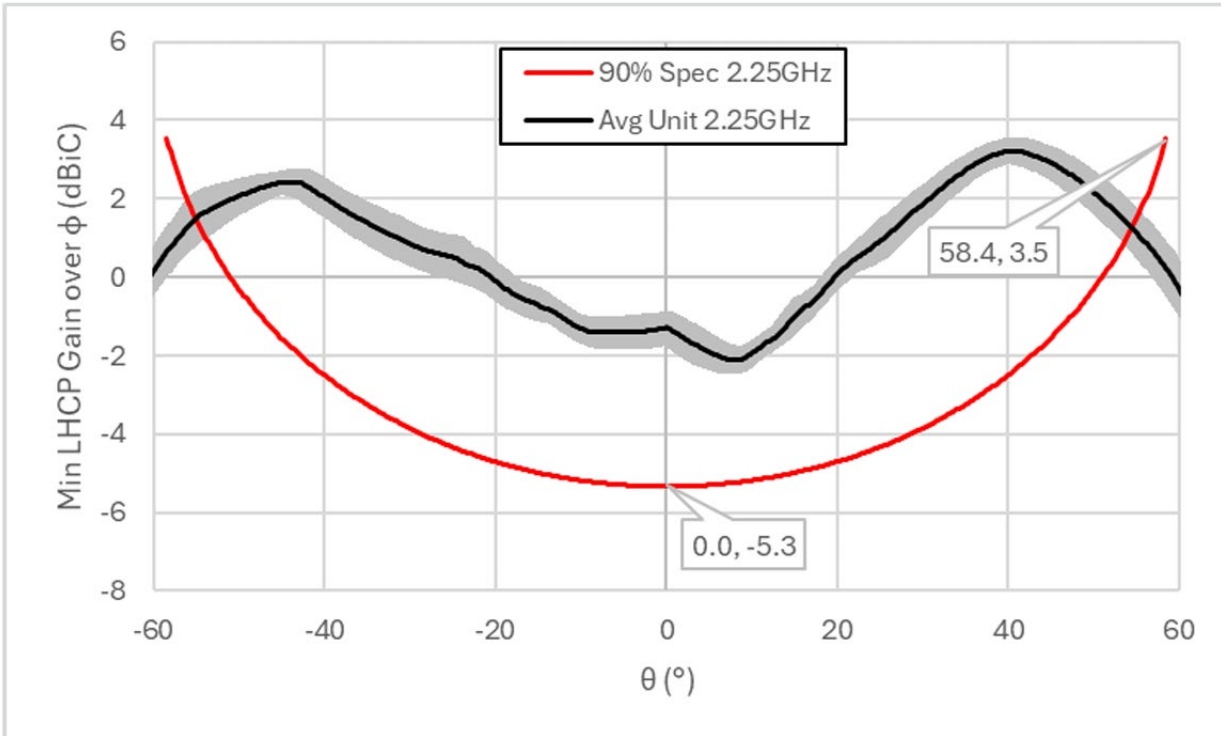


Figure 19 S-band Downlink STX2 – Antenna Pattern

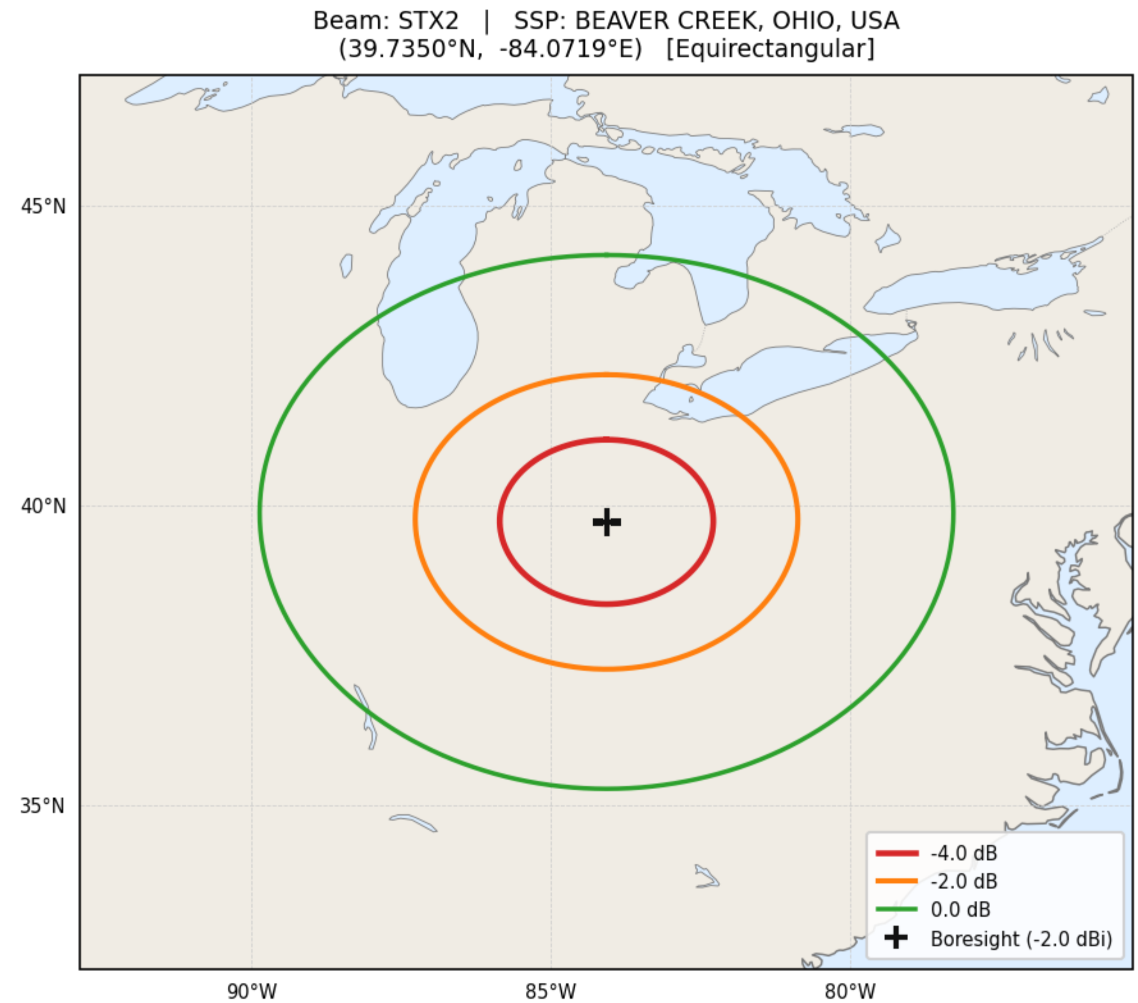


Figure 20 Projection of Nadir S-band Downlink Beam STX2 530 km over Beaver Creek, Ohio, USA

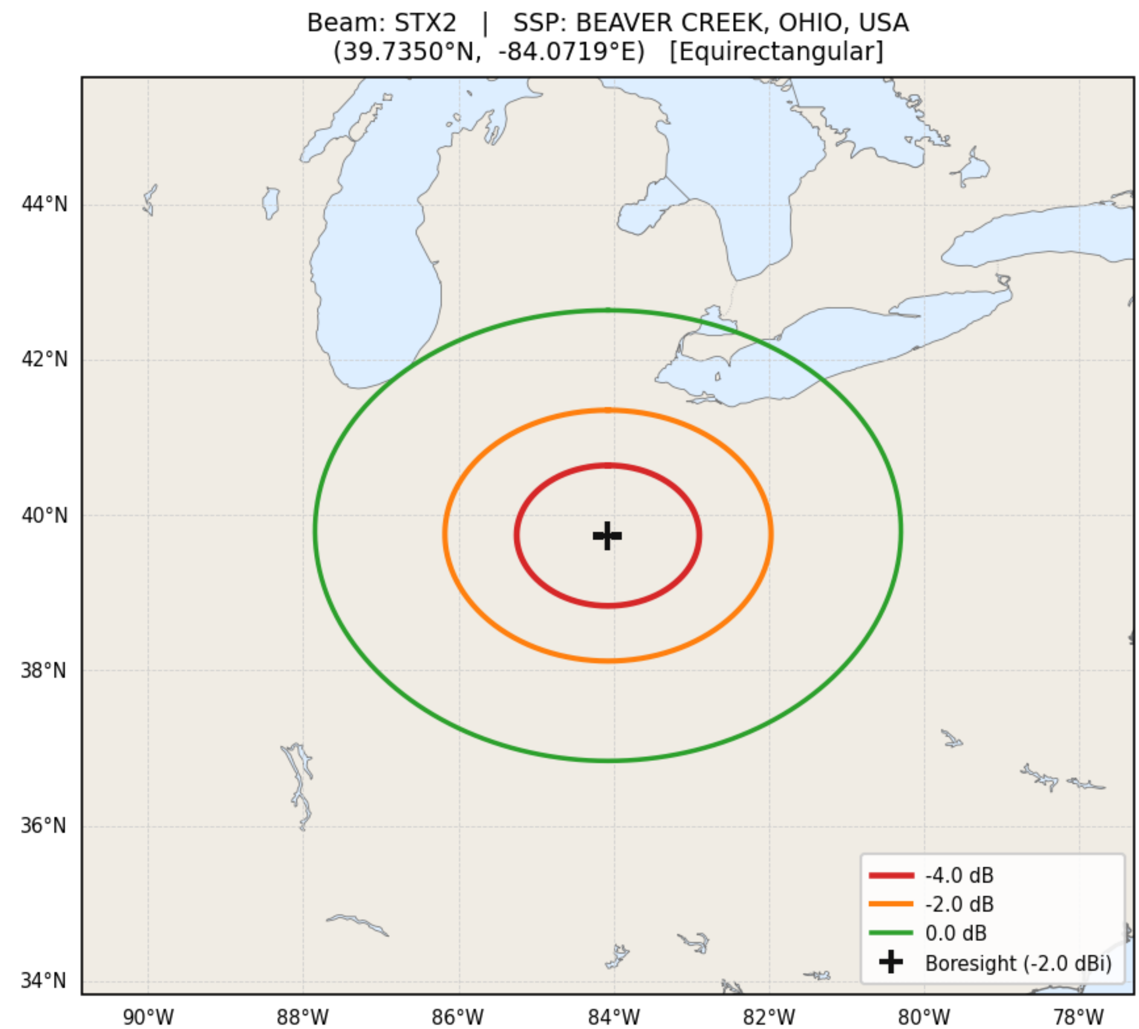


Figure 21 Projection of Nadir S-band Downlink Beam STX2 350 km over Beaver Creek, Ohio, USA

10. Earth Stations

The characteristics of the KSAT Lite network of 3.7m antennas are summarized in Table 5 below. The characteristics of the ATLAS network of gateway Earth stations are summarized in Table 6 below.

Table 5 KSAT Antenna Characteristics

	S-band	S-band	X-band
Reflector Size	3.7m	3.7m	3.7m
Downlink Band	NA	2240-2290 MHz	8025-8400 MHz
G/T (20-deg elevation)	NA	11.7 dB/K	26.5 dB/K
Polarization	LHCP/RHCP	LHCP/RHCP	LHCP/RHCP
Uplink Band	2025-2110 MHz	NA	NA
EIRP	44.8 dBW	NA	NA

Table 6 ATLAS Antenna Characteristics

	S-band	S-band	X-band
Reflector Size	3.7m	3.7m	3.7m
Downlink Band	NA	2240-2290 MHz	8025-8400 MHz
G/T (20-deg elevation)	NA	12.8 dB/K	25.4 dB/K
Polarization	LHCP/RHCP	LHCP/RHCP	LHCP/RHCP
Uplink Band	2025-2110 MHz	NA	NA
EIRP	50 dBW	NA	NA

Table 7 LDRS Antenna Characteristics

	S-band	S-band
Reflector Size	3.7m	3.7m
Downlink Band	NA	2200-2290 MHz
G/T (20-deg elevation)	NA	12.8 dB/K
Polarization	LHCP/RHCP	LHCP/RHCP
Uplink Band	2025-2110 MHz	NA
EIRP	56.4 dBW	NA

Loft Orbital plans to use the ground stations identified in Exhibit D.

CERTIFICATION OF PERSON RESPONSIBLE FOR PREPARING ENGINEERING INFORMATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this application, that I am familiar with Part 25 of the Commission's rules, that I have either prepared or reviewed the engineering information submitted in this application and that it is complete and accurate to the best of my knowledge and belief.

/s/ *David C Morse*

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Date: July 9, 2026