



312 File Number: **SATLOA2021051100064**

Filing Description

Question	Response
Description	Lynk Smallsat System

**Satellite
Information**

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	Lynk Smallsat System
Estimated Lifetime of Satellite(s) From Date of Launch	5 Years
Will the space station(s) operate on a Common Carrier basis?	No

**Operating
Frequency
Bands (9)**

Nature of service	Description	Frequency Band(s)	Mode Type
Mobile-Satellite Service		617.0 MHz -960.0 MHz	Transmit
Mobile-Satellite Service		663.0 MHz -915.0 MHz	Receive
Mobile-Satellite Service		29900.0 MHz -30000.0 MHz	Receive
Mobile-Satellite Service		20100.0 MHz -20200.0 MHz	Transmit
Space Operation Service		2200.0 MHz -2290.0 MHz	Transmit
Space Operation Service		2025.0 MHz -2110.0 MHz	Receive
Mobile-Satellite Service		2483.5 MHz -2500.0 MHz	Receive
Mobile-Satellite Service		1615.65 MHz -1616.88 MHz	Transmit
Mobile-Satellite Service		1613.75 MHz -1616.25 MHz	Transmit

**Orbital
Information For
Non-
Geostationary
Satellites**

Question	Response
Total Number of Satellites in the active constellation	10
Orbit Epoch Date	12/01/2021
Celestial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	98.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5738.6 seconds
Apogee	550.0 km
Perigee	550.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-82.0 degrees
Active Service Arc End Angle with respect to Ascending Node	82.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	3
Inclination Angle	98.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5738.6 seconds
Apogee	550.0 km
Perigee	550.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-82.0 degrees
Active Service Arc End Angle with respect to Ascending Node	82.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0
2	120.0
3	240.0

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	6
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5676.6 seconds
Apogee	500.0 km
Perigee	500.0 km
Active Service Arc Begin Angle with respect to Ascending Node	-53.0 degrees
Active Service Arc End Angle with respect to Ascending Node	53.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0
2	60.0
3	120.0
4	180.0
5	240.0
6	300.0

Receiving Beams 1:

Question	Response
Beam ID	KR10
Receive Beam Frequency	29900.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	19.07 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-9.88 dB/K
Min. Saturation Flux Density	-107.1 dBW/m2
Max. Saturation Flux Density	-80.48 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global

Receiving Beams 2:

Question	Response
Beam ID	KR15
Receive Beam Frequency	29900.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	23.14 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.81 dB/K
Min. Saturation Flux Density	-107.1 dBW/m2
Max. Saturation Flux Density	-80.48 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global

Receiving Beams 3:

Question	Response
Beam ID	SR10
Receive Beam Frequency	2025.0 MHz -2110.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	5.87 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.0 dB/K
Min. Saturation Flux Density	-95.46 dBW/m2
Max. Saturation Flux Density	-81.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, outside the United States and its territories.

Receiving

Beams 4:

Question	Response
Beam ID	SR15
Receive Beam Frequency	2025.0 MHz -2110.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	5.87 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.0 dB/K
Min. Saturation Flux Density	-95.46 dBW/m2
Max. Saturation Flux Density	-81.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, outside the United States and its territories.

**Receiving
Beams 5:**

Question	Response
Beam ID	UR10
Receive Beam Frequency	663.0 MHz -915.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	21.21 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-8.37 dB/K
Min. Saturation Flux Density	-142.0 dBW/m2
Max. Saturation Flux Density	-127.7 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, outside the United States and its territories.

Receiving Beams 6:

Question	Response
Beam ID	UR15
Receive Beam Frequency	663.0 MHz -915.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	24.09 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.49 dB/K
Min. Saturation Flux Density	-142.0 dBW/m2
Max. Saturation Flux Density	-127.7 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, outside the United States and its territories.

Receiving Beams 7:

Question	Response
----------	----------

Beam ID	GD10
Receive Beam Frequency	2483.5 MHz -2500.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.0 dBi
Antenna Pointing Error	0.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.9 dB/K
Min. Saturation Flux Density	-999.9 dBW/m2
Max. Saturation Flux Density	-999.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation.

Receiving Beams 8:

Question	Response
Beam ID	GD15
Receive Beam Frequency	2483.5 MHz -2500.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.0 dBi
Antenna Pointing Error	0.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	-23.9 dB/K
Min. Saturation Flux Density	-999.9 dBW/m2
Max. Saturation Flux Density	-999.8 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation.

Receiving Beams 9:

Question	Response
Beam ID	KL10
Receive Beam Frequency	29900.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	19.07 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-9.88 dB/K
Min. Saturation Flux Density	-107.1 dBW/m2
Max. Saturation Flux Density	-80.48 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global

Receiving Beams 10:

Question	Response
Beam ID	KL15

Receive Beam Frequency	29900.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	23.14 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.81 dB/K
Min. Saturation Flux Density	-107.1 dBW/m2
Max. Saturation Flux Density	-80.48 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global

Receiving Beams 11:

Question	Response
Beam ID	UL10
Receive Beam Frequency	663.0 MHz -915.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	21.21 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-8.37 dB/K

Receiving Beams 12:

Min. Saturation Flux Density	-142.0 dBW/m2
Max. Saturation Flux Density	-127.7 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, outside the United States and its territories.

Question	Response
Beam ID	UL15
Receive Beam Frequency	663.0 MHz -915.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	24.09 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-5.49 dB/K
Min. Saturation Flux Density	-142.0 dBW/m2
Max. Saturation Flux Density	-127.7 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, outside the United States and its territories.

Receiving Channels (25)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
GD03	1.23	2486.85	TT&C
GD02	1.23	2485.62	TT&C
GD01	1.23	2484.39	TT&C
BD28	45.0	725.5	Service Link
BD27	17.0	815.5	Service Link
BD71	35.0	680.5	Service Link
BD08	35.0	897.5	Service Link
GD07	1.23	2491.77	TT&C
GD06	1.23	2490.54	TT&C
GD05	1.23	2489.31	TT&C
GD04	1.23	2488.08	TT&C
BD85	18.0	707.0	Service Link
BD26	35.0	831.5	Service Link
KABD	100.0	29950.0	Feeder Link
SBD	85.0	2067.5	TT&C
GD13	1.23	2499.15	TT&C
GD12	1.23	2497.92	TT&C
GD11	1.23	2496.69	TT&C
GD10	1.23	2495.46	TT&C
GD09	1.23	2494.23	TT&C
GD08	1.23	2493.0	TT&C
BD20	30.0	847.0	Service Link
BD14	10.0	793.0	Service Link
BD68	30.0	713.0	Service Link

BD13	10.0	782.0	Service Link
-------------	------	-------	--------------

Transmitting
Beams 1:

Question	Response
Beam ID	RK10
Transmit Beam Frequency	20100.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	19.1 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.87 dBW/Hz
Max. Transmit EIRP	23.12 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* (dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-145.8	-138.9	-135.1	-132.4	-130.1	-119.8

Transmitting
Beams 2:

Question	Response
Beam ID	RK15
Transmit Beam Frequency	20100.0 MHz -20200.0 MHz

Beam Type	Steerable
Polarization	RHCP
Peak Gain	23.17 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-49.8 dBW/Hz
Max. Transmit EIRP	27.19 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-141.8	-134.9	-131.1	-128.3	-126.1	-115.7

Transmitting Beams 3:

Question	Response
Beam ID	LU10
Transmit Beam Frequency	617.0 MHz -960.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	21.44 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-35.12 dBW/Hz
Max. Transmit EIRP	37.43 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, outside the United States and its territories.

Max. Power Flux Density

	* 0° - 5° (dBW/m ² /BW):	* 5° - 10° (dBW/m ² /BW):	* 10° - 15° (dBW/m ² /BW):	* 15° - 20° (dBW/m ² /BW):	* 20° - 25° (dBW/m ² /BW):	* 25° - 90° (dBW/m ² /BW):
1.0 MHz	-118.7	-115.7	-113.3	-111.3	-109.5	-100.3

Transmitting Beams 4:

Question	Response
Beam ID	LU15
Transmit Beam Frequency	617.0 MHz -960.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	24.32 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.24 dBW/Hz
Max. Transmit EIRP	40.31 dBW

Co- or Cross Polar Mode	X
Service Area Description	Global, outside of the United States and its territories.

Max. Power Flux Density

	* 0° - 5° (dBW/m ² /BW):	* 5° - 10° (dBW/m ² /BW):	* 10° - 15° (dBW/m ² /BW):	* 15° - 20° (dBW/m ² /BW):	* 20° - 25° (dBW/m ² /BW):	* 25° - 90° (dBW/m ² /BW):
1.0 MHz	-115.8	-112.8	-110.5	-108.4	-106.6	-97.43

Transmitting Beams 5:

Question	Response
Beam ID	LK10
Transmit Beam Frequency	20100.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	19.1 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.87 dBW/Hz
Max. Transmit EIRP	23.12 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global

Max. Power Flux Density

**Transmitting
Beams 6:**

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-145.8	-138.9	-135.1	-132.4	-130.1	-119.8

Question	Response
Beam ID	LK15
Transmit Beam Frequency	20100.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	23.17 dBi
Antenna Pointing Error	2.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-49.8 dBW/Hz
Max. Transmit EIRP	27.19 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):	(dbW/m ² /BW):
1.0 MHz	-141.8	-134.9	-131.1	-128.3	-126.1	-115.7

Transmitting
Beams 7:

Question	Response
Beam ID	RU10
Transmit Beam Frequency	617.0 MHz -960.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	21.44 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-35.12 dBW/Hz
Max. Transmit EIRP	37.43 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, outside of the United States and its territories.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* (dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-118.7	-115.7	-113.3	-111.3	-109.5	-100.3

Transmitting
Beams 8:

Question	Response
Beam ID	RU15
Transmit Beam Frequency	617.0 MHz -960.0 MHz

Beam Type	Steerable
Polarization	RHCP
Peak Gain	24.32 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-32.24 dBW/Hz
Max. Transmit EIRP	40.31 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, outside of the United States and its territories.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
1.0 MHz	-115.8	-112.8	-110.5	-108.4	-106.6	-97.43

Transmitting Beams 9:

Question	Response
Beam ID	RS10
Transmit Beam Frequency	2200.0 MHz -2290.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	5.64 dBi
Antenna Pointing Error	1.0 degrees

Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-55.36 dBW/Hz
Max. Transmit EIRP	4.64 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, outside the United States and its territories.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
1.0 MHz	-134.8	-132.0	-130.1	-128.4	-127.1	-120.5

Transmitting Beams 10:

Question	Response
Beam ID	RS15
Transmit Beam Frequency	2200.0 MHz -2290.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	5.64 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-55.36 dBW/Hz

Max. Transmit EIRP	4.64 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, outside the United States and its territories.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
1.0 MHz	-134.8	-132.0	-130.1	-128.4	-127.1	-120.5

Transmitting Beams 11:

Question	Response
Beam ID	DG10
Transmit Beam Frequency	1615.65 MHz -1616.88 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.5 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-55.55 dBW/Hz
Max. Transmit EIRP	5.35 dBW
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation via Duplex Module.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
1.0 MHz	-200.0	-200.0	-200.0	-200.0	-200.0	-200.0

Transmitting Beams 12:

Question	Response
Beam ID	SG10
Transmit Beam Frequency	1613.75 MHz -1616.25 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.5 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-69.04 dBW/Hz
Max. Transmit EIRP	0.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation via Simplex Module.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²	(dBW/m ²
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):

1.0 MHz	-200.0	-200.0	-200.0	-200.0	-200.0	-200.0
--------------------	--------	--------	--------	--------	--------	--------

**Transmitting
Beams 13:**

Question	Response
Beam ID	DG15
Transmit Beam Frequency	1615.65 MHz -1616.88 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.5 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-55.55 dBW/Hz
Max. Transmit EIRP	5.35 dBW
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation via Duplex Module.

Max. Power Flux Density

	* 0° - 5° (dBW/m ² /BW):	* 5° - 10° (dBW/m ² /BW):	* 10° - 15° (dBW/m ² /BW):	* 15° - 20° (dBW/m ² /BW):	* 20° - 25° (dBW/m ² /BW):	* 25° - 90° (dBW/m ² /BW):
1.0 MHz	-200.0	-200.0	-200.0	-200.0	-200.0	-200.0

**Transmitting
Beams 14:**

Question	Response
----------	----------

Beam ID	SG15
Transmit Beam Frequency	1613.75 MHz -1616.25 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	4.5 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-69.04 dBW/Hz
Max. Transmit EIRP	0.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Intersatellite Link with Globalstar Constellation via Simplex Module.

Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
* BW:	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):	(dBW/m ² /BW):
1.0 MHz	-200.0	-200.0	-200.0	-200.0	-200.0	-200.0

**Transmitting
Channels (14)**

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
KABD	100.0	20150.0	Feeder Link
BD08	35.0	942.5	Service Link
BD28	45.0	780.5	Service Link
BD13	10.0	751.0	Service Link
BD68	30.0	768.0	Service Link
BD26	35.0	876.5	Service Link
BD20	30.0	806.0	Service Link
BD27	17.0	860.5	Service Link
BD14	10.0	763.0	Service Link
BD85	18.0	737.0	Service Link
BD71	35.0	634.5	Service Link
SBD	90.0	2245.0	TT&C
GDBD	1.23	1616.265	TT&C
GSBD	2.5	1615.0	TT&C

Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	N/A
Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?	Yes
Are the cessation of emissions requirements of 25.207 met?	Yes
Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	
For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	N/A
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>NGSO Antenna Gain Data - UHF Rx - 1.5m. pdf</u>	UL15	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Rx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Tx - 1m. pdf</u>	LK10	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Tx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Tx - 1.5m. pdf</u>	LK15	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Tx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - All Beams. pdf</u>		NGSO Antenna Gain Data	PDF file (*.pdf)	Contains predicted antenna gain contours for each receive beam and each transmit beam for each space station type and orbit, where the contours are plotted on an area map with the beam depicted on the surface of the earth at peak antenna gain (nadir).
<u>NGSO Antenna Gain Data - S-band Tx. pdf</u>	RS10	NGSO Antenna Gain Data	PDF file (*.pdf)	S-band Tx Antenna Gain Contours for 1m and 1.5m space station type and both 500km and 550km orbits.

<u>NGSO Antenna Gain Data - S- band Tx. pdf</u>	RS15	NGSO Antenna Gain Data	PDF file (*.pdf)	S-band Tx Antenna Gain Contours for 1m and 1.5m space station type and both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - S- band Rx. pdf</u>	SR10	NGSO Antenna Gain Data	PDF file (*.pdf)	S-band Rx Antenna Gain Contours for 1m and 1.5m space station type and both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - S- band Rx. pdf</u>	SR15	NGSO Antenna Gain Data	PDF file (*.pdf)	S-band Rx Antenna Gain Contours for 1m and 1.5m space station type and both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Tx - 1.5 m.pdf</u>	RK15	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Tx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Tx - 1m. pdf</u>	RK10	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Tx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Rx - 1m. pdf</u>	KR10	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Rx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.

<u>NGSO Antenna Gain Data - Ka-band Rx - 1.5 m.pdf</u>	KR15	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Rx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Tx - 1m.pdf</u>	RU10	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Tx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Tx - 1.5m. pdf</u>	RU15	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Tx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Rx - 1m.pdf</u>	UR10	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Rx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Rx - 1.5m. pdf</u>	UR15	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Rx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - Ka-band Rx - 1m. pdf</u>	KL10	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Rx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.

<u>NGSO Antenna Gain Data - Ka-band Rx - 1.5 m.pdf</u>	KL15	NGSO Antenna Gain Data	PDF file (*.pdf)	Ka-band Rx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Rx - 1m.pdf</u>	UL10	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Rx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Tx - 1m.pdf</u>	LU10	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Tx Antenna Gain Contours for 1m space station type at both 500km and 550km orbits.
<u>NGSO Antenna Gain Data - UHF Tx - 1.5m. pdf</u>	LU15	NGSO Antenna Gain Data	PDF file (*.pdf)	UHF Tx Antenna Gain Contours for 1.5m space station type at both 500km and 550km orbits.