



312 File Number: **SATLOA2020052600059**

Filing Description

Question	Response
Description	Requests authorization for new NGSO network to provide low-latency broadband internet service to fixed and mobile terminals at latitudes above 55 degrees North.

**Satellite
Information**

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	Kepler System
Estimated Lifetime of Satellite(s) From Date of Launch	7 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (11)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		17800.0 MHz -18600.0 MHz	Transmit
Fixed-Satellite Service		18800.0 MHz -19400.0 MHz	Transmit
Fixed-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		27500.0 MHz -29100.0 MHz	Receive
Fixed-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Mobile-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Mobile-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		12750.0 MHz -13250.0 MHz	Receive
Fixed-Satellite Service		10700.0 MHz -12700.0 MHz	Transmit
Fixed-Satellite Service		13800.0 MHz -14000.0 MHz	Receive

**Orbital
Information For
Non-
Geostationary
Satellites**

Question	Response
Total Number of Satellites in the active constellation	360
Orbit Epoch Date	05/01/2021
Celestial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0
2	336.0
3	324.0
4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0
11	228.0
12	216.0
13	204.0

14	192.0
15	180.0
16	168.0
17	156.0
18	144.0
19	132.0
20	120.0
21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0
28	24.0
29	12.0
30	0.0

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	15.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km

Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	354.0
2	342.0
3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0
10	246.0
11	234.0
12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0
20	126.0
21	114.0

22	102.0
23	90.0
24	78.0
25	66.0
26	54.0
27	42.0
28	30.0
29	18.0
30	6.0

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	30.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0
2	336.0
3	324.0

4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0
11	228.0
12	216.0
13	204.0
14	192.0
15	180.0
16	168.0
17	156.0
18	144.0
19	132.0
20	120.0
21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0
28	24.0
29	12.0

30	0.0
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Orbital Plane 4:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	45.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	354.0
2	342.0
3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0
10	246.0
11	234.0

12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0
20	126.0
21	114.0
22	102.0
23	90.0
24	78.0
25	66.0
26	54.0
27	42.0
28	30.0
29	18.0
30	6.0

Orbital Plane 5:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	60.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds

Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0
2	336.0
3	324.0
4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0
11	228.0
12	216.0
13	204.0
14	192.0
15	180.0
16	168.0
17	156.0
18	144.0
19	132.0
20	120.0

21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0
28	24.0
29	12.0
30	0.0

Orbital Plane 6:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	75.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	354.0
2	342.0

3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0
10	246.0
11	234.0
12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0
20	126.0
21	114.0
22	102.0
23	90.0
24	78.0
25	66.0
26	54.0
27	42.0
28	30.0

29	18.0
30	6.0

Orbital Plane 7:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	90.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0
2	336.0
3	324.0
4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0

11	228.0
12	216.0
13	204.0
14	192.0
15	180.0
16	168.0
17	156.0
18	144.0
19	132.0
20	120.0
21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0
28	24.0
29	12.0
30	0.0

Orbital Plane 8:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	105.0 degrees
Argument of Perigee	0.0 degrees

Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	354.0
2	342.0
3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0
10	246.0
11	234.0
12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0

20	126.0
21	114.0
22	102.0
23	90.0
24	78.0
25	66.0
26	54.0
27	42.0
28	30.0
29	18.0
30	6.0

Orbital Plane 9:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	120.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0

2	336.0
3	324.0
4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0
11	228.0
12	216.0
13	204.0
14	192.0
15	180.0
16	168.0
17	156.0
18	144.0
19	132.0
20	120.0
21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0

28	24.0
29	12.0
30	0.0

Orbital Plane 10:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	135.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	354.0
2	342.0
3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0

10	246.0
11	234.0
12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0
20	126.0
21	114.0
22	102.0
23	90.0
24	78.0
25	66.0
26	54.0
27	42.0
28	30.0
29	18.0
30	6.0

Orbital Plane 11:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	150.0 degrees

Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	348.0
2	336.0
3	324.0
4	312.0
5	300.0
6	288.0
7	276.0
8	264.0
9	252.0
10	240.0
11	228.0
12	216.0
13	204.0
14	192.0
15	180.0
16	168.0
17	156.0
18	144.0

19	132.0
20	120.0
21	108.0
22	96.0
23	84.0
24	72.0
25	60.0
26	48.0
27	36.0
28	24.0
29	12.0
30	0.0

Orbital Plane 12:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	89.5 degrees
Right Ascension of Ascending Node	165.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5865.0 seconds
Apogee	650.0 km
Perigee	650.0 km
Active Service Arc Begin Angle with respect to Ascending Node	55.0 degrees
Active Service Arc End Angle with respect to Ascending Node	125.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
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1	354.0
2	342.0
3	330.0
4	318.0
5	306.0
6	294.0
7	282.0
8	270.0
9	258.0
10	246.0
11	234.0
12	222.0
13	210.0
14	198.0
15	186.0
16	174.0
17	162.0
18	150.0
19	138.0
20	126.0
21	114.0
22	102.0
23	90.0
24	78.0
25	66.0
26	54.0

27	42.0
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28	30.0
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29	18.0
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30	6.0
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Receiving Beams 1:

Question	Response
Beam ID	GURA
Receive Beam Frequency	12750.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 2:

Question	Response
Beam ID	GURB
Receive Beam Frequency	12750.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 3:

Question	Response
Beam ID	GURC
Receive Beam Frequency	13800.0 MHz -14000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 4:

Question	Response
Beam ID	GURD
Receive Beam Frequency	13800.0 MHz -14000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 5:

Question	Response
Beam ID	GURE
Receive Beam Frequency	14000.0 MHz -14200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 6:

Question	Response
Beam ID	GURF
Receive Beam Frequency	14000.0 MHz -14200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 7:

Question	Response
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Beam ID	GURG
Receive Beam Frequency	14200.0 MHz -14470.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 8:**

Question	Response
Beam ID	GURH
Receive Beam Frequency	14200.0 MHz -14470.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 9:

Question	Response
Beam ID	GURI
Receive Beam Frequency	14470.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 10:

Question	Response
Beam ID	GURJ

Receive Beam Frequency	14470.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 11:

Question	Response
Beam ID	SURA
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K

Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 12:

Question	Response
Beam ID	SURB
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 13:

Question	Response
Beam ID	SURC
Receive Beam Frequency	28350.0 MHz -28500.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 14:**

Question	Response
Beam ID	SURD
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²

Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 15:**

Question	Response
Beam ID	SURE
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 16:**

Question	Response
Beam ID	SURF
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable

Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 17:**

Question	Response
Beam ID	SURG
Receive Beam Frequency	28600.0 MHz -28910.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2

Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 18:

Question	Response
Beam ID	SURH
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 19:

Question	Response
Beam ID	SURI
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP

Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 20:**

Question	Response
Beam ID	SURJ
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 21:

Question	Response
Beam ID	GULA
Receive Beam Frequency	12750.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 22:

Question	Response
Beam ID	GULB
Receive Beam Frequency	12750.0 MHz -13250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 23:**

Question	Response
Beam ID	GULC
Receive Beam Frequency	13800.0 MHz -14000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 24:

Question	Response
Beam ID	GULD
Receive Beam Frequency	13800.0 MHz -14000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 25:

Question	Response
Beam ID	GULE
Receive Beam Frequency	14000.0 MHz -14200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 26:**

Question	Response
Beam ID	GULF
Receive Beam Frequency	14000.0 MHz -14200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 27:

Question	Response
Beam ID	GULG
Receive Beam Frequency	14200.0 MHz -14470.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 28:

Question	Response
Beam ID	GULH
Receive Beam Frequency	14200.0 MHz -14470.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 29:**

Question	Response
Beam ID	GULI
Receive Beam Frequency	14470.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 30:

Question	Response
Beam ID	GULJ
Receive Beam Frequency	14470.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	21.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-7.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 31:

Question	Response
Beam ID	SULA
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 32:**

Question	Response
Beam ID	SULB
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 33:

Question	Response
Beam ID	SULC
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 34:

Question	Response
Beam ID	SULD
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 35:**

Question	Response
Beam ID	SULE
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 36:

Question	Response
Beam ID	SULF
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 37:

Question	Response
Beam ID	SULG
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

**Receiving
Beams 38:**

Question	Response
Beam ID	SULH
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	X

Service Area Description	Global, above 55 degrees latitude N
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Receiving Beams 39:

Question	Response
Beam ID	SULI
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Receiving Beams 40:

Question	Response
Beam ID	SULJ
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	15.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-14.8 dB/K
Min. Saturation Flux Density	-0.1 dBW/m ²
Max. Saturation Flux Density	0.0 dBW/m ²
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Receiving Channels (20)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
U7	10.0	14335.0	Feeder Link
U3	10.0	13900.0	Feeder Link
U2	500.0	13000.0	Feeder Link
U4	200.0	13900.0	Feeder Link
U5	10.0	14100.0	Feeder Link
U6	200.0	14100.0	Feeder Link
U20	500.0	29750.0	Service Link
U19	10.0	29750.0	Service Link
U8	270.0	14335.0	Feeder Link
U9	10.0	14485.0	Feeder Link
U10	30.0	14485.0	Feeder Link
U11	10.0	27925.0	Service Link
U12	500.0	27925.0	Service Link
U1	10.0	13000.0	Feeder Link
U18	500.0	28850.0	Service Link
U17	10.0	28850.0	Service Link
U16	100.0	28550.0	Service Link
U15	10.0	28550.0	Service Link
U14	150.0	28425.0	Service Link
U13	10.0	28425.0	Service Link

Transmitting Beams 1:

Question	Response
Beam ID	GDRA
Transmit Beam Frequency	10700.0 MHz -11700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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):
1.0 MHz	-134.3	-132.3	-130.4	-128.6	-126.9	-117.3

Transmitting Beams 2:

Question	Response
Beam ID	GDRB
Transmit Beam Frequency	10700.0 MHz -11700.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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):
1.0 MHz	-134.3	-132.4	-130.4	-128.6	-126.9	-117.3

Transmitting Beams 3:

Question	Response
Beam ID	GDRC
Transmit Beam Frequency	11700.0 MHz -12200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	20.0 dBi
Antenna Pointing Error	1.0 degrees

Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

Information not provided.

Transmitting Beams 4:

Question	Response
Beam ID	GDRD
Transmit Beam Frequency	11700.0 MHz -12200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

Information not provided.

Transmitting Beams 5:

Question	Response
Beam ID	SDRA
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 6:

Question	Response
Beam ID	SDRB

Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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):
1.0 MHz	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 7:

Question	Response
Beam ID	SDRC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi

Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 8:

Question	Response
Beam ID	SDRD
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 9:

Question	Response
Beam ID	SDRE
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 10:

Question	Response
Beam ID	SDRF
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3
MHz						

**Transmitting
Beams 11:**

Question	Response
Beam ID	SDRG
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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):
1.0	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3
MHz						

**Transmitting
Beams 12:**

Question	Response
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Beam ID	SDRH
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 13:

Question	Response
Beam ID	SDRI
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP

Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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):
1.0 MHz	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 14:

Question	Response
Beam ID	SDRJ
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 15:

Question	Response
Beam ID	GDLA
Transmit Beam Frequency	10700.0 MHz -11700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C

Service Area Description

Global, above 55 degrees
latitude N

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	-134.3	-132.4	-130.4	-128.6	-126.9	-117.3

Transmitting Beams 16:

Question	Response
Beam ID	GDLB
Transmit Beam Frequency	10700.0 MHz -11700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-134.3	-132.4	-130.4	-128.6	-126.9	-117.3

Transmitting Beams 17:

Question	Response
Beam ID	GDLC
Transmit Beam Frequency	11700.0 MHz -12200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

Information not provided.

Transmitting Beams 18:

Question	Response
Beam ID	GDLD
Transmit Beam Frequency	11700.0 MHz -12200.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

Information not provided.

Transmitting Beams 19:

Question	Response
Beam ID	SDLA
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz

Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 20:

Question	Response
Beam ID	SDLB
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 21:

Question	Response
Beam ID	SDLC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3
MHz						

Transmitting Beams 22:

Question	Response
Beam ID	SDLD
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3
MHz						

Transmitting Beams 23:

Question	Response
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Beam ID	SDLE
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 24:

Question	Response
Beam ID	SDLF
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP

Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 25:

Question	Response
Beam ID	SDLG
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 26:

Question	Response
Beam ID	SDLH
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X

Service Area Description

Global, above 55 degrees
latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 27:

Question	Response
Beam ID	SDLI
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 28:

Question	Response
Beam ID	SDLJ
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	24.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

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	-125.2	-123.3	-121.4	-119.6	-117.9	-108.3

Transmitting Beams 29:

Question	Response
Beam ID	GDRE
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

	* 0° - 1° (dbW/m ² /BW):	* 1° - 2° (dbW/m ² /BW):	* 2° - 3° (dbW/m ² /BW):	* 3° - 4° (dbW/m ² /BW):	* 4° - 5° (dbW/m ² /BW):
1.0 MHz	-136.0	-135.7	-135.3	-135.0	-134.6

Transmitting Beams 30:

Question	Response
Beam ID	GDRF
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Both Steerable and Shapeable

Polarization	RHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
1.0 MHz	-136.0	-135.7	-135.3	-135.0	-134.6

Transmitting Beams 31:

Question	Response
Beam ID	GDLE
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, above 55 degrees latitude N

Max. Power Flux Density

	* 0° - 1° (dBW/m ² /BW):	* 1° - 2° (dBW/m ² /BW):	* 2° - 3° (dBW/m ² /BW):	* 3° - 4° (dBW/m ² /BW):	* 4° - 5° (dBW/m ² /BW):
1.0 MHz	-136.0	-135.7	-135.3	-135.0	-134.6

Transmitting Beams 32:

Question	Response
Beam ID	GDLF
Transmit Beam Frequency	12200.0 MHz -12700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	18.0 dBi
Antenna Pointing Error	1.0 degrees
Antenna Rotational Error	1.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-50.0 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	X

Service Area Description

Global, above 55 degrees
latitude N

Max. Power Flux Density

	* 0° - 1° (dbW/m ² /BW):	* 1° - 2° (dbW/m ² /BW):	* 2° - 3° (dbW/m ² /BW):	* 3° - 4° (dbW/m ² /BW):	* 4° - 5° (dbW/m ² /BW):
1.0 MHz	-136.0	-135.7	-135.3	-135.0	-134.6

Transmitting Channels (16)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
D8	500.0	18050.0	Service Link
D7	10.0	18050.0	Service Link
D4	500.0	11950.0	Feeder Link
D3	10.0	11950.0	Feeder Link
D2	500.0	11200.0	Feeder Link
D5	10.0	12450.0	Feeder Link
D6	500.0	12450.0	Feeder Link
D1	10.0	11200.0	Feeder Link
D16	500.0	19950.0	Service Link
D15	10.0	19950.0	Service Link
D14	100.0	19350.0	Service Link
D13	10.0	19350.0	Service Link
D12	500.0	19050.0	Service Link
D11	10.0	19050.0	Service Link
D10	300.0	18450.0	Service Link
D9	10.0	18450.0	Service Link

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?	Yes
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?	Yes
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

Information not provided.