Approved by OMB 3060-0678
Estimated Burden: up to 80 hours
April 2016

Federal Communications Commission

312 File Number: **SATLOA2019070400057**

Filing Description

Question	Response
Description	Application for the Kuiper Ka-band NGSO system to provide broadband services. Only a representative subset of the constellation orbits is provided in this Schedule S form; the complete set of orbits are provided in an attachment.

Satellite Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	Kuiper 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 (17)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		17700.0 MHz -18200.0 MHz	Transmit
Fixed-Satellite Service		18800.0 MHz -19300.0 MHz	Transmit
Mobile-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Mobile-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		29100.0 MHz -29250.0 MHz	Receive
Fixed-Satellite Service		28500.0 MHz -28600.0 MHz	Receive
Fixed-Satellite Service		28350.0 MHz -28500.0 MHz	Receive
Fixed-Satellite Service		19600.0 MHz -19700.0 MHz	Transmit
Fixed-Satellite Service		19400.0 MHz -19600.0 MHz	Transmit
Fixed-Satellite Service		19300.0 MHz -19400.0 MHz	Transmit
Fixed-Satellite Service		18300.0 MHz -18600.0 MHz	Transmit
Fixed-Satellite Service		17800.0 MHz -18300.0 MHz	Transmit
Fixed-Satellite Service		27500.0 MHz -28350.0 MHz	Receive
Fixed-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		29250.0 MHz -29500.0 MHz	Receive
Fixed-Satellite Service		28600.0 MHz -29100.0 MHz	Receive

Fixed-Satellite Service	19700.0 MHz -20200.0 MHz	Transmit

Orbital Information For Non-Geostationary Satellites

Question	Response
Total Number of Satellites in the active constellation	98
Orbit Epoch Date	01/01/2020
Celestrial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	34
Inclination Angle	51.9 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	90.0 degrees
Orbital Period	5838.5 seconds
Apogee	630.0 km
Perigee	630.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	0.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0
2	10.6
3	21.2
4	31.8
5	42.4
6	52.9
7	63.5
8	74.1
9	84.7
10	95.3
11	105.9
12	116.5
13	127.1

14	137.6
15	148.2
16	158.8
17	169.4
18	180.0
19	190.6
20	201.2
21	211.8
22	222.4
23	232.9
24	243.5
25	254.1
26	264.7
27	275.3
28	285.9
29	296.5
30	307.1
31	317.6
32	328.2
33	338.8
34	349.4

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	28
Inclination Angle	33.0 degrees
Right Ascension of Ascending Node	0.0 degrees

Argument of Perigee	90.0 degrees
Orbital Period	5788.6 seconds
Apogee	590.0 km
Perigee	590.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	0.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	0.0
2	12.9
3	25.7
4	38.6
5	51.4
6	64.3
7	77.1
8	90.0
9	102.9
10	115.7
11	128.6
12	141.4
13	154.3
14	167.1
15	180.0
16	192.9
17	205.7
18	218.6

19	231.4
20	244.3
21	257.1
22	270.0
23	282.9
24	295.7
25	308.6
26	321.4
27	334.3
28	347.1

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	36
Inclination Angle	42.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	90.0 degrees
Orbital Period	5813.5 seconds
Apogee	610.0 km
Perigee	610.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	0.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	350.0
2	340.0

3	330.0
4	320.0
5	310.0
6	300.0
7	290.0
8	280.0
9	270.0
10	260.0
11	250.0
12	240.0
13	230.0
14	220.0
15	210.0
16	200.0
17	190.0
18	180.0
19	170.0
20	160.0
21	150.0
22	140.0
23	130.0
24	120.0
25	110.0
26	100.0
27	90.0
28	80.0

29	70.0
30	60.0
31	50.0
32	40.0
33	30.0
34	20.0
35	10.0
36	0.0

Receiving Beams 1:

Question	Response
Beam ID	RURA
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 2:

Question	Response
Beam ID	RULA
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 3:

Question	Response
Beam ID	RURB
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving

Beams 4:

Question	Response
Beam ID	RULB
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 5:

Question	Response
Beam ID	RURC
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 6:

Question	Response
Beam ID	RULC
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 7:

Question	Response

Beam ID	RURD
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 8:

Question	Response
Beam ID	RULD
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	10.4 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

Receiving Beams 9:

Question	Response
Beam ID	RURE
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 10:

Question	Response

Beam ID	RULE
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 11:

Question	Response
Beam ID	RURF
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 12:

Question	Response
Beam ID	RULF
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 13:

Question	Response

Beam ID	RURG
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 14:

Question	Response
Beam ID	RULG
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 15:

Question	Response
Beam ID	RURH
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 16:

Question	Response

Beam ID	RULH
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	12.4 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

Receiving Beams 17:

Question	Response
Beam ID	RGRA
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 18:

Question	Response
Beam ID	RGLA
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 19:

Question	Response

Beam ID	RGRB
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 20:

Question	Response
Beam ID	RGLB
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 21:

Question	Response
Beam ID	RGRC
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 22:

Question	Response

Beam ID	RGLC
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 23:

Question	Response
Beam ID	RGRD
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 24:

Question	Response
Beam ID	RGLD
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 25:

Question	Response

Beam ID	RGRE
Receive Beam Frequency	29100.0 MHz -29250.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 26:

Question	Response
Beam ID	RGLE
Receive Beam Frequency	29100.0 MHz -29250.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 27:

Question	Response
Beam ID	RGRF
Receive Beam Frequency	29250.0 MHz -29500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 28:

Question	Response

Beam ID	RGLF
Receive Beam Frequency	29250.0 MHz -29500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 29:

Question	Response
Beam ID	RGRG
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 30:

Question	Response
Beam ID	RGLG
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	38.2 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	11.6 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

Receiving Beams 31:

Question	Response

Beam ID	RGRH
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 32:

Question	Response
Beam ID	RGLH
Receive Beam Frequency	27500.0 MHz -28350.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 33:

Question	Response
Beam ID	RGRI
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 34:

Question	Response

Beam ID	RGLI
Receive Beam Frequency	28350.0 MHz -28500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 35:

Question	Response
Beam ID	RGRJ
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 36:

Question	Response
Beam ID	RGLJ
Receive Beam Frequency	28500.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 37:

Question	Response

Beam ID	RGRK
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 38:

Question	Response
Beam ID	RGLK
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 39:

Question	Response
Beam ID	RGRL
Receive Beam Frequency	29100.0 MHz -29250.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 40:

Question	Response

Beam ID	RGLL
Receive Beam Frequency	29100.0 MHz -29250.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 41:

Question	Response
Beam ID	RGRM
Receive Beam Frequency	29250.0 MHz -29500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 42:

Question	Response
Beam ID	RGLM
Receive Beam Frequency	29250.0 MHz -29500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 43:

Question	Response

Beam ID	RGRN
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 44:

Question	Response
Beam ID	RGLN
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	40.7 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	14.1 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

Receiving Beams 45:

Question	Response
Beam ID	RTRA
Receive Beam Frequency	27500.0 MHz -28050.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-17.6 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

Receiving Beams 46:

Question	Response

Beam ID	RTLA
Receive Beam Frequency	27500.0 MHz -28050.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-17.6 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

Receiving Channels (180)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TR49	5.0	27997.5	TT&C
TR48	10.0	27995.0	TT&C
TR47	20.0	27990.0	TT&C
TR46	50.0	27975.0	TT&C
TR45	1.0	27500.5	TT&C
TR44	5.0	27502.5	TT&C
TL45	1.0	27500.5	TT&C
TL44	5.0	27502.5	TT&C
FL68	50.0	29475.0	Feeder Link
FL67	50.0	29425.0	Feeder Link
FL66	50.0	29375.0	Feeder Link
FL65	50.0	29325.0	Feeder Link
FL64	50.0	29275.0	Feeder Link
FL63	50.0	29225.0	Feeder Link
FL62	50.0	29175.0	Feeder Link
FL61	50.0	29125.0	Feeder Link
FL60	50.0	28475.0	Feeder Link
FL59	50.0	28425.0	Feeder Link
FL58	50.0	28375.0	Feeder Link
FL57	50.0	28325.0	Feeder Link
FL56	50.0	28275.0	Feeder Link
FL55	50.0	28225.0	Feeder Link
FL54	50.0	28175.0	Feeder Link
FL53	50.0	28125.0	Feeder Link

FL52	50.0	28075.0	Feeder Link
FL51	50.0	28025.0	Feeder Link
FL50	50.0	27975.0	Feeder Link
FL49	50.0	27925.0	Feeder Link
FL48	50.0	27875.0	Feeder Link
FL47	50.0	27825.0	Feeder Link
FL46	50.0	27775.0	Feeder Link
FL45	50.0	27725.0	Feeder Link
FL44	50.0	27675.0	Feeder Link
FL43	50.0	27625.0	Feeder Link
SL51	50.0	29875.0	Service Link
SL52	50.0	29925.0	Service Link
SL53	50.0	29975.0	Service Link
SL54	50.0	28525.0	Service Link
SL55	50.0	28575.0	Service Link
SL56	50.0	28625.0	Service Link
SL57	50.0	28675.0	Service Link
SL58	50.0	28725.0	Service Link
SL59	50.0	28775.0	Service Link
SL60	50.0	28825.0	Service Link
SL61	50.0	28875.0	Service Link
SL62	50.0	28925.0	Service Link
SL63	50.0	28975.0	Service Link
SL64	50.0	29025.0	Service Link
SL65	50.0	29075.0	Service Link
SR41	50.0	28375.0	Service Link

SR42	50.0	28425.0	Service Link
SR43	50.0	28475.0	Service Link
SR44	50.0	29525.0	Service Link
SR45	50.0	29575.0	Service Link
SR46	50.0	29625.0	Service Link
SR47	50.0	29675.0	Service Link
SR48	50.0	29725.0	Service Link
SR49	50.0	29775.0	Service Link
SR50	50.0	29825.0	Service Link
SR51	50.0	29875.0	Service Link
SR52	50.0	29925.0	Service Link
SR53	50.0	29975.0	Service Link
SR54	50.0	28525.0	Service Link
SR55	50.0	28575.0	Service Link
SR56	50.0	28625.0	Service Link
SR57	50.0	28675.0	Service Link
SR58	50.0	28725.0	Service Link
SR59	50.0	28775.0	Service Link
SR60	50.0	28825.0	Service Link
SR61	50.0	28875.0	Service Link
SR62	50.0	28925.0	Service Link
SR63	50.0	28975.0	Service Link
SR64	50.0	29025.0	Service Link
SR65	50.0	29075.0	Service Link
FR90	50.0	29075.0	Feeder Link
FR89	50.0	29025.0	Feeder Link

FR88	50.0	28975.0	Feeder Link
FR87	50.0	28925.0	Feeder Link
FR86	50.0	28875.0	Feeder Link
FR85	50.0	28825.0	Feeder Link
FR84	50.0	28775.0	Feeder Link
FR83	50.0	28725.0	Feeder Link
FR82	50.0	28675.0	Feeder Link
FR81	50.0	28625.0	Feeder Link
FR80	50.0	28575.0	Feeder Link
FR79	50.0	28525.0	Feeder Link
FR78	50.0	29975.0	Feeder Link
FR77	50.0	29925.0	Feeder Link
FR76	50.0	29875.0	Feeder Link
FR75	50.0	29825.0	Feeder Link
FR74	50.0	29775.0	Feeder Link
FR73	50.0	29725.0	Feeder Link
FR58	50.0	28375.0	Feeder Link
FL78	50.0	29975.0	Feeder Link
FL77	50.0	29925.0	Feeder Link
FL76	50.0	29875.0	Feeder Link
FL75	50.0	29825.0	Feeder Link
TL55	1.0	28000.5	TT&C
TL54	5.0	28002.5	TT&C
TL53	10.0	28005.0	TT&C
TL52	20.0	28010.0	TT&C
TL51	50.0	28025.0	TT&C

TL50	1.0	27999.5	TT&C
TL49	5.0	27997.5	TT&C
TL48	10.0	27995.0	TT&C
TL47	20.0	27990.0	TT&C
TL46	50.0	27975.0	TT&C
TR55	1.0	28000.5	TT&C
TR54	5.0	28002.5	TT&C
TR53	10.0	28005.0	TT&C
TR52	20.0	28010.0	TT&C
TR51	50.0	28025.0	TT&C
TR50	1.0	27999.5	TT&C
FR57	50.0	28325.0	Feeder Link
FR56	50.0	28275.0	Feeder Link
FR55	50.0	28225.0	Feeder Link
FR54	50.0	28175.0	Feeder Link
FR53	50.0	28125.0	Feeder Link
FR52	50.0	28075.0	Feeder Link
FR51	50.0	28025.0	Feeder Link
FR50	50.0	27975.0	Feeder Link
FR49	50.0	27925.0	Feeder Link
FL83	50.0	28725.0	Feeder Link
FL82	50.0	28675.0	Feeder Link
FL81	50.0	28625.0	Feeder Link
FL80	50.0	28575.0	Feeder Link
FL79	50.0	28525.0	Feeder Link
SL50	50.0	29825.0	Service Link

SL49	50.0	29775.0	Service Link
SL48	50.0	29725.0	Service Link
SL47	50.0	29675.0	Service Link
SL46	50.0	29625.0	Service Link
SL45	50.0	29575.0	Service Link
SL44	50.0	29525.0	Service Link
SL43	50.0	28475.0	Service Link
SL42	50.0	28425.0	Service Link
SL41	50.0	28375.0	Service Link
FL41	50.0	27525.0	Feeder Link
FL42	50.0	27575.0	Feeder Link
FL84	50.0	28775.0	Feeder Link
FL85	50.0	28825.0	Feeder Link
FL86	50.0	28875.0	Feeder Link
FL87	50.0	28925.0	Feeder Link
FL88	50.0	28975.0	Feeder Link
FL89	50.0	29025.0	Feeder Link
FL90	50.0	29075.0	Feeder Link
FR41	50.0	27525.0	Feeder Link
FR42	50.0	27575.0	Feeder Link
FR43	50.0	27625.0	Feeder Link
FR44	50.0	27675.0	Feeder Link
FR45	50.0	27725.0	Feeder Link
FR46	50.0	27775.0	Feeder Link
FR47	50.0	27825.0	Feeder Link
FR48	50.0	27875.0	Feeder Link

TR43	10.0	27505.0	TT&C
TR42	20.0	27510.0	TT&C
TR41	50.0	27525.0	TT&C
TL43	10.0	27505.0	TT&C
TL42	20.0	27510.0	TT&C
TL41	50.0	27525.0	TT&C
FL74	50.0	29775.0	Feeder Link
FL73	50.0	29725.0	Feeder Link
FL72	50.0	29675.0	Feeder Link
FL71	50.0	29625.0	Feeder Link
FL70	50.0	29575.0	Feeder Link
FL69	50.0	29525.0	Feeder Link
FR72	50.0	29675.0	Feeder Link
FR71	50.0	29625.0	Feeder Link
FR70	50.0	29575.0	Feeder Link
FR69	50.0	29525.0	Feeder Link
FR68	50.0	29475.0	Feeder Link
FR67	50.0	29425.0	Feeder Link
FR66	50.0	29375.0	Feeder Link
FR65	50.0	29325.0	Feeder Link
FR64	50.0	29275.0	Feeder Link
FR63	50.0	29225.0	Feeder Link
FR62	50.0	29175.0	Feeder Link
FR61	50.0	29125.0	Feeder Link
FR60	50.0	28475.0	Feeder Link
FR59	50.0	28425.0	Feeder Link

Transmitting Beams 1:

Question	Response
Beam ID	TTR1
Transmit Beam Frequency	19250.0 MHz -19300.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-52.2 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-165.6	-164.0	-162.6	-161.2	-160.1	-154.0

Transmitting Beams 2:

Question	Response
Beam ID	TTL1
Transmit Beam Frequency	19250.0 MHz -19300.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-52.2 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-165.6	-164.0	-162.6	-161.2	-160.1	-154.0

Transmitting Beams 3:

Question	Response
Beam ID	TTR2
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-52.2 dBW/Hz
Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-165.6	-164.0	-162.6	-161.2	-160.1	-154.0

Transmitting Beams 4:

Question	Response
Beam ID	TTL2
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	9.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-52.2 dBW/Hz

Max. Transmit EIRP	20.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-165.6	-164.0	-162.6	-161.2	-160.1	-154.0

Transmitting Beams 5:

Question	Response
Beam ID	TULA
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 6:

Question	Response
Beam ID	TURA
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 7:

Question	Response
Beam ID	TULB
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 8:

Question	Response
Beam ID	TURB
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 9:

Question	Response
Beam ID	TULC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	40.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 10:

Question	Response
Beam ID	TURC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz

Max. Transmit EIRP	40.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 11:

Question	Response
Beam ID	TULD
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 12:

Question	Response
Beam ID	TURD
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 13:

Question	Response
Beam ID	TULE
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	36.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 14:

Question	Response
Beam ID	TURE
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	36.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.6	-174.1	-171.0	-167.2	-162.1	-137.0

Transmitting Beams 15:

Question	Response
Beam ID	TULF
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.9 dBW/Hz
Max. Transmit EIRP	33.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-186.6	-184.1	-181.0	-177.2	-172.1	-147.0

Transmitting Beams 16:

Question	Response
Beam ID	TURF
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.9 dBW/Hz

Max. Transmit EIRP	33.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-186.6	-184.1	-181.0	-177.2	-172.1	-147.0

Transmitting Beams 17:

Question	Response
Beam ID	TULG
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 18:

Question	Response
Beam ID	TURG
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 19:

Question	Response
Beam ID	TULH
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 20:

Question	Response
Beam ID	TURH
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 21:

Question	Response
Beam ID	TULI
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	40.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 22:

Question	Response
Beam ID	TURI
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz

Max. Transmit EIRP	40.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 23:

Question	Response
Beam ID	TULJ
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 24:

Question	Response
Beam ID	TURJ
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	43.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 25:

Question	Response
Beam ID	TULK
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	36.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 26:

Question	Response
Beam ID	TURK
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-43.9 dBW/Hz
Max. Transmit EIRP	36.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-178.6	-176.1	-173.0	-169.2	-164.1	-137.0

Transmitting Beams 27:

Question	Response
Beam ID	TULL
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.9 dBW/Hz
Max. Transmit EIRP	33.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-188.6	-186.1	-183.0	-179.2	-174.1	-147.0

Transmitting Beams 28:

Question	Response
Beam ID	TURL
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-53.9 dBW/Hz

Max. Transmit EIRP	33.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-188.6	-186.1	-183.0	-179.2	-174.1	-147.0

Transmitting Beams 29:

Question	Response
Beam ID	TGRA
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 30:

Question	Response
Beam ID	TGLA
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except for within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 31:

Question	Response
Beam ID	TGRB
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 32:

Question	Response
Beam ID	TGLB
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 33:

Question	Response
Beam ID	TGRC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	33.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 34:

Question	Response
Beam ID	TGLC
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz

Max. Transmit EIRP	33.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 35:

Question	Response
Beam ID	TGRD
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 36:

Question	Response
Beam ID	TGLD
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 37:

Question	Response
Beam ID	TGRE
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 38:

Question	Response
Beam ID	TGLE
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 39:

Question	Response
Beam ID	TGRF
Transmit Beam Frequency	19400.0 MHz -19600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	32.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 40:

Question	Response
Beam ID	TGLF
Transmit Beam Frequency	19400.0 MHz -19600.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz

Max. Transmit EIRP	32.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 41:

Question	Response
Beam ID	TGRG
Transmit Beam Frequency	19600.0 MHz -19700.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 42:

Question	Response
Beam ID	TGLG
Transmit Beam Frequency	19600.0 MHz -19700.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 43:

Question	Response
Beam ID	TGRH
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 44:

Question	Response
Beam ID	TGLH
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	34.4 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-173.9	-169.6	-161.2	-149.2	-148.0	-147.0

Transmitting Beams 45:

Question	Response
Beam ID	TGRI
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global, except within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 46:

Question	Response
Beam ID	TGLI
Transmit Beam Frequency	17700.0 MHz -18200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW

Co- or Cross Polar Mode	C
Service Area Description	Global, except for within the United States.

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 47:

Question	Response
Beam ID	TGRJ
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 48:

Question	Response
Beam ID	TGLJ
Transmit Beam Frequency	17800.0 MHz -18300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 49:

Question	Response
Beam ID	TGRK
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	33.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 50:

Question	Response
Beam ID	TGLK
Transmit Beam Frequency	18300.0 MHz -18600.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	33.8 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 51:

Question	Response
Beam ID	TGRL
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 52:

Question	Response
Beam ID	TGLL
Transmit Beam Frequency	18800.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz

Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 53:

Question	Response
Beam ID	TGRM
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 54:

Question	Response
Beam ID	TGLM
Transmit Beam Frequency	19300.0 MHz -19400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 55:

Question	Response
Beam ID	TGRN
Transmit Beam Frequency	19400.0 MHz -19600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	32.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 56:

Question	Response
Beam ID	TGLN
Transmit Beam Frequency	19400.0 MHz -19600.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	32.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 57:

Question	Response
Beam ID	TGRO
Transmit Beam Frequency	19600.0 MHz -19700.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 58:

Question	Response
Beam ID	TGLO
Transmit Beam Frequency	19600.0 MHz -19700.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz

Max. Transmit EIRP	29.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 59:

Question	Response
Beam ID	TGRP
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Beams 60:

Question	Response
Beam ID	TGLP
Transmit Beam Frequency	19700.0 MHz -20200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	36.9 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-51.0 dBW/Hz
Max. Transmit EIRP	36.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 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):
4.0 kHz	-176.4	-172.1	-164.4	-149.2	-148.0	-147.0

Transmitting Channels (116)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
TR05	1.0	19299.5	TT&C
TL15	1.0	19399.5	TT&C
TL14	5.0	19397.5	TT&C
TL13	10.0	19395.0	TT&C
TL12	20.0	19390.0	TT&C
TL11	50.0	19375.0	TT&C
TL10	1.0	19300.5	TT&C
TL09	5.0	19302.5	TT&C
TL08	10.0	19305.0	TT&C
TL07	20.0	19310.0	TT&C
TL06	50.0	19325.0	TT&C
TL05	1.0	19299.5	TT&C
SR07	100.0	17750.0	Service Link
SR06	100.0	20150.0	Service Link
SR05	100.0	20050.0	Service Link
SR04	100.0	19950.0	Service Link
SR03	100.0	19850.0	Service Link
SR02	100.0	19750.0	Service Link
SR01	100.0	19350.0	Service Link
SL20	100.0	19250.0	Service Link
SL19	100.0	19150.0	Service Link
SL18	100.0	19050.0	Service Link
SL17	100.0	18950.0	Service Link
SL16	100.0	18850.0	Service Link

SL15	100.0	18550.0	Service Link
SL14	100.0	18450.0	Service Link
SL13	100.0	18350.0	Service Link
SL12	100.0	18250.0	Service Link
SL11	100.0	18150.0	Service Link
SL10	100.0	18050.0	Service Link
SL09	100.0	17950.0	Service Link
SL08	100.0	17850.0	Service Link
SL07	100.0	17750.0	Service Link
SL06	100.0	20150.0	Service Link
SL05	100.0	20050.0	Service Link
SL04	100.0	19950.0	Service Link
SL03	100.0	19850.0	Service Link
SL02	100.0	19750.0	Service Link
SL01	100.0	19350.0	Service Link
SR13	100.0	18350.0	Service Link
SR12	100.0	18250.0	Service Link
SR11	100.0	18150.0	Service Link
SR10	100.0	18050.0	Service Link
SR09	100.0	17950.0	Service Link
SR08	100.0	17850.0	Service Link
FR02	100.0	19450.0	Feeder Link
FR10	100.0	17750.0	Feeder Link
FR11	100.0	17850.0	Feeder Link
FR12	100.0	17950.0	Feeder Link
FR13	100.0	18050.0	Feeder Link

FR14	100.0	18150.0	Feeder Link
FR15	100.0	18250.0	Feeder Link
FR16	100.0	18350.0	Feeder Link
TR15	1.0	19399.5	TT&C
TR14	5.0	19397.5	TT&C
TR13	10.0	19395.0	TT&C
TR12	20.0	19390.0	TT&C
TR11	50.0	19375.0	TT&C
TR10	1.0	19300.5	TT&C
FR18	100.0	18550.0	Feeder Link
FR19	100.0	18850.0	Feeder Link
TR09	5.0	19302.5	TT&C
TR08	10.0	19305.0	TT&C
TR07	20.0	19310.0	TT&C
TR06	50.0	19325.0	TT&C
FL01	100.0	19350.0	Feeder Link
FL02	100.0	19450.0	Feeder Link
FL03	100.0	19550.0	Feeder Link
FL04	100.0	19650.0	Feeder Link
FL05	100.0	19750.0	Feeder Link
FL06	100.0	19850.0	Feeder Link
FL07	100.0	19950.0	Feeder Link
FL08	100.0	20050.0	Feeder Link
FL09	100.0	20150.0	Feeder Link
FL10	100.0	17750.0	Feeder Link
FL11	100.0	17850.0	Feeder Link

FL12	100.0	17950.0	Feeder Link
FL13	100.0	18050.0	Feeder Link
FR03	100.0	19550.0	Feeder Link
FL23	100.0	19250.0	Feeder Link
FR01	100.0	19350.0	Feeder Link
FR17	100.0	18450.0	Feeder Link
FR20	100.0	18950.0	Feeder Link
FR21	100.0	19050.0	Feeder Link
FR22	100.0	19150.0	Feeder Link
FR23	100.0	19250.0	Feeder Link
TR04	5.0	19297.5	TT&C
TR03	10.0	19295.0	TT&C
TR02	20.0	19290.0	TT&C
TR01	50.0	19275.0	TT&C
TL04	5.0	19297.5	TT&C
TL03	10.0	19295.0	TT&C
TL02	20.0	19290.0	TT&C
TL01	50.0	19275.0	TT&C
SR20	100.0	19250.0	Service Link
SR19	100.0	19150.0	Service Link
SR18	100.0	19050.0	Service Link
SR17	100.0	18950.0	Service Link
SR16	100.0	18850.0	Service Link
SR15	100.0	18550.0	Service Link
SR14	100.0	18450.0	Service Link
FR04	100.0	19650.0	Feeder Link

FR05	100.0	19750.0	Feeder Link
FR06	100.0	19850.0	Feeder Link
FR07	100.0	19950.0	Feeder Link
FR08	100.0	20050.0	Feeder Link
FR09	100.0	20150.0	Feeder Link
FL14	100.0	18150.0	Feeder Link
FL15	100.0	18250.0	Feeder Link
FL16	100.0	18350.0	Feeder Link
FL17	100.0	18450.0	Feeder Link
FL18	100.0	18550.0	Feeder Link
FL19	100.0	18850.0	Feeder Link
FL20	100.0	18950.0	Feeder Link
FL21	100.0	19050.0	Feeder Link
FL22	100.0	19150.0	Feeder 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?	No
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

File Name	Beam	Field	Attachment Type	Description
KuiperFinalV4.mdb		NGSO Antenna Gain Data	GIMS file (*.mdb)	GIMS database for all beams.