



312 File Number: **SATLOA2017030100027**

Filing Description

Question	Response
Description	SpaceX V-Band NGSO Constellation. This form reflects a representative subset of the complete system technical data. Complete technical data is included in the attached MDB database.

Satellite Information

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

Operating Frequency Bands (3)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		47200.0 MHz -50200.0 MHz	Receive
Fixed-Satellite Service		50400.0 MHz -52400.0 MHz	Receive
Fixed-Satellite Service		37500.0 MHz -42500.0 MHz	Transmit

**Orbital
Information For
Non-
Geostationary
Satellites**

Question	Response
Total Number of Satellites in the active constellation	303
Orbit Epoch Date	01/01/2015
Celestial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	352.8
2	345.6
3	338.4
4	331.2
5	324.0
6	316.8
7	309.6
8	302.4
9	295.2
10	288.0
11	280.8
12	273.6
13	266.4

14	259.2
15	252.0
16	244.8
17	237.6
18	230.4
19	223.2
20	216.0
21	208.8
22	201.6
23	194.4
24	187.2
25	180.0
26	172.8
27	165.6
28	158.4
29	151.2
30	144.0
31	136.8
32	129.6
33	122.4
34	115.2
35	108.0
36	100.8
37	93.6
38	86.4
39	79.2

40	72.0
41	64.8
42	57.6
43	50.4
44	43.2
45	36.0
46	28.8
47	21.6
48	14.4
49	7.2
50	0.0

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	5.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

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

2	7.2
3	14.4
4	21.6
5	28.8
6	36.0
7	43.2
8	50.4
9	57.6
10	64.8
11	72.0
12	79.2
13	86.4
14	93.6
15	100.8
16	108.0
17	115.2
18	345.6
19	352.8
20	122.4
21	129.6
22	136.8
23	144.0
24	151.2
25	158.4
26	165.6
27	172.8

28	180.0
29	187.2
30	194.4
31	201.6
32	208.8
33	216.0
34	223.2
35	230.4
36	237.6
37	244.8
38	252.0
39	259.2
40	266.4
41	273.6
42	280.8
43	288.0
44	295.2
45	302.4
46	309.6
47	316.8
48	324.0
49	331.2
50	338.4

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	355.8
2	345.6
3	341.4
4	331.2
5	327.0
6	316.8
7	312.6
8	302.4
9	298.2
10	288.0
11	283.8
12	273.6
13	269.4
14	259.2
15	255.0
16	244.8

17	240.6
18	230.4
19	226.2
20	216.0
21	211.8
22	201.6
23	197.4
24	187.2
25	183.0
26	172.8
27	168.6
28	158.4
29	154.2
30	144.0
31	139.8
32	129.6
33	125.4
34	115.2
35	111.0
36	100.8
37	96.6
38	86.4
39	82.2
40	72.0
41	67.8
42	57.6

43	53.4
44	43.2
45	39.0
46	28.8
47	24.6
48	14.4
49	10.2
50	0.0

Orbital Plane 4:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	355.2
2	350.4
3	345.6
4	340.8

5	336.0
6	331.2
7	326.4
8	321.6
9	316.8
10	312.0
11	307.2
12	302.4
13	297.6
14	292.8
15	288.0
16	283.2
17	278.4
18	273.6
19	268.8
20	264.0
21	259.2
22	254.4
23	249.6
24	244.8
25	240.0
26	235.2
27	230.4
28	225.6
29	220.8
30	216.0

31	211.2
32	206.4
33	201.6
34	196.8
35	192.0
36	187.2
37	182.4
38	177.6
39	172.8
40	168.0
41	163.2
42	158.4
43	153.6
44	148.8
45	144.0
46	139.2
47	134.4
48	129.6
49	124.8
50	120.0
51	115.2
52	110.4
53	105.6
54	100.8
55	96.0
56	91.2

57	86.4
58	81.6
59	76.8
60	72.0
61	67.2
62	62.4
63	57.6
64	52.8
65	48.0
66	43.2
67	38.4
68	33.6
69	28.8
70	24.0
71	19.2
72	14.4
73	9.6
74	4.8
75	0.0

Orbital Plane 5:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds

Apogee	1275.0 km
Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	355.2
2	350.4
3	345.6
4	340.8
5	336.0
6	331.2
7	326.4
8	321.6
9	316.8
10	312.0
11	307.2
12	302.4
13	297.6
14	292.8
15	288.0
16	283.2
17	278.4
18	273.6
19	268.8
20	264.0

21	259.2
22	254.4
23	249.6
24	244.8
25	240.0
26	235.2
27	230.4
28	225.6
29	220.8
30	216.0
31	211.2
32	206.4
33	201.6
34	196.8
35	192.0
36	187.2
37	182.4
38	177.6
39	172.8
40	168.0
41	163.2
42	158.4
43	153.6
44	148.8
45	144.0
46	139.2

47	134.4
48	129.6
49	124.8
50	120.0
51	115.2
52	110.4
53	105.6
54	100.8
55	96.0
56	91.2
57	86.4
58	81.6
59	76.8
60	72.0
61	67.2
62	62.4
63	57.6
64	52.8
65	48.0
66	43.2
67	38.4
68	33.6
69	28.8
70	24.0
71	19.2
72	14.4

73	9.6
74	4.8
75	0.0

Orbital Plane 6:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	0.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5486.8 seconds
Apogee	345.6 km
Perigee	345.6 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	228.1

Orbital Plane 7:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	48.0 degrees
Right Ascension of Ascending Node	0.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5481.0 seconds
Apogee	340.8 km

Perigee	340.8 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	225.0

Orbital Plane 8:

Question	Response
Number of Satellites in Plane	1
Inclination Angle	42.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5475.0 seconds
Apogee	335.9 km
Perigee	335.9 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	229.2

Receiving Beams 1:

Question	Response
Beam ID	LUU1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	12.8 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

Receiving Beams 2:

Question	Response
Beam ID	LUU3
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	12.8 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

Receiving Beams 3:

Question	Response
Beam ID	LGU1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	14.3 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	LGU3
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	14.3 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	LTU1
Receive Beam Frequency	47200.0 MHz -47450.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-26.5 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	VUU1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	12.8 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

Receiving Beams 7:

Question	Response
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Beam ID	VUU3
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	12.8 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

Receiving Beams 8:

Question	Response
Beam ID	VGU1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	14.3 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	VGU3
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	14.3 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
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Beam ID	VTU1
Receive Beam Frequency	47200.0 MHz -47450.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-26.5 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	LUU2
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	12.8 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

**Receiving
Beams 12:**

Question	Response
Beam ID	LUU4
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	12.8 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

**Receiving
Beams 13:**

Question	Response
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Beam ID	LGU2
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	14.3 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	LGU4
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	14.3 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	LTU2
Receive Beam Frequency	47200.0 MHz -47450.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-26.5 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
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Beam ID	VUU2
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	12.8 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

Receiving Beams 17:

Question	Response
Beam ID	VUU4
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	12.8 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

**Receiving
Beams 18:**

Question	Response
Beam ID	VGU2
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	14.3 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
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Beam ID	VGU4
Receive Beam Frequency	50400.0 MHz -52400.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	14.3 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	VTU2
Receive Beam Frequency	47200.0 MHz -47450.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-26.5 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

Receiving Channels (140)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
VT28	10.0	47275.0	TT&C
VU11	1000.0	47700.0	Service Link
VU12	1000.0	48700.0	Service Link
VU13	1000.0	49700.0	Service Link
VU21	1000.0	47700.0	Service Link
VU22	1000.0	48700.0	Service Link
VU23	1000.0	49700.0	Service Link
VU31	1000.0	50900.0	Service Link
VU32	1000.0	51900.0	Service Link
VU41	1000.0	50900.0	Service Link
VU42	1000.0	51900.0	Service Link
VT2C	10.0	47315.0	TT&C
VT2B	10.0	47305.0	TT&C
VT2A	10.0	47295.0	TT&C
VT29	10.0	47285.0	TT&C
LT1G	10.0	47355.0	TT&C
LT1H	10.0	47365.0	TT&C
LT1I	10.0	47375.0	TT&C
LT1J	10.0	47385.0	TT&C
LT1K	10.0	47395.0	TT&C
LT1L	10.0	47405.0	TT&C
VT24	10.0	47235.0	TT&C
VT25	10.0	47245.0	TT&C
VT1F	10.0	47345.0	TT&C

VT1G	10.0	47355.0	TT&C
VT1H	10.0	47365.0	TT&C
VT2P	10.0	47445.0	TT&C
VT2O	10.0	47435.0	TT&C
VT2N	10.0	47425.0	TT&C
VT2M	10.0	47415.0	TT&C
VT2L	10.0	47405.0	TT&C
LT1F	10.0	47345.0	TT&C
LT1E	10.0	47335.0	TT&C
LT1D	10.0	47325.0	TT&C
LT1C	10.0	47315.0	TT&C
LT1B	10.0	47305.0	TT&C
LT1A	10.0	47295.0	TT&C
LT19	10.0	47285.0	TT&C
LT18	10.0	47275.0	TT&C
LT17	10.0	47265.0	TT&C
LT16	10.0	47255.0	TT&C
LT15	10.0	47245.0	TT&C
LT14	10.0	47235.0	TT&C
LT13	10.0	47225.0	TT&C
LT12	10.0	47215.0	TT&C
LT11	10.0	47205.0	TT&C
LG42	1000.0	51900.0	Service Link
LG41	1000.0	50900.0	Service Link
LG32	1000.0	51900.0	Service Link
LT1M	10.0	47415.0	TT&C

LT1N	10.0	47425.0	TT&C
LT1O	10.0	47435.0	TT&C
LT1P	10.0	47445.0	TT&C
LT21	10.0	47205.0	TT&C
LT22	10.0	47215.0	TT&C
LT23	10.0	47225.0	TT&C
LT24	10.0	47235.0	TT&C
LT25	10.0	47245.0	TT&C
LT26	10.0	47255.0	TT&C
LT27	10.0	47265.0	TT&C
LT28	10.0	47275.0	TT&C
LT29	10.0	47285.0	TT&C
LT2A	10.0	47295.0	TT&C
LT2B	10.0	47305.0	TT&C
LT2C	10.0	47315.0	TT&C
LT2D	10.0	47325.0	TT&C
LT2E	10.0	47335.0	TT&C
LT2F	10.0	47345.0	TT&C
LT2G	10.0	47355.0	TT&C
LT2H	10.0	47365.0	TT&C
LT2I	10.0	47375.0	TT&C
LT2J	10.0	47385.0	TT&C
LT2K	10.0	47395.0	TT&C
LT2L	10.0	47405.0	TT&C
LT2M	10.0	47415.0	TT&C
LT2N	10.0	47425.0	TT&C

LT20	10.0	47435.0	TT&C
LT2P	10.0	47445.0	TT&C
LU11	1000.0	47700.0	Service Link
LU12	1000.0	48700.0	Service Link
LU13	1000.0	49700.0	Service Link
LU21	1000.0	47700.0	Service Link
LU22	1000.0	48700.0	Service Link
LU23	1000.0	49700.0	Service Link
LU31	1000.0	50900.0	Service Link
LU32	1000.0	51900.0	Service Link
LU41	1000.0	50900.0	Service Link
LU42	1000.0	51900.0	Service Link
VG11	1000.0	47700.0	Service Link
VG12	1000.0	48700.0	Service Link
VG13	1000.0	49700.0	Service Link
VG21	1000.0	47700.0	Service Link
VG22	1000.0	48700.0	Service Link
VG23	1000.0	49700.0	Service Link
VG31	1000.0	50900.0	Service Link
VG32	1000.0	51900.0	Service Link
VG41	1000.0	50900.0	Service Link
VG42	1000.0	51900.0	Service Link
VT11	10.0	47205.0	TT&C
VT12	10.0	47215.0	TT&C
VT13	10.0	47225.0	TT&C
VT14	10.0	47235.0	TT&C

VT15	10.0	47245.0	TT&C
VT16	10.0	47255.0	TT&C
VT17	10.0	47265.0	TT&C
VT18	10.0	47275.0	TT&C
VT19	10.0	47285.0	TT&C
VT1A	10.0	47295.0	TT&C
VT1B	10.0	47305.0	TT&C
VT1C	10.0	47315.0	TT&C
VT1D	10.0	47325.0	TT&C
VT1E	10.0	47335.0	TT&C
VT1I	10.0	47375.0	TT&C
VT1J	10.0	47385.0	TT&C
VT1K	10.0	47395.0	TT&C
VT1L	10.0	47405.0	TT&C
VT1M	10.0	47415.0	TT&C
VT1N	10.0	47425.0	TT&C
VT1O	10.0	47435.0	TT&C
VT1P	10.0	47445.0	TT&C
VT21	10.0	47205.0	TT&C
VT22	10.0	47215.0	TT&C
LG11	1000.0	47700.0	Service Link
LG12	1000.0	48700.0	Service Link
LG13	1000.0	49700.0	Service Link
LG21	1000.0	47700.0	Service Link
LG22	1000.0	48700.0	Service Link
LG23	1000.0	49700.0	Service Link

LG31	1000.0	50900.0	Service Link
VT23	10.0	47225.0	TT&C
VT26	10.0	47255.0	TT&C
VT27	10.0	47265.0	TT&C
VT2K	10.0	47395.0	TT&C
VT2J	10.0	47385.0	TT&C
VT2I	10.0	47375.0	TT&C
VT2H	10.0	47365.0	TT&C
VT2G	10.0	47355.0	TT&C
VT2F	10.0	47345.0	TT&C
VT2E	10.0	47335.0	TT&C
VT2D	10.0	47325.0	TT&C

Transmitting Beams 1:

Question	Response
Beam ID	LUD1
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	-30.1 dBW/Hz
Max. Transmit EIRP	66.89 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-136.7	-135.5	-134.4	-133.3	-132.4	-105.7

Transmitting Beams 2:

Question	Response
Beam ID	LGD1
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz

Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	-30.1 dBW/Hz
Max. Transmit EIRP	66.89 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-136.7	-135.5	-134.4	-133.3	-132.4	-105.7

Transmitting Beams 3:

Question	Response
Beam ID	LTD1
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-53.0 dBW/Hz
Max. Transmit EIRP	30.98 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-134.6	-133.4	-132.3	-131.3	-130.3	-124.9

Transmitting Beams 4:

Question	Response
Beam ID	LBD1
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-53.0 dBW/Hz

Max. Transmit EIRP	30.98 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-134.6	-133.4	-132.3	-131.3	-130.3	-124.9

Transmitting Beams 5:

Question	Response
Beam ID	VUD1
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	-39.8 dBW/Hz
Max. Transmit EIRP	57.19 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-139.9	-137.8	-135.9	-134.3	-132.9	-105.7

Transmitting Beams 6:

Question	Response
Beam ID	VGD1
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	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	-39.8 dBW/Hz
Max. Transmit EIRP	57.19 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-139.9	-137.8	-135.9	-134.3	-132.9	-105.7

Transmitting Beams 7:

Question	Response
Beam ID	VTD1
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-62.8 dBW/Hz
Max. Transmit EIRP	21.18 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-138.0	-135.9	-134.0	-132.4	-131.0	-124.4

Transmitting Beams 8:

Question	Response
Beam ID	VBD1
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz

Beam Type	Fixed
Polarization	RHCP
Peak Gain	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	-62.8 dBW/Hz
Max. Transmit EIRP	21.18 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-138.0	-135.9	-134.0	-132.4	-131.0	-124.4

Transmitting Beams 9:

Question	Response
Beam ID	LUD2
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	-30.1 dBW/Hz
Max. Transmit EIRP	66.89 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-136.7	-135.5	-134.4	-133.3	-132.4	-105.7

Transmitting Beams 10:

Question	Response
Beam ID	LGD2
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	-30.1 dBW/Hz

Max. Transmit EIRP	66.89 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-136.7	-135.5	-134.4	-133.3	-132.4	-105.7

Transmitting Beams 11:

Question	Response
Beam ID	LTD2
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-53.0 dBW/Hz
Max. Transmit EIRP	30.98 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-134.6	-133.4	-132.3	-131.3	-130.3	-124.9

Transmitting Beams 12:

Question	Response
Beam ID	LBD2
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-53.0 dBW/Hz
Max. Transmit EIRP	30.98 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-134.6	-133.4	-132.3	-131.3	-130.3	-124.9

Transmitting Beams 13:

Question	Response
Beam ID	VUD2
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	-39.8 dBW/Hz
Max. Transmit EIRP	57.19 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-139.9	-137.8	-135.9	-134.3	-132.9	-105.7

Transmitting Beams 14:

Question	Response
Beam ID	VGD2
Transmit Beam Frequency	37500.0 MHz -42500.0 MHz

Beam Type	Steerable
Polarization	LHCP
Peak Gain	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	-39.8 dBW/Hz
Max. Transmit EIRP	57.19 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-139.9	-137.8	-135.9	-134.3	-132.9	-105.7

Transmitting Beams 15:

Question	Response
Beam ID	VTD2
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-62.8 dBW/Hz
Max. Transmit EIRP	21.18 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

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	-138.0	-135.9	-134.0	-132.4	-131.0	-124.4

Transmitting Beams 16:

Question	Response
Beam ID	VBD2
Transmit Beam Frequency	37500.0 MHz -37750.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	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	-62.8 dBW/Hz

Max. Transmit EIRP	21.18 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

	* 0° - 5° (dBW/m ²)	* 5° - 10° (dBW/m ²)	* 10° - 15° (dBW/m ²)	* 15° - 20° (dBW/m ²)	* 20° - 25° (dBW/m ²)	* 25° - 90° (dBW/m ²)
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
1.0 MHz	-138.0	-135.9	-134.0	-132.4	-131.0	-124.4

Transmitting Channels (240)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
VU23	1000.0	40000.0	Service Link
VU22	1000.0	39000.0	Service Link
VU21	1000.0	38000.0	Service Link
VU15	1000.0	42000.0	Service Link
VU14	1000.0	41000.0	Service Link
VU13	1000.0	40000.0	Service Link
VU12	1000.0	39000.0	Service Link
VU11	1000.0	38000.0	Service Link
LB1O	10.0	37735.0	Service Link
LB1M	10.0	37715.0	Service Link
VB2M	10.0	37715.0	Service Link
VB2L	10.0	37705.0	Service Link
LB1L	10.0	37705.0	Service Link
LB2F	10.0	37645.0	Service Link
VT1A	10.0	37595.0	TT&C
VT15	10.0	37545.0	TT&C
VT14	10.0	37535.0	TT&C
VT13	10.0	37525.0	TT&C
VT12	10.0	37515.0	TT&C
LU15	1000.0	42000.0	Service Link
LU14	1000.0	41000.0	Service Link
LU13	1000.0	40000.0	Service Link
LT2M	10.0	37715.0	TT&C
LT1O	10.0	37735.0	TT&C

LT1N	10.0	37725.0	TT&C
LT1M	10.0	37715.0	TT&C
LT1L	10.0	37705.0	TT&C
LT1K	10.0	37695.0	TT&C
LT1J	10.0	37685.0	TT&C
VB1L	10.0	37705.0	Service Link
VB1K	10.0	37695.0	Service Link
VB1J	10.0	37685.0	Service Link
VB1I	10.0	37675.0	Service Link
VB1H	10.0	37665.0	Service Link
VB1G	10.0	37655.0	Service Link
VB1F	10.0	37645.0	Service Link
LT2O	10.0	37735.0	TT&C
LB29	10.0	37585.0	Service Link
LB28	10.0	37575.0	Service Link
LB27	10.0	37565.0	Service Link
LB26	10.0	37555.0	Service Link
LB24	10.0	37535.0	Service Link
LB23	10.0	37525.0	Service Link
VB2I	10.0	37675.0	Service Link
VB2H	10.0	37665.0	Service Link
VB2G	10.0	37655.0	Service Link
VB2F	10.0	37645.0	Service Link
VT2P	10.0	37745.0	TT&C
VT2O	10.0	37735.0	TT&C
VT2N	10.0	37725.0	TT&C

VT2M	10.0	37715.0	TT&C
VT2L	10.0	37705.0	TT&C
VT2K	10.0	37695.0	TT&C
VT2J	10.0	37685.0	TT&C
VT2I	10.0	37675.0	TT&C
VT2H	10.0	37665.0	TT&C
VT2G	10.0	37655.0	TT&C
VT2F	10.0	37645.0	TT&C
VT2E	10.0	37635.0	TT&C
VT2D	10.0	37625.0	TT&C
VT2C	10.0	37615.0	TT&C
VT2B	10.0	37605.0	TT&C
VT2A	10.0	37595.0	TT&C
VT29	10.0	37585.0	TT&C
VT28	10.0	37575.0	TT&C
VT27	10.0	37565.0	TT&C
VT26	10.0	37555.0	TT&C
VT25	10.0	37545.0	TT&C
VT24	10.0	37535.0	TT&C
VT23	10.0	37525.0	TT&C
VT22	10.0	37515.0	TT&C
VT21	10.0	37505.0	TT&C
VT1P	10.0	37745.0	TT&C
VT1O	10.0	37735.0	TT&C
VT1N	10.0	37725.0	TT&C
LT23	10.0	37525.0	TT&C

LT22	10.0	37515.0	TT&C
LT21	10.0	37505.0	TT&C
LB22	10.0	37515.0	Service Link
LB21	10.0	37505.0	Service Link
VB2J	10.0	37685.0	Service Link
VG22	1000.0	39000.0	Service Link
VG21	1000.0	38000.0	Service Link
VG15	1000.0	42000.0	Service Link
VG14	1000.0	41000.0	Service Link
VG13	1000.0	40000.0	Service Link
VG12	1000.0	39000.0	Service Link
LU25	1000.0	42000.0	Service Link
LU23	1000.0	40000.0	Service Link
VB1C	10.0	37615.0	Service Link
VB1A	10.0	37595.0	Service Link
LB2G	10.0	37655.0	Service Link
LB1C	10.0	37615.0	Service Link
LB1B	10.0	37605.0	Service Link
LB25	10.0	37545.0	Service Link
VT1M	10.0	37715.0	TT&C
VT1L	10.0	37705.0	TT&C
VT1K	10.0	37695.0	TT&C
VT1J	10.0	37685.0	TT&C
VT1I	10.0	37675.0	TT&C
VT1H	10.0	37665.0	TT&C
VT1G	10.0	37655.0	TT&C

VT1F	10.0	37645.0	TT&C
VT1E	10.0	37635.0	TT&C
VT1D	10.0	37625.0	TT&C
VT1B	10.0	37605.0	TT&C
VT11	10.0	37505.0	TT&C
LT2D	10.0	37625.0	TT&C
LT2C	10.0	37615.0	TT&C
LT2B	10.0	37605.0	TT&C
LT2A	10.0	37595.0	TT&C
LT29	10.0	37585.0	TT&C
LT28	10.0	37575.0	TT&C
LT27	10.0	37565.0	TT&C
LT26	10.0	37555.0	TT&C
LT25	10.0	37545.0	TT&C
LT24	10.0	37535.0	TT&C
VB11	10.0	37505.0	Service Link
LB2P	10.0	37745.0	Service Link
LB2O	10.0	37735.0	Service Link
LB2N	10.0	37725.0	Service Link
LB2M	10.0	37715.0	Service Link
LU12	1000.0	39000.0	Service Link
LU11	1000.0	38000.0	Service Link
LT2P	10.0	37745.0	TT&C
LT2N	10.0	37725.0	TT&C
LT2J	10.0	37685.0	TT&C
LT2I	10.0	37675.0	TT&C

LT2H	10.0	37665.0	TT&C
LT2G	10.0	37655.0	TT&C
LT2F	10.0	37645.0	TT&C
LT2E	10.0	37635.0	TT&C
VB21	10.0	37505.0	Service Link
VB1P	10.0	37745.0	Service Link
VB1O	10.0	37735.0	Service Link
LB2L	10.0	37705.0	Service Link
VB1E	10.0	37635.0	Service Link
LB2I	10.0	37675.0	Service Link
LU22	1000.0	39000.0	Service Link
LB2E	10.0	37635.0	Service Link
LB2D	10.0	37625.0	Service Link
LB2C	10.0	37615.0	Service Link
LB2B	10.0	37605.0	Service Link
LT1P	10.0	37745.0	TT&C
LT1H	10.0	37665.0	TT&C
LT1G	10.0	37655.0	TT&C
LT1F	10.0	37645.0	TT&C
LT1E	10.0	37635.0	TT&C
LT1D	10.0	37625.0	TT&C
LT1C	10.0	37615.0	TT&C
LT1B	10.0	37605.0	TT&C
LT1A	10.0	37595.0	TT&C
LT19	10.0	37585.0	TT&C
LT18	10.0	37575.0	TT&C

LT17	10.0	37565.0	TT&C
LT16	10.0	37555.0	TT&C
LT15	10.0	37545.0	TT&C
LT14	10.0	37535.0	TT&C
LT13	10.0	37525.0	TT&C
LT12	10.0	37515.0	TT&C
LT11	10.0	37505.0	TT&C
LG25	1000.0	42000.0	Service Link
LG24	1000.0	41000.0	Service Link
LG23	1000.0	40000.0	Service Link
LG22	1000.0	39000.0	Service Link
LG21	1000.0	38000.0	Service Link
LG15	1000.0	42000.0	Service Link
LG14	1000.0	41000.0	Service Link
LG13	1000.0	40000.0	Service Link
LG12	1000.0	39000.0	Service Link
LG11	1000.0	38000.0	Service Link
VB1M	10.0	37715.0	Service Link
LB1K	10.0	37695.0	Service Link
LB1J	10.0	37685.0	Service Link
LB1I	10.0	37675.0	Service Link
LB1H	10.0	37665.0	Service Link
LB1G	10.0	37655.0	Service Link
LB1F	10.0	37645.0	Service Link
LB1E	10.0	37635.0	Service Link
LB1D	10.0	37625.0	Service Link

LB19	10.0	37585.0	Service Link
LB18	10.0	37575.0	Service Link
LB17	10.0	37565.0	Service Link
LB16	10.0	37555.0	Service Link
LB15	10.0	37545.0	Service Link
LB14	10.0	37535.0	Service Link
LB13	10.0	37525.0	Service Link
LB12	10.0	37515.0	Service Link
LB11	10.0	37505.0	Service Link
LB1P	10.0	37745.0	Service Link
LB1N	10.0	37725.0	Service Link
VB1D	10.0	37625.0	Service Link
VB1B	10.0	37605.0	Service Link
VB19	10.0	37585.0	Service Link
VB18	10.0	37575.0	Service Link
VB17	10.0	37565.0	Service Link
VB16	10.0	37555.0	Service Link
VB15	10.0	37545.0	Service Link
VB14	10.0	37535.0	Service Link
VB13	10.0	37525.0	Service Link
VB12	10.0	37515.0	Service Link
VT1C	10.0	37615.0	TT&C
LU21	1000.0	38000.0	Service Link
LT2L	10.0	37705.0	TT&C
LT2K	10.0	37695.0	TT&C
LB1A	10.0	37595.0	Service Link

VB27	10.0	37565.0	Service Link
VB2P	10.0	37745.0	Service Link
VB2O	10.0	37735.0	Service Link
VB2N	10.0	37725.0	Service Link
VB2K	10.0	37695.0	Service Link
VT19	10.0	37585.0	TT&C
VT18	10.0	37575.0	TT&C
VT17	10.0	37565.0	TT&C
VT16	10.0	37555.0	TT&C
LT1I	10.0	37675.0	TT&C
VB26	10.0	37555.0	Service Link
VB25	10.0	37545.0	Service Link
VB24	10.0	37535.0	Service Link
VB23	10.0	37525.0	Service Link
VB22	10.0	37515.0	Service Link
VB1N	10.0	37725.0	Service Link
VU25	1000.0	42000.0	Service Link
VU24	1000.0	41000.0	Service Link
VB2E	10.0	37635.0	Service Link
VB2D	10.0	37625.0	Service Link
VB2C	10.0	37615.0	Service Link
VB2B	10.0	37605.0	Service Link
VB2A	10.0	37595.0	Service Link
VB29	10.0	37585.0	Service Link
VB28	10.0	37575.0	Service Link
LB2J	10.0	37685.0	Service Link

LB2H	10.0	37665.0	Service Link
LB2A	10.0	37595.0	Service Link
VG25	1000.0	42000.0	Service Link
VG24	1000.0	41000.0	Service Link
VG23	1000.0	40000.0	Service Link
LB2K	10.0	37695.0	Service Link
VG11	1000.0	38000.0	Service Link
LU24	1000.0	41000.0	Service Link

Certification Questions

Question	Response
<p>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?</p>	<p>Yes</p>
<p>Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?</p>	<p>Yes</p>
<p>Are the cessation of emissions requirements of 25.207 met?</p>	<p>Yes</p>
<p>Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?</p>	<p>No</p>
<p>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?</p>	<p>N/A</p>
<p>Are the applicable full-frequency-reuse requirements of 25.210 met?</p>	<p>Yes</p>
<p>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)?</p>	

Attachments

File Name	Beam	Field	Attachment Type	Description
<u>technical_parameters.mdb</u>		NGSO Antenna Gain Data	GIMS file (*.mdb)	Includes complete constellation technical parameters.
<u>MDB_README.txt</u>		NGSO Antenna Gain Data	Text file (*.txt)	Documentation for attached technical parameters MDB file.