



312 File Number: **SATMOD2021110400148**

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## Filing Description

Question	Response
Description	The Boeing Company requests modification of its license to launch and operate a non-geostationary satellite orbit ("NGSO") fixed satellite service ("FSS") system operating in V-band

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## Satellite Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	V-band Additional Satellites
Estimated Lifetime of Satellite(s) From Date of Launch	10 Years
Will the space station(s) operate on a Common Carrier basis?	No

## Operating Frequency Bands (7)

Nature of service	Description	Frequency Band (s)	Mode Type
<b>Other Satellite Service (please specify)</b>	Inter-Satellite Service	68000.0 MHz -71000.0 MHz	Transmit
<b>Other Satellite Service (please specify)</b>	Inter-Satellite Service	68000.0 MHz -71000.0 MHz	Receive
<b>Other Satellite Service (please specify)</b>	Inter-Satellite Service	65000.0 MHz -68000.0 MHz	Receive
<b>Other Satellite Service (please specify)</b>	Inter-Satellite Service	65000.0 MHz -68000.0 MHz	Transmit
<b>Fixed-Satellite Service</b>		50400.0 MHz -51400.0 MHz	Receive
<b>Fixed-Satellite Service</b>		47200.0 MHz -50200.0 MHz	Receive
<b>Fixed-Satellite Service</b>		37500.0 MHz -42000.0 MHz	Transmit

**Orbital  
Information For  
Non-  
Geostationary  
Satellites**

Question	Response
Total Number of Satellites in the active constellation	204
Orbit Epoch Date	11/04/2021
Celestial Reference Body	Earth

## Orbital Plane 1:

Question	Response
Number of Satellites in Plane	28
Inclination Angle	48.8 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6397.1 seconds
Apogee	1070.0 km
Perigee	1070.0 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	306.0
2	333.0
3	279.0
4	243.0
5	189.0
6	153.0
7	99.0
8	63.0
9	9.0
10	342.0
11	324.0
12	0.0
13	18.0

14	36.0
15	54.0
16	72.0
17	288.0
18	270.0
19	252.0
20	234.0
21	216.0
22	198.0
23	180.0
24	90.0
25	108.0
26	126.0
27	144.0
28	162.0

## Orbital Plane 2:

Question	Response
Number of Satellites in Plane	26
Inclination Angle	79.6 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6416.4 seconds
Apogee	1085.0 km
Perigee	1085.0 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	300.0
2	320.0
3	340.0
4	10.0
5	70.0
6	110.0
7	150.0
8	190.0
9	250.0
10	290.0
11	330.0
12	280.0
13	260.0
14	240.0
15	220.0
16	200.0
17	180.0
18	160.0
19	140.0
20	120.0
21	100.0
22	80.0
23	60.0
24	40.0

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25	20.0
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26	0.0
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### Orbital Plane 3:

Question	Response
Number of Satellites in Plane	13
Inclination Angle	0.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	18978.7 seconds
Apogee	9000.0 km
Perigee	9000.0 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	332.3076
2	304.6153
3	276.923
4	249.2307
5	221.5384
6	193.8461
7	166.1538
8	138.4615
9	110.7692



<b>10</b>	83.0769
<b>11</b>	55.3846
<b>12</b>	27.6923
<b>13</b>	0.0

## Orbital Plane 4:

Question	Response
Number of Satellites in Plane	8
Inclination Angle	41.2 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	20859.6 seconds
Apogee	10000.0 km
Perigee	10000.0 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
<b>1</b>	315.0
<b>2</b>	270.0
<b>3</b>	225.0
<b>4</b>	180.0
<b>5</b>	135.0
<b>6</b>	90.0
<b>7</b>	45.0

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8	0.0
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### Orbital Plane 5:

Question	Response
Number of Satellites in Plane	34
Inclination Angle	37.9 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5913.8 seconds
Apogee	690.0 km
Perigee	690.0 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	90.0
2	308.5714
3	231.4285
4	167.1428
5	135.0
6	77.1429
7	70.7143
8	25.7143
9	38.5714
10	51.4286
11	64.2857

12	128.5714
13	141.4285
14	334.2857
15	321.4285
16	295.7142
17	250.7142
18	186.4285
19	115.7142
20	102.8571
21	347.1428
22	154.2857
23	180.0
24	192.8571
25	205.7142
26	218.5714
27	244.2857
28	257.1428
29	270.0
30	282.8571
31	12.8571
32	315.0
33	6.4286
34	0.0

**Orbital Plane 6:**

Question	Response
Number of Satellites in Plane	35

Inclination Angle	54.9 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5901.2 seconds
Apogee	680.0 km
Perigee	680.0 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	297.931
2	285.5172
3	273.1034
4	260.6896
5	248.2758
6	235.862
7	223.4482
8	211.0344
9	198.6206
10	186.2068
11	173.7931
12	161.3793
13	148.9655
14	136.5517
15	124.1379
16	111.7241

17	99.3103
18	86.8966
19	74.4828
20	62.069
21	0.0
22	12.4138
23	24.8276
24	37.2414
25	49.6552
26	6.2069
27	68.2759
28	130.3448
29	310.3448
30	322.7586
31	335.1724
32	347.5862
33	316.5517
34	254.4827
35	192.4137

### Orbital Plane 7:

Question	Response
Number of Satellites in Plane	30
Inclination Angle	82.9 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	5888.7 seconds

Apogee	670.0 km
Perigee	670.0 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	120.0
2	132.0
3	144.0
4	156.0
5	168.0
6	180.0
7	192.0
8	204.0
9	216.0
10	228.0
11	240.0
12	252.0
13	264.0
14	276.0
15	288.0
16	300.0
17	312.0
18	324.0
19	336.0
20	348.0

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

**Orbital Plane 8:**

<b>Question</b>	<b>Response</b>
Number of Satellites in Plane	30
Inclination Angle	37.2 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6358.4 seconds
Apogee	1040.0 km
Perigee	1040.0 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**

<b>Satellite Number</b>	<b>Mean Anomaly (degrees) at the Orbit Epoch Date</b>
<b>1</b>	300.0
<b>2</b>	334.2857

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<b>3</b>	17.1429
<b>4</b>	0.0
<b>5</b>	34.2857
<b>6</b>	51.4286
<b>7</b>	68.5714
<b>8</b>	85.7143
<b>9</b>	102.8571
<b>10</b>	120.0
<b>11</b>	137.1428
<b>12</b>	154.2857
<b>13</b>	171.4285
<b>14</b>	188.5714
<b>15</b>	205.7142
<b>16</b>	222.8571
<b>17</b>	240.0
<b>18</b>	257.1428
<b>19</b>	274.2857
<b>20</b>	291.4285
<b>21</b>	308.5714
<b>22</b>	325.7142
<b>23</b>	342.8571
<b>24</b>	8.5714
<b>25</b>	60.0
<b>26</b>	94.2857
<b>27</b>	128.5714
<b>28</b>	180.0

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<b>29</b>	214.2857
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<b>30</b>	248.5714
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## Receiving Beams 1:

Question	Response
Beam ID	L1G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.3 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

## Receiving Beams 2:

Question	Response
Beam ID	L4US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.54 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 3:**

Question	Response
Beam ID	L4TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 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	Visible Earth above 5 deg Elevation Angle

## Receiving Beams 4:

Question	Response
Beam ID	L5G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 deg Elevation Angle

## Receiving Beams 5:

Question	Response
Beam ID	L5G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 6:**

Question	Response
Beam ID	L5US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 7:**

Question	Response
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Beam ID	L5TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 8:**

Question	Response
Beam ID	L7G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	48.91 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

G/T at Max. Gain Point	18.21 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 9:**

Question	Response
Beam ID	L7G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	48.91 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.21 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 10:**

Question	Response
Beam ID	L7US

Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	48.91 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.21 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 11:**

Question	Response
Beam ID	L7TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	13.55 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-17.2 dB/K



Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

**Receiving  
Beams 12:**

Question	Response
Beam ID	L8G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

**Receiving  
Beams 13:**

Question	Response
Beam ID	R1G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.3 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving Beams 14:**

Question	Response
Beam ID	R1G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.3 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>

Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving Beams 15:**

Question	Response
Beam ID	R1US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.3 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving Beams 16:**

Question	Response
Beam ID	R1TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable

Polarization	RHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 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	Visible Earth above 5 degree elevation angle

**Receiving Beams 17:**

Question	Response
Beam ID	R2G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 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	Visible Earth above 5 degree elevation angle

**Receiving Beams 18:**

Question	Response
Beam ID	R2G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving Beams 19:**

Question	Response
Beam ID	R2US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP

Peak Gain	37.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 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	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 20:**

Question	Response
Beam ID	R2TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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## Receiving Beams 21:

Question	Response
Beam ID	R3G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	38.08 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 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	Visible Earth above 5 degree elevation angle

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## Receiving Beams 22:

Question	Response
Beam ID	R3G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	38.08 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 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	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 23:**

Question	Response
Beam ID	R3US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	38.08 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C



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Service Area Description	Visible Earth above 5 degree elevation angle
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### Receiving Beams 24:

Question	Response
Beam ID	R3TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

---

### Receiving Beams 25:

Question	Response
Beam ID	R4G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.54 dBi

---

Antenna Pointing Error	0.0 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 26:**

Question	Response
Beam ID	R4G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.54 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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### Receiving Beams 27:

Question	Response
Beam ID	R4US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.54 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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### Receiving Beams 28:

Question	Response
Beam ID	R4TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 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	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 29:**

Question	Response
Beam ID	R5G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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### Receiving Beams 30:

Question	Response
Beam ID	R5G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 degree elevation angle

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### Receiving Beams 31:

Question	Response
Beam ID	R5US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 32:**

Question	Response
Beam ID	R5TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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**Receiving  
Beams 33:**

Question	Response
Beam ID	R6G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 degree elevation angle

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**Receiving  
Beams 34:**

Question	Response
Beam ID	R6G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 35:**

Question	Response
Beam ID	R6US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C



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Service Area Description	Visible Earth above 5 degree elevation angle
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**Receiving  
Beams 36:**

Question	Response
Beam ID	R6TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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**Receiving  
Beams 37:**

Question	Response
Beam ID	R7G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	48.91 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.21 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	Visible Earth above 5 degree elevation angle

**Receiving Beams 38:**

Question	Response
Beam ID	R7G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	48.91 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.21 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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**Receiving  
Beams 39:**

Question	Response
Beam ID	R7US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	48.91 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.21 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	Visible Earth above 5 degree elevation angle

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**Receiving  
Beams 40:**

Question	Response
Beam ID	R7TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	13.55 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-17.2 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

## Receiving Beams 41:

Question	Response
Beam ID	R8G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	49.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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## Receiving Beams 42:

Question	Response
Beam ID	R8G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	49.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 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	Visible Earth above 5 degree elevation angle

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## Receiving Beams 43:

Question	Response
Beam ID	R8US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	49.69 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 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	Visible Earth above 5 degree elevation angle

**Receiving Beams 44:**

Question	Response
Beam ID	R8TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	13.98 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-16.7 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 degree elevation angle
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### Receiving Beams 45:

Question	Response
Beam ID	L1G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.3 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

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### Receiving Beams 46:

Question	Response
Beam ID	L1US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.3 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.6 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 47:**

Question	Response
Beam ID	L2G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C



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Service Area Description	Visible Earth above 5 deg Elevation Angle
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**Receiving  
Beams 48:**

<b>Question</b>	<b>Response</b>
Beam ID	L2G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

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**Receiving  
Beams 49:**

<b>Question</b>	<b>Response</b>
Beam ID	L2US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.69 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	6.99 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	Visible Earth above 5 deg Elevation Angle

**Receiving  
Beams 50:**

Question	Response
Beam ID	L2TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 deg Elevation Angle
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## Receiving Beams 51:

Question	Response
Beam ID	L1TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

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## Receiving Beams 52:

Question	Response
Beam ID	L3G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	38.08 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 53:**

Question	Response
Beam ID	L3G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	38.08 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 deg Elevation Angle
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**Receiving  
Beams 54:**

Question	Response
Beam ID	L3US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	38.08 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	7.38 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

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**Receiving  
Beams 55:**

Question	Response
Beam ID	L3TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi

---

Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-23.2 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 56:**

Question	Response
Beam ID	L4G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.54 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 deg Elevation Angle
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**Receiving  
Beams 57:**

Question	Response
Beam ID	L4G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.54 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	8.84 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 deg Elevation Angle

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**Receiving  
Beams 58:**

Question	Response
Beam ID	L8G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.69 dBi

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Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 59:**

Question	Response
Beam ID	L8US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.69 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	18.99 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C



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Service Area Description	Visible Earth above 5 deg Elevation Angle
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### Receiving Beams 60:

Question	Response
Beam ID	L8TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	13.98 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-16.7 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	Visible Earth above 5 deg Elevation Angle

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### Receiving Beams 61:

Question	Response
Beam ID	L6G1
Receive Beam Frequency	47200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi

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Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 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	Visible Earth above 5 deg Elevation Angle

**Receiving Beams 62:**

Question	Response
Beam ID	L6G2
Receive Beam Frequency	50400.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C

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Service Area Description	Visible Earth above 5 deg Elevation Angle
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### Receiving Beams 63:

Question	Response
Beam ID	L6US
Receive Beam Frequency	48200.0 MHz -50200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.96 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.26 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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### Receiving Beams 64:

Question	Response
Beam ID	L6TM
Receive Beam Frequency	51150.0 MHz -51400.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.75 dBi

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Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-22.9 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Receiving  
Beams 65:**

Question	Response
Beam ID	XRL1
Receive Beam Frequency	65000.0 MHz -68000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	20.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C

Service Area Description	All visible satellites within the constellation
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**Receiving Beams 66:**

Question	Response
Beam ID	XRR1
Receive Beam Frequency	65000.0 MHz -68000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	20.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	All visible satellites within the constellation

**Receiving Beams 67:**

Question	Response
Beam ID	XRL2
Receive Beam Frequency	68000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	48.6 dBi

Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	20.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	All visible satellites within the constellation

**Receiving  
Beams 68:**

Question	Response
Beam ID	XRR2
Receive Beam Frequency	68000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	20.6 dB/K
Min. Saturation Flux Density	-0.1 dBW/m <sup>2</sup>
Max. Saturation Flux Density	0.0 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C

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Service Area Description

All visible satellites within the constellation

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**Receiving Channels (9)**

<b>Channel ID</b>	<b>Channel Bandwidth (MHz)</b>	<b>Center Frequency s (MHz)</b>	<b>Feeder Link, Service Link or TT&amp;C</b>
V2S1	2000.0	49200.0	Service Link
V2G4	1000.0	50900.0	Feeder Link
V2G3	1000.0	50900.0	Feeder Link
V2X2	3000.0	69500.0	Service Link
V2G1	3000.0	48700.0	Feeder Link
V2G2	3000.0	48700.0	Feeder Link
V2S2	2000.0	49200.0	Service Link
V2TC	250.0	51275.0	TT&C
V2X1	3000.0	66500.0	Service Link



## Transmitting Beams 1:

Question	Response
Beam ID	L1TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	31.39 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

## Transmitting Beams 2:

Question	Response
Beam ID	L2GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.62 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	61.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 3:

Question	Response
Beam ID	L2UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.62 dBi
Antenna Pointing Error	0.03 degrees

Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	61.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 4:

Question	Response
Beam ID	L2TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz

Max. Transmit EIRP	31.11 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 5:

Question	Response
Beam ID	L3GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	38.02 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	61.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.9	-105.0	-105.0

### Transmitting Beams 6:

Question	Response
Beam ID	L3UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	38.02 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	61.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

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

<b>1.0</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0
<b>MHz</b>						

**Transmitting Beams 7:**

Question	Response
Beam ID	L3TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	30.81 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

**Max. Power Flux Density**

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0
<b>MHz</b>						

**Transmitting Beams 8:**

Question	Response
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Beam ID	L4GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.48 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	64.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 9:

Question	Response
Beam ID	L4UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP

Peak Gain	39.48 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	64.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
*	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 10:

Question	Response
Beam ID	L4TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	



Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	33.17 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 11:

Question	Response
Beam ID	L5GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C

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Service Area Description

Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

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### Transmitting Beams 12:

Question	Response
Beam ID	L5UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

## Transmitting Beams 13:

Question	Response
Beam ID	L5TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	33.05 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

## Transmitting Beams 14:

Question	Response
Beam ID	L7GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.59 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	78.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

## Transmitting Beams 15:

Question	Response
Beam ID	L7UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	48.83 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	78.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
*	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 16:

Question	Response
Beam ID	L7TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	13.55 dBi
Antenna Pointing Error	0.03 degrees

Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	43.42 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 17:

Question	Response
Beam ID	L8GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.59 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz

Max. Transmit EIRP	79.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 18:

Question	Response
Beam ID	L8UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	49.59 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	79.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 19:

Question	Response
Beam ID	L8TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	13.98 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	43.99 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

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



<b>1.0</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0
<b>MHz</b>						

## Transmitting Beams 20:

Question	Response
Beam ID	R1GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.24 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.49 dBW/Hz
Max. Transmit EIRP	61.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0
<b>MHz</b>						

## Transmitting Beams 21:

Question	Response
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Beam ID	R1UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.2 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.4 dBW/Hz
Max. Transmit EIRP	61.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 22:

Question	Response
Beam ID	R1TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP

Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.49 dBW/Hz
Max. Transmit EIRP	31.39 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):
<b>1.0 MHz</b>	-118.0	-115.0	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 23:

Question	Response
Beam ID	R2GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.62 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.36 dBW/Hz
Max. Transmit EIRP	61.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 24:

Question	Response
Beam ID	R2UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.62 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.36 dBW/Hz
Max. Transmit EIRP	61.2 dBW
Co- or Cross Polar Mode	C

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Service Area Description

Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0
<b>MHz</b>						

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### Transmitting Beams 25:

Question	Response
Beam ID	R2TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.36 dBW/Hz
Max. Transmit EIRP	31.11 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

## Transmitting Beams 26:

Question	Response
Beam ID	R3GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	38.02 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.23 dBW/Hz
Max. Transmit EIRP	61.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

## Transmitting Beams 27:

Question	Response
Beam ID	R3UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	38.02 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.23 dBW/Hz
Max. Transmit EIRP	61.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

## Transmitting Beams 28:

Question	Response
Beam ID	R3TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.53 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-37.23 dBW/Hz
Max. Transmit EIRP	30.81 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 29:

Question	Response
Beam ID	R4GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.48 dBi
Antenna Pointing Error	0.03 degrees



Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.67 dBW/Hz
Max. Transmit EIRP	64.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.0	-105.0	-105.0

### Transmitting Beams 30:

Question	Response
Beam ID	R4UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.48 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.67 dBW/Hz

Max. Transmit EIRP	64.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 31:

Question	Response
Beam ID	R4TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.67 dBW/Hz
Max. Transmit EIRP	33.17 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 32:

Question	Response
Beam ID	R5GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.5 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

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

<b>1.0</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 33:

Question	Response
Beam ID	R5UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.5 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 34:

Question	Response
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Beam ID	R5TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.5 dBW/Hz
Max. Transmit EIRP	33.05 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 35:

Question	Response
Beam ID	R6GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP

Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.3 dBW/Hz
Max. Transmit EIRP	65.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
*	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 36:

Question	Response
Beam ID	R6UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.3 dBW/Hz
Max. Transmit EIRP	65.3 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 37:

Question	Response
Beam ID	R6TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.3 dBW/Hz
Max. Transmit EIRP	33.15 dBW
Co- or Cross Polar Mode	C

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Service Area Description

Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

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### Transmitting Beams 38:

Question	Response
Beam ID	R7GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	48.83 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.92 dBW/Hz
Max. Transmit EIRP	78.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

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### Max. Power Flux Density



	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

## Transmitting Beams 39:

Question	Response
Beam ID	R7UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	48.83 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.92 dBW/Hz
Max. Transmit EIRP	78.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

## Transmitting Beams 40:

Question	Response
Beam ID	R7TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	13.55 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.92 dBW/Hz
Max. Transmit EIRP	43.42 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.8	-105.0

## Transmitting Beams 41:

Question	Response
Beam ID	R8GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	49.59 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.01 dBW/Hz
Max. Transmit EIRP	79.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 42:

Question	Response
Beam ID	R8UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	49.59 dBi
Antenna Pointing Error	0.03 degrees

Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.01 dBW/Hz
Max. Transmit EIRP	79.6 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 43:

Question	Response
Beam ID	R8TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	13.98 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-14.01 dBW/Hz

Max. Transmit EIRP	43.99 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 44:

Question	Response
Beam ID	L1GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.24 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	61.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0

### Transmitting Beams 45:

Question	Response
Beam ID	L1UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.24 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-0.336 dBW/Hz
Max. Transmit EIRP	61.1 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

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

<b>1.0</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 46:

Question	Response
Beam ID	L6GW
Transmit Beam Frequency	37500.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
*	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0</b>	-120.0	-116.3	-112.5	-108.8	-105.0	-105.0
<b>MHz</b>						

### Transmitting Beams 47:

Question	Response
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Beam ID	L6UR
Transmit Beam Frequency	40000.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	39.9 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	65.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-115.0	-112.5	-110.0	-107.5	-105.0	-105.0

### Transmitting Beams 48:

Question	Response
Beam ID	L6TC
Transmit Beam Frequency	41750.0 MHz -42000.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP



Peak Gain	7.75 dBi
Antenna Pointing Error	0.03 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.6 dBW/Hz
Max. Transmit EIRP	33.15 dBW
Co- or Cross Polar Mode	C
Service Area Description	Visible Earth above 5 degree elevation angle

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
* BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-115.5	-113.0	-110.5	-108.0	-105.0

### Transmitting Beams 49:

Question	Response
Beam ID	XTL1
Transmit Beam Frequency	65000.0 MHz -68000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	All visible satellites within the constellation

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):	(dBW/m <sup>2</sup> /BW):
<b>1.0 MHz</b>	-133.0	-129.0	-127.0	-125.0	-125.0	-125.0

### Transmitting Beams 50:

Question	Response
Beam ID	XTL2
Transmit Beam Frequency	68000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C

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Service Area Description

All visible satellites within the constellation

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )	(dbW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-133.0	-129.0	-127.0	-125.0	-125.0	-125.0

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### Transmitting Beams 51:

Question	Response
Beam ID	XTR1
Transmit Beam Frequency	65000.0 MHz -68000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	All visible satellites within the constellation

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### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-133.0	-129.0	-127.0	-125.0	-125.0	-125.0

## Transmitting Beams 52:

Question	Response
Beam ID	XTR2
Transmit Beam Frequency	68000.0 MHz -71000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	48.6 dBi
Antenna Pointing Error	0.07 degrees
Antenna Rotational Error	0.0 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-23.6 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	All visible satellites within the constellation

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-133.0	-129.0	-127.0	-125.0	-125.0	-125.0

## Transmitting Channels (6)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
V2XA	3000.0	66500.0	Service Link
V2TT	250.0	41875.0	TT&C
V2SL	2000.0	41000.0	Service Link
V2LP	2500.0	38750.0	Feeder Link
V2HP	2000.0	41000.0	Feeder Link
V2XB	3000.0	69500.0	Service Link

## Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	Yes
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?	N/A
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

## Attachments

File Name	Beam	Field	Attachment Type	De
<a href="#">L1G2.gxt</a>	L1G2	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L1TM.gxt</a>	L1TM	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L4G1.gxt</a>	L4G1	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L1US.gxt</a>	L1US	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L2G1.gxt</a>	L2G1	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L4TC.gxt</a>	L4TC	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L1G1.gxt</a>	L1G1	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L2G2.gxt</a>	L2G2	NGSO Antenna Gain Data	GXT file (*.gxt)	
<a href="#">L2TM.gxt</a>	L2TM	NGSO Antenna Gain Data	GXT file (*.gxt)	

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<u>L2US.gxt</u>	L2US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L3G1.gxt</u>	L3G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L3G2.gxt</u>	L3G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L3TM.gxt</u>	L3TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L3US.gxt</u>	L3US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L4G2.gxt</u>	L4G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L4TM.gxt</u>	L4TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L4US.gxt</u>	L4US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L5G1.gxt</u>	L5G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L5G2.gxt</u>	L5G2	NGSO Antenna Gain Data	GXT file (*.gxt)

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<u>L5US.gxt</u>	L5US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L5TM.gxt</u>	L5TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6G1.gxt</u>	L6G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6G2.gxt</u>	L6G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6TM.gxt</u>	L6TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6US.gxt</u>	L6US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L7G1.gxt</u>	L7G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L7G2.gxt</u>	L7G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L7G2.gxt</u>	L7G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L7TM.gxt</u>	L7TM	NGSO Antenna Gain Data	GXT file (*. gxt)

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<u>L7US.gxt</u>	L7US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L8G1.gxt</u>	L8G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L8G2.gxt</u>	L8G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L8TM.gxt</u>	L8TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L8US.gxt</u>	L8US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R1G1.gxt</u>	R1G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R1G2.gxt</u>	R1G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R1GW.gxt</u>	R1GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R1TC.gxt</u>	R1TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R1TM.gxt</u>	R1TM	NGSO Antenna Gain Data	GXT file (*.gxt)

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<u>R1UR.gxt</u>	R1UR	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2G2.gxt</u>	R2G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R1US.gxt</u>	R1US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2G1.gxt</u>	R2G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2GW.gxt</u>	R2GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2TC.gxt</u>	R2TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2TM.gxt</u>	R2TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2UR.gxt</u>	R2UR	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R2US.gxt</u>	R2US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3G1.gxt</u>	R3G1	NGSO Antenna Gain Data	GXT file (*. gxt)

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<u>R3G2.gxt</u>	R3G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3GW.gxt</u>	R3GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3TC.gxt</u>	R3TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3TM.gxt</u>	R3TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3UR.gxt</u>	R3UR	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R3US.gxt</u>	R3US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R4G1.gxt</u>	R4G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R4G2.gxt</u>	R4G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R4GW.gxt</u>	R4GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R4TC.gxt</u>	R4TC	NGSO Antenna Gain Data	GXT file (*. gxt)

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<u>R4TM.gxt</u>	R4TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R4UR.gxt</u>	R4UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R4US.gxt</u>	R4US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5G1.gxt</u>	R5G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5G2.gxt</u>	R5G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5GW.gxt</u>	R5GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5TC.gxt</u>	R5TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5TM.gxt</u>	R5TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5UR.gxt</u>	R5UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R5US.gxt</u>	R5US	NGSO Antenna Gain Data	GXT file (*.gxt)

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<u>R6G1.gxt</u>	R6G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6G2.gxt</u>	R6G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6GW.gxt</u>	R6GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6TC.gxt</u>	R6TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6TM.gxt</u>	R6TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6UR.gxt</u>	R6UR	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R6US.gxt</u>	R6US	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R7G1.gxt</u>	R7G1	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R7G2.gxt</u>	R7G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>R7GW.gxt</u>	R7GW	NGSO Antenna Gain Data	GXT file (*. gxt)

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<u>R7TC.gxt</u>	R7TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R7TM.gxt</u>	R7TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R7UR.gxt</u>	R7UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R7US.gxt</u>	R7US	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8G1.gxt</u>	R8G1	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8G2.gxt</u>	R8G2	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8GW.gxt</u>	R8GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8TC.gxt</u>	R8TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8TM.gxt</u>	R8TM	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>R8UR.gxt</u>	R8UR	NGSO Antenna Gain Data	GXT file (*.gxt)

<a href="#"><u>R8US.gxt</u></a>	R8US	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L2UR.gxt</u></a>	L2UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L1UR.gxt</u></a>	L1UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L3UR.gxt</u></a>	L3UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L4UR.gxt</u></a>	L4UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L5UR.gxt</u></a>	L5UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L6UR.gxt</u></a>	L6UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L7UR.gxt</u></a>	L7UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>L8UR.gxt</u></a>	L8UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XRL1	NGSO Antenna Gain Data	PDF file (*.pdf)



<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XRL2	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XRR1	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XRR2	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XTL1	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XTL2	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XTR1	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>Attachment to Rcv and Tx Beam Section of Schedule S ISL.pdf</u></a>	XTR2	NGSO Antenna Gain Data	PDF file (*.pdf)
<a href="#"><u>L5UR.gxt</u></a>	L5UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<a href="#"><u>Schedule S Complete Orbital Information.txt</u></a>		NGSO Antenna Gain Data	Text file (*.txt)
<a href="#"><u>L1TC.gxt</u></a>	L1TC	NGSO Antenna Gain Data	GXT file (*.gxt)

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<u>L2TC.gxt</u>	L2TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L3TC.gxt</u>	L3TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6TC.gxt</u>	L6TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L8TC.gxt</u>	L7TC	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6G2.gxt</u>	L6G2	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L6TM.gxt</u>	L6TM	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L1GW.gxt</u>	L1GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L2GW.gxt</u>	L2GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L3GW.gxt</u>	L3GW	NGSO Antenna Gain Data	GXT file (*. gxt)
<u>L4GW.gxt</u>	L4GW	NGSO Antenna Gain Data	GXT file (*. gxt)

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<u>L5GW.gxt</u>	L5GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L5UR.gxt</u>	L5UR	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L5TC.gxt</u>	L5TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L6GW.gxt</u>	L6GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L7GW.gxt</u>	L7GW	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L7TC.gxt</u>	L7TC	NGSO Antenna Gain Data	GXT file (*.gxt)
<u>L8GW.gxt</u>	L8GW	NGSO Antenna Gain Data	GXT file (*.gxt)

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