

File Number: **DRAFT-SAT-LOA-20260629-00262**

Call Sign:

S1. Satellite Information

a. Space Station or Satellite Network Name	b. Orbit Type	c. Estimated Operational Lifetime of Space Station(s) From Date of Launch (yrs)	d. Will the space station(s) operate on a Common Carrier basis?	e. Application Description
Theia Satellite System	Non-Geostationary (NGSO)	12	No	Application to Construct, Launch, and Operate the Theia NGSO System, and Waiver Request to Grant Authority for that System on a Nunc Pro Tunc Basis

S2. Operating Frequency Bands

a. Type of Service	b. If a. is Other, provide a service description	c. Satellite Frequency Band (MHz)	d. Satellite Frequency (Lower Band Edge) (MHz)	e. Satellite Frequency (Upper Band Edge) (MHz)	f. Direction of Transmission	g. Non Conforming Indicator
FSS		17800 - 18300	17800	18300	Space-to-Earth (Transmit)	Yes
FSS		18300 - 18600	18300	18600	Space-to-Earth (Transmit)	Yes
FSS		27500 - 29100	27500	29100	Earth-to-Space (Receive)	Yes
FSS		29100 - 29500	29100	29500	Earth-to-Space (Receive)	Yes
FSS		29500 - 30000	29500	30000	Earth-to-Space (Receive)	Yes
FSS		42000 - 42500	42000	42500	Space-to-Earth (Transmit)	Yes
FSS		11700 - 12200	11700	12200	Space-to-Earth (Transmit)	No
FSS		12750 - 13250	12750	13250	Earth-to-Space (Receive)	No
FSS		10700 - 11700	10700	11700	Space-to-Earth (Transmit)	No
FSS		12200 - 12700	12200	12700	Space-to-Earth (Transmit)	No
FSS		14000 - 14500	14000	14500	Earth-to-Space (Receive)	No
SRS		1660.5 - 1668.4	1660.5	1668.4	Space-to-Earth (Transmit)	No
EESS		1215 - 1300	1215	1300	Space-to-Earth (Transmit)	Yes
EESS		1400 - 1427	1400	1427	Earth-to-Space (Receive)	No
EESS		8550 - 8650	8550	8650	Space-to-Earth (Transmit)	No
EESS		10600 - 10700	10600	10700	Space-to-Earth (Transmit)	No
FSS		18800 - 19300	18800	19300	Space-to-Earth (Transmit)	Yes
FSS		19700 - 20200	19700	20200	Space-to-Earth (Transmit)	Yes
FSS		37500 - 42000	37500	42000	Space-to-Earth (Transmit)	Yes
EESS		1215 - 1300	1215	1300	Earth-to-Space (Receive)	Yes
EESS		2655 - 2690	2655	2690	Space-to-Earth (Transmit)	No
FSS		18300 - 18600	18300	18600	Space-to-Earth (Transmit)	No
FSS		50400 - 51400	50400	51400	Earth-to-Space (Receive)	Yes
FSS		47200 - 50200	47200	50200	Earth-to-Space (Receive)	Yes
EESS		Other	9300	9900	Space-to-Earth (Transmit)	Yes

FSS		19300 - 19700	19300	19700	Space-to-Earth (Transmit)	Yes
FSS		19300 - 19700	19300	19700	Space-to-Earth (Transmit)	No

S3. NGSO Orbital Information

a. Total Number of Simultaneously Operating Satellites in Constellation	b. Total Number of Satellites Deployed During the License Term	c. Orbit Epoch Date	d. Celestial Reference Body	e. If d. is "Other", provide the name of celestial body being referenced	f. Total Number of Orbital Planes
112	120	2028-01-01	Earth		8

g. Orbital Plane Information

(i) Orbital Plane No.	(ii) Number of Satellites in Plane	(iii) Inclination Angle (°)	(iv) Inclination Angle Tolerance (+/- °)	(v) Orbital Period (seconds)	(vi) Apogee (km)	(vii) Apogee Tolerance (+/- km)	(viii) Perigee (km)	(ix) Perigee Tolerance (+/- km)	(x) Argument of Perigee (°)	(xi) Right Ascension of Ascending Node (°)	(xii) Right Ascension of Ascending Node Tolerance (+/- °)	(xiii) Active Service Arc Begin Angle with Respect to Ascending Node (°)	(xiv) Active Service Arc End Angle with Respect to Ascending Node (°)	(xv) Is additional info on the active service arc provided in the application?	(xvi) Satellite Spacing	(xvii) Phase Angle Spacing (°)	(xviii) First Satellite Initial Phase Angle (°)	(xix) Maximum Orbital Eccentricity
1	14	98.6047	0.5	6,053	809	20	791	20	90	203.806	2	0	360	No	Evenly-Spaced	26	30	
2	14	98.6047	0.5	6,053	809	20	791	20	90	228.305	2	0	360	No	Evenly-Spaced	26	30	
3	14	98.6047	0.5	6,053	809	20	791	20	90	252.804	2	0	360	No	Evenly-Spaced	26	30	
4	14	98.6047	0.5	6,053	809	20	791	20	90	277.303	2	0	360	No	Evenly-Spaced	26	30	
5	14	98.6047	0.5	6,053	809	20	791	20	90	301.802	2	0	360	No	Evenly-Spaced	26	30	
6	14	98.6047	0.5	6,053	809	20	791	20	90	326.301	2	0	360	No	Evenly-Spaced	26	30	
7	14	98.6047	0.5	6,053	809	20	791	20	90	350.8	2	0	360	No	Evenly-Spaced	26	30	
8	14	98.6047	0.5	6,053	809	20	791	20	90	15.299	2	0	360	No	Evenly-Spaced	26	30	

h. Initial Phase Angle Information

(i) Orbital Plane No.	(i) Satellite No.	(ii) Initial Phase Angle (°)
1	1	30
1	2	56
1	3	82
1	4	108

1	5	134
1	6	160
1	7	186
1	8	212
1	9	238
1	10	264
1	11	290
1	12	316
1	13	342
1	14	8
2	1	30
2	2	56
2	3	82
2	4	108
2	5	134
2	6	160
2	7	186
2	8	212
2	9	238
2	10	264
2	11	290
2	12	316
2	13	342
2	14	8
3	1	30
3	2	56
3	3	82
3	4	108
3	5	134
3	6	160
3	7	186
3	8	212
3	9	238
3	10	264
3	11	290
3	12	316
3	13	342
3	14	8
4	1	30
4	2	56
4	3	82
4	4	108

4	5	134
4	6	160
4	7	186
4	8	212
4	9	238
4	10	264
4	11	290
4	12	316
4	13	342
4	14	8
5	1	30
5	2	56
5	3	82
5	4	108
5	5	134
5	6	160
5	7	186
5	8	212
5	9	238
5	10	264
5	11	290
5	12	316
5	13	342
5	14	8
6	1	30
6	2	56
6	3	82
6	4	108
6	5	134
6	6	160
6	7	186
6	8	212
6	9	238
6	10	264
6	11	290
6	12	316
6	13	342
6	14	8
7	1	30
7	2	56
7	3	82
7	4	108

7	5	134
7	6	160
7	7	186
7	8	212
7	9	238
7	10	264
7	11	290
7	12	316
7	13	342
7	14	8
8	1	30
8	2	56
8	3	82
8	4	108
8	5	134
8	6	160
8	7	186
8	8	212
8	9	238
8	10	264
8	11	290
8	12	316
8	13	342
8	14	8

S4. Earth-to-Space (Receive) Beams

a. Beam ID:	SRH1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	1215	o. Peak Isotropic Antenna Gain (dBi):	39.2			
c. Beam Frequency (Upper Band Edge) (MHz):	1300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	36.2			
d. Polarization:	H	q. Antenna Pointing Error (°):	0.1			
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1			
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes			
j. Maximum G/T (dB/K):	10.1	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	7.1					
l. Maximum Saturation Flux Density (dBW/m²):	-63.2					
m. Minimum Saturation Flux Density (dBW/m²):	-147.1					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower)	(v) Channel Frequency (Upper)	(vi) Channel Type	(vii) Point of Communication

			Band Edge) (MHz)	Band Edge) (MHz)		
SR15	32.06	1270	1253.97	1286.03	Service Link	
SR26	16.06	1280	1263.97	1296.03	Service Link	
SR24	16.06	1260	1251.97	1268.03	Service Link	
SR13	32.06	1250	1233.97	1266.03	Service Link	
SR16	32.06	1280	1263.97	1296.03	Service Link	
SR23	16.06	1250	1241.97	1258.03	Service Link	
SR14	32.06	1260	1243.97	1276.03	Service Link	
SR25	16.06	1270	1261.97	1278.03	Service Link	
SR11	32.06	1233	1216.97	1249.03	Service Link	
SR22	16.06	1240	1231.97	1248.03	Service Link	
SR21	16.06	1233	1224.97	1241.03	Service Link	
SR12	32.06	1240	1223.97	1256.03	Service Link	

a. Beam ID:	SRV1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	1215	o. Peak Isotropic Antenna Gain (dBi):	39.2
c. Beam Frequency (Upper Band Edge) (MHz):	1300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	36.2
d. Polarization:	H	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	10.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	7.1		
l. Maximum Saturation Flux Density (dBW/m²):	-63.2		
m. Minimum Saturation Flux Density (dBW/m²):	-147.1		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
SR15	32.06	1270	1253.97	1286.03	Service Link	
SR26	16.06	1280	1263.97	1296.03	Service Link	
SR24	16.06	1260	1251.97	1268.03	Service Link	
SR13	32.06	1250	1233.97	1266.03	Service Link	
SR16	32.06	1280	1263.97	1296.03	Service Link	
SR23	16.06	1250	1241.97	1258.03	Service Link	
SR14	32.06	1260	1243.97	1276.03	Service Link	
SR25	16.06	1270	1261.97	1278.03	Service Link	
SR11	32.06	1233	1216.97	1249.03	Service Link	
SR22	16.06	1240	1231.97	1248.03	Service Link	
SR21	16.06	1233	1224.97	1241.03	Service Link	
SR12	32.06	1240	1223.97	1256.03	Service Link	

a. Beam ID:	URR1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12750	o. Peak Isotropic Antenna Gain (dBi):	27.6
c. Beam Frequency (Upper Band Edge) (MHz):	13250	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	24.6
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	1	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	0.6		
l. Maximum Saturation Flux Density (dBW/m²):	-93.5		
m. Minimum Saturation Flux Density (dBW/m²):	-116.5		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UU24	125	13187.5	13125	13250	Service Link	
UU21	125	12812.5	12750	12875	Service Link	
UU01	500	13000	12750	13250	Service Link	
UU23	125	13062.5	13000	13125	Service Link	
UU11	250	12875	12750	13000	Service Link	
UU22	125	12937.5	12875	13000	Service Link	
UU12	250	13125	13000	13250	Service Link	

a. Beam ID:	GUR2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	29100	o. Peak Isotropic Antenna Gain (dBi):	36.4
c. Beam Frequency (Upper Band Edge) (MHz):	29500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	33.4
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	9.2	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	6.2		
l. Maximum Saturation Flux Density (dBW/m²):	-73.7		
m. Minimum Saturation Flux Density (dBW/m²):	-83.3		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU2	400	29300	29100	29500	Feeder Link	

a. Beam ID:	GUR3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
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b. Beam Frequency (Lower Band Edge) (MHz):	29500	o. Peak Isotropic Antenna Gain (dBi):	36.5
c. Beam Frequency (Upper Band Edge) (MHz):	30000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	33.5
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	9.4	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	6.4		
l. Maximum Saturation Flux Density (dBW/m²):	-73.7		
m. Minimum Saturation Flux Density (dBW/m²):	-83.3		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GUR3	500	29750	29500	30000	Feeder Link	

a. Beam ID:	GUL3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	29500	o. Peak Isotropic Antenna Gain (dBi):	36.5
c. Beam Frequency (Upper Band Edge) (MHz):	30000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	33.5
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	9.4	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	6.4		
l. Maximum Saturation Flux Density (dBW/m²):	-73.7		
m. Minimum Saturation Flux Density (dBW/m²):	-83.3		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GUR3	500	29750	29500	30000	Feeder Link	

a. Beam ID:	GUL4	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	47200	o. Peak Isotropic Antenna Gain (dBi):	40.7
c. Beam Frequency (Upper Band Edge) (MHz):	50200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	37.4
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes

j. Maximum G/T (dB/K):	12.6	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	9.6					
l. Maximum Saturation Flux Density (dBW/m²):	-72.2					
m. Minimum Saturation Flux Density (dBW/m²):	-81.8					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU5	1500	49450	48700	50200	Feeder Link	
GU4	1500	47950	47200	48700	Feeder Link	

a. Beam ID:	URR2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	14000	o. Peak Isotropic Antenna Gain (dBi):	28.4			
c. Beam Frequency (Upper Band Edge) (MHz):	14500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	25.4			
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1			
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1			
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes			
j. Maximum G/T (dB/K):	1.8	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	0.6					
l. Maximum Saturation Flux Density (dBW/m²):	-93.5					
m. Minimum Saturation Flux Density (dBW/m²):	-116.5					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UU26	125	14187.5	14125	14250	Service Link	
UU13	250	14125	14000	14250	Service Link	
UU02	500	14250	14000	14500	Service Link	
UU28	125	14437.5	14375	14500	Service Link	
UU25	125	14062.5	14000	14125	Service Link	
UU14	250	14375	14250	14500	Service Link	
UU27	125	14312.5	14250	14375	Service Link	

a. Beam ID:	GUL5	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	50400	o. Peak Isotropic Antenna Gain (dBi):				
c. Beam Frequency (Upper Band Edge) (MHz):	51400	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):				
d. Polarization:	LHCP	q. Antenna Pointing Error (°):				
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):				
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:				
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:				

j. Maximum G/T (dB/K):	13	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	10					
l. Maximum Saturation Flux Density (dBW/m²):	-76.8					
m. Minimum Saturation Flux Density (dBW/m²):	-86.4					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU6	1000	50900	50400	51400	Feeder Link	

a. Beam ID:	URL1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	14000	o. Peak Isotropic Antenna Gain (dBi):	28.4			
c. Beam Frequency (Upper Band Edge) (MHz):	14500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	25.4			
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1			
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1			
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes			
j. Maximum G/T (dB/K):	1.8	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	0.6					
l. Maximum Saturation Flux Density (dBW/m²):	-93.5					
m. Minimum Saturation Flux Density (dBW/m²):	-116.5					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UU26	125	14187.5	14125	14250	Service Link	
UU13	250	14125	14000	14250	Service Link	
UU02	500	14250	14000	14500	Service Link	
UU28	125	14437.5	14375	14500	Service Link	
UU25	125	14062.5	14000	14125	Service Link	
UU14	250	14375	14250	14500	Service Link	
UU27	125	14312.5	14250	14375	Service Link	

a. Beam ID:	GUR4	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	47200	o. Peak Isotropic Antenna Gain (dBi):				
c. Beam Frequency (Upper Band Edge) (MHz):	50200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):				
d. Polarization:	RHCP	q. Antenna Pointing Error (°):				
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):				
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:				
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:				
j. Maximum G/T (dB/K):	12.6	w. What information will be provided with the predicted antenna gain contours?:				

k. Minimum G/T (dB/K):	9.6					
l. Maximum Saturation Flux Density (dBW/m²):	-72.2					
m. Minimum Saturation Flux Density (dBW/m²):	-81.8					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU5	1500	49450	48700	50200	Feeder Link	
GU4	1500	47950	47200	48700	Feeder Link	

a. Beam ID:	GUR5	n. Beam Peak Flux Density at Command Threshold (dBW/m²):				
b. Beam Frequency (Lower Band Edge) (MHz):	50400	o. Peak Isotropic Antenna Gain (dBi):	41.1			
c. Beam Frequency (Upper Band Edge) (MHz):	51400	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	38.1			
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1			
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1			
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes			
j. Maximum G/T (dB/K):	13	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	10					
l. Maximum Saturation Flux Density (dBW/m²):	-76.8					
m. Minimum Saturation Flux Density (dBW/m²):	-86.4					
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU6	1000	50900	50400	51400	Feeder Link	

a. Beam ID:	TCR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-102.4			
b. Beam Frequency (Lower Band Edge) (MHz):	29980	o. Peak Isotropic Antenna Gain (dBi):	5			
c. Beam Frequency (Upper Band Edge) (MHz):	30000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	2			
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1			
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1			
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes			
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:				
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:				
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	Yes			
j. Maximum G/T (dB/K):	-22.1	w. What information will be provided with the predicted antenna gain contours?:				
k. Minimum G/T (dB/K):	-25.1					
l. Maximum Saturation Flux Density (dBW/m²):						
m. Minimum Saturation Flux Density (dBW/m²):						
x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
CMD1		29981			TT&C	

CMD3		29985			TT&C	
CMD5		29989			TT&C	
CMD7		29993			TT&C	
CMD8		29995			TT&C	
CMD2		29983			TT&C	
CMD9		29997			TT&C	
CMD4		29987			TT&C	
CMD6		29991			TT&C	
CMDA		29999			TT&C	

a. Beam ID:	GUR1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	27500	o. Peak Isotropic Antenna Gain (dBi):	28.4
c. Beam Frequency (Upper Band Edge) (MHz):	29100	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	25.4
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	1.8	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	0.6		
l. Maximum Saturation Flux Density (dBW/m²):	-93.5		
m. Minimum Saturation Flux Density (dBW/m²):	-116.5		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU1	1600	28300	27500	29100	Feeder Link	

a. Beam ID:	URL1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12750	o. Peak Isotropic Antenna Gain (dBi):	27.6
c. Beam Frequency (Upper Band Edge) (MHz):	13250	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	24.6
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	1	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	0.6		
l. Maximum Saturation Flux Density (dBW/m²):	-93.5		
m. Minimum Saturation Flux Density (dBW/m²):	-116.5		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication

			Band Edge) (MHz)	Band Edge) (MHz)		
UU24	125	13187.5	13125	13250	Service Link	
UU21	125	12812.5	12750	12875	Service Link	
UU01	500	13000	12750	13250	Service Link	
UU23	125	13062.5	13000	13125	Service Link	
UU11	250	12875	12750	13000	Service Link	
UU12	250	13125	13000	13250	Service Link	

a. Beam ID:	GUL2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	29100	o. Peak Isotropic Antenna Gain (dBi):	36.4
c. Beam Frequency (Upper Band Edge) (MHz):	29500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	33.4
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	9.24	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	6.2		
l. Maximum Saturation Flux Density (dBW/m²):	-73.7		
m. Minimum Saturation Flux Density (dBW/m²):	-83.3		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU2	400	29300	29100	29500	Feeder Link	

a. Beam ID:	TCL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-102.4
b. Beam Frequency (Lower Band Edge) (MHz):	29980	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	30000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	2
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	-22.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	-25.1		
l. Maximum Saturation Flux Density (dBW/m²):			
m. Minimum Saturation Flux Density (dBW/m²):			

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
CMD1		29981			TT&C	

CMD3		29985			TT&C	
CMD5		29989			TT&C	
CMD7		29993			TT&C	
CMD8		29995			TT&C	
CMD2		29983			TT&C	
CMD9		29997			TT&C	
CMD4		29987			TT&C	
CMD6		29991			TT&C	
CMDA		29999			TT&C	

a. Beam ID:	GUL1	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	27500	o. Peak Isotropic Antenna Gain (dBi):	28.4
c. Beam Frequency (Upper Band Edge) (MHz):	29100	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	25.4
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum G/T (dB/K):	1.8	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):	0.6		
l. Maximum Saturation Flux Density (dBW/m ²):	-93.5		
m. Minimum Saturation Flux Density (dBW/m ²):	-116.5		

x. Receive Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GU1	1600	28300	27500	29100	Feeder Link	

S5. Space-to-Earth (Transmit) Beams

a. Beam ID:	GTR1	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	17800	o. Peak Isotropic Antenna Gain (dBi):	31.9
c. Beam Frequency (Upper Band Edge) (MHz):	18300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	28.9
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	38.3		

x. Transmit Channels			
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(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GTR1		500	18050		17800		18300		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
17800	18300	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	STH1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	1215	o. Peak Isotropic Antenna Gain (dBi):	37.4
c. Beam Frequency (Upper Band Edge) (MHz):	1300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	34.2
d. Polarization:	H	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-10.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	72.2		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
SR25	16.06	1270	1261.97	1278.03	Service Link	
SR23	16.06	1250	1241.97	1258.03	Service Link	
SR21	16.06	1233	1224.97	1241.03	Service Link	
SR16	32.06	1280	1263.97	1296.03	Service Link	
SR13	32.06	1250	1233.97	1266.03	Service Link	
SR26	16.06	1280	1271.97	1288.03	Service Link	
SR24	16.06	1260	1251.97	1268.03	Service Link	
SR14	32.06	1260	1243.97	1276.03	Service Link	
SR22	16.06	1240	1231.97	1248.03	Service Link	
SR15	32.06	1270	1253.97	1286.03	Service Link	
SR12	32.06	1240	1223.97	1256.03	Service Link	
SR11	32.06	1233	1216.97	1249.03	Service Link	

y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
1215	1300	4 kHz	-148.3	-148.3	-146.3	-143.8	-141	-103.9					

a. Beam ID:	GTR3	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	18800	o. Peak Isotropic Antenna Gain (dBi):	32.5
c. Beam Frequency (Upper Band Edge) (MHz):	19300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	38.3		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD3		500	19050		18800		19300		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
18800	19300	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTR5	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19700	o. Peak Isotropic Antenna Gain (dBi):	32.55
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.93	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	38.3		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD5		500	19950		19700		20200		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
19700	20200	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTR4	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19300	o. Peak Isotropic Antenna Gain (dBi):	32.5
c. Beam Frequency (Upper Band Edge) (MHz):	19700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	37.3		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD4		400	19500		19300		19700		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
19300	19700	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	UTR2	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	11700	o. Peak Isotropic Antenna Gain (dBi):	34.3
c. Beam Frequency (Upper Band Edge) (MHz):	12200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	31.4
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	33.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UD3	499	11949.5	11700	12199	Service Link	

a. Beam ID:	STV1	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	1215	o. Peak Isotropic Antenna Gain (dBi):	37.4
c. Beam Frequency (Upper Band Edge) (MHz):	1300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	34.2
d. Polarization:	V	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1

f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-10.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	72.2		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
SR25	16.06	1270	1261.97	1278.03	Service Link	
SR23	16.06	1250	1241.97	1258.03	Service Link	
SR21	16.06	1233	1224.97	1241.03	Service Link	
SR16	32.06	1280	1263.97	1296.03	Service Link	
SR13	32.06	1250	1233.97	1266.03	Service Link	
SR26	16.06	1280	1271.97	1288.03	Service Link	
SR24	16.06	1260	1251.97	1268.03	Service Link	
SR22	16.06	1240	1231.97	1248.03	Service Link	
SR15	32.06	1270	1253.97	1286.03	Service Link	
SR12	32.06	1240	1223.97	1256.03	Service Link	
SR11	32.06	1233	1216.97	1249.03	Service Link	
SR14	32.06	1260	1243.97	1276.03	Service Link	

y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
1215	1300	4 kHz	-148.3	-148.3	-146.3	-143.8	-141	-103.9					

a. Beam ID:	GTR2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	18300	o. Peak Isotropic Antenna Gain (dBi):	31.9
c. Beam Frequency (Upper Band Edge) (MHz):	18600	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	28.9
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	36		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
GTR1	300	18450	18300	18600	Feeder Link	

y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
18300	18600	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	UTR1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	10700	o. Peak Isotropic Antenna Gain (dBi):	34.3
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	31.3
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	36.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UD1	499	10949.5	10700	11199	Service Link	

y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
10700	11700	4 kHz	-157.2	-157.2	-155.2	-152.5	-151.4	-145.6					

a. Beam ID:	UTR3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12200	o. Peak Isotropic Antenna Gain (dBi):	34.3
c. Beam Frequency (Upper Band Edge) (MHz):	12700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	31.3
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	33.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication

k. Maximum Transmit EIRP (dBW):			50.1										
x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD9		500	42250		42000		42500		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
42000	42500	1 MHz	-139.4	-139.4	-126.4	-122.1	-121	-115.2					

a. Beam ID:	TTR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	20180	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	2
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-57.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	45		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
TLM9		2	20197		20196		20198		TT&C				
TLM6		2	20191		20190		20192		TT&C				
TLM5		2	20189		20188		20190		TT&C				
TLM7		2	20193		20192		20194		TT&C				
TLM8		2	20195		20194		20196		TT&C				
TLM1		2	20181		20180		20182		TT&C				
TLM2		2	20183		20182		20184		TT&C				
TLM3		2	20185		20184		20186		TT&C				
TLMA		2	20199		20198		20200		TT&C				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
20180	20200	1 MHz	-136.9	-136.9	-135.5	-133	-131.9	-126.1					

a. Beam ID:	TTL	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	20180	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	2
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	No	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-57.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	45		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
TLM7	2	20193	20192	20194	TT&C	
TLM8	2	20195	20194	20196	TT&C	
TLM1	2	20181	20180	20182	TT&C	
TLM2	2	20183	20182	20184	TT&C	
TLM3	2	20185	20184	20186	TT&C	
TLMA	2	20199	20198	20200	TT&C	
TLM9	2	20197	20196	20198	TT&C	
TLM6	2	20191	20190	20192	TT&C	
TLM5	2	20189	20188	20190	TT&C	

y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
20180	20200	1 MHz	-136.9	-136.9	-135.5	-133	-131.9	-126.1					

a. Beam ID:	BTR1	n. Beam Peak Flux Density at Command Threshold (dBW/m ²):	
b. Beam Frequency (Lower Band Edge) (MHz):	10700	o. Peak Isotropic Antenna Gain (dBi):	6
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	3
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	6.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication

					Band Edge) (MHz)			Band Edge) (MHz)					
B1			1	11199.5	11199			11200		Service Link			
B2			1	11699.5	11699			11700		Service Link			
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
10700	11700	4 kHz	-157.1	-157.1	-155.1	-154.5	-154.5	-154.5					

a. Beam ID:	BTR3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12200	o. Peak Isotropic Antenna Gain (dBi):	6
c. Beam Frequency (Upper Band Edge) (MHz):	12700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	3
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	6.6		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
UD4		499	12449.5		12200		12699		Service Link				
B4		1	12699.5		12699		12700		Service Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
12200	12700	4 kHz	-158.6	-158.6	-157.9	-157.5	-157.5	-157.1					

a. Beam ID:	BTL1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	10700	o. Peak Isotropic Antenna Gain (dBi):	6
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	3
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes

j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:
k. Maximum Transmit EIRP (dBW):	6.6	

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
B1		1	11199.5		11199		11200		Service Link				
B2		1	11699.5		11699		11700		Service Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
10700	11700	4 kHz	-157.1	-157.1	-155.1	-154.5	-154.5	-154.5					

a. Beam ID:	BTL2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	11700	o. Peak Isotropic Antenna Gain (dBi):	6
c. Beam Frequency (Upper Band Edge) (MHz):	12200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	3
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	6.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication
UD3	499	11949.5	11700	12199	Service Link	

a. Beam ID:	BTL3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12200	o. Peak Isotropic Antenna Gain (dBi):	6
c. Beam Frequency (Upper Band Edge) (MHz):	12700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	3
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	No	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	6.6		

x. Transmit Channels						
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower	(v) Channel Frequency (Upper	(vi) Channel Type	(vii) Point of Communication

							Band Edge) (MHz)		Band Edge) (MHz)					
UD4			499		12449.5		12200		12699		Service Link			
B4			1		12699.5		12699		12700		Service Link			
y. Max. Power-Flux Densities														
			Angles of Arrival PFD						Geographic Region PFD					
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)	
12200	12700	4 kHz	-158.6	-158.6	-157.9	-157.5	-157.5	-157.1						

a. Beam ID:	UTL1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	10700	o. Peak Isotropic Antenna Gain (dBi):	34.3
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	31.3
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	36.6		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
UD1		499	10949.5		10700		11199		Service Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
10700	11700	4 kHz	-157.2	-157.2	-155.2	-152.5	-151.4	-145.6					

a. Beam ID:	UTL3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	12200	o. Peak Isotropic Antenna Gain (dBi):	34.3
c. Beam Frequency (Upper Band Edge) (MHz):	12700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	31.3
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	Yes	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-52.6	w. What information will be provided with the predicted antenna gain contours?:	

k. Maximum Transmit EIRP (dBW):				33.6									
x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)		(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication	
B4		1		12699.5		12699		12700		Service Link			
UD4		499		12449.5		12200		12699		Service Link			
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
12200	12700	4 kHz	-158.6	-158.6	-158.3	-157.9	-157.2	-157.2					

a. Beam ID:	GTL1	n. Beam Peak Flux Density at Command Threshold (dBW/m²):											
b. Beam Frequency (Lower Band Edge) (MHz):	17800	o. Peak Isotropic Antenna Gain (dBi):	31.9										
c. Beam Frequency (Upper Band Edge) (MHz):	18300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	28.9										
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1										
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1										
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes										
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:											
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:											
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes										
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:											
k. Maximum Transmit EIRP (dBW):	38.3												
x. Transmit Channels													
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication							
GTR1	500	18050	17800	18300	Feeder Link								
y. Max. Power-Flux Densities													
			Angles of Arrival PFD					Geographic Region PFD					
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
17800	18300	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTL2	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	18300	o. Peak Isotropic Antenna Gain (dBi):	31.9
c. Beam Frequency (Upper Band Edge) (MHz):	18600	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	28.9
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	

i. Is the beam fed into transponders? (Check box if Yes):			Yes			v. Are all space stations in the NGSO constellation identical?:			Yes				
j. Maximum Transmit EIRP Density (dBW/Ref BW):			-47.9			w. What information will be provided with the predicted antenna gain contours?:							
k. Maximum Transmit EIRP (dBW):			36										
x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication			
GTR1		300	18450	18300		18600		Feeder Link					
y. Max. Power-Flux Densities													
			Angles of Arrival PFD					Geographic Region PFD					
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
18300	18600	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTL3	n. Beam Peak Flux Density at Command Threshold (dBW/m²):											
b. Beam Frequency (Lower Band Edge) (MHz):	18800	o. Peak Isotropic Antenna Gain (dBi):	32.5										
c. Beam Frequency (Upper Band Edge) (MHz):	19300	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6										
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1										
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1										
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes										
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:											
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:											
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes										
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:											
k. Maximum Transmit EIRP (dBW):	38.3												
x. Transmit Channels													
(i) Channel ID	(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)	(iv) Channel Frequency (Lower Band Edge) (MHz)	(v) Channel Frequency (Upper Band Edge) (MHz)	(vi) Channel Type	(vii) Point of Communication							
GD3	500	19050	18800	19300	Feeder Link								
y. Max. Power-Flux Densities													
			Angles of Arrival PFD				Geographic Region PFD						
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
18800	19300	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTL4	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19300	o. Peak Isotropic Antenna Gain (dBi):	32.5
c. Beam Frequency (Upper Band Edge) (MHz):	19700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	

h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	37.3		

x. Transmit Channels														
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication			
GD4		400	19500		19300		19700		Feeder Link					
y. Max. Power-Flux Densities														
			Angles of Arrival PFD						Geographic Region PFD					
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)	
19300	19700	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117						

a. Beam ID:	GTL5	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19700	o. Peak Isotropic Antenna Gain (dBi):	32.5
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	29.6
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-47.9	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	38.3		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD5		500	19950		19700		20200		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
19700	20200	1 MHz	-133.6	-133.6	-127.2	-123.9	-122.8	-117					

a. Beam ID:	GTR7	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	37500	o. Peak Isotropic Antenna Gain (dBi):	38.8
c. Beam Frequency (Upper Band Edge) (MHz):	42000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	35.8
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes

g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-46.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	50.1		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD8		2000	41000		40000		42000		Feeder Link				
GD7		2500	38750		37500		40000		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
37500	42000	1 MHz	-139.4	-139.4	-126.4	-122.1	-121	-115.2					

a. Beam ID:	GTR8	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	42000	o. Peak Isotropic Antenna Gain (dBi):	38.8
c. Beam Frequency (Upper Band Edge) (MHz):	42500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	35.8
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	No	r. Antenna Rotational Error (°):	0.1
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	
h. Is the beam steerable? (Check box if Yes):	Yes	u. Provide a list of each orbital plane in which this antenna beam is used.:	
i. Is the beam fed into transponders? (Check box if Yes):	Yes	v. Are all space stations in the NGSO constellation identical?:	Yes
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-46.1	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	50.1		

x. Transmit Channels													
(i) Channel ID		(ii) Channel Bandwidth (MHz)	(iii) Center Frequency (MHz)		(iv) Channel Frequency (Lower Band Edge) (MHz)		(v) Channel Frequency (Upper Band Edge) (MHz)		(vi) Channel Type		(vii) Point of Communication		
GD9		500	42250		42000		42500		Feeder Link				
y. Max. Power-Flux Densities													
			Angles of Arrival PFD						Geographic Region PFD				
(i) Beam Sub-Frequency (Lower Band Edge) (MHz)	(ii) Beam Sub-Frequency (Upper Band Edge) (MHz)	(iii) Reference Bandwidth (BW)	(iv) 0-2° (dBW/m²/BW)	(v) 2-5° (dBW/m²/BW)	(vi) 5-15° (dBW/m²/BW)	(vii) 15-20° (dBW/m²/BW)	(viii) 20-25° (dBW/m²/BW)	(ix) 25-90° (dBW/m²/BW)	(x) Southeastern Region (dBW/m²/BW)	(xi) Northeastern Region (dBW/m²/BW)	(xii) Western Region (dBW/m²/BW)	(xiii) Other Region (dBW/m²/BW)	(xiv) Energy Dispersal Bandwidth (kHz)
42000	42500	1 MHz	-139.4	-139.4	-126.4	-122.1	-121	-115.2					

S6. Space-to-Space (Receive) Beams

S7. Space-to-Space (Transmit) Beams

S8. Attachments

Beam ID	Direction of Transmission	(i) Document Type	(ii) If Document Type is "Other", provide short description	(iii) File Name
BTL1	Space-to-Earth (Transmit)	Other	Text Document	BTL1-Contour.txt
BTL2	Space-to-Earth (Transmit)	Other	Text Document	BTL2-Contour.txt
BTL3	Space-to-Earth (Transmit)	Other	Text Document	BTL3-Contour.txt
BTR1	Space-to-Earth (Transmit)	Other	Text Document	BTR1-Contour.txt
BTR3	Space-to-Earth (Transmit)	Other	Text Document	BTR3-Contour.txt
GTL1	Space-to-Earth (Transmit)	Other	Text Document	GTL1-Contour.txt
GTL1	Space-to-Earth (Transmit)	Service Area Description		GTL1-Coverage.txt
GTL2	Space-to-Earth (Transmit)	Other	Text Document	GTL2-Coverage.txt
GTL2	Space-to-Earth (Transmit)	Service Area Description		GTL2-Coverage.txt
GTL3	Space-to-Earth (Transmit)	Service Area Description		GTL3-Coverage (1).txt
GTL3	Space-to-Earth (Transmit)	Other	Text Document	GTL3-Contour.txt
GTL4	Space-to-Earth (Transmit)	Service Area Description		GTL4-Coverage.txt
GTL4	Space-to-Earth (Transmit)	Other	Text Document	GTL4-Contour.txt
GTL5	Space-to-Earth (Transmit)	Other	Text Document	GTL5-Contour.txt
GTL5	Space-to-Earth (Transmit)	Service Area Description		GTL5-Coverage.txt
GTL7	Space-to-Earth (Transmit)	Other	text document	GTL7-Contour.txt
GTL7	Space-to-Earth (Transmit)	Coverage Area Description		GTL7-Coverage.txt
GTL8	Space-to-Earth (Transmit)	Coverage Area Description		GTL8-Coverage.txt
GTL8	Space-to-Earth (Transmit)	Other	text document	GTL8-Contour.txt
GTR1	Space-to-Earth (Transmit)	Service Area Description		GTR1-Coverage.txt
GTR1	Space-to-Earth (Transmit)	Other	Text Document	GTR1-Contour.txt
GTR2	Space-to-Earth (Transmit)	Other	Text Document	GTR2-Contour.txt
GTR2	Space-to-Earth (Transmit)	Service Area Description		GTR2-Coverage.txt
GTR3	Space-to-Earth (Transmit)	Coverage Area Description		GTR3-Coverage.txt
GTR3	Space-to-Earth (Transmit)	Other	Text Document	GTR3-Contour.txt
GTR4	Space-to-Earth (Transmit)	Other	Text Document	GTR4-Contour.txt
GTR4	Space-to-Earth (Transmit)	Coverage Area Description		GTL4-Coverage.txt
GTR5	Space-to-Earth (Transmit)	Coverage Area Description		GTR5-Coverage.txt
GTR5	Space-to-Earth (Transmit)	Other	Text Document	GTR5-Contour.txt
GTR7	Space-to-Earth (Transmit)	Coverage Area Description		GTR7-Coverage.txt
GTR7	Space-to-Earth (Transmit)	Other	text document	GTR7-Contour.txt
GTR8	Space-to-Earth (Transmit)	Coverage Area Description		GTR8-Coverage.txt
GTR8	Space-to-Earth (Transmit)	Other	text document	GTR8-Contour.txt
GUL1	Earth-to-Space (Receive)	Coverage Area Description		GUL1-Coverage.txt
GUL1	Earth-to-Space (Receive)	Other	Text Document	GUL1-Contour.txt

GUL2	Earth-to-Space (Receive)	Other	Text Documnet	GUL2-Contour.txt
GUL2	Earth-to-Space (Receive)	Coverage Area Description		GUL2-Coverage.txt
GUL3	Earth-to-Space (Receive)	Other	Text Documnet	GUL3-Contour.txt
GUL3	Earth-to-Space (Receive)	Coverage Area Description		GUL3-Coverage (1).txt
GUL4	Earth-to-Space (Receive)	Other	text document	GUL4-Contour.txt
GUL4	Earth-to-Space (Receive)	Coverage Area Description		GUR4-Coverage.txt
GUL5	Earth-to-Space (Receive)	Coverage Area Description		GUL5-Coverage.txt
GUL5	Earth-to-Space (Receive)	Other	text document	GUL5-Contour.txt
GUR1	Earth-to-Space (Receive)	Other	Text Documnet	GUR1-Contour.txt
GUR2	Earth-to-Space (Receive)	Other	Text Documnet	GUR2-Contour.txt
GUR2	Earth-to-Space (Receive)	Coverage Area Description		GUR2-Coverage.txt
GUR3	Earth-to-Space (Receive)	Other	Text Documnet	GUR3-Contour.txt
GUR4	Earth-to-Space (Receive)	Coverage Area Description		GUR4-Coverage.txt
GUR4	Earth-to-Space (Receive)	Other	text document	GUR4-Contour.txt
GUR5	Earth-to-Space (Receive)	Other	text document	GUR5-Contour.txt
GUR5	Earth-to-Space (Receive)	Coverage Area Description		GUR5-Coverage.txt
SRH1	Earth-to-Space (Receive)	Coverage Area Description		SRH1_Coverage.txt
SRH1	Earth-to-Space (Receive)	Other	Text Documnet	SRH1_41_Contour.txt
SRV1	Earth-to-Space (Receive)	Coverage Area Description		SRV1_Coverage.txt
SRV1	Earth-to-Space (Receive)	Other	Text Documnet	SRV1_41_Contour.txt
STH1	Space-to-Earth (Transmit)	Other	Text Documnet	STH1_41_Contour.txt
STH1	Space-to-Earth (Transmit)	Coverage Area Description		STH1_Coverage.txt
STV1	Space-to-Earth (Transmit)	Coverage Area Description		STV1_Coverage.txt
STV1	Space-to-Earth (Transmit)	Other	Text Document	STV1_41_Contour.txt
TCL	Earth-to-Space (Receive)	Other	Text Document	TCL-Contour.txt
TCR	Earth-to-Space (Receive)	Other	Text Document	TCR-Contour.txt
TTL	Space-to-Earth (Transmit)	Other	Text Document	TTL-Contour.txt
URL1	Earth-to-Space (Receive)	Coverage Area Description		URL1-MultiBeam.txt
URL1	Earth-to-Space (Receive)	Other	Text Document	URL1.txt
URR1	Earth-to-Space (Receive)	Coverage Area Description		URR1-MultiBeam.txt
URR1	Earth-to-Space (Receive)	Other	Text Document	URR1.txt
URR2	Earth-to-Space (Receive)	Other	Text Document	URR2.txt
URR2	Earth-to-Space (Receive)	Coverage Area Description		URR2-MultiBeam.txt
UTL1	Space-to-Earth (Transmit)	Coverage Area Description		UTL1_Coverage.txt
UTL1	Space-to-Earth (Transmit)	Other	Text Document	UTL1_60_Contour.txt
UTL3	Space-to-Earth (Transmit)	Other	Text Document	UTL3_60_Contour.txt
UTL3	Space-to-Earth (Transmit)	Coverage Area Description		UTL3_Coverage.txt
UTR1	Space-to-Earth (Transmit)	Coverage Area Description		UTR1_Coverage.txt
UTR1	Space-to-Earth (Transmit)	Other	Text Document	UTR1_60_Contour.txt
UTR2	Space-to-Earth (Transmit)	Other	Text Document	UTR3_60_Contour.txt
UTR2	Space-to-Earth (Transmit)	Coverage Area Description		UTR2_Coverage.txt
UTR3	Space-to-Earth (Transmit)	Coverage Area Description		UTR3_Coverage.txt