

File Number: **DRAFT-SAT-LOA-20260220-00092**

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
ASTRANIS 157E Ku GSO System	Geostationary (GSO)	10	No	request for authorization for ASTRANIS 157E Ku GSO System at 157E

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		13750 - 14500	13750	14500	Earth-to-Space (Receive)	No
FSS		10950 - 11700	10950	11700	Space-to-Earth (Transmit)	No
FSS		17700 - 20200	17700	20200	Space-to-Earth (Transmit)	Yes
FSS		27500 - 30000	27500	30000	Earth-to-Space (Receive)	Yes

S3. GSO Orbital Information

a. Orbital Longitude (°)	b. Hemisphere of Orbital Longitude (E/W)	c. East/West Station-Keeping Range: Toward East (°)	d. East/West Station-Keeping Range: Toward West (°)	e. North/South Station-Keeping Range: Toward North (°)	f. North/South Station-Keeping Range: Toward South (°)	g. Maximum Orbital Eccentricity	h. Antenna Axis Attitude Accuracy: Roll (°)	i. Antenna Axis Attitude Accuracy: Pitch (°)	j. Antenna Axis Attitude Accuracy: Yaw (°)
157	East	0.05	0.05	0.1	0.1	0.0003	0.1	0.1	0.1

S4. Earth-to-Space (Receive) Beams

a. Beam ID:	CGRL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-80
b. Beam Frequency (Lower Band Edge) (MHz):	28350	o. Peak Isotropic Antenna Gain (dBi):	51.1
c. Beam Frequency (Upper Band Edge) (MHz):	28550	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum G/T (dB/K):	22	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Minimum G/T (dB/K):	7		

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
AU10	200	28450	28350	28550	TT&C	
GU9	200	28450	28350	28550	TT&C	
TU1	200	28450	28350	28550	TT&C	
AU11	200	28450	28350	28550	TT&C	
GU11	200	28450	28350	28550	TT&C	
GU10	200	28450	28350	28550	TT&C	
GU29	200	28450	28350	28550	TT&C	
GU47	200	28450	28350	28550	TT&C	
AU9	200	28450	28350	28550	TT&C	
AU29	200	28450	28350	28550	TT&C	

a. Beam ID:

KGUL

b. Beam Frequency (Lower Band Edge) (MHz):

27500

c. Beam Frequency (Upper Band Edge) (MHz):

30000

d. Polarization:

LHCP

e. Can the space station vary the channel bandwidth with on-board processing?:

Yes

f. Is this a command beam? (Check box if Yes):

No

g. Is the beam shapeable? (Check box if Yes):

No

h. Is the beam steerable? (Check box if Yes):

No

i. Is the beam fed into transponders? (Check box if Yes):

Yes

j. Maximum G/T (dB/K):

22

k. Minimum G/T (dB/K):

7

l. Maximum Saturation Flux Density (dBW/m²):

-87

m. Minimum Saturation Flux Density (dBW/m²):

-98

n. Beam Peak Flux Density at Command Threshold (dBW/m²):

o. Peak Isotropic Antenna Gain (dBi):

51.1

p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):

q. Antenna Pointing Error (°):

0.1

r. Antenna Rotational Error (°):

0.09

s. Will a GIMS container file containing all antenna contour data be provided?:

Yes

t. Under what rules will the associated antenna contours be submitted?:

25.114(c)(4)(vii) (GSO)

u. Provide a list of each orbital plane in which this antenna beam is used.:

v. Are all space stations in the NGSO constellation identical?:

w. What information will be provided with the predicted antenna gain contours?:

Isoline Map (25.114(c)(4)(vii)(C))

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
AU29	250	28375	28250	28500	Feeder Link	
AU21	100	29550	29500	29600	Feeder Link	
AU10	100	28450	28400	28500	Feeder Link	
GU7	100	28150	28100	28200	Feeder Link	
GU12	100	28650	28600	28700	Feeder Link	
GU14	100	28850	28800	28900	Feeder Link	
AU25	100	29950	29900	30000	Feeder Link	
GU18	100	29250	29200	29300	Feeder Link	
AU28	250	28125	28000	28250	Feeder Link	
GU9	100	28350	28300	28400	Feeder Link	
GU25	100	29950	29900	30000	Feeder Link	

GU35	250	29875	29750	30000	Feeder Link	
GU1	100	27550	27500	27600	Feeder Link	
GU5	100	27950	27900	28000	Feeder Link	
GU38	500	28750	28500	29000	Feeder Link	
AU7	100	28150	28100	28200	Feeder Link	
GU8	100	28250	28200	28300	Feeder Link	
GU30	250	28625	28500	28750	Feeder Link	
GU46	375	28062.5	27875	28250	Feeder Link	
GU33	250	29375	29250	29500	Feeder Link	
AU11	100	28550	28500	28600	Feeder Link	
GU10	100	28450	28400	28500	Feeder Link	
GU50	375	29562.5	29375	29750	Feeder Link	
AU20	100	29450	29400	29500	Feeder Link	
AU18	100	29250	29200	29300	Feeder Link	
AU34	250	29625	29500	29750	Feeder Link	
AU9	100	28350	28300	28400	Feeder Link	
AU13	100	28750	28700	28800	Feeder Link	
AU14	100	28850	28800	28900	Feeder Link	
AU19	100	29350	29300	29400	Feeder Link	
GU6	100	28050	28000	28100	Feeder Link	
AU3	100	27750	27700	27800	Feeder Link	
AU17	100	29150	29100	29200	Feeder Link	
GU32	250	29125	29000	29250	Feeder Link	
GU40	500	29750	29500	30000	Feeder Link	
GU41	750	27875	27500	28250	Feeder Link	
GU27	250	27875	27750	28000	Feeder Link	
AU35	250	29875	29750	30000	Feeder Link	
GU44	250	29875	29750	30000	Feeder Link	
AU8	100	28250	28200	28300	Feeder Link	
AU2	100	27650	27600	27700	Feeder Link	
AU26	250	27625	27500	27750	Feeder Link	
GU28	250	28125	28000	28250	Feeder Link	
GU16	100	29050	29000	29100	Feeder Link	
AU6	100	28050	28000	28100	Feeder Link	
GU39	500	29250	29000	29500	Feeder Link	
AU23	100	29750	29700	29800	Feeder Link	
AU32	250	29125	29000	29250	Feeder Link	
AU5	100	27950	27900	28000	Feeder Link	
AU30	250	28625	28500	28750	Feeder Link	
AU1	100	27550	27500	27600	Feeder Link	
AU24	100	29850	29800	29900	Feeder Link	

GU3	100	27750	27700	27800	Feeder Link	
AU22	100	29650	29600	29700	Feeder Link	
GU21	100	29550	29500	29600	Feeder Link	
GU20	100	29450	29400	29500	Feeder Link	
GU31	250	28875	28750	29000	Feeder Link	
GU42	750	28625	28250	29000	Feeder Link	
GU11	100	28550	28500	28600	Feeder Link	
GU43	750	29375	29000	29750	Feeder Link	
GU51	250	29875	29750	30000	Feeder Link	
GU4	100	27850	27800	27900	Feeder Link	
GU37	500	28250	28000	28500	Feeder Link	
AU27	250	27875	27750	28000	Feeder Link	
GU19	100	29350	29300	29400	Feeder Link	
GU13	100	28750	28700	28800	Feeder Link	
GU36	500	27750	27500	28000	Feeder Link	
GU15	100	28950	28900	29000	Feeder Link	
GU48	375	28812.5	28625	29000	Feeder Link	
GU22	100	29650	29600	29700	Feeder Link	
GU23	100	29750	29700	29800	Feeder Link	
AU33	250	29375	29250	29500	Feeder Link	
TU1	200	28450	28350	28550	Feeder Link	
GU24	100	29850	29800	29900	Feeder Link	
GU47	375	28437.5	28250	28625	Feeder Link	
AU31	250	28875	28750	29000	Feeder Link	
GU2	100	27650	27600	27700	Feeder Link	
AU12	100	28650	28600	28700	Feeder Link	
AU4	100	27850	27800	27900	Feeder Link	
AU16	100	29050	29000	29100	Feeder Link	
GU34	250	29625	29500	29750	Feeder Link	
GU29	250	28375	28250	28500	Feeder Link	
GU26	250	27625	27500	27750	Feeder Link	
AU15	100	28950	28900	29000	Feeder Link	
GU17	100	29150	29100	29200	Feeder Link	
GU45	375	27687.5	27500	27875	Feeder Link	
GU49	375	29187.5	29000	29375	Feeder Link	

a. Beam ID:	KGUR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	27500	o. Peak Isotropic Antenna Gain (dBi):	51.1
c. Beam Frequency (Upper Band Edge) (MHz):	30000	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum G/T (dB/K):	22	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Minimum G/T (dB/K):	7		
l. Maximum Saturation Flux Density (dBW/m²):	-87		
m. Minimum Saturation Flux Density (dBW/m²):	-98		

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
GU40	500	29750	29500	30000	Feeder Link	
AU9	100	28350	28300	28400	Feeder Link	
AU7	100	28150	28100	28200	Feeder Link	
GU48	375	28812.5	28625	29000	Feeder Link	
GU34	250	29625	29500	29750	Feeder Link	
AU24	100	29850	29800	29900	Feeder Link	
AU5	100	27950	27900	28000	Feeder Link	
AU35	250	29875	29750	30000	Feeder Link	
GU24	100	29850	29800	29900	Feeder Link	
GU17	100	29150	29100	29200	Feeder Link	
GU44	250	29875	29750	30000	Feeder Link	
GU41	750	27875	27500	28250	Feeder Link	
AU6	100	28050	28000	28100	Feeder Link	
GU2	100	27650	27600	27700	Feeder Link	
AU18	100	29250	29200	29300	Feeder Link	
AU21	100	29550	29500	29600	Feeder Link	
GU25	100	29950	29900	30000	Feeder Link	
GU42	750	28625	28250	29000	Feeder Link	
AU34	250	29625	29500	29750	Feeder Link	
AU32	250	29125	29000	29250	Feeder Link	
AU15	100	28950	28900	29000	Feeder Link	
GU29	250	28375	28250	28500	Feeder Link	
GU22	100	29650	29600	29700	Feeder Link	
GU27	250	27875	27750	28000	Feeder Link	
AU25	100	29950	29900	30000	Feeder Link	
AU31	250	28875	28750	29000	Feeder Link	
GU19	100	29350	29300	29400	Feeder Link	
AU14	100	28850	28800	28900	Feeder Link	
AU20	100	29450	29400	29500	Feeder Link	
GU35	250	29875	29750	30000	Feeder Link	
AU8	100	28250	28200	28300	Feeder Link	
GU3	100	27750	27700	27800	Feeder Link	

GU12	100	28650	28600	28700	Feeder Link	
GU49	375	29187.5	29000	29375	Feeder Link	
AU11	100	28550	28500	28600	Feeder Link	
AU29	250	28375	28250	28500	Feeder Link	
GU31	250	28875	28750	29000	Feeder Link	
GU50	375	29562.5	29375	29750	Feeder Link	
GU5	100	27950	27900	28000	Feeder Link	
GU45	375	27687.5	27500	27875	Feeder Link	
GU7	100	28150	28100	28200	Feeder Link	
AU3	100	27750	27700	27800	Feeder Link	
GU47	375	28437.5	28250	28625	Feeder Link	
GU13	100	28750	28700	28800	Feeder Link	
GU8	100	28250	28200	28300	Feeder Link	
GU14	100	28850	28800	28900	Feeder Link	
AU13	100	28750	28700	28800	Feeder Link	
GU15	100	28950	28900	29000	Feeder Link	
GU51	250	29875	29750	30000	Feeder Link	
GU37	500	28250	28000	28500	Feeder Link	
GU38	500	28750	28500	29000	Feeder Link	
GU39	500	29250	29000	29500	Feeder Link	
AU33	250	29375	29250	29500	Feeder Link	
GU16	100	29050	29000	29100	Feeder Link	
GU1	100	27550	27500	27600	Feeder Link	
GU33	250	29375	29250	29500	Feeder Link	
GU43	750	29375	29000	29750	Feeder Link	
GU10	100	28450	28400	28500	Feeder Link	
GU9	100	28350	28300	28400	Feeder Link	
AU19	100	29350	29300	29400	Feeder Link	
AU27	250	27875	27750	28000	Feeder Link	
AU23	100	29750	29700	29800	Feeder Link	
GU28	250	28125	28000	28250	Feeder Link	
AU17	100	29150	29100	29200	Feeder Link	
AU12	100	28650	28600	28700	Feeder Link	
AU30	250	28625	28500	28750	Feeder Link	
AU16	100	29050	29000	29100	Feeder Link	
AU4	100	27850	27800	27900	Feeder Link	
GU32	250	29125	29000	29250	Feeder Link	
GU11	100	28550	28500	28600	Feeder Link	
GU23	100	29750	29700	29800	Feeder Link	
GU36	500	27750	27500	28000	Feeder Link	
GU18	100	29250	29200	29300	Feeder Link	

GU20	100	29450	29400	29500	Feeder Link	
GU30	250	28625	28500	28750	Feeder Link	
AU28	250	28125	28000	28250	Feeder Link	
GU4	100	27850	27800	27900	Feeder Link	
TU1	200	28450	28350	28550	Feeder Link	
AU1	100	27550	27500	27600	Feeder Link	
AU22	100	29650	29600	29700	Feeder Link	
GU46	375	28062.5	27875	28250	Feeder Link	
AU2	100	27650	27600	27700	Feeder Link	
AU26	250	27625	27500	27750	Feeder Link	
AU10	100	28450	28400	28500	Feeder Link	
GU21	100	29550	29500	29600	Feeder Link	
GU26	250	27625	27500	27750	Feeder Link	
GU6	100	28050	28000	28100	Feeder Link	

a. Beam ID:	KUUH	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	13750	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	14500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	H	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	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?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum G/T (dB/K):	17	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Minimum G/T (dB/K):	0		
l. Maximum Saturation Flux Density (dBW/m²):	-100		
m. Minimum Saturation Flux Density (dBW/m²):	-113		

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
Ku013	50	14375	14350	14400	Service Link	
Ku006	50	14025	14000	14050	Service Link	
Ku002	50	13825	13800	13850	Service Link	
Ku010	50	14225	14200	14250	Service Link	
Ku014	50	14425	14400	14450	Service Link	
Ku0017	250	14125	14000	14250	Service Link	
Ku009	50	14175	14150	14200	Service Link	
Ku0018	250	14375	14250	14500	Service Link	
Ku008	50	14125	14100	14150	Service Link	
Ku003	50	13875	13850	13900	Service Link	
Ku007	50	14075	14050	14100	Service Link	

Ku0016	250	13875	13750	14000	Service Link	
Ku012	50	14325	14300	14350	Service Link	
Ku005	50	13975	13950	14000	Service Link	
Ku015	50	14475	14450	14500	Service Link	
Ku011	50	14275	14250	14300	Service Link	
Ku004	50	13925	13900	13950	Service Link	
Ku001	50	13775	13750	13800	Service Link	

a. Beam ID:	CLRL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-80
b. Beam Frequency (Lower Band Edge) (MHz):	28350	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	28550	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	No
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?:	
j. Maximum G/T (dB/K):	-25.4	w. What information will be provided with the predicted antenna gain contours?:	
k. Minimum G/T (dB/K):			
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
TU1	200	28450	28350	28550	TT&C	
AU9	200	28450	28350	28550	TT&C	
AU29	200	28450	28350	28550	TT&C	
AU10	200	28450	28350	28550	TT&C	
AU11	200	28450	28350	28550	TT&C	
GU11	200	28450	28350	28550	TT&C	
GU10	200	28450	28350	28550	TT&C	
GU47	200	28450	28350	28550	TT&C	
GU29	200	28450	28350	28550	TT&C	
GU9	200	28450	28350	28550	TT&C	

a. Beam ID:	CLRR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-80
b. Beam Frequency (Lower Band Edge) (MHz):	28350	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	28550	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
f. Is this a command beam? (Check box if Yes):	Yes	s. Will a GIMS container file containing all antenna contour data be provided?:	No
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?:
j. Maximum G/T (dB/K):	-25.4	w. What information will be provided with the predicted antenna gain contours?:
k. Minimum G/T (dB/K):		
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
GU9	200	28450	28350	28550	TT&C	
AU29	200	28450	28350	28550	TT&C	
GU29	200	28450	28350	28550	TT&C	
TU1	200	28450	28350	28550	TT&C	
AU11	200	28450	28350	28550	TT&C	
GU47	200	28450	28350	28550	TT&C	
AU9	200	28450	28350	28550	TT&C	
GU11	200	28450	28350	28550	TT&C	
GU10	200	28450	28350	28550	TT&C	
AU10	200	28450	28350	28550	TT&C	

a. Beam ID:	KUUV	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	13750	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	14500	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	V	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	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?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum G/T (dB/K):	17	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Minimum G/T (dB/K):	0		
l. Maximum Saturation Flux Density (dBW/m²):	-100		
m. Minimum Saturation Flux Density (dBW/m²):	-113		

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
Ku010	50	14225	14200	14250	Service Link	
Ku001	50	13775	13750	13800	Service Link	
Ku003	50	13875	13850	13900	Service Link	
Ku008	50	14125	14100	14150	Service Link	
Ku014	50	14425	14400	14450	Service Link	
Ku0018	250	14375	14250	14500	Service Link	
Ku012	50	14325	14300	14350	Service Link	
Ku011	50	14275	14250	14300	Service Link	

Ku0016	250	13875	13750	14000	Service Link	
Ku009	50	14175	14150	14200	Service Link	
Ku002	50	13825	13800	13850	Service Link	
Ku015	50	14475	14450	14500	Service Link	
Ku0017	250	14125	14000	14250	Service Link	
Ku013	50	14375	14350	14400	Service Link	
Ku006	50	14025	14000	14050	Service Link	
Ku007	50	14075	14050	14100	Service Link	
Ku004	50	13925	13900	13950	Service Link	
Ku005	50	13975	13950	14000	Service Link	

a. Beam ID:	CGRR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	-80
b. Beam Frequency (Lower Band Edge) (MHz):	28350	o. Peak Isotropic Antenna Gain (dBi):	51.1
c. Beam Frequency (Upper Band Edge) (MHz):	28550	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum G/T (dB/K):	22	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Minimum G/T (dB/K):	7		
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
GU47	200	28450	28350	28550	TT&C	
AU11	200	28450	28350	28550	TT&C	
GU11	200	28450	28350	28550	TT&C	
AU9	200	28450	28350	28550	TT&C	
GU10	200	28450	28350	28550	TT&C	
GU9	200	28450	28350	28550	TT&C	
TU1	200	28450	28350	28550	TT&C	
AU10	200	28450	28350	28550	TT&C	
AU29	200	28450	28350	28550	TT&C	
GU29	200	28450	28350	28550	TT&C	

S5. Space-to-Earth (Transmit) Beams

a. Beam ID:	KUDH	n. Beam Peak Flux Density at Command Threshold (dBW/m²):
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b. Beam Frequency (Lower Band Edge) (MHz):	10950	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	H	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	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?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-22	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	63.7		

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		
Ku005		100	11400		11350		11450		Service Link				
Ku001		100	11000		10950		11050		Service Link				
Ku009		250	11075		10950		11200		Service Link				
Ku008		50	11675		11650		11700		Service Link				
Ku004		100	11300		11250		11350		Service Link				
Ku011		250	11575		11450		11700		Service Link				
Ku003		100	11200		11150		11250		Service Link				
Ku006		100	11500		11450		11550		Service Link				
Ku010		250	11325		11200		11450		Service Link				
Ku007		100	11600		11550		11650		Service Link				
Ku002		100	11100		11050		11150		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)
10950	11700	4 kHz	-150.2	-150.2	-150.2	-148	-148	-148					

a. Beam ID:	CLDR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19600	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	19800	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	No
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-30.8	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	16.2		

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
GD20	100	19650	19600	19700	TT&C	
TD1	200	19700	19600	19800	TT&C	
AD6	200	19700	19600	19800	TT&C	
GD76	50	19725	19700	19750	TT&C	
GD21	100	19750	19700	19800	TT&C	
GD75	50	19675	19650	19700	TT&C	
GD77	50	19775	19750	19800	TT&C	
GD74	50	19625	19600	19650	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)
19600	19800	1 MHz	-132.9	-132.9	-132.9	-132.9	-132.9	-132.9					

a. Beam ID:	KUDV	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	10950	o. Peak Isotropic Antenna Gain (dBi):	
c. Beam Frequency (Upper Band Edge) (MHz):	11700	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	V	q. Antenna Pointing Error (°):	
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	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?:	Yes
g. Is the beam shapeable? (Check box if Yes):	No	t. Under what rules will the associated antenna contours be submitted?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-22	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	63.7		

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
Ku011	250	11575	11450	11700	Service Link	
Ku009	250	11075	10950	11200	Service Link	
Ku003	100	11200	11150	11250	Service Link	
Ku008	50	11675	11650	11700	Service Link	
Ku005	100	11400	11350	11450	Service Link	
Ku007	100	11600	11550	11650	Service Link	
Ku010	250	11325	11200	11450	Service Link	
Ku004	100	11300	11250	11350	Service Link	
Ku001	100	11000	10950	11050	Service Link	
Ku002	100	11100	11050	11150	Service Link	

Ku006		100	11500	11450	11550	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)
10950	11700	4 kHz	-150.2	-150.2	-150.2	-148	-148	-148					

a. Beam ID:	KGDR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	17700	o. Peak Isotropic Antenna Gain (dBi):	46.9
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-20.2	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	65.5		

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
GD22	100	19850	19800	19900	Feeder Link	
AD5	375	19387.5	19200	19575	Feeder Link	
GD25	100	20150	20100	20200	Feeder Link	
GD34	250	19825	19700	19950	Feeder Link	
GD24	100	20050	20000	20100	Feeder Link	
GD52	50	18525	18500	18550	Feeder Link	
GD57	50	18775	18750	18800	Feeder Link	
GD32	250	19325	19200	19450	Feeder Link	
GD37	50	17775	17750	17800	Feeder Link	
GD50	50	18425	18400	18450	Feeder Link	
GD43	50	18075	18050	18100	Feeder Link	
GD38	50	17825	17800	17850	Feeder Link	
GD62	50	19025	19000	19050	Feeder Link	
GD71	50	19475	19450	19500	Feeder Link	
GD9	100	18550	18500	18600	Feeder Link	
GD14	100	19050	19000	19100	Feeder Link	
GD3	100	17950	17900	18000	Feeder Link	
GD67	50	19275	19250	19300	Feeder Link	
GD27	250	18075	17950	18200	Feeder Link	
GD41	50	17975	17950	18000	Feeder Link	

GD45	50	18175	18150	18200	Feeder Link	
GD82	50	20025	20000	20050	Feeder Link	
AD11	250	20075	19950	20200	Feeder Link	
GD68	50	19325	19300	19350	Feeder Link	
GD53	50	18575	18550	18600	Feeder Link	
AD1	375	17887.5	17700	18075	Feeder Link	
GD21	100	19750	19700	19800	Feeder Link	
GD19	100	19550	19500	19600	Feeder Link	
GD75	50	19675	19650	19700	Feeder Link	
GD39	50	17875	17850	17900	Feeder Link	
GD11	100	18750	18700	18800	Feeder Link	
AD9	750	18825	18450	19200	Feeder Link	
TD1	200	19700	19600	19800	Feeder Link	
GD26	250	17825	17700	17950	Feeder Link	
GD20	100	19650	19600	19700	Feeder Link	
GD28	250	18325	18200	18450	Feeder Link	
GD36	50	17725	17700	17750	Feeder Link	
GD35	250	20075	19950	20200	Feeder Link	
GD23	100	19950	19900	20000	Feeder Link	
GD4	100	18050	18000	18100	Feeder Link	
GD7	100	18350	18300	18400	Feeder Link	
GD10	100	18650	18600	18700	Feeder Link	
GD59	50	18875	18850	18900	Feeder Link	
GD66	50	19225	19200	19250	Feeder Link	
GD29	250	18575	18450	18700	Feeder Link	
GD69	50	19375	19350	19400	Feeder Link	
GD64	50	19125	19100	19150	Feeder Link	
GD2	100	17850	17800	17900	Feeder Link	
GD74	50	19625	19600	19650	Feeder Link	
GD84	50	20125	20100	20150	Feeder Link	
GD47	50	18275	18250	18300	Feeder Link	
AD8	750	18075	17700	18450	Feeder Link	
GD78	50	19825	19800	19850	Feeder Link	
GD42	50	18025	18000	18050	Feeder Link	
GD1	100	17750	17700	17800	Feeder Link	
GD16	100	19250	19200	19300	Feeder Link	
GD70	50	19425	19400	19450	Feeder Link	
GD58	50	18825	18800	18850	Feeder Link	
GD5	100	18150	18100	18200	Feeder Link	
GD13	100	18950	18900	19000	Feeder Link	
GD56	50	18725	18700	18750	Feeder Link	

GD18	100	19450	19400	19500	Feeder Link	
AD3	375	18637.5	18450	18825	Feeder Link	
GD79	50	19875	19850	19900	Feeder Link	
GD33	250	19575	19450	19700	Feeder Link	
AD6	375	19762.5	19575	19950	Feeder Link	
GD63	50	19075	19050	19100	Feeder Link	
GD17	100	19350	19300	19400	Feeder Link	
GD49	50	18375	18350	18400	Feeder Link	
AD4	375	19012.5	18825	19200	Feeder Link	
GD83	50	20075	20050	20100	Feeder Link	
GD31	250	19075	18950	19200	Feeder Link	
GD51	50	18475	18450	18500	Feeder Link	
GD65	50	19175	19150	19200	Feeder Link	
AD10	750	19575	19200	19950	Feeder Link	
GD46	50	18225	18200	18250	Feeder Link	
GD77	50	19775	19750	19800	Feeder Link	
GD15	100	19150	19100	19200	Feeder Link	
AD2	375	18262.5	18075	18450	Feeder Link	
GD8	100	18450	18400	18500	Feeder Link	
GD30	250	18825	18700	18950	Feeder Link	
GD80	50	19925	19900	19950	Feeder Link	
AD7	250	20075	19950	20200	Feeder Link	
GD73	50	19575	19550	19600	Feeder Link	
GD40	50	17925	17900	17950	Feeder Link	
GD72	50	19525	19500	19550	Feeder Link	
GD44	50	18125	18100	18150	Feeder Link	
GD61	50	18975	18950	19000	Feeder Link	
GD55	50	18675	18650	18700	Feeder Link	
GD76	50	19725	19700	19750	Feeder Link	
GD12	100	18850	18800	18900	Feeder Link	
GD48	50	18325	18300	18350	Feeder Link	
GD54	50	18625	18600	18650	Feeder Link	
GD60	50	18925	18900	18950	Feeder Link	
GD85	50	20175	20150	20200	Feeder Link	
GD6	100	18250	18200	18300	Feeder Link	
GD81	50	19975	19950	20000	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)	

17300	20200	1 MHz	-123.5	-123.5	-123.3	-123.2	-123.1	-122.3	-122.3	-122.3	-122.3	-122.3	
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a. Beam ID:	CLDL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19600	o. Peak Isotropic Antenna Gain (dBi):	5
c. Beam Frequency (Upper Band Edge) (MHz):	19800	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
f. Is this a command beam? (Check box if Yes):	No	s. Will a GIMS container file containing all antenna contour data be provided?:	No
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-30.8	w. What information will be provided with the predicted antenna gain contours?:	
k. Maximum Transmit EIRP (dBW):	16.2		

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
AD6	200	19700	19600	19800	TT&C	
GD77	50	19775	19750	19800	TT&C	
GD76	50	19725	19700	19750	TT&C	
GD20	100	19650	19600	19700	TT&C	
GD74	50	19625	19600	19650	TT&C	
TD1	200	19700	19600	19800	TT&C	
GD75	50	19675	19650	19700	TT&C	
GD21	100	19750	19700	19800	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)
19600	19800	1 MHz	-132.9	-132.9	-132.9	-132.9	-132.9	-132.9					

a. Beam ID:	CGDL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19600	o. Peak Isotropic Antenna Gain (dBi):	46.9
c. Beam Frequency (Upper Band Edge) (MHz):	19800	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-20.2	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	26.8		

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
GD76	50	19725	19700	19750	TT&C	
GD21	100	19750	19700	19800	TT&C	
GD20	100	19650	19600	19700	TT&C	
AD6	200	19700	19600	19800	TT&C	
GD75	50	19675	19650	19700	TT&C	
GD74	50	19625	19600	19650	TT&C	
TD1	200	19700	19600	19800	TT&C	
GD77	50	19775	19750	19800	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)
19600	19800	1 MHz	-123.5	-123.5	-123.3	-123.2	-123.1	-122.3	-122.3	-122.3	-122.3	-122.3	

a. Beam ID:	KGDL	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	17700	o. Peak Isotropic Antenna Gain (dBi):	46.9
c. Beam Frequency (Upper Band Edge) (MHz):	20200	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	LHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-20.2	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	65.5		

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
GD76	50	19725	19700	19750	Feeder Link	
GD48	50	18325	18300	18350	Feeder Link	
GD60	50	18925	18900	18950	Feeder Link	
GD6	100	18250	18200	18300	Feeder Link	
GD12	100	18850	18800	18900	Feeder Link	
GD54	50	18625	18600	18650	Feeder Link	
GD85	50	20175	20150	20200	Feeder Link	
GD81	50	19975	19950	20000	Feeder Link	
GD49	50	18375	18350	18400	Feeder Link	
GD21	100	19750	19700	19800	Feeder Link	
GD75	50	19675	19650	19700	Feeder Link	

GD17	100	19350	19300	19400	Feeder Link	
GD19	100	19550	19500	19600	Feeder Link	
GD39	50	17875	17850	17900	Feeder Link	
GD83	50	20075	20050	20100	Feeder Link	
GD51	50	18475	18450	18500	Feeder Link	
AD10	750	19575	19200	19950	Feeder Link	
GD11	100	18750	18700	18800	Feeder Link	
TD1	200	19700	19600	19800	Feeder Link	
AD4	375	19012.5	18825	19200	Feeder Link	
GD31	250	19075	18950	19200	Feeder Link	
GD65	50	19175	19150	19200	Feeder Link	
GD46	50	18225	18200	18250	Feeder Link	
AD9	750	18825	18450	19200	Feeder Link	
GD26	250	17825	17700	17950	Feeder Link	
GD72	50	19525	19500	19550	Feeder Link	
GD61	50	18975	18950	19000	Feeder Link	
GD40	50	17925	17900	17950	Feeder Link	
GD44	50	18125	18100	18150	Feeder Link	
GD55	50	18675	18650	18700	Feeder Link	
GD13	100	18950	18900	19000	Feeder Link	
GD18	100	19450	19400	19500	Feeder Link	
GD79	50	19875	19850	19900	Feeder Link	
AD6	375	19762.5	19575	19950	Feeder Link	
GD56	50	18725	18700	18750	Feeder Link	
AD3	375	18637.5	18450	18825	Feeder Link	
GD33	250	19575	19450	19700	Feeder Link	
GD63	50	19075	19050	19100	Feeder Link	
GD22	100	19850	19800	19900	Feeder Link	
GD47	50	18275	18250	18300	Feeder Link	
GD78	50	19825	19800	19850	Feeder Link	
GD1	100	17750	17700	17800	Feeder Link	
GD70	50	19425	19400	19450	Feeder Link	
GD5	100	18150	18100	18200	Feeder Link	
GD27	250	18075	17950	18200	Feeder Link	
GD45	50	18175	18150	18200	Feeder Link	
AD8	750	18075	17700	18450	Feeder Link	
GD42	50	18025	18000	18050	Feeder Link	
GD16	100	19250	19200	19300	Feeder Link	
GD58	50	18825	18800	18850	Feeder Link	
GD41	50	17975	17950	18000	Feeder Link	
AD11	250	20075	19950	20200	Feeder Link	

GD53	50	18575	18550	18600	Feeder Link	
GD82	50	20025	20000	20050	Feeder Link	
GD68	50	19325	19300	19350	Feeder Link	
AD1	375	17887.5	17700	18075	Feeder Link	
GD15	100	19150	19100	19200	Feeder Link	
GD77	50	19775	19750	19800	Feeder Link	
AD2	375	18262.5	18075	18450	Feeder Link	
GD59	50	18875	18850	18900	Feeder Link	
GD29	250	18575	18450	18700	Feeder Link	
GD64	50	19125	19100	19150	Feeder Link	
GD74	50	19625	19600	19650	Feeder Link	
GD8	100	18450	18400	18500	Feeder Link	
GD80	50	19925	19900	19950	Feeder Link	
GD73	50	19575	19550	19600	Feeder Link	
GD66	50	19225	19200	19250	Feeder Link	
GD69	50	19375	19350	19400	Feeder Link	
GD2	100	17850	17800	17900	Feeder Link	
GD84	50	20125	20100	20150	Feeder Link	
GD30	250	18825	18700	18950	Feeder Link	
AD7	250	20075	19950	20200	Feeder Link	
GD38	50	17825	17800	17850	Feeder Link	
GD71	50	19475	19450	19500	Feeder Link	
GD14	100	19050	19000	19100	Feeder Link	
GD67	50	19275	19250	19300	Feeder Link	
GD62	50	19025	19000	19050	Feeder Link	
GD9	100	18550	18500	18600	Feeder Link	
GD3	100	17950	17900	18000	Feeder Link	
GD28	250	18325	18200	18450	Feeder Link	
GD35	250	20075	19950	20200	Feeder Link	
GD4	100	18050	18000	18100	Feeder Link	
GD20	100	19650	19600	19700	Feeder Link	
GD36	50	17725	17700	17750	Feeder Link	
GD23	100	19950	19900	20000	Feeder Link	
GD10	100	18650	18600	18700	Feeder Link	
AD5	375	19387.5	19200	19575	Feeder Link	
GD34	250	19825	19700	19950	Feeder Link	
GD52	50	18525	18500	18550	Feeder Link	
GD32	250	19325	19200	19450	Feeder Link	
GD50	50	18425	18400	18450	Feeder Link	
GD7	100	18350	18300	18400	Feeder Link	
GD25	100	20150	20100	20200	Feeder Link	

GD24	100	20050	20000	20100	Feeder Link	
GD57	50	18775	18750	18800	Feeder Link	
GD37	50	17775	17750	17800	Feeder Link	
GD43	50	18075	18050	18100	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)
17300	20200	1 MHz	-123.5	-123.5	-123.3	-123.2	-123.1	-122.3	-122.3	-122.3	-122.3	-122.3	

a. Beam ID:	CGDR	n. Beam Peak Flux Density at Command Threshold (dBW/m²):	
b. Beam Frequency (Lower Band Edge) (MHz):	19600	o. Peak Isotropic Antenna Gain (dBi):	46.9
c. Beam Frequency (Upper Band Edge) (MHz):	19800	p. Isotropic Antenna Gain at 3 dB Beamwidth (dBi):	
d. Polarization:	RHCP	q. Antenna Pointing Error (°):	0.1
e. Can the space station vary the channel bandwidth with on-board processing?:	Yes	r. Antenna Rotational Error (°):	0.09
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?:	25.114(c)(4)(vii) (GSO)
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?:	
j. Maximum Transmit EIRP Density (dBW/Ref BW):	-20.2	w. What information will be provided with the predicted antenna gain contours?:	Isoline Map (25.114(c)(4)(vii)(C))
k. Maximum Transmit EIRP (dBW):	26.8		

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
GD75	50	19675	19650	19700	TT&C	
GD74	50	19625	19600	19650	TT&C	
TD1	200	19700	19600	19800	TT&C	
GD77	50	19775	19750	19800	TT&C	
GD21	100	19750	19700	19800	TT&C	
GD76	50	19725	19700	19750	TT&C	
AD6	200	19700	19600	19800	TT&C	
GD20	100	19650	19600	19700	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)
19600	19800	1 MHz	-123.5	-123.5	-123.3	-123.2	-123.1	-122.3	-122.3	-122.3	-122.3	-122.3	

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
KUDH	Space-to-Earth (Transmit)	GIMS Container File		157E_container.mdb