

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: IA KAEXT 121W		e. Estimated Date of Placement into Service:		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s): 13 Years		j. Number of transponders offered on a common carrier basis: 0	
c. Construction Completion Date:		g. Total Number of Transponders: 44		k. Total Common Carrier Transponder Bandwidth: 0 MHz	
d1. Est Launch Date Begin:	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 1536 MHz		i. Orbit Type: Mark all boxes that apply: <input checked="" type="checkbox"/> GSO <input type="checkbox"/> NGSO	

S2. OPERATING FREQUENCY BANDS Identify the frequency range and transmit/receive mode for all frequency bands in which this station will oper
Also indicate the nature of service(s) for each frequency band.

Frequency Band Limits				e. T/R Mode	f. Nature of Service(s): List all that apply to this band
Lower Frequency (.Hz)		Upper Frequency (.Hz)			
a. Numeric	b. Unit (K/M/G)	c. Numeric	d. Unit (K/M/G)		
24.75	G	25.25	G	R	Broadcasting Satellite Service - Video
17.3	G	17.8	G	T	Broadcasting Satellite Service - Video

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 121 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Intelsat has license at this location to operate in the C band. Adding the extended Ka band will result in a more efficient use of the orbital / spectrum resources.	
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance:		Range of orbital are in which adequate service can be provided (Optional):	
d. Toward West:	0.05 Degrees	0.05 Degrees		Degrees E/W	
e. Toward East:	0.05 Degrees			g. Westernmost: 121 W h. Easternmost: 67 W	
i. Reason for service are selection (Optional): This satellite can replace any of the INTELSAT KAEXT spacecrafts located within this arc in case of a catastrophic failure					

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S4. ORBITAL INFORMATION FOR NON-GEOSTATIONARY SATELLITES ONLY

S4a. Total Number of Satellites in Network or System:

S4c. Celestial Reference Body (Earth, Sun, Moon, etc.):

S4b. Total Number of Orbital Planes in Network or System:

S4d. Orbit Epoch Date:

For each Orbital Plane Provide:

(e) Orbital Plane No.	(f) No. of Satellites in Plane	(g) Inclination Angle (degrees)	(h) Orbital Period (Seconds)	(i) Apogee (km)	(j) Perigee (km)	(k) Right Ascension of the Ascending Node (Deg.)	(l) Argument of Perigee (Degrees)	Active Service Arc Range (Degrees)		
								(m) Begin Angle	(n) End Angle	(o) Other

S5. INITIAL SATELLITE PHASE ANGLE For each satellite in each orbital plane, provide the initial phase angle.

(a) Orbital Plane No.	(b) Satellite Number	(c) Initial Phase Angle (Degrees)

NO NGSO DATA FILED

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S6. SERVICE AREA CHARACTERISTICS for each service area provide:

(a) Service Area ID	(b) Type of Associated Station (Earth or Space)	(c) Service Area Diagram File Name (GXT File)	(d) Service Area Description. Provide list of geographic areas (state postal codes or ITU 3-ltr codes), satellites or Figure No. of Service Area Diagram.
1	S	Service_1_NA.gxt	USA, CAN, DOM, HTI, MEX, VIR, PTR, CUB
2	S	Service_2_SA.gxt	CLM, EQA, PRU, BOL, CHL, PRG, ARG, URG, B, VEN, GUY, SUR
3	S	Service_3_US.gxt	USA
4	S	Service_4_R2.gxt	Region 2

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S7. SPACE STATION ANTENNA BEAM CHARACTERISTICS For each antenna beam provide:

(a) Beam ID	(b) T/R Mode	(c) Isotropic Antenna Gain		(e) Pointing Error (Degrees)	(f) Rotational Error (Degrees)	(g) Min. Cross- Polar Isolation (dB)	(h) Polar- ization Switch- able? (Y/N)	(i) Polarization Alignment Rel. Equatorial Plane (Degrees)	(j) Service Area ID	Transmit			Receive			Input Attenuator (dB)	
		(c) Peak (dBi)	(d) Edge (dBi)							(k) Input Losses (dB)	(l) Effective Output Power (W)	(m) Max. EIRP (dBW)	(n) System Noise Temp (k)	(o) G/T Max. Gain Pt. (db/K)	(p) Min. Saturation Flux Density (dBW/m2)	(q) Max. Value	(r) Step Size
NTF	T	34.5	26.2	0.15	0.4	30	N	0	1	3.5	520	58.2					
NRF	R	35.7	25.2	0.15	0.4	30	N		0	1			815	6.6	-100	25	1
STF	T	34.4	28.4	0.15	0.4	30	N		0	2	3.5	520	58.1				
SRF	R	37.6	28.4	0.15	0.4	30	N		0	2			815	8.5	-100	25	1
UT1	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT2	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT3	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT4	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT5	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT6	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT7	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
OR	R	20.2	17.7	0.15	0.4	30	N		0	4			741	-8.5	-89	25	1
OT	T	20	17.5	0.15	0.4	30	N		0	4	2	1	18				
GR6	R	46.1	42	0.075	0.4	30	N		0	3			865	16.7	-100	25	1
UT21	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT8	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT9	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT10	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT11	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT12	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT13	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT14	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT15	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT16	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT17	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT18	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT19	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT20	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				
UT22	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7				

UT23	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7					
GR1	R	46.1	42	0.075	0.4	30	N		0	3				865	16.7	-100	25	1
GR2	R	46.1	42	0.075	0.4	30	N		0	3				865	16.7	-100	25	1
GR3	R	46.1	42	0.075	0.4	30	N		0	3				865	16.7	-100	25	1
GR4	R	46.1	42	0.075	0.4	30	N		0	3				865	16.7	-100	25	1
GR5	R	46.1	42	0.075	0.4	30	N		0	3				865	16.7	-100	25	1
UT24	T	46.1	42	0.075	0.4	30	N		0	3	2.5	130	64.7					

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S8. ANTENNA BEAM DIAGRAMS For each beam pattern provide the reference to the graphic image and numerical data:
Also provide the power flux density levels in each beam that result from the emission with the highest power flux density.

(a) Beam ID	(b) T/R Mode	(c) Co-or Cross Polar Mode ("C" or" X")	(d) GSO Ref. Orbital Longitude (Deg. E/W)	(e) NGSO Antenna Gain Contour Description (Figure/Table/ Exhibit)	(f) GSO Antenna Gain Contour Data (GXT File)	Max. Power Flux Density (dBW/M2/Hz)				
						At Angle of Arrival above horizontal (for emission with highest PFD)				
						(g) 5 Deg	(h) 10 Deg	(i) 15 Deg	(j) 20 Deg	(k) 25 Deg
NTF	T	C	-121		NTF_C.gxt	-126.1	-124.9	-121.4	-121.4	-121.4
STF	T	C	-121		STF_C.gxt	-119.9	-119.6	-118.9	-118.9	-118.9
UT1	T	C	-121		UT1_C.gxt	-115.1	-115.1	-115.1	-115.1	-115.1
NTF	T	X	-121		NTF_X.gxt					
STF	T	X	-121		STF_X.gxt					
UT1	T	X	-121		UT1_X.gxt					
NRF	R	C	-121		NRF_C.gxt					
SRF	R	C	-121		SRF_C.gxt					
GR1	R	C	-121		GR1_C.gxt					
NRF	R	X	-121		NRF_X.gxt					
SRF	R	X	-121		SRF_X.gxt					
GR1	R	X	-121		GR1_X.gxt					
OR	R	C	-121		OR_C.gxt					
OT	T	C	-121		OT_C.gxt	-152	-152	-152	-152	-152
OR	R	X	-121		OR_X.gxt					
OT	T	X	-121		OT_X.gxt					

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S9. SPACE STATION CHANNELS For each frequency channel provide: S10. SPACE STATION TRANSPONDERS For each transponder provide:

(a) Channel No.	(B) Assigned Bandwidth (kHz)	(c) T/R Mode	(d) Center Frequency (MHz)	(e) Polarization (H, V, L, R)	(f) TTC or Comm Channel (T or C)
NT1	24000	T	17323.5	L	C
NT2	24000	T	17338.08	R	C
NT3	24000	T	17352.66	L	C
NT4	24000	T	17367.24	R	C
NT5	24000	T	17381.82	L	C
NT6	24000	T	17396.4	R	C
NT7	24000	T	17410.98	L	C
NT8	24000	T	17425.56	R	C
NT9	24000	T	17440.14	L	C
NT10	24000	T	17454.72	R	C
NT11	24000	T	17469.3	L	C
NT12	24000	T	17483.88	R	C
NT13	24000	T	17498.46	L	C
NT14	24000	T	17513.04	R	C
NT15	24000	T	17527.62	L	C
NT16	24000	T	17542.2	R	C
NT17	24000	T	17556.78	L	C
NT18	24000	T	17571.36	R	C
NT19	24000	T	17585.94	L	C
NT20	24000	T	17600.52	R	C
NT21	24000	T	17615.1	L	C
NT22	24000	T	17629.68	R	C
NT23	24000	T	17644.26	L	C
NT24	24000	T	17658.84	R	C
NT25	24000	T	17673.42	L	C
NT26	24000	T	17688	R	C
NT27	24000	T	17702.58	L	C
NT28	24000	T	17717.16	R	C
NT29	24000	T	17731.74	L	C
NT30	24000	T	17746.32	R	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
N1	126.6	NR1	NRF	NT1	NTF
N2	126.6	NR2	NRF	NT2	NTF
N3	126.6	NR3	NRF	NT3	NTF
N4	126.6	NR4	NRF	NT4	NTF
N5	126.6	NR5	NRF	NT5	NTF
N6	126.6	NR6	NRF	NT6	NTF
N7	126.6	NR7	NRF	NT7	NTF
N8	126.6	NR8	NRF	NT8	NTF
N9	126.6	NR9	NRF	NT9	NTF
N10	126.6	NR10	NRF	NT10	NTF
N11	126.6	NR11	NRF	NT11	NTF
N12	126.6	NR12	NRF	NT12	NTF
N13	126.6	NR13	NRF	NT13	NTF
N14	126.6	NR14	NRF	NT14	NTF
N15	126.6	NR15	NRF	NT15	NTF
N16	126.6	NR16	NRF	NT16	NTF
N17	126.6	NR17	NRF	NT17	NTF
N18	126.6	NR18	NRF	NT18	NTF
N19	126.6	NR19	NRF	NT19	NTF
N20	126.6	NR20	NRF	NT20	NTF
N21	126.6	NR21	NRF	NT21	NTF
N22	126.6	NR22	NRF	NT22	NTF
N23	126.6	NR23	NRF	NT23	NTF
N24	126.6	NR24	NRF	NT24	NTF
N25	126.6	NR25	NRF	NT25	NTF
N26	126.6	NR26	NRF	NT26	NTF
N27	126.6	NR27	NRF	NT27	NTF
N28	126.6	NR28	NRF	NT28	NTF
N29	126.6	NR29	NRF	NT29	NTF
N30	126.6	NR30	NRF	NT30	NTF

NT31	24000	T	17760.9	L	C
NT32	24000	T	17775.48	R	C
ST18	24000	T	17571.36	R	C
ST20	24000	T	17600.52	R	C
ST22	24000	T	17629.68	R	C
ST24	24000	T	17658.84	R	C
ST26	24000	T	17688	R	C
ST28	24000	T	17717.16	R	C
ST30	24000	T	17746.32	R	C
ST32	24000	T	17775.48	R	C
SR18	24000	R	25021.36	L	C
SR20	24000	R	25050.52	L	C
SR22	24000	R	25079.68	L	C
SR24	24000	R	25108.84	L	C
SR26	24000	R	25138	L	C
SR28	24000	R	25167.16	L	C
SR30	24000	R	25196.32	L	C
SR32	24000	R	25225.48	L	C
NR1	24000	R	24773.5	R	C
NR2	24000	R	24788.08	L	C
NR3	24000	R	24802.66	R	C
NR4	24000	R	24817.24	L	C
NR5	24000	R	24831.82	R	C
NR6	24000	R	24846.4	L	C
NR7	24000	R	24860.98	R	C
NR8	24000	R	24875.56	L	C
NR9	24000	R	24890.14	R	C
NR10	24000	R	24904.72	L	C
NR11	24000	R	24919.3	R	C
NR12	24000	R	24933.88	L	C
NR13	24000	R	24948.46	R	C
NR14	24000	R	24963.04	L	C
NR15	24000	R	24977.62	R	C
NR16	24000	R	24992.2	L	C
NR17	24000	R	25006.78	R	C
NR18	24000	R	25021.36	L	C
NR19	24000	R	25035.94	R	C
NR20	24000	R	25050.52	L	C
NR21	24000	R	25065.1	R	C

N31	126.6	NR31	NRF	NT31	NTF
N32	126.6	NR32	NRF	NT32	NTF
S18	128.7	SR18	SRF	ST18	STF
S20	128.7	SR20	SRF	ST20	STF
S22	128.7	SR22	SRF	ST22	STF
S24	128.7	SR24	SRF	ST24	STF
S26	128.7	SR26	SRF	ST26	STF
S28	128.7	SR28	SRF	ST28	STF
S30	128.7	SR30	SRF	ST30	STF
S32	128.7	SR32	SRF	ST32	STF
SX18	128.7	SR18	SRF	NT18	NTF
SX20	128.7	SR20	SRF	NT20	NTF
SX22	128.7	SR22	SRF	NT22	NTF
SX24	128.7	SR24	SRF	NT24	NTF
SX26	128.7	SR26	SRF	NT26	NTF
SX28	128.7	SR28	SRF	NT28	NTF
SX30	128.7	SR30	SRF	NT30	NTF
SX32	128.7	SR32	SRF	NT32	NTF
NX18	126.6	NR18	NRF	ST18	STF
NX20	126.6	NR20	NRF	ST20	STF
NX22	126.6	NR22	NRF	ST22	STF
NX24	126.6	NR24	NRF	ST24	STF
NX26	126.6	NR26	NRF	ST26	STF
NX28	126.6	NR28	NRF	ST28	STF
NX30	126.6	NR30	NRF	ST30	STF
NX32	126.6	NR32	NRF	ST32	STF
G6A	113.5	G24	GR6	U24	UT14
G6B	113.5	G68	GR6	U68	UT9
G6C	113.5	G1012	GR6	U1012	UT7
G6D	113.5	G1416	GR6	U1416	UT10
G1A	113.5	G24	GR1	U24	UT2
G1B	113.5	G68	GR1	U68	UT3
G1C	113.5	G1012	GR1	U1012	UT23
G1D	113.5	G1416	GR1	U1416	UT22
G2A	113.5	G24	GR2	U24	UT15
G2B	113.5	G68	GR2	U68	UT17
G2C	113.5	G1012	GR2	U1012	UT13
G2D	113.5	G1416	GR2	U1416	UT16
G3A	113.5	G24	GR3	U24	UT11

NR22	24000	R	25079.68	L	C
NR23	24000	R	25094.26	R	C
NR24	24000	R	25108.84	L	C
NR25	24000	R	25123.42	R	C
NR26	24000	R	25138	L	C
NR27	24000	R	25152.58	R	C
NR28	24000	R	25167.16	L	C
NR29	24000	R	25181.74	R	C
NR30	24000	R	25196.32	L	C
NR31	24000	R	25210.9	R	C
NR32	24000	R	25225.48	L	C
G24	48000	R	24802.66	L	C
G68	48000	R	24860.98	L	C
G1012	48000	R	24919.30	L	C
G1416	48000	R	24977.62	L	C
U24	48000	T	17352.66	R	C
U68	48000	T	17410.98	R	C
U1012	48000	T	14469.30	R	C
U1416	48000	T	17527.62	R	C
TLC1	1000	R	5925.5	V	T
TLC2	1000	R	6424.5	H	T
TLC3	1000	R	24751.5	R	T
TLC4	1000	R	25248.5	R	T
TLM1	1000	T	4197	V	T
TLM2	1000	T	4198.5	V	T
TLM3	1000	T	17301.5	L	T
TLM4	1000	T	17303.5	L	T
TLM5	1000	T	17797.5	R	T
TLM6	1000	T	17799.5	R	T
TLC5	1000	R	24753.5	R	T
TLC6	1000	R	25246.5	R	T

G3B	113.5	G68	GR3	U68	UT24
G3C	113.5	G1012	GR3	U1012	UT20
G3D	113.5	G1416	GR3	U1416	UT21
G4A	113.5	G24	GR4	U24	UT8
G4B	113.5	G68	GR4	U68	UT12
G4C	113.5	G1012	GR4	U1012	UT18
G4D	113.5	G1416	GR4	U1416	UT19
G5A	113.5	G24	GR5	U24	UT4
G5B	113.5	G68	GR5	U68	UT6
G5C	113.5	G1012	GR5	U1012	UT1
G5D	113.5	G1416	GR5	U1416	UT5

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S11. DIGITAL MODULATION PARAMETERS For each digital emission provide:

(a) Digital Mod. ID	(b) Emission Designator	(c) Assigned Bandwidth (kHz)	(d) No. of Phases	(e) Uncoded Data Rate (kbps)	(f) FEC Error Correction Coding Rate	(g) CDMA Processing Gain (dB)	(h) Total C/N Performance Objective (dB)	(i) Single Entry C/I Objective (dB)
1	24M0G7W	24000	4	26650	0.6667		4.1	16.3
2	48M0G7W	48000	8	100000	0.8333		8.9	21.1
3	48M0G7W	48000	8	80000	0.6667		9.6	21.8
4	24M0G7W	24000	8	50000	0.8333		8.9	21.1
5	24M0G7W	24000	8	40000	0.6667		9.6	21.8

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S12. ANALOG MODULATION PARAMETERS For each analog emission provide:

(a) Analog Mod. ID	(b) Emission Designator	(c) Assigned Bandwidth (kHz)	(d) Signal Type	(e) Channels per Carrier	Multi-channel Telephony				(j) Video Standard NTSC, PAL, etc.	(k) Video Noise- Weighting (dB)	(l) Video and SCPC/FM Modulation Index	(m) SCPC/FM Compander, Preemphasis, and Noise Weighting (dB)	(n) Total C/N Performance Objective (dB)	(o) Single Entry C/I Objective (dB)
					(f) Ave. Companded Talker Level (dBm0)	(g) Bottom Baseband Freq. (MHz)	(h) Top Baseband Freq. (MHz)	(i) RMS Modulation Index						
1	1M00F2D	1000	FM	1									14.3	21
2	50K0N0N	50		1									4	21
3	350KG9D	350		1									13.9	21

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S13. TYPICAL EMISSIONS For each planned type of emission provide:

Associated Transponder ID Range (a) Start (b) End		Modulation ID		(e) Carriers per Transponder	(f) Carrier Spacing (kHz)	(g) Noise Budget Reference (Table No.)	(h) Energy Dispersal Bandwidth (kHz)	Receive Band (Assoc. Transmit Stn)			Transmit Band (This Space Station)			
		(c) Digital (Table S11)	(d) Analog (Table S12)					(i) Assoc. Stn. Max. Antenna Gain (dBi)	Assoc. Station Transmit Power (dBW)		EIRP (dBW)		(n) Max. Power Flux Density (dBW/m2/Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
									(j) Min.	(k) Max.	(l) Min.	(m) Max.		
SX18	SX32	1		1		Link_Budget.do		65.3	12.1	13.1	49.8	54	-121.6	12.9
SX18	SX32	1		1		Link_Budget.do		65.3	12.1	13.1	49.3	54.3	-121.6	21.4
SX18	SX32	1		1		Link_Budget.do		65.3	12.1	13.1	50	54.2	-121.5	13.1
SX18	SX32	1		1		Link_Budget.do		65.3	12.1	13.1	52.1	57.2	-118.7	19.1
NX18	NX32	1		1		Link_Budget.do		65.1	10.3	12.1	52.9	54.2	-122.1	13
NX18	NX32	1		1		Link_Budget.do		65.1	10.3	12.1	56.7	58	-121.2	23.9
NX18	NX32	1		1		Link_Budget.do		65.1	10.6	12.4	52.9	54.2	-122.1	13
NX18	NX32	1		1		Link_Budget.do		65.1	10.6	12.4	56.7	58	-121.2	23.9
NX18	NX32	1		1		Link_Budget.do		65.3	7.6	9.4	52.9	54.2	-122.1	13
NX18	NX32	1		1		Link_Budget.do		65.3	7.6	9.4	56.7	58	-121.2	23.9
NX18	NX32	1		1		Link_Budget.do		65.3	10.6	12.4	52.9	54.2	-122.1	13
NX18	NX32	1		1		Link_Budget.do		65.3	10.6	12.4	56.7	58	-121.2	23.9
N1	N32	1		1		Link_Budget.do		65.1	10.3	12.1	49.8	54	-121.6	12.9
N1	N32	1		1		Link_Budget.do		65.1	10.6	12.4	49.3	54.3	-121.6	21.4
N1	N32	1		1		Link_Budget.do		65.3	7.6	9.4	50	54.2	-121.5	13.1
N1	N32	1		1		Link_Budget.do		65.3	10.6	12.4	52.1	57.2	-118.7	19.1
S18	S32	1		1		Link_Budget.do		65.3	8.3	9.3	52.9	54.2	-122.1	13
S18	S32	1		1		Link_Budget.do		65.3	12.1	13.1	56.7	58	-121.2	23.9
G1A	G6D	2		1		Link_Budget.do		65.1	6.8	11.8	59.4	63.5	-116.1	12.7
G1A	G6D	2		1		Link_Budget.do		65.1	6.6	11.6	59.2	63.3	-115.3	12.9
G1A	G6D	3		1		Link_Budget.do		65.1	6.8	11.8	59.4	63.5	-116.1	11.4
G1A	G6D	3		1		Link_Budget.do		65.1	6.6	11.6	59.2	63.3	-115.3	11.1
G1A	G6D	4		2	24000	Link_Budget.do		65.1	4	9	56.6	60.7	-115.9	12.7
G1A	G6D	4		2	24000	Link_Budget.do		65.1	3.7	8.7	56.3	60.4	-115.1	12.9
G1A	G6D	5		2	24000	Link_Budget.do		65.1	4	9	56.6	60.7	-115.9	11.4
G1A	G6D	5		2	24000	Link_Budget.do		65.1	3.7	8.7	56.3	60.4	-115.1	11.1
SX18	SX32	1		1		Link_Budget.do		65.3	8.3	9.3	49.8	54	-121.6	12.9
SX18	SX32	1		1		Link_Budget.do		65.3	8.3	9.3	49.3	54.3	-121.6	21.4
SX18	SX32	1		1		Link_Budget.do		65.3	8.3	9.3	50	54.2	-121.5	13.1

SX18	SX32	1		1	Link_Budget.do	65.3	8.3	9.3	52.1	57.2	-118.7	19.1
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**FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
FCC Form 312 - Schedule S: (Technical and Operational Description)**

S14. Is the space station(s) controlled and monitored remotely? If Yes, provide the location and telephone number of the TT and C control point(s): Yes

Remote Control (TT C) Location(s):

S14a. Street Address: 17625 Technology Bld			
S14b. City: Hagerstown	S14c. County: Washington	S14d. State/Country MD	S14e. Zip Code: 21740
S14f. Telephone Number: 240-420-8991		S14g. Call Sign of Control Station (if appropriate):	

Remote Control (TT C) Location(s):

S14a. Street Address: 22021 COMSAT Drive			
S14b. City: Clarksburg	S14c. County: Montgomery	S14d. State/Country MD	S14e. Zip Code: 20871
S14f. Telephone Number: 301-428-1501		S14g. Call Sign of Control Station (if appropriate):	

**FEDERAL COMMUNICATIONS COMMISSION
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Characteristics and
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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 3300	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3400		
S15c. Mass of spacecraft and fuel at launch (kg): 6700	S15f. Length (m): 11	S15i. Payload: 0.83
S15d. Mass of fuel, in orbit, at beginning of life (kg): 1100	S15g. Width (m): 3.5	S15j. Bus: 0.87
S15e. Deployed Area of Solar Array (square meters): 100	S15h. Height (m): 7	S15k. Total: 0.7

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

Spacecraft Subsystem	Electrical Power (Watts) At Beginning of Life		Electrical Power (Watts) At End of Life	
	At Equinox	At Solstice	At Equinox	At Solstice
Payload (Watts):	(a): 14420	(f): 14420	(k): 14420	(p): 14420
Bus (Watts):	(b): 3330	(g): 2310	(l): 3330	(q): 2130
Total (Watts):	(c): 17750	(h): 16550	(m): 17750	(r): 16550
Solar Array (Watts):	(d): 24300	(i): 20960	(n): 18550	(s): 15940
Depth of Battery Discharge (%):	(e) 74 %	(j) 74 %	(o) 74 %	(t) 74 %

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
b. Are the appropriate service area coverage requirements of § 25.143(b)(ii) and (iii), or § 25.145(c)(1) and (2) met?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
c. Are the frequency tolerances of § 25.202(e) and the out-of-band emission limits of § 25.202(f)(1), (2) and (3) met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

In addition to the information required in this Form, the space station applicant is required to provide all the information specified in Section 25.114 of the Commission's rules, 47 C.F.R § 25.114.