

**S1. GENERAL INFORMATION** Complete for all satellite applications.

a. Space Station or Satellite Network Name: SKYTERRA 1 & 2		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): 12 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date:		g. Total Number of Transponders: 152		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin:	d2. Est Launch Date End:	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 17875 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)		
18.3	G	18.8	G	T	Fixed Satellite Service
19.7	G	20.2	G	T	Fixed Satellite Service
29.25	G	30	G	R	Fixed Satellite Service
28.35	G	28.6	G	R	Fixed Satellite Service

**S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:**

a. Nominal Orbital Longitude (Degrees E/W): 95 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Spectrum availability and look angle performance across service area
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance:		
d. Toward West: 0.05 Degrees	e. Toward East: 0.05 Degrees	Range of orbital are in which adequate service can be provided (Optional): g. Westernmost: _____ Degrees _____ E/W _____ h. Easternmost: _____		
i. Reason for service are selection (Optional):				

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SATELLITE SPACE STATION AUTHORIZATIONS  
FCC Form 312 - Schedule S: (Technical and Operational Description)**

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.
SVC1	S		Continental United States

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

(a) Beam ID	(b) T/R Mode	Isotropic Antenna Gain		(e) Pointing Error (Degrees)	(f) Rotational Error (Degrees)	(g) Min. Cross- Polar Iso- lation (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
CU	R	58	57	0.05		35	N		SVC1				1156	27.4	-99	30	1
CD	T	36	28	0.11		35	N		SVC1	3.5	158.5	58					
SFU	R	58	57	0.05		35	N		SVC1				1156	27.4	-97	30	1
SFD	T	55	50.5	0.05		35	N		SVC1	2.5	21.9	68.4					
SRU	R	58	53.5	0.05		35	N		SVC1				1156	27.4	-108	30	1
SRD	T	55	54	0.05		35	N		SVC1	2.5	6.3	63					
RFU	R	58	57	0.05		35	N		SVC1				1156	27.4	-102	30	1
RFD	T	46	42	0.11		35	N		SVC1	2.5	31.6	61					
RRU	R	46	42	0.11		35	N		SVC1				1104	15.6	-114	30	1
RRD	T	55	54	0.05		35	N		SVC1	2.5	0.363	50.6					
TM	T	6	0	1		35	N		SVC1	1	20	19					

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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
CF	R	C	-95							
CU	R	C	-95		conus.gxt					
CD	T	C	-95		conus.gxt	-118	-118	-118	-118	-118
SFD	T	C	-95		spot.down	-118	-118	-118	-118	-118
SRU	R	C	-95		spot.up					
SRD	T	C	-95		spot.down	-118	-118	-118	-118	-118
RFU	R	C	-95		spot.up					
RFD	T	C	-95		reg.down	-118	-118	-118	-118	-118
RRU	R	C	-95		reg.up					
RRD	T	C	-95		spot.down	-118	-118	-118	-118	-118
SFU	R	C	-95		spot.up					
CF	R	C	-95							
CU	R	C	-95		conus.gxt					
CD	T	C	-95		conus.gxt	-118	-118	-118	-118	-118
SFD	T	C	-95		spot.down	-118	-118	-118	-118	-118
SRU	R	C	-95		spot.up					
SRD	T	C	-95		spot.down	-118	-118	-118	-118	-118
RFU	R	C	-95		spot.up					
RFD	T	C	-95		reg.down	-118	-118	-118	-118	-118
RRU	R	C	-95		reg.up					
RRD	T	C	-95		spot.down	-118	-118	-118	-118	-118
SFU	R	C	-95		spot.up					

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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)
CH1U	9920	R	29772.70	R	C
CH1D	9920	T	18422.71	L	C
CH2U	9920	R	29783.20	R	C
CH2D	9920	T	18433.21	L	C
CH3U	9920	R	29793.70	R	C
CH3D	9920	T	18443.71	L	C
CH4U	9920	R	29804.20	R	C
CH4D	9920	T	18454.21	L	C
CH5U	9920	R	29772.70	L	C
CH5D	9920	T	18422.71	R	C
CH6U	9920	R	29783.20	L	C
CH6D	9920	T	18433.21	R	C
CH7U	9920	R	29793.70	L	C
CH7D	9920	T	18443.71	R	C
CH8U	9920	R	29804.20	L	C
CH8D	9920	T	18454.21	R	C
CH9U	82800	R	29871.40	L	C
CH9D	82800	T	18521.40	R	C
CH10U	58600	R	29665.00	R	C
CH10D	58600	T	18607.00	L	C
CH11U	58600	R	29665.00	R	C
CH11D	58600	T	18661.00	L	C
CH12U	58600	R	29665.00	R	C
CH12D	58600	T	18715.00	L	C
CH13U	58600	R	29665.00	R	C
CH13D	58600	T	18769.00	L	C
CH14U	58600	R	29665.00	L	C
CH14D	58600	T	18607.00	R	C
CH15U	58600	R	29665.00	L	C
CH15D	58600	T	18661.00	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
C1	200	CH26U	CU	CH26D	CD
C2	200	CH58U	CU	CH58D	CD
SPF1	200	CH50U	SFU	CH50D	SFD
SPF2	200	CH18U	SFU	CH18D	SFD
SPF3	200	CH19U	SFU	CH19D	SFD
SPF4	200	CH51U	SFU	CH51D	SFD
SPF5	200	CH20U	SFU	CH20D	SFD
SPF6	200	CH21U	SFU	CH21D	SFD
SPF7	200	CH52U	SFU	CH52D	SFD
SPF8	200	CH53U	SFU	CH53D	SFD
SPF9	200	CH54U	SFU	CH54D	SFD
SPF10	200	CH22U	SFU	CH22D	SFD
SPF11	200	CH23U	SFU	CH23D	SFD
SPF12	200	CH55U	SFU	CH55D	SFD
SPF13	200	CH24U	SFU	CH24D	SFD
SPF14	200	CH25U	SFU	CH25D	SFD
SPF15	200	CH56U	SFU	CH56D	SFD
SPF16	200	CH18U	SFU	CH18D	SFD
SPF17	200	CH57U	SFU	CH57D	SFD
SPF18	200	CH19U	SFU	CH19D	SFD
SPF19	200	CH20U	SFU	CH20D	SFD
SPF20	200	CH50U	SFU	CH50D	SFD
SPF21	200	CH21U	SFU	CH21D	SFD
SPF22	200	CH22U	SFU	CH22D	SFD
SPF23	200	CH23U	SFU	CH23D	SFD
SPF24	200	CH51U	SFU	CH51D	SFD
SPF25	200	CH24U	SFU	CH24D	SFD
SPF26	200	CH52U	SFU	CH52D	SFD
SPF27	200	CH25U	SFU	CH25D	SFD
SPF28	200	CH53U	SFU	CH53D	SFD

CH16U	58600	R	29665.00	L	C
CH16D	58600	T	18715.00	R	C
CH17U	58600	R	29665.00	L	C
CH17D	58600	T	18769.00	R	C
CH18U	36000	R	29279.50	L	C
CH18D	36000	T	19729.53	R	C
CH19U	36000	R	29315.50	L	C
CH19D	36000	T	19765.53	R	C
CH20U	36000	R	29351.50	L	C
CH20D	36000	T	19801.53	R	C
CH21U	36000	R	29387.50	L	C
CH21D	36000	T	19837.53	R	C
CH22U	36000	R	29423.50	L	C
CH22D	36000	T	19873.53	R	C
CH23U	36000	R	29459.50	L	C
CH23D	36000	T	19909.53	R	C
CH24U	36000	R	29495.50	L	C
CH24D	36000	T	19945.53	R	C
CH25U	36000	R	29531.50	L	C
CH25D	36000	T	19981.53	R	C
CH26U	54000	R	28399.40	R	C
CH26D	54000	T	20026.42	L	C
CH27U	54000	R	28444.40	L	C
CH27D	54000	T	20071.42	R	C
CH28U	54000	R	28489.40	R	C
CH28D	54000	T	20116.42	L	C
CH29U	54000	R	28534.40	L	C
CH29D	54000	T	20161.42	R	C
CH30D	500	T	20197.75	L	T
CH31U	500	R	29950.00	V	T
CH32U	500	R	29999.50	R	T
CH33U	9920	R	29772.70	L	C
CH33D	9920	T	18422.71	R	C
CH34U	9920	R	29783.20	L	C
CH34D	9920	T	18433.21	R	C
CH35U	9920	R	29793.70	L	C
CH35D	9920	T	18443.71	R	C
CH36U	9920	R	29804.20	L	C
CH36D	9920	T	18454.21	L	C

SPF29	200	CH54U	SFU	CH54D	SFD
SPF30	200	CH55U	SFU	CH55D	SFD
SPF31	200	CH18U	SFU	CH18D	SFD
SPF32	200	CH56U	SFU	CH56D	SFD
SPF33	200	CH57U	SFU	CH57D	SFD
SPF34	200	CH19U	SFU	CH19D	SFD
SPF35	200	CH20U	SFU	CH20D	SFD
SPF36	200	CH21U	SFU	CH21D	SFD
SPF37	200	CH50U	SFU	CH50D	SFD
SPF38	200	CH51U	SFU	CH51D	SFD
SPF39	200	CH52U	SFU	CH52D	SFD
SPF40	200	CH53U	SFU	CH53D	SFD
SPF41	200	CH22U	SFU	CH22D	SFD
SPF42	200	CH54U	SFU	CH54D	SFD
RGF1	200	CH14U	RFU	CH14D	RFD
RGF2	200	CH47U	RFU	CH47D	RFD
RGF3	200	CH10U	RFU	CH10D	RFD
RGF4	200	CH43U	RFU	CH43D	RFD
RGF5	200	CH13U	RFU	CH14D	RFD
RGF6	200	CH47U	RFU	CH47D	RFD
RGF7	200	CH10U	RFU	CH10D	RFD
RGF8	200	CH43U	RFU	CH43D	RFD
RGF9	200	CH14U	RFU	CH14D	RFD
RGF10	200	CH16U	RFU	CH16D	RFD
RGF11	200	CH49U	RFU	CH49D	RFD
RGF12	200	CH12U	RFU	CH12D	RFD
RGF13	200	CH45U	RFU	CH45D	RFD
RGF14	200	CH16U	RFU	CH16D	RFD
RGF15	200	CH49U	RFU	CH49D	RFD
RGF16	200	CH12U	RFU	CH12D	RFD
RGF17	200	CH45U	RFU	CH45D	RFD
RGF18	200	CH16U	RFU	CH16D	RFD
RGF19	200	CH42U	RFU	CH42D	RFD
RGF20	200	CH11U	RFU	CH11D	RFD
RGF21	200	CH46U	RFU	CH46D	RFD
RGF22	200	CH15U	RFU	CH15D	RFD
RGF23	200	CH42U	RFU	CH42D	RFD
RGF24	200	CH11U	RFU	CH11D	RFD
RGF25	200	CH46U	RFU	CH46D	RFD

CH37U	9920	R	29772.70	R	C
CH37D	9920	T	18422.71	L	C
CH38U	9920	R	29783.20	R	C
CH38D	9920	T	18433.21	L	C
CH39U	9920	R	29793.70	R	C
CH39D	9920	T	18443.71	L	C
CH40U	9920	R	29804.20	R	C
CH40D	9920	T	18454.21	L	C
CH41U	82800	R	29871.40	R	C
CH41D	82800	T	18521.40	L	C
CH42U	58600	R	29665.00	L	C
CH42D	58600	T	18607.00	R	C
CH43U	58600	R	29665.00	L	C
CH43D	58600	T	18661.00	R	C
CH44U	58600	R	29665.00	L	C
CH44D	58600	T	18715.00	R	C
CH45U	58600	R	29665.00	L	C
CH45D	58600	T	18769.00	R	C
CH46U	58600	R	29665.00	R	C
CH46D	58600	T	18607.00	L	C
CH47U	58600	R	29665.00	R	C
CH47D	58600	T	18661.00	L	C
CH48U	58600	R	29665.00	R	C
CH48D	58600	T	18715.00	L	C
CH49U	58600	R	29665.00	R	C
CH49D	58600	T	18769.00	L	C
CH50U	36000	R	29279.5	R	C
CH50D	36000	T	19729.53	L	C
CH51U	36000	R	29315.50	R	C
CH51D	36000	T	19765.53	L	C
CH52U	36000	R	29351.50	R	C
CH52D	36000	T	19801.53	L	C
CH53U	36000	R	29387.50	R	C
CH53D	36000	T	19837.53	L	C
CH54U	36000	R	29423.50	R	C
CH54D	36000	T	19873.53	L	C
CH55U	36000	R	29459.50	R	C
CH55D	36000	T	19909.53	L	C
CH56U	36000	R	29495.50	R	C

RGF26	200	CH15U	RFU	CH15D	RFD
RGF27	200	CH17U	RFU	CH17D	RFD
RGF28	200	CH44U	RFU	CH44D	RFD
RGF29	200	CH13U	RFU	CH13D	RFD
RGF30	200	CH48U	RFU	CH48D	RFD
RGF31	200	CH17U	RFU	CH17D	RFD
RGF32	200	CH43U	RFU	CH43D	RFD
SPR1	200	CH41U	SRU	CH41D	SRD
SPR2	200	CH9U	SRU	CH9D	SRD
SPR3	200	CH9U	SRU	CH9D	SRD
SPR4	200	CH41U	SRU	CH41D	SRD
SPR5	200	CH9U	SRU	CH9D	SRD
SPR6	200	CH9U	SRU	CH9D	SRD
SPR7	200	CH41U	SRU	CH41D	SRD
SPR8	200	CH41U	SRU	CH41D	SRD
SPR9	200	CH41U	SRU	CH41D	SRD
SPR10	200	CH9U	SRU	CH9D	SRD
SPR11	200	CH9U	SRU	CH9D	SRD
SPR12	200	CH41U	SRU	CH41D	SRD
SPR13	200	CH9U	SRU	CH9D	SRD
SPR14	200	CH9U	SRU	CH9D	SRD
SPR15	200	CH41U	SRU	CH41D	SRD
SPR16	200	CH9U	SRU	CH9D	SRD
SPR17	200	CH41U	SRU	CH41D	SRD
SPR18	200	CH9U	SRU	CH9D	SRD
SPR19	200	CH9U	SRU	CH9D	SRD
SPR20	200	CH41U	SRU	CH41D	SRD
SPR21	200	CH9U	SRU	CH9D	SRD
SPR22	200	CH9U	SRU	CH9D	SRD
SPR23	200	CH9U	SRU	CH9D	SRD
SPR24	200	CH41U	SRU	CH41D	SRD
SPR25	200	CH9U	SRU	CH9D	SRD
SPR26	200	CH41U	SRU	CH41D	SRD
SPR27	200	CH9U	SRU	CH9D	SRD
SPR28	200	CH41U	SRU	CH41D	SRD
SPR29	200	CH41U	SRU	CH41D	SRD
SPR30	200	CH41U	SRU	CH40D	SRD
SPR31	200	CH9U	SRU	CH9D	SRD
TM1				CH30D	TM



CH56D	36000	T	19945.53	L	C
CH57U	36000	R	29531.50	L	C
CH57D	36000	T	19981.53	L	C
CH58U	54000	R	28399.40	L	C
CH58D	54000	T	20026.42	R	C
CH59U	54000	R	28444.40	R	C
CH59D	54000	T	20071.42	L	C
CH60U	54000	R	28489.40	L	C
CH60D	54000	T	20116.42	R	C
CH61U	54000	R	28534.40	R	C
CH61D	54000	T	20161.42	L	C
CH62D	500	T	20197.75	R	T
CH63U	500	R	29950.00	V	T
CH64U	500	R	29999.50	L	T

TM2				CH62D	TM
SPR32	200	CH41U	SRU	CH41D	SRD
SPR33	200	CH41U	SRU	CH41D	SRD
SPR34	200	CH9U	SRU	CH9D	SRD
SPR35	200	CH9U	SRU	CH9D	SRD
SPR36	200	CH9U	SRU	CH9D	SRD
SPR37	200	CH41U	SRU	CH41D	SRD
SPR38	200	CH41U	SRU	CH41D	SRD
SPR39	200	CH41U	SRU	CH41D	SRD
SPR40	200	CH41U	SRU	CH41D	SRD
SPR41	200	CH9U	SRU	CH9D	SRD
SPR42	200	CH41U	SRU	CH41D	SRD
RGR1	200	CH5U	RRU	CH5D	RRD
RGR2	200	CH38U	RRU	CH38D	RRD
RGR3	200	CH1U	RRU	CH1D	RRD
RGR4	200	CH34U	RRU	CH34D	RRD
RGR5	200	CH5U	RRU	CH5D	RRD
RGR6	200	CH38U	RRU	CH38D	RRD
RGR7	200	CH1U	RRU	CH1D	RRD
RGR8	200	CH34U	RRU	CH34D	RRD
RGR9	200	CH5U	RRU	CH5D	RRD
RGR10	200	CH7U	RRU	CH7D	RRD
RGR11	200	CH40U	RRU	CH40D	RRD
RGR12	200	CH3U	RRU	CH3D	RRD
RGR13	200	CH36U	RRU	CH36D	RRD
RGR14	200	CH7U	RRU	CH7D	RRD
RGR15	200	CH40U	RRU	CH40D	RRD
RGR16	200	CH3U	RRU	CH3D	RRD
RGR17	200	CH36U	RRU	CH36D	RRD
RGR18	200	CH7U	RRU	CH7D	RRD
RGR19	200	CH33U	RRU	CH33D	RRD
RGR20	200	CH2U	RRU	CH2D	RRD
RGR21	200	CH37U	RRU	CH37D	RRD
RGR22	200	CH6U	RRU	CH6D	RRD
RGR23	200	CH33U	RRU	CH33D	RRD
RGR24	200	CH2U	RRU	CH2D	RRD
RGR25	200	CH37U	RRU	CH37D	RRD
RGR26	200	CH6U	RRU	CH6D	RRD
RGR27	200	CH7U	RRU	CH8D	RRD

RGR28	200	CH35U	RRU	CH35D	RRD
RGR29	200	CH4U	RRU	CH4D	RRD
RGR30	200	CH39U	RRU	CH39D	RRD
RGR31	200	CH8U	RRU	CH8D	RRD
RGR32	200	CH34U	RRU	CH34D	RRD

**FEDERAL COMMUNICATIONS COMMISSION**  
**SATELLITE SPACE STATION AUTHORIZATIONS**  
**FCC Form 312 - Schedule S: (Technical and Operational Description)**

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)
DO1	54M0GXW	54000	4	56000	0.75		10	20
DO2	58M6GXW	58600	4	60000	0.75		10	20
DO3	9M92G7W	9920	4	128	0.75		10	20
DO4	291MG7W	291000	4	40000	0.75		10	20
DO5	82M8G7W	82800	4	128	0.75		10	20
DO6	500KG9D	500	2	5	1		15	30



**FEDERAL COMMUNICATIONS COMMISSION**  
**SATELLITE SPACE STATION AUTHORIZATIONS**  
**FCC Form 312 - Schedule S: (Technical and Operational Description)**

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/m <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
						(j) Min.	(k) Max.		(l) Min.	(m) Max.				
C1	C2	DO1		4	45000	See Table A.1		64.1	-7.59	-4.75	56.4	59.3	-118	22.6
SPF1	SPF42	DO4		8	36400			64.36	-12.94	7.47	51.12	68.32	-118	16.69
RGF1	RGF32	DO2		1				62.9	-3.1	19.8	49.8	69.23	-118	18.28
SPR1	SPR42	DO5		31	2700			43.2	-12.66	2.81	32.36	39.49	-118	36.48
RGR1	RGR32	DO3		1				43.1	-2.81	6.9	37.76	42.37	-118	37.08
TM1	TM2	DO6		1				6	17	17	23	23	-118	-3

**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: 3400 International, NW			
S14b. City: Washington, DC	S14c. County:	S14d. State/Country DC	S14e. Zip Code: 20008
S14f. Telephone Number:		S14g. Call Sign of Control Station (if appropriate):	

**FEDERAL COMMUNICATIONS COMMISSION  
SATELLITE SPACE STATION AUTHORIZATIONS  
FCC Form 312 - Schedule S: (Technical and Operational Description)**

**Page 11:  
Characteristics and  
Certifications**

**S15. SPACECRAFT PHYSICAL CHARACTERISTICS:**

S15a. Mass of spacecraft without fuel (kg): 2499	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 3140		
S15c. Mass of spacecraft and fuel at launch (kg): 5639	S15f. Length (m): 24	S15i. Payload: 0.9
S15d. Mass of fuel, in orbit, at beginning of life (kg): 800	S15g. Width (m): 2	S15j. Bus: 0.89
S15e. Deployed Area of Solar Array (square meters): 100	S15h. Height (m): 3.6	S15k. Total: 0.8

**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): 14000	(f): 14000	(k): 14000	(p): 14000
Bus (Watts):	(b): 1800	(g): 925	(l): 1800	(q): 925
Total (Watts):	(c): 15800	(h): 14925	(m): 15800	(r): 14925
Solar Array (Watts):	(d): 18200	(i): 17400	(n): 16300	(s): 15500
Depth of Battery Discharge (%):	(e) 75 %	(j) 75 %	(o) 75 %	(t) 75 %

**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 checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input 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.**