

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: EHOSTAR-10		e. Estimated Date of Placement into Service: 5/1/2006		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 6/30/2003		f. Estimated Lifetime of Satellite(s): 17 Years		j. Number of transponders offered on a common carrier basis: 0	
c. Construction Completion Date: 12/19/2005		g. Total Number of Transponders: 123		k. Total Common Carrier Transponder Bandwidth: 0 MHz	
d1. Est Launch Date Begin: 2/1/2006	d2. Est Launch Date End: 2/28/2006	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 2952 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)		
17300	M	17800	M	R	Feeder Link for Broadcasting Satellite Service in FSS
12200	M	12700	M	T	Broadcasting Satellite Service - Video

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 110 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Consistent with Region 2 USA Plan and existing EchoStar license.	
Longitudinal Tolerance or E/W Station-Keeping:		f. Inclination Excursion or N/S Station-Keeping Tolerance: 0.05 Degrees	Range of orbital are in which adequate service can be provided (Optional):		
d. Toward West:	0.05 Degrees		Degrees E/W		
e. Toward East:	0.05 Degrees		g. Westernmost:	110	W
			h. Easternmost:	110	W
i. Reason for service are selection (Optional): Cluster range of Region 2 BSS Plan for the 110W nominal orbital slot is from 110.2W to 109.8W.					

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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.
CONUS	S		CONUS
ALASKA	S		Alaska
HAWAII	S		Hawaii
PUERTO RICO	S		Puerto Rico
CUBA	S		Cuba
CHEYENNE	S		Area around Cheyenne, WY
GILBERT	S		Area around Gilbert, AZ
RICHMOND	S		Area around Richmond, VA
PEORIA	S		Area around Peoria, IL
SPOKANE	S		Area around Spokane, WA
SAN ANTONIO	S		Area around San Antonio, TX
ANCHORAGE	S		Area around Anchorage, AK
HONOLULU	S		Area around Honolulu, HI
SAN JUAN	S		Area around San Juan, Puerto Rico
HAVANA	S		Area around Havana, Cuba
GLOBAL	S		Visible Earth

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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
R1	R	51.05	49.8	0.05	1	29.2	N		CHEYENN				8492	11.8	-103.8	20	1
R2	R	51	50.2	0.05	1	29.4	N		GILBERT				8492	11.7	-103.7	20	1
R3	R	51.06	50	0.05	1	29.7	N		RICHMON				8492	11.8	-103.8	20	1
R4	R	50.4	49	0.05	1	27.4	N		PEORIA			11117	9.9	-101.9	20	1	
R5	R	50.96	50	0.05	1	28.9	N		SPOKANE				8892	11.5	-103.5	20	1
R6	R	52.16	50.9	0.05	1	29.3	N		SAN ANT				8892	12.7	-104.7	20	1
R7	R	49.77	49.1	0.05	1	29.2	N		ANCHOR				8492	10.5	-102.5	20	1
R8	R	46.36	45.4	0.05	1	24.6	N		HONOLUL				6295	8.4	-100.4	20	1
R9	R	48.7	47.8	0.05	1	28.8	N		SAN JUA				8492	9.4	-101.4	20	1
R10	R	51.4	50.4	0.05	1	29	N		HAVANA				8492	12.1	-104.1	20	1
OMN	R	11	-0.5	1	1	20	N		GLOBAL				1000	-19	-80		
GBL	R	21	19	1	1	30	N		GLOBAL				1000	-9	-90		
OMN	T	12.5	-0.5	1	1	20	N		GLOBAL	8.5	1.1	13					
GBLT	T	21	16.5	1	1	30	N		GLOBAL	7.6	1.2	21.7					
T01	T	49.1	42.7	0.05	1	29.1	N		CONUS	2.1	18.2	61.7					
T02	T	48.4	42.4	0.05	1	29.1	N		CONUS	2.1	20.2	61.5					
T03	T	48.7	43.1	0.05	1	29.4	N		CONUS	2.1	17.5	61.1					
T04	T	48.7	41.7	0.05	1	29	N		CONUS	2.1	23.3	62.4					
T05	T	49.1	40.9	0.05	1	29.6	N		CONUS	2.1	28.9	63.7					
T06	T	48.7	41.9	0.05	1	29.2	N		CONUS	2.1	23.9	62.5					
T07	T	48.8	42.4	0.05	1	29.2	N		CONUS	2.1	20	61.8					
T08	T	48.4	42.8	0.05	1	29.5	N		CONUS	2.1	18.4	61					
T09	T	48.9	42.3	0.05	1	29.2	N		CONUS	2.1	20.1	61.9					
T10	T	48.8	41.4	0.05	1	29.4	N		CONUS	2.1	25.4	62.8					
T11	T	49	42.6	0.05	1	29.2	N		CONUS	2.1	19.5	61.9					
T12	T	49.1	43.4	0.05	1	29.4	N		CONUS	2.1	16.3	61.2					
T13	T	49.3	42.3	0.05	1	29.2	N		CONUS	2.1	18.5	61.9					
T14	T	48.9	42.9	0.05	1	29.3	N		CONUS	2.1	18.1	61.5					
T15	T	49	41.9	0.05	1	29.2	N		CONUS	2.1	22	62.4					

T16	T	49.1	42.3	0.05	1	29.2	N		CONUS	2.1	18.5	61.7					
T17	T	49.2	42	0.05	1	29.2	N		CONUS	2.1	15.8	61.2					
T18	T	46.9	42.5	0.05	1	29.5	N		CONUS	2.1	15.9	58.9					
T19	T	49.1	42	0.05	1	29.2	N		CONUS	2.1	16.6	61.3					
T20	T	48.2	39.8	0.05	1	29.3	N		CONUS	2.1	29.8	63					
T21	T	48.8	41.6	0.05	1	29.3	N		CONUS	2.1	19.5	61.7					
T22	T	48.5	41.2	0.05	1	29.1	N		CONUS	2.1	15.3	60.4					
T23	T	48.3	40.3	0.05	1	29.2	N		CONUS	2.1	23.4	62					
T24	T	48.9	40.8	0.05	1	29.2	N		CONUS	2.1	21.1	62.1					
T25	T	48.9	40	0.05	1	29.3	N		CONUS	2.1	25.3	62.9					
T26	T	49	41.2	0.05	1	29.2	N		CONUS	2.1	20.3	62.1					
T27	T	48.3	41.2	0.05	1	29.2	N		CONUS	2.1	19	61.1					
T28	T	49.1	42.7	0.05	1	29.2	N		CONUS	2.1	10.6	59.3					
T29	T	49	40.2	0.05	1	29.2	N		CONUS	2.1	21.3	62.3					
T30	T	49.3	37.8	0.05	1	29	N		CONUS	2.1	29.2	63.9					
T31	T	49.3	39.9	0.05	1	29.6	N		CONUS	2.1	18.2	61.9					
T32	T	49.2	39.6	0.05	1	29.3	N		CONUS	2.1	19.7	62.2					
T33	T	48.3	37.1	0.05	1	29.4	N		CONUS	2.1	31	63.2					
T34	T	44.8	36.1	0.05	1	29	N		CONUS	2.1	39.2	60.7					
T35	T	49	39	0.05	1	29.3	N		CONUS	2.1	20	62					
T36	T	48.1	38.9	0.05	1	29.2	N		CONUS	2.1	20.5	61.2					
T37	T	48.5	38.5	0.05	1	29.2	N		CONUS	2.1	22.2	62					
T38	T	48.5	37.4	0.05	1	29	N		CONUS	2.1	25.8	62.6					
T39	T	48.8	39.8	0.05	1	29.9	N		CONUS	2.1	16.6	61					
T40	T	47.4	39.9	0.05	1	29.3	N		CONUS	2.1	14.6	59.1					
T41	T	48.1	41.4	0.05	1	29.6	N		CONUS	2.1	10.2	58.1					
T42	T	48.5	43.6	0.05	1	29.7	N		CONUS	2.1	6.1	56.3					
T43	T	48.5	40.6	0.05	1	29	N		CONUS	2.1	12.2	59.4					
T44	T	48.2	39.7	0.05	1	29.3	N		CONUS	2.1	15.3	60					
T45	T	48.4	42.3	0.05	1	29.2	N		CONUS	2.1	8.3	57.6					
T46	T	43.9	37.7	0.05	1	30.1	N		ALASKA	2.1	21.2	57.2					
T47	T	46	44	0.05	1	28.8	N		HAWAII	2.1	4	52					
T48	T	44.2	39.7	0.05	1	28.7	N		CUBA	2.1	26.9	58.5					
T49	T	47.8	46.3	0.05	1	28.3	N		PUERTO	2.1	5.9	55.5					

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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
R1	R	C	-110		R1.gxt					
R2	R	C	-110		R2.gxt					
R3	R	C	-110		R3.gxt					
R4	R	C	-110		R4.gxt					
R5	R	C	-110		R5.gxt					
R6	R	C	-110		R6.gxt					
R7	R	C	-110		R7.gxt					
R8	R	C	-110		R8.gxt					
R9	R	C	-110		R9.gxt					
R10	R	C	-110		R10.gxt					
GBLT	T	C	-110		GBLT.gxt					
T01	T	C	-110		T01.gxt					
T02	T	C	-110		T02.gxt					
T03	T	C	-110		T03.gxt					
T04	T	C	-110		T04.gxt					
T05	T	C	-110		T05.gxt					
T06	T	C	-110		T06.gxt					
T07	T	C	-110		T07.gxt					
T08	T	C	-110		T08.gxt					
T09	T	C	-110		T09.gxt					
T10	T	C	-110		T10.gxt					
T11	T	C	-110		T11.gxt					
GBL	R	C	-110		GBLR.gxt					
T12	T	C	-110		T12.gxt					
T13	T	C	-110		T13.gxt					
T14	T	C	-110		T14.gxt					
T15	T	C	-110		T15.gxt					
T16	T	C	-110		T16.gxt					

T17	T	C	-110		T17.gxt					
T18	T	C	-110		T18.gxt					
T19	T	C	-110		T19.gxt					
T20	T	C	-110		T20.gxt					
T21	T	C	-110		T21.gxt					
T22	T	C	-110		T22.gxt					
T23	T	C	-110		T23.gxt					
T24	T	C	-110		T24.gxt					
T25	T	C	-110		T25.gxt					
T26	T	C	-110		T26.gxt					
T27	T	C	-110		T27.gxt					
T28	T	C	-110		T28.gxt					
T29	T	C	-110		T29.gxt					
T30	T	C	-110		T30.gxt					
T31	T	C	-110		T31.gxt					
T32	T	C	-110		T32.gxt					
T33	T	C	-110		T33.gxt					
T34	T	C	-110		T34.gxt					
T35	T	C	-110		T35.gxt					
T36	T	C	-110		T36.gxt					
T37	T	C	-110		T37.gxt					
T38	T	C	-110		T38.gxt					
T39	T	C	-110		T39.gxt					
T40	T	C	-110		T40.gxt					
T41	T	C	-110		T41.gxt					
T42	T	C	-110		T42.gxt					
T43	T	C	-110		T43.gxt					
T44	T	C	-110		T44.gxt					
T45	T	C	-110		T45.gxt					
T46	T	C	-110		T46 (Alaska).gxt					
T47	T	C	-110		T47 (Hawaii).gxt					
T48	T	C	-110		T48 (Cuba).gxt					
T49	T	C	-110		T49 (Puerto Rico).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)
R03	24000	R	17353.16	R	C
R05	24000	R	17382.32	R	C
R07	24000	R	17411.48	R	C
R09	24000	R	17440.64	R	C
R11	24000	R	17469.80	R	C
R13	24000	R	17498.96	R	C
R15	24000	R	17528.12	R	C
R17	24000	R	17557.28	R	C
R19	24000	R	17586.44	R	C
R21	24000	R	17615.60	R	C
R23	24000	R	17644.76	R	C
R25	24000	R	17673.92	R	C
R27	24000	R	17703.08	R	C
R29	24000	R	17732.24	R	C
R31	24000	R	17761.40	R	C
R02	24000	R	17338.58	L	C
R04	24000	R	17367.74	L	C
R06	24000	R	17396.90	L	C
R10	24000	R	17455.22	L	C
R12	24000	R	17484.38	L	C
R14	24000	R	17513.54	L	C
R16	24000	R	17542.70	L	C
R18	24000	R	17571.86	L	C
R20	24000	R	17601.02	L	C
R22	24000	R	17630.18	L	C
R24	24000	R	17659.34	L	C
R26	24000	R	17688.50	L	C
T04	24000	T	12267.74	L	C
T12	24000	T	12384.38	L	C
T18	24000	T	12471.86	L	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
001	104.3	R04	R1	T04	T30
002	104.3	R12	R1	T12	T30
003	103.7	R18	R1	T18	T48
004	101.4	R18	R1	T18	T49
005	103.7	R20	R1	T20	T48
006	101.4	R20	R1	T20	T49
007	103.7	R23	R1	T23	T48
008	101.4	R23	R1	T23	T49
009	103.7	R25	R1	T25	T48
010	101.4	R25	R1	T25	T49
011	103.7	R26	R1	T26	T46
012	101.4	R27	R1	T27	T48
013	103.7	R29	R1	T29	T49
014	103.9	R18	R2	T18	T35
015	103.9	R20	R2	T20	T35
016	103.3	R23	R2	T23	T47
017	103.3	R25	R2	T25	T47
018	103.9	R26	R2	T26	T34
019	103.3	R04	R2	T04	T46
020	99.7	R04	R2	T04	T47
021	103.3	R12	R2	T12	T46
022	99.7	R12	R2	T12	T47
023	103.3	R27	R2	T27	T46
024	99.7	R27	R2	T27	T47
025	103.3	R29	R2	T29	T46
026	99.7	R29	R2	T29	T47
027	103.3	R31	R2	T31	T46
028	99.7	R31	R2	T31	T47
029	104.1	R02	R3	T04	T04
030	104.1	R03	R3	T23	T08

T20	24000	T	12501.02	L	C
T23	24000	T	12544.76	R	C
T25	24000	T	12573.92	R	C
T26	24000	T	12588.50	L	C
T27	24000	T	12603.08	R	C
T29	24000	T	12632.24	R	C
T31	24000	T	12661.40	R	C
CMD1V	1000	R	17304	V	T
CMD1H	1000	R	17304	H	T
CMD2V	1000	R	17306	V	T
CMD2H	1000	R	17306	H	T
TLM1	1000	T	12201	V	T
TLM2	1000	T	12696.5	V	T
TLM3	1000	T	12699.5	V	T

031	104.1	R04	R3	T04	T01
032	104.1	R05	R3	T25	T08
033	104.1	R06	R3	T04	T10
034	104.1	R07	R3	T27	T09
035	104.1	R09	R3	T29	T09
036	104.1	R10	R3	T12	T04
037	104.1	R11	R3	T31	T09
038	104.1	R12	R3	T12	T01
039	104.1	R13	R3	T23	T05
040	104.1	R14	R3	T12	T10
041	104.1	R15	R3	T25	T05
042	104.1	R16	R3	T18	T04
043	104.1	R17	R3	T27	T02
044	104.1	R18	R3	T18	T06
045	104.1	R19	R3	T29	T02
046	104.1	R20	R3	T20	T06
047	104.1	R21	R3	T31	T05
048	104.1	R22	R3	T20	T04
049	104.1	R23	R3	T23	T03
050	104.1	R24	R3	T26	T04
051	104.1	R25	R3	T25	T03
052	104.1	R26	R3	T26	T06
053	104.1	R27	R3	T27	T01
054	104.1	R29	R3	T29	T01
055	104.1	R31	R3	T31	T01
056	105.1	R02	R4	T04	T20
057	105.1	R03	R4	T23	T32
058	105.1	R04	R4	T04	T18
059	105.1	R06	R4	T04	T28
060	105.1	R07	R4	T27	T29
061	105.1	R09	R4	T29	T29
062	105.1	R10	R4	T12	T20
063	105.1	R11	R4	T31	T24
064	105.1	R12	R4	T12	T13
065	105.1	R13	R4	T23	T10
066	105.1	R14	R4	T12	T28
067	105.1	R15	R4	T25	T14
068	105.1	R16	R4	T18	T24
069	105.1	R17	R4	T27	T19

070	105.1	R18	R4	T18	T13
071	105.1	R19	R4	T29	T19
072	105.1	R20	R4	T20	T13
073	105.1	R21	R4	T31	T19
074	105.1	R22	R4	T20	T24
075	105.1	R23	R4	T23	T23
076	105.1	R24	R4	T26	T19
077	105.1	R25	R4	T25	T23
078	105.1	R26	R4	T26	T13
079	105.1	R27	R4	T27	T10
080	105.1	R29	R4	T29	T11
081	105.1	R31	R4	T31	T11
082	104.1	R02	R5	T04	T36
083	104.1	R04	R5	T04	T38
084	104.1	R06	R5	T04	T45
085	104.1	R07	R5	T27	T44
086	104.1	R09	R5	T29	T44
087	104.1	R10	R5	T12	T36
088	104.1	R11	R5	T31	T43
089	104.1	R12	R5	T12	T38
090	104.1	R13	R5	T23	T42
091	104.1	R14	R5	T12	T45
092	104.1	R15	R5	T25	T42
093	104.1	R16	R5	T18	T40
094	104.1	R17	R5	T27	T39
095	104.1	R18	R5	T18	T43
096	104.1	R19	R5	T29	T39
097	104.1	R20	R5	T20	T43
098	104.1	R21	R5	T31	T39
099	104.1	R22	R5	T20	T40
100	104.1	R23	R5	T23	T34
101	104.1	R24	R5	T26	T33
102	104.1	R25	R5	T25	T41
103	104.1	R26	R5	T26	T43
104	104.1	R29	R5	T29	T37
105	104.1	R31	R5	T31	T37
106	103.2	R02	R6	T04	T16
107	103.2	R03	R6	T23	T20
108	103.2	R04	R6	T04	T07

109	103.2	R05	R6	T25	T25
110	103.2	R06	R6	T04	T02
111	103.2	R07	R6	T27	T31
112	103.2	R09	R6	T29	T31
113	103.2	R10	R6	T12	T16
114	103.2	R11	R6	T31	T26
115	103.2	R12	R6	T12	T07
116	103.2	R13	R6	T23	T22
117	103.2	R14	R6	T12	T27
118	103.2	R15	R6	T25	T22
119	103.2	R16	R6	T18	T23
120	103.2	R17	R6	T27	T15
121	103.2	R18	R6	T18	T15
122	103.2	R19	R6	T29	T21
123	103.2	R20	R6	T20	T14
124	103.2	R21	R6	T31	T21
125	103.2	R22	R6	T20	T21
126	103.2	R23	R6	T23	T12
127	103.2	R24	R6	T26	T26
128	103.2	R25	R6	T25	T12
129	103.2	R26	R6	T26	T11
130	103.2	R27	R6	T27	T17
131	103.2	R29	R6	T29	T17
132	104.4	R18	R7	T18	T46
133	104.4	R26	R7	T26	T46
134	104.5	R23	R8	T23	T47
135	104.5	R25	R8	T25	T47
136	105.7	R29	R9	T29	T49
137	100.8	R27	R10	T27	T48
CMDA		CMD1H	OMNR		
CMDB		CMD2H	OMNR		
CMDC		CMD1V	GBLR		
CMDD		CMD2V	GBLR		
TLMA				TLM1	OMNT
TLMB				TLM2	OMNT
TLMC				TLM3	OMNT
TLMD				TLM1	GBLT
TLME				TLM2	GBLT
TLMF				TLM3	GBLT

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Page 8: Analog Modulation

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						
CMD1	1M00F2D	1000		1									10	22.2
TLM1	1M00G2D	1000		1									9	21.2

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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/m ² /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
(j) Min.	(k) Max.	(l) Min.	(m) Max.											
001	137	QPSK1		1		E-10 Link Budg		65	3.4	16.4	50	63.9		13.2
001	137	QPSK2		1		E-10 Link Budg		65	3.4	16.4	50	63.9		13.2
001	137	8PSK1		1		E-10 Link Budg		65	3.4	16.4	50	63.9		13.2
CMDA	CMDB		CMD1	1		E-10 Link Budg		63.9	19.4	39.4				-30.5
CMDC	CMDD		CMD1	1		E-10 Link Budg		63.9	2.9	8.9				-11
TLMA	TLMC		TLM1	1		E-10 Link Budg					0	13		48
TLMD	TLMF		TLM1	1		E-10 Link Budg					17.2	21.7		37

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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: 530 Echostar Drive			
S14b. City: Cheyenne	S14c. County: Laramie	S14d. State/Country WY	S14e. Zip Code: 82007
S14f. Telephone Number: 307-633-5460		S14g. Call Sign of Control Station (if appropriate):	

Remote Control (TT C) Location(s):

S14a: Street Address: 801 North Dish Drive			
S14b. City: Gilbert	S14c. County: Maricopa	S14d. State/Country AZ	S14e. Zip Code: 85233
S14f. Telephone Number: 480-558-2778		S14g. Call Sign of Control Station (if appropriate):	

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Characteristics and
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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S15a. Mass of spacecraft without fuel (kg): 2165	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg): 2172		
S15c. Mass of spacecraft and fuel at launch (kg): 4337	S15f. Length (m): 3.7	S15i. Payload: 0.8914
S15d. Mass of fuel, in orbit, at beginning of life (kg): 1346	S15g. Width (m): 7.2	S15j. Bus: 0.8805
S15e. Deployed Area of Solar Array (square meters): 74	S15h. Height (m): 28	S15k. Total: 0.785

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): 7925	(f): 7925	(k): 7925	(p): 7925
Bus (Watts):	(b): 1689	(g): 951	(l): 1694	(q): 935
Total (Watts):	(c): 9614	(h): 8876	(m): 9619	(r): 8860
Solar Array (Watts):	(d): 13186	(i): 11739	(n): 11059	(s): 9926
Depth of Battery Discharge (%):	(e) 75.3 %	(j) 75.3 %	(o) 75.7 %	(t) 75.7 %

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" 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.