

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: GALAXY-9		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): Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date:		g. Total Number of Transponders: 24		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) 864 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)		
5925	M	6425	M	R	Fixed Satellite Service
3700	M	4200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 90.9 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: PROVIDE BACK-UP TO GALAXY-11	
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): Degrees E/W	
d. Toward West:	0.05 Degrees	e. Toward East:		g. Westernmost:	
	0.05 Degrees			h. Easternmost:	
i. Reason for service are selection (Optional):					

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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		CONTIGUOUS UNITED STATES, ALASAKA, HAWAII, PUERTO RICO AND U.S. VIRGIN ISLANDS

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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
CVU	R	30.6	24.6	0.2	0.19	33	Y	90	1					4.7			
CHD	T	29.9	25.9	0.2	0.19	33	Y	0	1			42					
CVD	T	29.4	25.4	0.2	0.19	33	Y	90	1			40.8					

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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
CHU	R	C	-90.9		CHUP.gxt					
CVU	R	C	-90.9		CVUP.gxt					
CHD	T	C	-90.9		CHDN.gxt	-160.1	-159.9	-159.8	-159.7	-159.6
CVD	T	C	-90.9		CVDN.gxt	-161.3	-161.1	-161	-160.9	-160.8

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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)
CU1	36000	R	5945	V	C
CU3	36000	R	5985	V	C
CU5	36000	R	6025	V	C
CU7	36000	R	6065	V	C
CU9	36000	R	6105	V	C
CU11	36000	R	6145	V	C
CU13	36000	R	6185	V	C
CU15	36000	R	6225	V	C
CU17	36000	R	6265	V	C
CU19	36000	R	6305	V	C
CU21	36000	R	6345	V	C
CU23	36000	R	6385	V	C
CU2	36000	R	5965	H	C
CU4	36000	R	6005	H	C
CU6	36000	R	6045	H	C
CU8	36000	R	6085	H	C
CU10	36000	R	6125	H	C
CU12	36000	R	6165	H	C
CU14	36000	R	6205	H	C
CU16	36000	R	6245	H	C
CU18	36000	R	6285	H	C
CU20	36000	R	6325	H	C
CU22	36000	R	6365	H	C
CU24	36000	R	6405	H	C
CD1	36000	T	3720	H	C
CD3	36000	T	3760	H	C
CD5	36000	T	3800	H	C
CD7	36000	T	3840	H	C
CD9	36000	T	3880	H	C
CD11	36000	T	3920	H	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
1C	110.7	CU1	CVUP	CD1	CHDN
3C	110.7	CU3	CVUP	CD3	CHDN
5C	110.7	CU5	CVUP	CD5	CHDN
7C	110.7	CU7	CVUP	CD7	CHDN
9C	110.7	CU9	CVUP	CD9	CHDN
11C	110.7	CU11	CVUP	CD11	CHDN
13C	110.7	CU13	CVUP	CD13	CHDN
15C	110.7	CU15	CVUP	CD15	CHDN
17C	110.7	CU17	CVUP	CD17	CHDN
19C	110.7	CU19	CVUP	CD19	CHDN
21C	110.7	CU21	CVUP	CD21	CHDN
23C	110.7	CU23	CVUP	CD23	CHDN
2C	110.7	CU2	CHUP	CD2	CVDN
4C	110.7	CU4	CHUP	CD4	CVDN
6C	110.7	CU6	CHUP	CD6	CVDN
8C	110.7	CU8	CHUP	CD8	CVDN
10C	110.7	CU10	CHUP	CD10	CVDN
12C	110.7	CU12	CHUP	CD12	CVDN
14C	110.7	CU14	CHUP	CD14	CVDN
16C	110.7	CU16	CHUP	CD16	CVDN
18C	110.7	CU18	CHUP	CD18	CVDN
20C	110.7	CU20	CHUP	CD20	CVDN
22C	110.7	CU22	CHUP	CD22	CVDN
24C	110.7	CU24	CHUP	CD24	CVDN

CD13	36000	T	3960	H	C
CD15	36000	T	4000	H	C
CD17	36000	T	4040	H	C
CD19	36000	T	4080	H	C
CD21	36000	T	4120	H	C
CD23	36000	T	4160	H	C
CD2	36000	T	3740	V	C
CD4	36000	T	3780	V	C
CD6	36000	T	3820	V	C
CD8	36000	T	3860	V	C
CD10	36000	T	3900	V	C
CD12	36000	T	3940	V	C
CD14	36000	T	3980	V	C
CD16	36000	T	4020	V	C
CD18	36000	T	4060	V	C
CD20	36000	T	4100	V	C
CD22	36000	T	4140	V	C
CD24	36000	T	4180	V	C

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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	30M1G7W	36000	4	36863	0.75		6.1	18.3
2	7M00G7W	9000	4	5706	0.5		3.4	15.6
3	75K4G7W	100	4	64	0.5		3	15.2

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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	36M0F3F	36	TV/FM	1					NTSC	12.8			10	24

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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.				
1C	24C		1	1		LINK BUDGET	4000	52.8	17.1	23.1	38	42	-150.1	26.2
1C	24C	1		1		LINK BUDGET		52.8	17.1	23.1	38	42	-158.9	21
1C	24C	2		2	9000	LINK BUDGET		52.8	6.8	12.8	29.1	33.1	-161.4	21
1C	24C	3		271	100	LINK BUDGET		52.8	-13.2	-7.2	9	13	-161.9	21
1C	24C		1	1		LINK BUDGET	4000	52.8	18.4	24.4	36.8	40.8	-151.3	26.2
1C	24C	1		1		LINK BUDGET		52.8	18.4	24.4	36.8	40.8	-160.1	20.9
1C	24C	2		2	9000	LINK BUDGET		52.8	6.1	12.1	27.9	31.9	-162.6	20.9
1C	24C	3		272	100	LINK BUDGET		52.8	-13.9	-7.9	7.8	11.8	-163.1	20.9

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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): #Error

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S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?:	<input 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 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 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.						