

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
(Technical and Operational Description)

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: GALAXY 26		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: 52		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) 1728 MHz		l. Orbit Type: Mark all boxes that apply: ☒ GSO ☐ 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	Nature of Service(s): List all that apply to this band	f.
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	
14000	M	14500	M	R	Fixed Satellite Service	
11700	M	12200	M	T	Fixed Satellite Service	

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 50 E		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: To provide service to Europe, Africa, Asia for a customer in accordance with the ITU filings of the adminsitrations of Turkey
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): Degrees E/W	
d. Toward West:	0.05 Degrees		g. Westernmost:	
e. Toward East:	0.05 Degrees		h. Easternmost:	
i. Reason for service are selection (Optional):				

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Page 2: NGSO Orbits

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)
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NO NGSO DATA FILED

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Page 3: Service Areas

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		EUROPE, MIDDLE EAST AND PORTIONS OF AFRICA AND ASIA
2	S		GLOBAL

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Page 4: Antenna Beams

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				
		(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)	Input Attenuator (dB)	
																(q) Max. Value	(r) Step Size
CHU	R	30.9	22.9					0	1					4.4	-95.7	21	1
CVUL	R	30.9	22.9					90	1					4.4	-94.4	21	1
KHUL	R	30.1	24.1					0	1					2.3	-99.3	21	1
KVUL	R	30.1	24.1					90	1					2.3	-99.3	21	1
CHD	T	28.6	22.6					0	1			40.3					
CVDL	T	28.6	22.6					90	1			40.3					
KHDL	T	31	25					0	1			49.2					
KVDL	T	31	25					90	1			49.2					
CMH	R	2	1					0	2					-32.9	-99.3		
CMV	R	2	1					90	2					-32.9	-99.3		
CMH	R	7	4.4					0	2					-34	-98.2		
CMV	R	7	4.4					90	2					-34	-98.2		
TMH	T	28.6	18.6					0	1			21					
TMV	T	28.6	18.6					90	1			21					
TMVL	T	2	1					90	1			7.5					
TMV	T	7	4.4					90	2			7					
UPH	T	31	21					0	1			20.3					
UPV	T	31	21					90	1			20.3					

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Page 5: Beam Diagrams

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	50		chul.gxt					
CVUL	R	C	50		cvul.gxt					
KHUL	R	C	50		khul.gxt					
KVUL	R	C	50		kvul.gxt					
CHD	T	C	50		chdl.gxt	-171.3	-171.1	-171	-170.9	-170.8
CVDL	T	C	50		cvdl.gxt	-171.3	-171.1	-171	-170.9	-170.8
KHDL	T	C	50		khdl.gxt					
KVDL	T	C	50		kvdL.gxt					
CMH	R	C	50		CMHL.gxt					
CMV	R	C	50		CMVL.gxt					
CMH	R	C	50		CMHH.gxt					
CMV	R	C	50		CMVH.gxt					
TMH	T	C	50		tmhr.gxt	-161	-160.9	-160.8	-160.7	-160.6
TMV	T	C	50		tmvr.gxt	-161	-160.9	-160.8	-160.7	-160.6
TMVL	T	C	50		TMVL.gxt	-174.5	-174.4	-174.3	-174.2	-174.1
TMV	T	C	50		TMVH.gxt	-175	-174.9	-174.8	-174.6	-174.5
UPH	T	C	50		uphr.gxt					
UPV	T	C	50		upvr.gxt					

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Page 6: Channels and Transponders

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)
UC001	36000	R	5945	H	C
UC003	36000	R	5985	H	C
UC005	36000	R	6025	H	C
UC007	36000	R	6065	H	C
UC009	36000	R	6105	H	C
UC011	36000	R	6145	H	C
UC013	36000	R	6185	H	C
UC015	36000	R	6225	H	C
UC017	36000	R	6265	H	C
UC019	36000	R	6305	H	C
UC021	36000	R	6345	H	C
UC023	36000	R	6385	H	C
UC002	36000	R	5965	V	C
UC004	36000	R	6005	V	C
UC006	36000	R	6045	V	C
UC008	36000	R	6085	V	C
UC010	36000	R	6125	V	C
UC012	36000	R	6165	V	C
UC014	36000	R	6205	V	C
UC016	36000	R	6245	V	C
UC018	36000	R	6285	V	C
UC020	36000	R	6325	V	C
UC022	36000	R	6365	V	C
UC024	36000	R	6405	V	C
DC001	36000	T	3720	V	C
DC003	36000	T	3760	V	C
DC005	36000	T	3800	V	C
DC007	36000	T	3840	V	C
DC009	36000	T	3880	V	C
DC011	36000	T	3920	V	C

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
C0001	113.8	UC001	CHUL	DC001	CVDL
C0003	113.8	UC003	CHUL	DC003	CVDL
C0005	113.8	UC005	CHUL	DC005	CVDL
C0007	113.8	UC007	CHUL	DC007	CVDL
C0009	113.8	UC009	CHUL	DC009	CVDL
C0011	113.8	UC011	CHUL	DC011	CVDL
C0013	113.8	UC013	CHUL	DC013	CVDL
C0015	113.8	UC015	CHUL	DC015	CVDL
C0017	113.8	UC017	CHUL	DC017	CVDL
C0019	113.8	UC019	CHUL	DC019	CVDL
C0021	113.8	UC021	CHUL	DC021	CVDL
C0023	113.8	UC023	CHUL	DC023	CVDL
C0002	112.5	UC002	CVUL	DC002	CHDL
C0004	112.5	UC004	CVUL	DC004	CHDL
C0006	112.5	UC006	CVUL	DC006	CHDL
C0008	112.5	UC008	CVUL	DC008	CHDL
C0010	112.5	UC010	CVUL	DC010	CHDL
C0012	112.5	UC012	CVUL	DC012	CHDL
C0014	112.5	UC014	CVUL	DC014	CHDL
C0016	112.5	UC016	CVUL	DC016	CHDL
C0018	112.5	UC018	CVUL	DC018	CHDL
C0020	112.5	UC020	CVUL	DC020	CHDL
C0022	112.5	UC022	CVUL	DC022	CHDL
C0024	112.5	UC024	CVUL	DC024	CHDL
K0001	131.8	UK001	KHUL	DK001	KVDL
K0003	131.8	UK003	KHUL	DK003	KVDL
K0005	131.8	UK005	KHUL	DK005	KVDL
K0007	131.8	UK007	KHUL	DK007	KVDL
K0009	131.8	UK009	KHUL	DK009	KVDL
K0011	131.8	UK011	KHUL	DK011	KVDL

DC013	36000	T	3960	V	C
DC015	36000	T	4000	V	C
DC017	36000	T	4040	V	C
DC019	36000	T	4080	V	C
DC021	36000	T	4120	V	C
DC023	36000	T	4160	V	C
DC002	36000	T	3740	H	C
DC004	36000	T	3780	H	C
DC006	36000	T	3820	H	C
DC008	36000	T	3860	H	C
DC010	36000	T	3900	H	C
DC012	36000	T	3940	H	C
DC014	36000	T	3980	H	C
DC016	36000	T	4020	H	C
DC018	36000	T	4060	H	C
DC020	36000	T	4100	H	C
DC022	36000	T	4140	H	C
DC024	36000	T	4180	H	C
UK001	54000	R	14028.5	H	C
UK003	54000	R	14089.5	H	C
UK005	27000	R	14136	H	C
UK007	27000	R	14167	H	C
UK009	27000	R	14198	H	C
UK011	27000	R	14229	H	C
UK013	27000	R	14260	H	C
UK015	27000	R	14291	H	C
UK017	27000	R	14322	H	C
UK019	27000	R	14353	H	C
UK021	27000	R	14384	H	C
UK023	27000	R	14415	H	C
UK025	27000	R	14446	H	C
UK027	27000	R	14477	H	C
UK002	54000	R	14035	V	C
UK004	54000	R	14096	V	C
UK006	27000	R	14142.5	V	C
UK008	27000	R	14173.5	V	C
UK010	27000	R	14204.5	V	C
UK012	27000	R	14235.5	V	C
UK014	27000	R	14266.5	V	C

K0013	131.8	UK013	KHUL	DK013	KVDL
K0015	131.8	UK015	KHUL	DK015	KVDL
K0017	131.8	UK017	KHUL	DK017	KVDL
K0019	131.8	UK019	KHUL	DK019	KVDL
K0021	131.8	UK021	KHUL	DK021	KVDL
K0023	131.8	UK023	KHUL	DK023	KVDL
K0025	131.8	UK025	KHUL	DK025	KVDL
K0027	131.8	UK027	KHUL	DK027	KVDL
K0002	131.8	UK002	KVUL	DK002	KHDL
K0004	131.8	UK004	KVUL	DK004	KHDL
K0006	131.8	UK006	KVUL	DK006	KHDL
K0008	131.8	UK008	KVUL	DK008	KHDL
K0010	131.8	UK010	KVUL	DK010	KHDL
K0012	131.8	UK012	KVUL	DK012	KHDL
K0014	131.8	UK014	KVUL	DK014	KHDL
K0016	131.8	UK016	KVUL	DK016	KHDL
K0018	131.8	UK018	KVUL	DK018	KHDL
K0020	131.8	UK020	KVUL	DK020	KHDL
K0022	131.8	UK022	KVUL	DK022	KHDL
K0024	131.8	UK024	KVUL	DK024	KHDL
K0026	131.8	UK026	KVUL	DK026	KHDL
K0028	131.8	UK028	KVUL	DK028	KHDL

UK016	27000	R	14297.5	V	C
UK018	27000	R	14328.5	V	C
UK020	27000	R	14359.5	V	C
UK022	27000	R	14390.5	V	C
UK024	27000	R	14421.5	V	C
UK026	27000	R	14452.5	V	C
UK028	27000	R	14483.5	V	C
DK001	54000	T	11728.5	V	C
DK003	54000	T	11789.5	V	C
DK005	27000	T	11836	V	C
DK007	27000	T	11867	V	C
DK009	27000	T	11898	V	C
DK011	27000	T	11929	V	C
DK013	27000	T	11960	V	C
DK015	27000	T	11991	V	C
DK017	27000	T	12022	V	C
DK019	27000	T	12053	V	C
DK021	27000	T	12084	V	C
DK023	27000	T	12115	V	C
DK025	27000	T	12146	V	C
DK027	27000	T	12177	V	C
DK006	27000	T	11842.5	H	C
DK008	27000	T	11873.5	H	C
DK010	27000	T	11904.5	H	C
DK012	27000	T	11935.5	H	C
DK014	27000	T	11966.5	H	C
DK016	27000	T	11997.5	H	C
DK018	27000	T	12028.5	H	C
DK020	27000	T	12059.5	H	C
DK022	27000	T	12090.5	H	C
DK024	27000	T	12121.5	H	C
DK026	27000	T	12152.5	H	C
DK028	27000	T	12183.5	H	C
CM1	1000	R	5926.5	H	T
CM2	1000	R	6423.5	H	T
CM3	1000	R	6411.00	H	T
CM4	1000	R	5926.5	V	T
CM5	1000	R	6423.5	V	T
CM6	1000	R	6411.0	V	T

CM7	1000	R	5926.5	H	T
CM8	1000	R	6423.5	H	T
CM9	1000	R	6411.0	H	T
CM10	1000	R	5926.5	V	T
CM11	1000	R	6423.5	V	T
CM12	1000	R	6411.0	V	T
TM1	500	T	4196.5	H	T
TM2	500	T	4199.5	H	T
TM3	500	T	4196.5	V	T
TM4	500	T	4199.5	V	T
TM5	500	T	4196.5	V	T
TM6	500	T	4199.5	V	T
TM7	500	T	4196.5	V	T
TM8	500	T	4199.5	V	T
UPC1	25	T	11702	H	T
UPC2	25	T	12198	V	T
DK002	54000	T	11735	H	C
DK004	54000	T	11796	H	C

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Page 7: Digital Modulation

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)
D1	54M0G7W	54000	4	36862	0.5		3.4	17.4
D2	27M0G7W	27000	4	18432	0.5		3.4	20.4
D3	10M3G7W	10300	4	6000	0.5		3.9	15.5
D4	100KG7W	100	4	64	0.5		3	14.9
D5	1M45G7W	1450	2	512	0.5		3.4	14.8
D6	400KG7W	400	2	128	0.5		3.4	12.2

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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						
A1	24M0F3F	24000	TV/FM	1					SECAM	15.6	1.5		10	23.6

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Page 9: Typical Emissions

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

Associated Transponder ID Range		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)
(a) Start	(b) End								(j) Min.	(k) Max.	(l) Min.	(m) Max.		
K0001	K0028		A1	1	24000	Link Budgets.p	4000	63.6	17	23	43.2	49.2	-142.9	22.3
K0001	K0028	D2		1	27000	Link Budgets.p		56.9	16.7	22.7	41.6	47.6	-152	18.8
K0001	K0028	D3		2	10300	Link Budgets.p		56.9	4	10	36.2	42.2	-152.2	18.8
K0001	K0028	D4		230	100	Link Budgets.p		56.9	-16.1	-10.1	16.1	22.1	-152.8	18.8
K0001	K0028	D5		14	1450	Link Budgets.p		56.9	-4.1	1.9	28.1	34.1	-152.9	18.8
K0001	K0028	D6		67	400	Link Budgets.p		42.9	-2	4	16.2	22.2	-158.8	33.1
K0001	K0028		A1	2	24000	Link Budgets.p	4000	56.9	16.5	22.5	37	43	-149.1	31
K0001	K0028	D1		1	54000	Link Budgets.p		56.9	17.7	23.7	43.2	49.2	-153.5	18.8
K0001	K0028	D3		3	10300	Link Budgets.p		56.9	0.8	6.8	33.9	39.9	-154.5	22.3
K0001	K0028	D4		395	100	Link Budgets.p		56.9	-19.5	-13.5	13.7	19.7	-155.2	22.3
K0001	K0028	D5		24	1450	Link Budgets.p		56.9	-7.5	-1.5	25.7	31.7	-155.3	22.3
K0001	K0028	D6		135	400	Link Budgets.p		46.4	-6.2	-0.2	16.5	22.5	-158.5	33.1

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Page 10: TT and C

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 DRIVE NW			
S14b. City: WASHINGTON DC	S14c. County:	S14d. State/Country DC	S14e. Zip Code: 20008
S14f. Telephone Number: 202-944-7701		S14g. Call Sign of Control Station (if appropriate):	

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**Page 11:
Characteristics and
Certifications**

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	☐	YES	☐	NO	☐	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?	☐	YES	☐	NO	☐	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?	☐	YES	☐	NO	☐	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.						