

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: EUTELSAT 65 WEST A		e. Estimated Date of Placement into Service: 6/30/2016		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 6/30/2013		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis: 0	
c. Construction Completion Date: 1/31/2016		g. Total Number of Transponders: 34		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 3/1/2016	d2. Est Launch Date End: 4/30/2016	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 18000 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)		
27500	M	29000	M	R	Fixed Satellite Service
29500	M	30000	M	R	Fixed Satellite Service
18300	M	18800	M	T	Fixed Satellite Service
19700	M	20200	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 65.2 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection: Planned satellite that is the responsibility of another satellite operator and ITU administration.			
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): <u> Degrees </u> <u> E/W </u>	
d. Toward West: 0.1 Degrees	e. Toward East: 0.1 Degrees		g. Westernmost: 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.
SA1	S		Riverside, CA (Longitude 117.089 degW, Latitude 33.796 degN)
SA2	S		Cheyenne, WY (Longitude 104.737 degW, Latitude 41.132 degN)
SA3	S		Germantown, MD (Longitude 77.245 degW, Latitude 39.179 degN)

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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				
										(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														
GR1	R	52.7	51.7	0.05	1	21	N		SA1				2345	18	-110	25	1
GR2	R	52.7	51.7	0.05	1	21	N		SA2				2139	18.4	-110.4	25	1
GR3	R	52.7	51.7	0.05	1	21	N		SA3				1951	18.8	-110.8	25	1
GT1	T	49	48	0.05	1	24	N		SA1	2.2	160	71					
GT2	T	49	48	0.05	1	24	N		SA2	2.2	160	71					
GT3	T	49	48	0.05	1	24	N		SA3	2.2	160	71					

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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
GR1	R	C	-65		GR1.gxt					
GR2	R	C	-65		GR2.gxt					
GR3	R	C	-65		GR3.gxt					
GT1	T	C	-65		GT1.gxt	-137.3	-132.2	-126	-121.3	-121.2
GT2	T	C	-65		GT2.gxt	-142.3	-142.2	-142	-127.9	-121.2
GT3	T	C	-65		GT3.gxt	-142.3	-142.2	-142	-141.9	-121.2

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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)
GU1	1000000	R	28000	R	C
GU2	1000000	R	28000	L	C
GU3	500000	R	28750	R	C
GU4	500000	R	28750	L	C
GU5	500000	R	29750	R	C
GU6	500000	R	29750	L	C
GD1	500000	T	18550	L	C
GD2	500000	T	18550	R	C
GD3	250000	T	19825	L	C
GD4	250000	T	20075	L	C
GD5A	500000	T	19950	R	C
GD5B	250000	T	19825	R	C
GD5C	250000	T	20075	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
FG1CA		GU1	GR1		
FG1CB		GU2	GR1		
FG1CC		GU3	GR1		
FG1CD		GU4	GR1		
FG1CE		GU5	GR1		
FG1CF		GU6	GR1		
FG2CA		GU1	GR2		
FG2CB		GU2	GR2		
FG2CC		GU3	GR2		
FG2CD		GU4	GR2		
FG2CE		GU5	GR2		
FG2CF		GU6	GR2		
FG3CA		GU1	GR3		
FG3CB		GU2	GR3		
FG3CC		GU3	GR3		
FG3CD		GU4	GR3		
FG3CE		GU5	GR3		
FG3CF		GU6	GR3		
RG1CA				GD1	GT1
RG1CB				GD2	GT1
RG1CC				GD3	GT1
RG1CD				GD4	GT1
RG1CE				GD5A	GT1
RG2CA				GD1	GT2
RG2CB				GD2	GT2
RG2CC				GD3	GT2
RG2CD				GD4	GT2
RG2CE				GD5A	GT2
RG3CA				GD1	GT3
RG3CB				GD2	GT3

RG3CC				GD3	GT3
RG3CD				GD4	GT3
RG3CF				GD5B	GT3
RG3CG				GD5C	GT3

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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)
D1	250MG7W	250000	16	533000	0.6642		9.3	21.5
D2	250MG7W	250000	8	450000	0.747		8.2	20.4
D3	250MG7W	250000	4	358000	0.895		6.6	18.8
D4	3M67G7W	3672	8	6666	0.747		8.2	20.4
D5	1M22G7W	1224	8	1950	0.6642		7.1	19.3
D6	612KG7W	612	4	868	0.8869		6.5	18.7
D7	612KG7W	612	2	243	0.5		-1.3	10.9
D8	40M0G7W	40000	16	85280	0.6642		9.3	21.5
D9	40M0G7W	40000	8	72000	0.747		8.2	20.4
D10	40M0G7W	40000	4	57280	0.895		6.6	18.8

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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) (j) Min. (k) Max.		EIRP (dBW) (l) Min. (m) Max.		(n) Max. Power Flux Density (dBW/m ² /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
FG1CA	FG3CF	D1		1		LB1.xls		68.8	4.2	17				
FG1CA	FG3CF	D2		1		LB2.xls		68.8	4.2	17				
FG1CA	FG3CF	D3		1		LB3.xls		68.8	4.2	17				
RG1CA	RG3CG	D4		68		LB4.xls					26.6	46.6	-121.2	37.6
RG1CA	RG3CG	D5		204		LB5.xls					21.9	41.9	-121.2	37.6
RG1CA	RG3CG	D6		408		LB6.xls					18.9	38.9	-121.2	37.6
RG1CA	RG3CG	D7		408		LB7.xls					18.9	38.9	-121.2	37.6
FG1CA	FG3CF	D8		6		LB8.xls		68.8	-3.7	17				
FG1CA	FG3CF	D9		6		LB9.xls		68.8	-3.7	17				
FG1CA	FG3CF	D10		6		LB10.xls		68.8	-3.7	17				

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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:

S15a. Mass of spacecraft without fuel (kg): 2817	Spacecraft Dimensions (meters)	Probability of Survival to End of Life (0.0 - 1.0)
S15b. Mass of fuel and disposables at launch (kg):		
S15c. Mass of spacecraft and fuel at launch (kg):	S15f. Length (m):	S15i. Payload:
S15d. Mass of fuel, in orbit, at beginning of life (kg):	S15g. Width (m):	S15j. Bus:
S15e. Deployed Area of Solar Array (square meters): 94	S15h. Height (m):	S15k. Total:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

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.