

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

a. Space Station or Satellite Network Name: SATMEX 8		e. Estimated Date of Placement into Service: 11/15/2012		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date: 4/1/2010		f. Estimated Lifetime of Satellite(s): 15 Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date: 7/1/2012		g. Total Number of Transponders: 64		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin: 10/1/2012	d2. Est Launch Date End: 10/31/2012	h. Total Transponder Bandwidth (no. transponders x Bandwidth) 2358 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
14000	M	14500	M	R	Fixed Satellite Service
11700	M	12200	M	T	Fixed Satellite Service
3700	M	4200	M	T	Direct to Home in the Fixed Fixed Satellite Service
11700	M	12200	M	T	Direct to Home in the Fixed Fixed Satellite Service

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

a. Nominal Orbital Longitude (Degrees E/W): 116.8 W		b. Alternate Orbital Longitude (Degrees E/W):		c. Reason for orbital location selection:  The orbital location is consistent with the Trilateral Agreement reached between Canada, Mexico and the United States of America in 1988.	
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):		
d. Toward West:	0.05 Degrees		g. Westernmost: h. Easternmost:		
e. Toward East:	0.05 Degrees	0.05 Degrees			
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:
- S4b. Total Number of Orbital Planes in Network or System:
- S4c. Celestial Reference Body (Earth, Sun, Moon, etc.):
- 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 intital 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		-6 dB contour of beams CUH and CUV
SA2	S		-6 dB contour of beams CDH and CDV
SA3	S		-6 dB contour of beams KHUH and KHUV
SA4	S		-6 dB contour of beams KNUH and KNUV
SA5	S		-6 dB contour of beams KHDH and KHDV
SA6	S		-6 dB contour of beams KNDH and KNDV

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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														
CUH	R	28	22	0.1		30	N	0	SA1				469	1.3	-94	31	1
CUV	R	28	22	0.1		30	N	90	SA1				469	1.3	-94	31	1
CDH	T	26	20	0.1		30	N	0	SA2	1.4	46.8	42.7					
CDV	T	26	20	0.1		30	N	90	SA2	1.4	46.8	42.7					
KHU	R	31.8	25.8	0.11		30	N	0	SA3				528	4.6	-94	31	1
KHU	R	31.8	25.8	0.11		30	N	90	SA3				528	4.6	-94	31	1
KNU	R	32.9	26.9	0.12		30	N	0	SA4				484	6	-94	31	1
KNU	R	32.9	26.9	0.12		30	N	90	SA4				484	6	-94	31	1
KHD	T	29.9	23.9	0.11		30	N	0	SA5	1.4	107	50.2					
KHD	T	29.9	23.9	0.11		30	N	90	SA5	1.4	107	50.2					
KND	T	32.2	26.2	0.12		30	N	0	SA6	1.5	105	52.4					
KND	T	32.2	26.2	0.12		30	N	90	SA6	1.5	105	52.4					

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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
CUH	R	C	-116.8		CUH.gxt					
CUV	R	C	-116.8		CUV.gxt					
CDH	T	C	-116.8		CDH.gxt	-161.1	-160.9	-160.8	-160.6	-160.5
CDV	T	C	-116.8		CDV.gxt	-161.1	-160.9	-160.8	-160.6	-160.5
KHU	R	C	-116.8		KHUH.gxt					
KHU	R	C	-116.8		KHUV.gxt					
KNU	R	C	-116.8		KNUH.gxt					
KNU	R	C	-116.8		KNUV.gxt					
KHD	T	C	-116.8		KHDH.gxt					
KHD	T	C	-116.8		KHDV.gxt					
KND	T	C	-116.8		KNDH.gxt					
KND	T	C	-116.8		KNDV.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)
CU001	36000	R	5945	H	C
CU002	36000	R	5985	H	C
CU003	36000	R	6025	H	C
CU004	36000	R	6065	H	C
CU005	36000	R	6105	H	C
CU006	36000	R	6145	H	C
CU007	36000	R	6185	H	C
CU008	36000	R	6225	H	C
CU009	36000	R	6265	H	C
CU010	36000	R	6305	H	C
CU011	36000	R	6345	H	C
CU012	36000	R	6385	H	C
CU013	36000	R	5965	V	C
CU014	36000	R	6005	V	C
CU015	36000	R	6045	V	C
CU016	36000	R	6085	V	C
CU017	36000	R	6125	V	C
CU018	36000	R	6165	V	C
CU019	36000	R	6205	V	C
CU020	36000	R	6245	V	C
CU021	36000	R	6285	V	C
CU022	36000	R	6325	V	C
CU023	36000	R	6365	V	C
CU024	36000	R	6405	V	C
CD001	36000	T	3720	V	C
CD002	36000	T	3760	V	C
CD003	36000	T	3800	V	C
CD004	36000	T	3840	V	C
CD005	36000	T	3880	V	C
CD006	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	120	CU001	CUH	CD001	CDV
C0002	120	CU002	CUH	CD002	CDV
C0003	120	CU003	CUH	CD003	CDV
C0004	120	CU004	CUH	CD004	CDV
C0005	120	CU005	CUH	CD005	CDV
C0006	120	CU006	CUH	CD006	CDV
C0007	120	CU007	CUH	CD007	CDV
C0008	120	CU008	CUH	CD008	CDV
C0009	120	CU009	CUH	CD009	CDV
C0010	120	CU010	CUH	CD010	CDV
C0011	120	CU011	CUH	CD011	CDV
C0012	120	CU012	CUH	CD012	CDV
C0013	120	CU013	CUV	CD013	CDH
C0014	120	CU014	CUV	CD014	CDH
C0015	120	CU015	CUV	CD015	CDH
C0016	120	CU016	CUV	CD016	CDH
C0017	120	CU017	CUV	CD017	CDH
C0018	120	CU018	CUV	CD018	CDH
C0019	120	CU019	CUV	CD019	CDH
C0020	120	CU020	CUV	CD020	CDH
C0021	120	CU021	CUV	CD021	CDH
C0022	120	CU022	CUV	CD022	CDH
C0023	120	CU023	CUV	CD023	CDH
C0024	120	CU024	CUV	CD024	CDH
K0001	126.5	KU001	KNUV	KD001	KNDH
K0002	126.5	KU002	KNUV	KD002	KNDH
K0003	126.5	KU003	KNUV	KD003	KNDH
K0004	126.5	KU004	KNUV	KD004	KNDH
K0005	126.5	KU005	KNUV	KD005	KNDH
K0006	126.5	KU006	KNUV	KD006	KNDH

CD007	36000	T	3960	V	C
CD008	36000	T	4000	V	C
CD009	36000	T	4040	V	C
CD010	36000	T	4080	V	C
CD011	36000	T	4120	V	C
CD012	36000	T	4160	V	C
CD013	36000	T	3740	H	C
CD014	36000	T	3780	H	C
CD015	36000	T	3820	H	C
CD016	36000	T	3860	H	C
CD017	36000	T	3900	H	C
CD018	36000	T	3940	H	C
CD019	36000	T	3980	H	C
CD020	36000	T	4020	H	C
CD021	36000	T	4060	H	C
CD022	36000	T	4100	H	C
CD023	36000	T	4140	H	C
CD024	36000	T	4180	H	C
KU001	36000	R	14020	V	C
KU002	36000	R	14060	V	C
KU003	36000	R	14100	V	C
KU004	36000	R	14140	V	C
KU005	36000	R	14180	V	C
KU006	36000	R	14220	V	C
KU007	36000	R	14260	V	C
KU008	36000	R	14300	V	C
KU009	36000	R	14340	V	C
KU010	36000	R	14380	V	C
KU011	36000	R	14420	V	C
KU012	54000	R	14470	V	C
KU013	54000	R	14030	H	C
KU014	36000	R	14080	H	C
KU015	36000	R	14120	H	C
KU016	36000	R	14160	H	C
KU017	36000	R	14200	H	C
KU018	36000	R	14240	H	C
KU019	36000	R	14280	H	C
KU020	36000	R	14320	H	C
KU021	36000	R	14360	H	C

K0007	126.5	KU007	KNUV	KD007	KNDH
K0008	126.5	KU008	KNUV	KD008	KNDH
K0009	126.5	KU013	KNUH	KD013	KNDV
K0010	126.5	KU014	KNUH	KD014	KNDV
K0011	126.5	KU015	KNUH	KD015	KNDV
K0012	126.5	KU016	KNUH	KD016	KNDV
K0013	126.5	KU017	KNUH	KD017	KNDV
K0014	126.5	KU018	KNUH	KD018	KNDV
K0015	126.5	KU019	KNUH	KD019	KNDV
K0016	126.5	KU020	KNUH	KD020	KNDV
K0017	127.1	KU009	KHUV	KD009	KHDH
K0018	127.1	KU010	KHUV	KD010	KHDH
K0019	127.1	KU011	KHUV	KD011	KHDH
K0020	127.1	KU012	KHUV	KD012	KHDH
K0021	127.1	KU021	KHUH	KD021	KHDV
K0022	127.1	KU022	KHUH	KD022	KHDV
K0023	127.1	KU023	KHUH	KD023	KHDV
K0024	127.1	KU024	KHUH	KD024	KHDV
CMD1		CMD1	CUV		
CMD2		CMD2	CUH		
TLM1				TLM1	CDV
TLM2				TLM2	CDV
BCN1				BCN1	KNDV
BCN2				BCN2	KHDH

KU022	36000	R	14400	H	C
KU023	36000	R	14440	H	C
KU024	36000	R	14480	H	C
KD001	36000	T	11720	H	C
KD002	36000	T	11760	H	C
KD003	36000	T	11800	H	C
KD004	36000	T	11840	H	C
KD005	36000	T	11880	H	C
KD006	36000	T	11920	H	C
KD007	36000	T	11960	H	C
KD008	36000	T	12000	H	C
KD009	36000	T	12040	H	C
KD010	36000	T	12080	H	C
KD011	36000	T	12120	H	C
KD012	54000	T	12170	H	C
KD013	54000	T	11730	V	C
KD014	36000	T	11780	V	C
KD015	36000	T	11820	V	C
KD016	36000	T	11860	V	C
KD017	36000	T	11900	V	C
KD018	36000	T	11940	V	C
KD019	36000	T	11980	V	C
KD020	36000	T	12020	V	C
KD021	36000	T	12060	V	C
KD022	36000	T	12100	V	C
KD023	36000	T	12140	V	C
KD024	36000	T	12180	V	C
CMD1	1000	R	5926.5	V	T
CMD2	1000	R	6424.5	H	T
TLM1	300	T	4198.6	V	T
TLM2	300	T	4199.4	V	T
BCN1	25	T	11700.5	V	T
BCN2	25	T	12199.3	H	T



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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	48K6G7W	48.6	4	56	0.691		5.7	17.9
D2	1M34G7W	1340	4	1544	0.691		5.7	17.9
D3	6M33G7W	6330	4	8448	0.801		5.8	18
D4	36M0G7W	36000	4	41505	0.691		5.7	17.9
D5	36M0G7W	36000	8	76502	0.841		6.5	18.7



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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 <sup>2</sup> /Hz)	(o) Assoc. Stn Rec. G/T (dB/K)
C0001	C0024	D1		617	58	LB1.docx		47.4	-8.5	-2.5	5.6	11.6	-161.5	23.6
C0001	C0024	D2		22	1608	LB2.docx		47.4	5.9	11.9	20	26	-161.5	23.6
C0001	C0024	D3		5	7200	LB3.docx		47.4	12.6	18.6	26.7	32.7	-161.6	23.6
C0001	C0024	D4		1		LB4.docx		51.3	20.1	26.1	36.7	42.7	-159.1	21.9
C0001	C0024	D5		1		LB5.docx		53.5	18.3	24.3	36.7	42.7	-159.1	21.9
K0001	K0016	D1		617	58	LB6.docx		49.2	-13.1	-7.1	15.5	21.5		24.4
K0001	K0016	D2		22	1608	LB7.docx		43.2	5.2	11.2	28.1	34.1		26.9
K0001	K0016	D3		5	7200	LB8.docx		49.2	8.8	14.8	36.4	42.4		26.9
K0001	K0016	D4		1		LB9.docx		54.7	16.5	22.5	46.4	52.4		20.8
K0001	K0016	D5		1		LB10.docx		54.7	16.5	22.5	46.4	52.4		22.8
K0017	K0024	D1		617	58	LB11.docx		49.3	-13.1	-6.1	13.3	19.3		27
K0017	K0024	D2		22	1608	LB12.docx		43.3	5.3	11.3	26	32		30.8
K0017	K0024	D3		5	7200	LB13.docx		49.3	8.8	14.8	34.2	40.2		27
K0017	K0024	D4		1		LB14.docx		54.8	16.6	26.6	44.2	50.2		22.9
K0017	K0024	D5		1		LB15.docx		54.8	16.6	26.6	44.2	50.2		24.5

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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): No

**Remote Control (TT C) Location(s):**

S14a: Street Address: CONTEL - Edificio SGA-II			
S14b. City: Mexico,D.F.	S14c. County:	S14d. State/Country	S14e. Zip Code: CP 09310
S14f. Telephone Number: 1 52 (55) 5804 7300		S14g. Call Sign of Control Station (if appropriate):	

**Remote Control (TT C) Location(s):**

S14a: Street Address: Carretera a Bahía Kino Km 5.5			
S14b. City: Hermosillo, Sonora	S14c. County:	S14d. State/Country	S14e. Zip Code: CP 83210
S14f. Telephone Number: 01 (662) 2600289		S14g. Call Sign of Control Station (if appropriate):	

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**S15. SPACECRAFT PHYSICAL CHARACTERISTICS:**

S15a. Mass of spacecraft without fuel (kg): 2317	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): 5463	S15f. Length (m): 26.1	S15i. Payload: 0.8871
S15d. Mass of fuel, in orbit, at beginning of life (kg): 1221	S15g. Width (m): 7.8	S15j. Bus: 0.8847
S15e. Deployed Area of Solar Array (square meters): 74.2	S15h. Height (m): 7.4	S15k. Total: 0.7848

**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): 10833	(f): 10833	(k): 10833	(p): 10833
Bus (Watts):	(b): 2637	(g): 1389	(l): 2637	(q): 1389
Total (Watts):	(c): 13470	(h): 12222	(m): 13470	(r): 12222
Solar Array (Watts):	(d): 17404	(i): 15540	(n): 15491	(s): 14031
Depth of Battery Discharge (%):	(e) 67.8 %	(j) %	(o) 67.8 %	(t) %

**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.**