

SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B:(Technical and Operational Description)
FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier:	1-16.4M	E5: Call Sign:	
E2: Contact Name:	Paul Watts	E6: Phone Number:	8059334010
E3: Street:	7676 Pine Grove Road	E7: City:	Santa Paula
E4: State:	0f2d5cd7dbbd22008e0b75131f961907	E8: County:	Ventura
		E9: Zip Code:	93060
E10: Area of Operation:	CONUS		
E11: Latitude:	34° 24' 7.7"		
E12: Longitude:	119° 4' 25.8"		
E13: Lat/Lon Coordinates are:	nad-27		
E14: Site Elevation (AMSL):	229.2		

If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide a technical analysis showing compliance with two-degree spacing policy.	Yes
If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS) or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement?	No
Is Frequency Coordination required?	Yes
Is coordination with another country required?	No
Is FAA notification required?	No
Is facility operated by remote control?	No

POINTS OF COMMUNICATION

Satellite Name: SATMEX-9

E21. Common Name: EUTELSAT 117 W B (S2926)	E22. ITU Name: SATMEX-9
E23. Orbit Location: 117 W.L.	E24. Country: USA

Satellite Name: INMARSAT Ltd-3	
E21. Common Name: INMARSAT Ltd-3	E22. ITU Name: INMARSAT Ltd-3
E23. Orbit Location: 178 E.L.	E24. Country: USA

Satellite Name: ISAT List	
E21. Common Name: ISAT List	E22. ITU Name: ISAT List
E23. Orbit Location: SYSTEM	E24. Country: USA

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size (meters)	E41/42. Antenna Gain Transmit and/or Recieve (dBi at GHz)
1-16.4M	16.4M	1	COMSAT RSI	16.4M	16.4	undefined at 0

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at Antenna Flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for all carriers (dBW)
16.4M	0/0	17.1	246.3	0	537	0	86

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	6679.42 6701.42	T	null	22M0G7W	78	40.5963731

E50. Modulation and Services

Operational C5 Digital Data Feeder FAA-W

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	4199.6 4200	R	null	0M4KG7W	0	0

E50. Modulation and Services

Beacon-2 PCM

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	6628.27 6650.27	T	null	22M0G7W	83	45.5963731

E50. Modulation and Services

IOT C1 Digital Data Feeder Link System T

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	6454.4 6456.6	T	null	2M20G1D	83	55.5963731

E50. Modulation and Services

Digital Data & Feederlink to support FAA

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
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					(dBW)	
16.4M	4198 4198.4	R	null	0M4KG7W	0	0
E50. Modulation and Services						
Beacon-1 PCM						

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	3629.4 3631.6	R	null	2M20G1D	0	0
E50. Modulation and Services						
Digital Data & Feederlink to support FAA						

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
16.4M	6440.8 6443	T	null	2M20G1D	83	55.5963731
E50. Modulation and Services						
Digital Data & Feederlink to support FAA						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern/Western Limit	E57. Antenna Elevation Angle Eastern/Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
16.4M	Geostationary	6454.4 6456.6	180 / 179	252.56 / 253.22	15.24 / 14.42	4.4

16.4MGeostationary3629.4

3631.6180 / 179252.56 / 253.2215.24 / 14.42016.4MGeostationary6440.8
 6443180 / 179252.56 / 253.2215.24 / 14.424.4216.4MGeostationary4198
 4198.4116 / 118174.57 / 178.0949.88 / 50016.4MGeostationary4199.6
 4200116 / 118174.57 / 178.0949.88 / 50016.4MGeostationary6679.42
 6701.42116 / 118174.57 / 178.0949.88 / 50-23.516.4MGeostationary6628.27
 6650.27116 / 118174.57 / 178.0949.88 / 50-23.5

REMOTE CONTROL POINT LOCATION

E61. Call Sign: undefined		E65. Phone Number: undefined	
E62. Street Address: undefined			
E63. City: undefined	E67. County: undefined	E64/68. State/Country: undefined / undefined	E66. Zip Code: undefined

Location of Earth Station Site

E1: Site Identifier:	2-1.8M	E5: Call Sign:	
E2: Contact Name:	Paul Watts	E6: Phone Number:	8059334010
E3: Street:	7676 Pine Grove Road	E7: City:	Santa Paula
E4: State:	0f2d5cd7dbbd22008e0b75131f961907	E8: County:	Ventura
		E9: Zip Code:	93060
E10: Area of Operation:	CONUS		
E11: Latitude:	34° 24' 7.7"		
E12: Longitude:	119° 4' 25.8"		
E13: Lat/Lon Coordinates are:	nad-27		
E14: Site Elevation (AMSL):	229.2		

If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide a technical analysis showing compliance with two-degree spacing policy.	Yes
If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS) or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the	N/A

proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement?	
Is Frequency Coordination required?	No
Is coordination with another country required?	No
Is FAA notification required?	No
Is facility operated by remote control?	No

POINTS OF COMMUNICATION

Satellite Name: SATMEX-9	
E21. Common Name: EUTELSAT 117 W B (S2926)	E22. ITU Name: SATMEX-9
E23. Orbit Location: 117 W.L.	E24. Country: USA

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size (meters)	E41/42. Antenna Gain Transmit and/or Recieve (dBi at GHz)
2-1.8M	1.8M	1	Prodelin	1.8M	1.8	undefined at 0

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at Antenna Flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for all carriers (dBW)
1.8M	0/0	9.75	238.95	0	0	0	0

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1.8M	1564.42 1586.42	R	null	22M0G7W	0	0

E50. Modulation and Services

Operational C1 Digital Data FAA-WAAS

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1.8M	1165.45 1187.45	R	null	22M0G7W	0	0

E50. Modulation and Services

Operational C5 Digital Data FAA-WAAS

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1.8M	1574.4 1576.6	R	null	2M20G1D	0	0

E50. Modulation and Services

Digital Data to support FAA-WASS program

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1.8M	1545.8 1548	R	null	2M20G1D	0	0

E50. Modulation and Services

Digital Data to support FAA-WASS program

FREQUENCY COORDINATION

E28. Antenna	E51. Satellite	E52/53. Frequency	E54/55. Range	E56. Earth Station Azimuth	E57. Antenna Elevation Angle	E60. Maximum
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Id	Orbit Type	Limits(MHz)	of Satellite Arc E/W Limit	Angle Eastern/Western Limit	Eastern/Western Limit	EIRP Density toward the Horizon (dBW/4kHz)
1.8M	Geostationary	1165.45 1187.45	116 / 118	174.57 / 178.09	49.88 / 50	0

1.8MGeostationary1564.42

1586.42116 / 118174.57 / 178.0949.88 / 5001.8MGeostationary1574.4

1576.6180 / 179252.56 / 253.2215.24 / 14.4201.8MGeostationary1545.8

1548180 / 179252.56 / 253.2215.24 / 14.420

REMOTE CONTROL POINT LOCATION

E61. Call Sign: undefined		E65. Phone Number: undefined	
E62. Street Address: undefined			
E63. City: undefined	E67. County: undefined	E64/68. State/Country: undefined / undefined	E66. Zip Code: undefined

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