

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	E5: Call Sign:	
E2: Contact Name:	Scott Thums	E6: Phone Number:	(307) 633-5750
E3: Street:	530 EHOSTAR DRIVE	E7: City:	CHEYENNE
E4: State:	a3cb838adb6d66008e0b75131f96199d	E8: County:	LARAMIE
		E9: Zip Code:	82007
E10: Area of Operation:	Cheyenne, WY		
E11: Latitude:	41° 7' 56.4"		
E12: Longitude:	104° 44' 10.4"		
E13: Lat/Lon Coordinates are:	nad-83		
E14: Site Elevation (AMSL):	1808.9		

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?	N/A
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: EchoStar 10 (S2694)	
E21. Common Name: EchoStar 10 (S2694)	E22. ITU Name: EchoStar 10 (S2694)
E23. Orbit Location: 110.2° W.L.	E24. Country: USA

Satellite Name: EchoStar 11 (S2738)	
E21. Common Name: EchoStar 11 (S2738)	E22. ITU Name: EchoStar 11 (S2738)
E23. Orbit Location: 109.8° W.L.	E24. Country: USA

Satellite Name: EchoStar 14 (S2790)	
E21. Common Name: EchoStar 14 (S2790)	E22. ITU Name: EchoStar 14 (S2790)
E23. Orbit Location: 118.9° W.L.	E24. Country: USA

Satellite Name: EchoStar 15 (S2811)	
E21. Common Name: EchoStar 15 (S2811)	E22. ITU Name: EchoStar 15 (S2811)
E23. Orbit Location: 118.8° W.L.	E24. Country: USA

Satellite Name: EchoStar 16 (S2844)	
E21. Common Name: EchoStar 16 (S2844)	E22. ITU Name: EchoStar 16 (S2844)
E23. Orbit Location: 61.5° W.L.	E24. Country: USA

Satellite Name: EchoStar 18 (S2931)	
E21. Common Name: EchoStar 18 (S2931)	E22. ITU Name: EchoStar 18 (S2931)
E23. Orbit Location: 61.35° W.L.	E24. Country: USA

Satellite Name: EchoStar 23 (S3093)	
E21. Common Name: EchoStar 23 (S3093)	E22. ITU Name: EchoStar 23 (S3093)
E23. Orbit Location: 109.9° W.L.	E24. Country: USA

Satellite Name: EchoStar 25 (S00728)	
E21. Common Name: EchoStar 25 (S00728)	E22. ITU Name: EchoStar 25 (S00728)

E23. Orbit Location: 110° 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)
1	1	1	TIW	13.2 METER	13.2	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	0/0	13.7	1822.6	0	999	0	95

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	17307 17308.5	T	null	1M00G2D	86.3	62.32

E50. Modulation and Services

Digital Data, FEC 3/4 (TT&C)

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	12202.5 12203.5	R	null	1M00G2D	0	0

E50. Modulation and Services

Telemetry Beacon (TT&C)

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	12200.5 12201.5	R	null	1M00G2D	0	0

E50. Modulation and Services

Telemetry Beacon (TT&C)

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	17300 17800	T	null	24M0M1F	87.4	49.62

E50. Modulation and Services

Digital Video, FEC 3/4, Feeder Uplinks

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	12200 12205	R	null	800KG2D	0	0

E50. Modulation and Services

Telemetry

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	12200 12700	R	null	24M0M1F	0	0

E50. Modulation and Services

Digital Video, FEC 3/4

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	17790 17800	T	null	1M00G2D	35.8	11.82

E50. Modulation and Services

Telemetry

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	17301 17302	T	null	1M00G2D	86.3	62.32

E50. Modulation and Services

Digital Data, FEC 3/4 (TT&C)

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	12698.5 12699.5	R	null	1M00G2D	0	0

E50. Modulation and Services

Telemetry Beacon (TT&C)

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of	E56. Earth Station Azimuth Angle	E57. Antenna Elevation Angle Eastern/Western	E60. Maximum EIRP
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			Satellite Arc E/W Limit	Eastern/Western Limit	Limit	Density toward the Horizon (dBW/4kHz)
1	Geostationary	17307 17308.5	34 / 176	102.94 / 257.42	5.736 / 5.34	11.67

1Geostationary12202.5

12203.534 / 176102.94 / 257.425.736 / 5.3401Geostationary12200.5

12201.534 / 176102.94 / 257.425.736 / 5.3401Geostationary17300

1780034 / 176102.94 / 257.425.736 / 5.34-1.011Geostationary12200

1220534 / 176102.947 / 257.4225.736 / 5.34201Geostationary12200

1270034 / 176102.94 / 257.425.736 / 5.3401Geostationary17790

1780034 / 176102.947 / 257.4225.736 / 5.342-1.011Geostationary17301

1730234 / 176102.94 / 257.425.736 / 5.3411.671Geostationary12698.5

12699.534 / 176102.94 / 257.425.736 / 5.340

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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