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:	The "Metal Thrasher" Gateway	E5: Call Sign:	
E2: Contact Name:	SpaceX NoC	E6: Phone Number:	360-780-3103
E3: Street:	1981 Belgrave Ave	E7: City:	Huntington Park
E4: State:	0f2d5cd7dbbd22008e0b75131f961907	E8: County:	Los Angeles County
		E9: Zip Code:	90255
E10: Area of Operation:	Huntington Park, CA		
E11: Latitude:	33° 59' 14.7942"		
E12: Longitude:	118° 14' 10.3806"		
E13: Lat/Lon Coordinates are:	nad-83		
E14: Site Elevation (AMSL):	60		

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.	N/A
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?	Yes
Is coordination with another country required?	No
Is FAA notification required?	No
Is facility operated by remote control?	Yes

POINTS OF COMMUNICATION

Satellite Name: SpaceX Gen2 (S2992/3069)	
E21. Common Name: SPACEX GEN2 (S3069)	E22. ITU Name: SpaceX GEN2 (S3069)
E23. Orbit Location: NGSO	E24. Country:

Satellite Name: SpaceX Gen1 (S2983/3018)	
E21. Common Name: SPACEX (S2983/3018)	E22. ITU Name: SPACEX (S2983/3018)
E23. Orbit Location: NGSO	E24. Country:

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)**
The "Metal Thrasher" Gateway	CO-1	40	SpaceX	1.999m	1.999	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)**
CO-1	1.999/1.999	1.4	60	0	210	1.4	84.2

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)**
CO-1	102000 109500	T	null	1G20D7W	71.1	16.3
E50. Modulation and Services						

BPSK up to 256 QAM; Digital Data

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)
CO-1	71000 76000	R	null	1G20D7W	0	0

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	111800 114250	T	null	1G20D7W	71.1	16.3

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	92000 94000	T	null	1G44D7W	71.9	16.3

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)

CO-1	37500 42000	R	null	1G20D7W	0	0

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	81000 86000	T	null	1G20D7W	70.9	16.1

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	94100 100000	T	null	840MD7W	69.5	16.27

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	27500 30000	T	null	360MD7W	62.7	13.1

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

E28.	E43/44.	E45.	E46. Antenna	E47.	E48.	E49. Maximum

Antenna Id	Frequency Bands (MHz)	T/R Mode	Polarization (H,V,L,R)	Emission Designator	Maximum EIRP per Carrier (dBW)	ERIP Density per Carrier (dBW/4kHz)
CO-1	47200 50200	T	null	900MD7W	63.8	10.27

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	50400 52400	T	null	900MD7W	63.8	10.27

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)
CO-1	17300 20200	R	null	480MD7W	0	0

E50. Modulation and Services

BPSK up to 256 QAM; Digital Data

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)

CO-1	Non-Geostationary	17300 20200	0 / 0	0 / 360	10 / 10	13.1

CO-1Non-Geostationary102000
1095000 / 00 / 36010 / 1016.3CO-1Non-Geostationary92000
940000 / 00 / 36010 / 1016.3CO-1Non-Geostationary27500
300000 / 00 / 36010 / 1013.1CO-1Non-Geostationary37500
420000 / 00 / 36010 / 1010.3CO-1Non-Geostationary47200
502000 / 00 / 36010 / 1010.3CO-1Non-Geostationary71000
760000 / 00 / 36010 / 1016.1CO-1Non-Geostationary81000
860000 / 00 / 36010 / 1016.1CO-1Non-Geostationary50400
524000 / 00 / 36010 / 1010.3CO-1Non-Geostationary111800
1142500 / 00 / 36010 / 1016.3CO-1Non-Geostationary94100
1000000 / 00 / 36010 / 1016.3

REMOTE CONTROL POINT LOCATION

E61. Call Sign: REDMOND		E65. Phone Number: 360-780-3103	
E62. Street Address: 23020 NE Alder Crest Drive			
E63. City: Redmond	E67. County: King	E64/68. State/Country: undefined / undefined	E66. Zip Code: 98053

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