

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 "On Tap" Gateway             | E5: Call Sign:    |                |
| E2: Contact Name:             | SpaceX NoC                       | E6: Phone Number: | 360-780-3103   |
| E3: Street:                   | 1749 W Country Rd 54G            | E7: City:         | Fort Collins   |
| E4: State:                    | 0f2d5cd7dbbd22008e0b75131f96190a | E8: County:       | Larimer County |
|                               |                                  | E9: Zip Code:     | 80524          |
| E10: Area of Operation:       | Fort Collins, CO                 |                   |                |
| E11: Latitude:                | 40° 37' 30.2016"                 |                   |                |
| E12: Longitude:               | 105° 6' 28.5984"                 |                   |                |
| E13: Lat/Lon Coordinates are: | nad-83                           |                   |                |
| E14: Site Elevation (AMSL):   | 1531                             |                   |                |

|                                                                                                                                                                                                                                                                                                                                                                            |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 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 |



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<br>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<br>114250              | T             | null                                | 1G20D7W                  | 71.1                                | 16.3                                             |

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BPSK up to 256 QAM; Digital Data

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|-----------------|-------------------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------------------------------|
| CO-1            | 92000<br>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<br>42000 | R | null | 1G20D7W | 0 | 0 |
| <b>E50. Modulation and Services</b> |                |   |      |         |   |   |
| BPSK up to 256 QAM; Digital Data    |                |   |      |         |   |   |

| <b>E28. Antenna Id</b>              | <b>E43/44. Frequency Bands (MHz)</b> | <b>E45. T/R Mode</b> | <b>E46. Antenna Polarization (H,V,L,R)</b> | <b>E47. Emission Designator</b> | <b>E48. Maximum EIRP per Carrier (dBW)</b> | <b>E49. Maximum ERIP Density per Carrier (dBW/4kHz)</b> |
|-------------------------------------|--------------------------------------|----------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------|
| CO-1                                | 81000<br>86000                       | T                    | null                                       | 1G20D7W                         | 70.9                                       | 16.1                                                    |
| <b>E50. Modulation and Services</b> |                                      |                      |                                            |                                 |                                            |                                                         |
| BPSK up to 256 QAM; Digital Data    |                                      |                      |                                            |                                 |                                            |                                                         |

| <b>E28. Antenna Id</b>              | <b>E43/44. Frequency Bands (MHz)</b> | <b>E45. T/R Mode</b> | <b>E46. Antenna Polarization (H,V,L,R)</b> | <b>E47. Emission Designator</b> | <b>E48. Maximum EIRP per Carrier (dBW)</b> | <b>E49. Maximum ERIP Density per Carrier (dBW/4kHz)</b> |
|-------------------------------------|--------------------------------------|----------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------|
| CO-1                                | 94100<br>100000                      | T                    | null                                       | 840MD7W                         | 69.5                                       | 16.27                                                   |
| <b>E50. Modulation and Services</b> |                                      |                      |                                            |                                 |                                            |                                                         |
| BPSK up to 256 QAM; Digital Data    |                                      |                      |                                            |                                 |                                            |                                                         |

| <b>E28. Antenna Id</b>              | <b>E43/44. Frequency Bands (MHz)</b> | <b>E45. T/R Mode</b> | <b>E46. Antenna Polarization (H,V,L,R)</b> | <b>E47. Emission Designator</b> | <b>E48. Maximum EIRP per Carrier (dBW)</b> | <b>E49. Maximum ERIP Density per Carrier (dBW/4kHz)</b> |
|-------------------------------------|--------------------------------------|----------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------|
| CO-1                                | 27500<br>30000                       | T                    | null                                       | 360MD7W                         | 62.7                                       | 13.1                                                    |
| <b>E50. Modulation and Services</b> |                                      |                      |                                            |                                 |                                            |                                                         |
| BPSK up to 256 QAM; Digital Data    |                                      |                      |                                            |                                 |                                            |                                                         |

| <b>E28.</b> | <b>E43/44.</b> | <b>E45.</b> | <b>E46. Antenna</b> | <b>E47.</b> | <b>E48.</b> | <b>E49. Maximum</b> |
|-------------|----------------|-------------|---------------------|-------------|-------------|---------------------|
|-------------|----------------|-------------|---------------------|-------------|-------------|---------------------|

| 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<br>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<br>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<br>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 | 111800<br>114250 | 0 / 0 | 0 / 360 | 10 / 10 | 16.3 |
|------|-------------------|------------------|-------|---------|---------|------|

CO-1Non-Geostationary92000

940000 / 00 / 36010 / 1016.3CO-1Non-Geostationary81000

860000 / 00 / 36010 / 1016.1CO-1Non-Geostationary94100

1000000 / 00 / 36010 / 1016.3CO-1Non-Geostationary27500

300000 / 00 / 36010 / 1013.1CO-1Non-Geostationary47200

502000 / 00 / 36010 / 1010.3CO-1Non-Geostationary50400

524000 / 00 / 36010 / 1010.3CO-1Non-Geostationary17300

202000 / 00 / 36010 / 1013.1CO-1Non-Geostationary71000

760000 / 00 / 36010 / 1016.1CO-1Non-Geostationary102000

1095000 / 00 / 36010 / 1016.3CO-1Non-Geostationary37500

420000 / 00 / 36010 / 1010.3

## REMOTE CONTROL POINT LOCATION

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

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