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:	Astranis NOC	E6: Phone Number:	(877) 362-1747
E3: Street:		E7: City:	
E4: State:		E8: County:	
		E9: Zip Code:	
E10: Area of Operation:	The United States and its territories		
E11: Latitude:	0° 0' 0"		
E12: Longitude:	0° 0' 0"		
E13: Lat/Lon Coordinates are:			
E14: Site Elevation (AMSL):	0		

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?	Yes

POINTS OF COMMUNICATION

Satellite Name: PERMITTED LIST

E21. Common Name: PERMITTED LIST	E22. ITU Name: PERMITTED LIST
E23. Orbit Location: GSO	E24. Country: USA

Satellite Name: ARRAKIS-1 (S3150)	
E21. Common Name: Nu View Bravo (S3150)	E22. ITU Name: ARRAKIS-1 (S3150)
E23. Orbit Location: 83.1° W.L.	E24. Country: USA

Satellite Name: ARRAKIS-1 (S3151)	
E21. Common Name: Nu View Alpha (S3151)	E22. ITU Name: ARRAKIS-1 (S3151)
E23. Orbit Location: 83.1° 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	4.0m	25	CPI Antenna Technologies	LEO/MEO Gateway Terminal	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)
4.0m	0/0	0	0	0	160	0	80.84

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	4.8m Cassegrain	25	CPI Antenna Technologies	Cassegrain	4.8	undefined at 0

E28. Antenna	E33/34. Diameter	E35. Above	E36. Above	E37. Building	E38. Total	E39. Maximum	E40. Total

Id	Minor/Major (meters)	Ground Level (meters)	Sea Level (meters)	Height Above Ground Level (meters)	Input Power at Antenna Flange (Watts)	Antenna Height Above Rooftop (meters)	EIRP for all carriers (dBW)
4.8m Cassegrain	0/0	0	0	0	550	0	87.3

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	1.2m Skyware Global	500	Skyware Global	Type 123 Class II	1.2	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)
1.2m Skyware Global	0/0	0	0	0	3	0	48.9

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)
4.0m	28350 28600	T	null	2M00G1D	80.8	53.81
E50. Modulation and Services						
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	E49. Maximum ERIP Density per Carrier (dBW/4kHz)

					(dBW)	
4.0m	19700 20200	R	null	3K00G1D	0	0

E50. Modulation and Services

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)**
1.2m Skyware Global	14000 14500	T	null	50M0G7W	48.9	7.93

E50. Modulation and Services

QPSK, 8PSK, 16QAM/ Data and monitoring

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)**
1.2m Skyware Global	11450 12200	R	null	483MG7W	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM / Data and monitoring

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)**
1.2m Skyware Global	10950 11200	R	null	2M50G7W	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM / Data and monitoring

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)
4.8m Cassegrain	28350 29100	T	null	35M0G7D	73.2	33.7799195

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.8m Cassegrain	29250 30000	T	null	35M0G7D	73.2	33.7799195

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.8m Cassegrain	18300 18800	R	null	500KG7D	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)

4.8m Cassegrain	18800 19300	R	null	500KG7D	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.8m Cassegrain	28350 28600	T	null	24K4G1D	81.9	74.04

E50. Modulation and Services

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)
4.8m Cassegrain	19700 20200	R	null	3K00G1D	0	0

E50. Modulation and Services

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)
4.0m	28350 29100	T	null	35M0G7D	66.74	27.3199195

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.0m	29250 30000	T	null	35M0G7D	66.74	27.3199195

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.0m	18300 18800	R	null	500KG7D	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)
4.0m	18800 19300	R	null	500KG7D	0	0

E50. Modulation and Services

QPSK, 8PSK, 16QAM, data and monitoring

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)

4.0m	Geostationary	28350 28600	8 / 132	0 / 360	5 / 5	25.7

4.0mGeostationary19700
202008 / 1320 / 3605 / 5-9994.8m CassegrainGeostationary28350
286008 / 1320 / 3605 / 525.74.8m CassegrainGeostationary19700
202008 / 1320 / 3605 / 5-9991.2m Skyware GlobalGeostationary14000
145008 / 1320 / 36010 / 10-71.2m Skyware GlobalGeostationary11450
122008 / 1320 / 36010 / 10-9991.2m Skyware GlobalGeostationary10950
112008 / 1320 / 36010 / 10-9994.0mGeostationary18300
18800180 / 180360 / 3605 / 5-9994.0mGeostationary18800
19300180 / 180360 / 3605 / 5-9994.8m CassegrainGeostationary28350
29100180 / 180360 / 3605 / 5-14.59244844.8m CassegrainGeostationary29250
30000180 / 180360 / 3605 / 5-14.59244844.8m CassegrainGeostationary18300
18800180 / 180360 / 3605 / 5-9994.8m CassegrainGeostationary18800
19300180 / 180360 / 3605 / 5-9994.0mGeostationary29250
30000180 / 180360 / 3605 / 5-21.95487554.0mGeostationary28350
29100180 / 180360 / 3605 / 5-21.9548755

REMOTE CONTROL POINT LOCATION

E61. Call Sign:		E65. Phone Number: 703-939-5045	
E62. Street Address: 575 20th St			
E63. City: San Francisco	E67. County: USA	E64/68. State/Country: undefined / undefined	E66. Zip Code: 94107

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