

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:	DARRY WHITE	E6: Phone Number:	509-689-1000
E3: Street:	66C TELEPORT DRIVE	E7: City:	BREWSTER
E4: State:	978e209fdbbd22008e0b75131f9619b1	E8: County:	OKANOGAN
		E9: Zip Code:	98812
E10: Area of Operation:			
E11: Latitude:	48° 8' 44"		
E12: Longitude:	119° 42' 9.2"		
E13: Lat/Lon Coordinates are:	nad-83		
E14: Site Elevation (AMSL):	382.8		

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?	Yes
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: Planet Labs Flock (S2912)	
E21. Common Name: Planet FLOCK (S2912)	E22. ITU Name: Planet Labs
E23. Orbit Location: NGSO	E24. Country:

Satellite Name: USASAT-TBD	
E21. Common Name: XR-1 NGSO (S3067)	E22. ITU Name: USASAT-TBD
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)
1	UHF-YAGI	1	M2INC	450CP34/400	2.7	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)
UHF-YAGI	0/0	386.6	0	0	100	0	36.5

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	BREW-2	1	NEC	G2573C	7.6	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)
BREW-2	0/0	7.6	394.7	0	1175	0	81

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)
UHF-YAGI	401.27 401.33	R	null	60K0F1D	0	0
E50. Modulation and Services						
DIGITAL						

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)
UHF-YAGI	449.97 450.03	T	null	60K0F1D	36.5	24.74
E50. Modulation and Services						
DIGITAL, TT&C GFSK						

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)
BREW-2	7071.9 7073.9	R	null	250KG9D	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)
UHF-	450.07	T	null	60K0F1D	25.48	13.7190874

YAGI	450.13					
E50. Modulation and Services						
Digital						

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)
BREW-2	8496.25 8496.25	R	null	2M30G7W	0	0
E50. Modulation and Services						
DIGITAL						

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)
BREW-2	7017.3 7017.5	R	null	75K0G7D	0	0
E50. Modulation and Services						
SRMS 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)
BREW-2	5242.5 5244.5	T	null	1M00F2D	66	42
E50. Modulation and Services						
TT&C-NORMAL OPERATION						

E28. Antenna	E43/44. Frequency	E45. T/R	E46. Antenna Polarization	E47. Emission	E48. Maximum	E49. Maximum ERIP Density
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Id	Bands (MHz)	Mode	(H,V,L,R)	Designator	EIRP per Carrier (dBW)	per Carrier (dBW/4kHz)
BREW-2	7015.1 7015.1	R	null	NON	0	0

E50. Modulation and Services

AFC

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)
BREW-2	5241.2 5241.2	T	null	NON	42	42

E50. Modulation and Services

AFC

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)
BREW-2	7071.2 7071.2	R	null	NON	0	0

E50. Modulation and Services

AFC

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)
BREW-2	7011 7013	R	null	250KG9D	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)
BREW-2	8166.585 8233.415	R	null	66M8G1D	0	0

E50. Modulation and Services

DIGITAL

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)
BREW-2	8099.585 8166.415	R	null	66M8G1D	0	0

E50. Modulation and Services

DIGITAL

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)
BREW-2	7068.3 7068.5	R	null	75K0G1D	0	0

E50. Modulation and Services

SRMS 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)
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BREW-2	5179.5 5181.5	T	null	1M00F2D	66	42
E50. Modulation and Services						
TT&C-NORMAL OPERATION						

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)
BREW-2	2082 2082	T	null	410KG7W	53.8	33.7
E50. Modulation and Services						
DIGITAL DATA CARRIER						

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)
BREW-2	2055.345 2056.55	T	null	1M31F1D	49.01	23.9
E50. Modulation and Services						
DIGITAL DATA CARRIER						

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)
BREW-2	5186.7 5187.1	T	null	100KG1D	58.3	44.3
E50. Modulation and Services						
SRMS COMMAND-DIGITAL						

E28.	E43/44.	E45.	E46. Antenna	E47.	E48.	E49. Maximum
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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)
BREW-2	5237.3 5238.2	T	null	100KG7D	58.3	44.3

E50. Modulation and Services

HPN COMMAND-DIGITAL

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)
BREW-2	5185.8 5186.7	T	null	100KG7D	58.3	44.3

E50. Modulation and Services

HPN COMMAND-DIGITAL

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)
BREW-2	2263.5 2263.5	R	null	1M50G7W	0	0

E50. Modulation and Services

DIGITAL DATA CARRIER

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)
BREW-2	5236.9 5237.3	T	null	100KG7W	58.3	44.3

E50. Modulation and Services

SRMS COMMAND-DIGITAL

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 EIRP Density per Carrier (dBW/4kHz)
BREW-2	5185.1 5185.1	T	null	NON	42	42

E50. Modulation and Services

AFC

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 EIRP Density per Carrier (dBW/4kHz)
BREW-2	2086.8 2088.3	T	null	1M50G7W	45	19.3

E50. Modulation and Services

DIGITAL DATA CARRIER

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)
BREW-2	Non-Geostationary	5185.8 5186.7	0 / 0	0 / 0	5 / 5	0

UHF-YAGINon-Geostationary401.27
 401.330 / 00 / 3605 / 50UHF-YAGINon-Geostationary449.97
 450.030 / 00 / 3605 / 519.72BREW-2Non-Geostationary7071.9
 7073.90 / 00 / 3605 / 50BREW-2Non-Geostationary8496.25
 8496.250 / 00 / 3605 / 50BREW-2Non-Geostationary7017.3
 7017.50 / 00 / 05 / 50BREW-2Non-Geostationary5242.5
 5244.50 / 00 / 3605 / 521.4BREW-2Non-Geostationary7011
 70130 / 00 / 3605 / 50BREW-2Non-Geostationary8166.585

8233.4150 / 00 / 3605 / 50BREW-2Non-Geostationary8099.585
 8166.4150 / 00 / 3605 / 50BREW-2Non-Geostationary7068.3
 7068.50 / 00 / 05 / 50BREW-2Non-Geostationary5179.5
 5181.50 / 00 / 3605 / 521.4BREW-2Non-Geostationary2082
 20820 / 00 / 05 / 5-11.6BREW-2Non-Geostationary5186.7
 5187.10 / 00 / 05 / 50BREW-2Non-Geostationary5237.3
 5238.20 / 00 / 05 / 50BREW-2Non-Geostationary2263.5
 2263.50 / 00 / 3605 / 50BREW-2Non-Geostationary5236.9
 5237.30 / 00 / 05 / 50BREW-2Non-Geostationary2086.8
 2088.30 / 00 / 3605 / 5-15.4BREW-2null7015.1
 7015.10 / 00 / 00 / 0-999BREW-2null5241.2
 5241.20 / 00 / 00 / 0-999BREW-2null7071.2
 7071.20 / 00 / 00 / 0-999BREW-2null2055.345
 2056.550 / 00 / 00 / 0-999BREW-2null5185.1
 5185.10 / 00 / 00 / 0-999UHF-YAGINon-Geostationary450.07
 450.130 / 00 / 3605 / 5-13.72UHF-YAGINon-Geostationary450.07
 450.130 / 00 / 3605 / 519.72

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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