

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:	M40	E5: Call Sign:	
E2: Contact Name:	Viasat NOC	E6: Phone Number:	720-493-7300
E3: Street:		E7: City:	
E4: State:		E8: County:	
		E9: Zip Code:	
E10: Area of Operation:			
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: VIASAT-2 (S2902)

E21. Common Name: VIASAT-2 (S2902)	E22. ITU Name: VIASAT-2 (S2902)
E23. Orbit Location: 69.9 W.L.	E24. Country:

Satellite Name: VIASAT-79W(S3113)	
E21. Common Name: ViaSat-3F2	E22. ITU Name: VIASAT-79W(S3113)
E23. Orbit Location: 79.0 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)
M40	M40	4000	Viasat, Inc.	M-40	0.397	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)
M40	0.1575/0.7874	0	0	0	4	0	43.5

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)
M40	18800 19300	R	null	417MG7D	0	0

E50. Modulation and Services

416.6 MBd M-ary PSK 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	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
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20.0 MBd PSK, Digital 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)
M40	17700 18300	R	null	500MG7D	0	0

500 MBd M-ary PSK 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)
M40	18300 18800	R	null	417MG7D	0	0

417 MBd PSK, 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)
M40	28600 29100	T	null	20M0G7D	43.5	6.5

20.0 MBd PSK, Digital 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)
M40	29500 30000	T	null	10M0G7D	43.5	9.5

E50. Modulation and Services

10.0 MBd PSK, Digital 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)
M40	19700 20200	R	null	417MG7D	0	0

E50. Modulation and Services

417 MBd PSK, 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)
M40	28100 28350	T	null	10M0G7D	43.5	9.5

E50. Modulation and Services

10.0 MBd PSK, Digital 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)
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M40	Geostationary	18800 19300	69.9 / 115.1	270 / 90	0 / 0	-999
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M40Geostationary28350

2860069.9 / 15.1270 / 900 / 0-4.5M40Geostationary28600

2910069.9 / 115.1270 / 900 / 0-4.5M40Geostationary28350

2860069.9 / 69.9254 / 1116 / 8-4.5M40Geostationary29500

3000069.9 / 69.9254 / 1116 / 8-4.5M40Geostationary19700

2020069.9 / 69.9254 / 1116 / 8-999M40Geostationary18800

1930069.9 / 69.9254 / 1116 / 8-999M40Geostationary17700

1830069.9 / 69.9254 / 1116 / 8-999M40Geostationary17700

1830069.9 / 115.1270 / 900 / 0-999M40Geostationary18300

1880069.9 / 69.9254 / 1116 / 8-999M40Geostationary18300

1880069.9 / 115.1270 / 900 / 0-999M40Geostationary28600

2910069.9 / 69.9254 / 1116 / 8-4.5M40Geostationary19700

2020069.9 / 115.1270 / 900 / 0-999M40Geostationary28100

2835069.9 / 69.9254 / 1116 / 8-4.5M40Geostationary28100

2835069.9 / 115.1270 / 900 / 0-4.5M40Geostationary29500

3000069.9 / 115.1270 / 900 / 0-4.5

REMOTE CONTROL POINT LOCATION

E61. Call Sign:		E65. Phone Number:	
		720-493-7300	
E62. Street Address:			
349 Inverness Drive South			
E63. City:	E67. County:	E64/68. State/Country:	E66. Zip Code:
Englewood	Douglas	undefined / undefined	80112

Location of Earth Station Site

E1: Site Identifier:	GM40	E5: Call Sign:	
E2: Contact Name:	Viasat NOC	E6: Phone Number:	720-493-7300
E3: Street:		E7: City:	
E4: State:		E8: County:	
		E9: Zip Code:	
E10: Area of Operation:			
E11: Latitude:	0° 0' 0"		
E12: Longitude:	0° 0' 0"		

E13: Lat/Lon Coordinates are:

E14: Site Elevation (AMSL): 0

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Is Frequency Coordination required?	No
Is coordination with another country required?	No
Is FAA notification required?	No
Is facility operated by remote control?	Yes

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Satellite Name: VIASAT-2 (S2902)	
E21. Common Name: VIASAT-2 (S2902)	E22. ITU Name: VIASAT-2 (S2902)
E23. Orbit Location: 69.9 W.L.	E24. Country:

Satellite Name: VIASAT-79W(S3113)	
E21. Common Name: ViaSat-3F2	E22. ITU Name: VIASAT-79W(S3113)
E23. Orbit Location: 79.0 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)
GM40	GM40	4000	Viasat, Inc.	GM-40	0.397	undefined at 0

E28.	E33/34.	E35.	E36.	E37.	E38.	E39.	E40.
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Antenna Id	Diameter Minor/Major (meters)	Above Ground Level (meters)	Above Sea Level (meters)	Building Height Above Ground Level (meters)	Total Input Power at Antenna Flange (Watts)	Maximum Antenna Height Above Rooftop (meters)	Total EIRP for all carriers (dBW)
GM40	0.158/0.787	0	0	0	31.6	0	55.5

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)
GM40	18800 19300	R	null	417MG7D	0	0

E50. Modulation and Services

416.6 MBd M-ary PSK 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)
GM40	28600 29100	T	null	320MG7D	55.5	6.4691

E50. Modulation and Services

320 MBd PSK, Digital 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)
GM40	17700 18300	R	null	500MG7D	0	0

E50. Modulation and Services

500 MBd M-ary PSK Digital Data

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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)
GM40	18300 18800	R	null	417MG7D	0	0

E50. Modulation and Services

417 MBd PSK, 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)
GM40	27500 28350	T	null	160MG7D	55.5	9.4794

E50. Modulation and Services

160 MBd PSK, Digital 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)
GM40	28350 28600	T	null	160MG7D	55.5	9.4794

E50. Modulation and Services

160 MBd PSK, Digital 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)

GM40	19700 20200	R	null	417MG7D	0	0
E50. Modulation and Services						
417 MBd PSK, 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)
GM40	29500 30000	T	null	320MG7D	55.5	6.4691
E50. Modulation and Services						
320 MBd PSK, Digital 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)
GM40	Geostationary	28350 28600	69.9 / 69.9	254 / 111	6 / 8	-4.5

GM40Geostationary29500

3000069.9 / 69.9254 / 1116 / 8-4.5GM40Geostationary17700
 1830069.9 / 69.9254 / 1116 / 8-999GM40Geostationary18300
 1880069.9 / 69.9254 / 1116 / 8-999GM40Geostationary19700
 2020069.9 / 69.9254 / 1116 / 8-999GM40Geostationary28600
 2910069.9 / 69.9254 / 1116 / 8-4.5GM40Geostationary18800
 1930069.9 / 69.9254 / 1116 / 8-999GM40Geostationary27500
 2835069.9 / 69.9254 / 1116 / 8-4.5GM40Geostationary18800
 1930069.9 / 115.1270 / 900 / 0-999GM40Geostationary27500
 2835069.9 / 115.1270 / 900 / 0-4.5GM40Geostationary28600
 2910069.9 / 115.1270 / 900 / 0-4.5GM40Geostationary17700
 1830069.9 / 115.1270 / 900 / 0-999GM40Geostationary18300
 1880069.9 / 115.1270 / 900 / 0-999GM40Geostationary28350
 2860069.9 / 115.1270 / 900 / 0-4.5GM40Geostationary19700
 2020069.9 / 115.1270 / 900 / 0-999GM40Geostationary29500
 3000069.9 / 115.1270 / 900 / 0-4.5

REMOTE CONTROL POINT LOCATION

E61. Call Sign:		E65. Phone Number: 720-493-7300	
E62. Street Address: 349 Inverness Drive South			
E63. City: Englewood	E67. County: Douglas	E64/68. State/Country: undefined / undefined	E66. Zip Code: 80112

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