Approved by OMB 3060–0678

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APPLICATION FOR EARTH STATION AUTHORIZATIONS	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

### APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Portland 4.1 m Gateway

1–8. Legal Name of A	pplicant		
Name:	ViaSat, Inc.	Phone Number:	760-476-2583
DBA Name:		Fax Number:	760–929–3941
Street:	6155 El Camino Real	E-Mail:	daryl.hunter@viasat.com
City:	Carlsbad	State:	CA
<b>Country:</b>	USA	Zipcode:	92009 –
Attention	: Mr Daryl T Hunter		

Name:	ViaSat, Inc.	Phone Number:	760-476-2583
company:		Fax Number:	760-929-3941
treet:	6155 El Camino Real	E-Mail:	daryl.hunter@viasat.com
'ity:	Carlsbad	State:	CA
Country:	USA	Zipcode:	92009-
ttention:	Daryl T Hunter, P.E.	<b>Relationship:</b>	Engineer

## CLASSIFICATION OF FILING

17. Choose the button next to the	b.			
classification that applies to this filing for	b1. Application for License of New Station			
both questions a. and b. Choose only one for 17a and only one for 17b.	<ul> <li>b2. Application for Registration of New Domestic Receive–Only Station</li> <li>(N/A) b3. Amendment to a Pending Application</li> <li>(N/A) b4. Modification of License or Registration</li> </ul>			
a. al. Earth Station (N/A) a2. Space Station	<ul> <li>(N/A) b5. Assignment of License or Registration</li> <li>(N/A) b6. Transfer of Control of License or Registration</li> <li>(N/A) b7. Notification of Minor Modification</li> <li>(N/A) b8. Application for License of New Receive–Only Station Using Non–U.S. Licensed</li> <li>Satellite</li> </ul>			
	(N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United States b10. Other (Please specify)			
	b11. Application for Earth Station to Access a Non–U.S.satellite Not Currently Authorized to			
	Provide the Proposed Service in the Proposed Frequencies in the United States. b12. Application for Database Entry			
	(N/A) b13. Amendment to a Pending Database Entry Application (N/A) b14. Modifiction of Database Entry			
17c. Is a fee submitted with this application				
If Yes, complete and attach FCC Form	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).			
O Governmental Entity O Noncomme	rcial educational licensee			
• Other(please explain):				
17d.				
Fee Classification BAX – Fixed Satellite Transmit/Receive Earth Station				

18. If this filing is in reference to an	19. If this filing is an amendment to a pending application enter:		
existing station, enter:	(a) Date pending application was filed:	(b) File number of pending application:	
(a) Call sign of station:			
Not Applicable	Not Applicable	Not Applicable	

## TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	e or use the following type(s) of service(s): Select all that apply:
a. Fixed Satellite	
b. Mobile Satellite	
c. Radiodetermination Satellite	
d. Earth Exploration Satellite	
e. Direct to Home Fixed Satellite	
f. Digital Audio Radio Service	
g. Other (please specify)	
21. STATUS: Choose the button next to the applicable status. Choose	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
O Common Carrier	Using Non–U.S. licensed satellites
facilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
• Connected to a Public Switched Network • Not connected	to a Public Switched Network 💿 N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).
a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)
c.Other (Please specify upper and lower frequencies in MHz.)
Frequency Lower: 17700Frequency Upper: 30000

#### TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
a. Fixed Earth Station
b. Temporary–Fixed Earth Station
c. 12/14 GHz VSAT Network
d. Mobile Earth Station
(N/A) e. Geostationary Space Station
(N/A) f. Non–Geostationary Space Station
g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Choose only one.

Transmit/Receive Transmit–Only
Receive–Only
N/A

#### PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

Not Applicable

#### ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amen environmental impact as defined by 47 CFR 1.1307? If YES, submit the	ũ là chiến thế	● No
1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and application. A Radiation Hazard Study must accompany all application	d 1.1311, as an exhibit to this Exhibit B Exhibit B	
modifications, or major amendments.		

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	O Yes	No
30. Is the applicant an alien or the representative of an alien?	O Yes	O No ⊚ N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes	O No ⊚ N/A
32. Is the applicant a corporation of which more than one–fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes	O No ⊚ N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one–fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes O No ⊗ N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	Exhibit C

# BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	● Yes	O No
	Exhibit D	
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No
	Exhibit E	

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	• Yes	No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attemptiing unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	O Yes	No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	O Yes	● No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.



O No

Yes

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?UK

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

See attached narrative.

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	● A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	<b>О</b> <sup>В</sup>
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	<b>O</b> C

#### CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

(U.S. Code, Title	e 18, Section 1001), AND/OF	R REVOCATION O	BLE BY FINE AND / OR IMPRISO F ANY STATION AUTHORIZATION U.S. Code, Title 47, Section 503).	
Attachment 1: Exhibit A	Attachment 2:		Attachment 3:	
47. Please supply any need attachments.				
45. Name of Person Signing Daryl T Hunter, P.E.	45. Name of Person Signing Daryl T Hunter, P.E.		son Signing gulatory Affairs	
• Other (please specify)				
• Governmental Entity				
Corporation				
• Partnership				
• Unincorporated Association				
• Individual				
44. Applicant is a (an): (Choose the butt	on next to applicable response	se.)		

#### SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth St	tation Site				
E1: Site Identifier:	SAN 1	E5. Call Sign:			
E2: Contact Name	Daryl T Hunter	E6. Phone Number:	760-476-2583		
E3. Street:	2001 16th St. NE	E7. City:	Salem		
		E8. County:	Marion		
E4. State	OR	E9. Zip Code	97303		
E10. Area of Opera	tion:	Fixed			
E11. Latitude:	44 ° 57 ' 17.4 "N				
E12. Longitude:	123 °0 '57.6 "W				
E13. Lat/Lon Coord	linates are:	O NAD-27	NAD-83	O N/A	
E14. Site Elevation	(AMSL):	51.0 meters			

E15. 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 as a technical analysis showing compliance with two–degree spacing policy.	• Yes	O <sup>No</sup>	O <sup>N/A</sup>
E16. 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(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	<b>○</b> <sup>No</sup>	● N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	0	Yes	۲	No

#### POINTS OF COMMUNICATION

Satellite Name: VIASAT-2 (S2902) | VIASAT-2 (S2902) | 69.9 W.L. If you selected OTHER, please enter the following:

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	
E25. Site Identifier:	
E26. Common Name:	E27. Country:

# ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi at GHz)
SAN 1	1	1	ViaSat, Inc.	VA-41-KA	4.1	60.3 dBi at 30
						55.8 dBi at 17.7
						56.6 dBi at 19.2
						56.9 dBi at 20.2
						59.6 dBi at 27.5
						60.0 dBi at 29.0

Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level  (meters)	(meters)	Height Above Ground	Input Power at antenna flange 	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
1	4.1/4.1	4.7	55.7	0.0	4.4	0.0	66.7

# 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)
1	17800 19300	R	Left and Right Circular	417MG7D	0.0	0.0
E50. Modulation entirety.)			tion does not appear in	this box, please go	o to the end of the form	to view it in its
416.6 MBd	M-ary PSK Digi	tal Data				

1	19700 20200	R	Left and Right Circular	417MG7D	0.0	0.0

E50. Modu entirety.)	lation and Services	(If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
416.6	MBd M-ary PSK I	)igital Data				
1	17700 18300	R	Left and Right Circular	500MG7D	0.0	0.0
E50. Modu entirety.)	lation and Services	(If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
500 MB	d M-ary PSK Dig	jital Carrier				
1	27600 29100	Т	Left and Right Circular	417MG7D	60.0	9.8
E50. Modu entirety.)	lation and Services	(If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
416.6	MBd M-ary PSK I	Digital Data				
1	29500 30000	Т	Left and Right Circular	417MG7D	60.0	9.8

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

416.6 MBd M-ary PSK Digital Data

1	27500 28100	Т	Left and Right Circular	500MG7D	61.6	9.8
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E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

500 MBd M-ary PSK Digital Carrier

#### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	Station Azimuth Angle		Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
1	Geostationary	17700 19300	69.9/ 69.9	117.9	16.8	117.9	16.8	0.0
	Geostationary	19700 20200	69.9/ 69.9	117.9	16.8	117.9	16.8	0.0

	Geostationary	27500 29100	69.9/ 69.9	117.9		16.8	117.9	16.8	-53.0		
	Geostationary	29500 30000	69.9/ 69.9	117.9		16.8	117.9	16.8	-53.0		
REMOTE CO	NTROL POIN	T LOCATION	•	•							
NOTE: Plea	E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.					E65. Phone Number 720–493–7300					
E62. Street A 349 Invernes	Address ss Drive South										
E63. City Englewood			E67. Coun Arapahoe	ty			E64/68. State/Coun CO/		E66. Zip Code 80112		

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