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Callsign/Satellite ID:

### 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:

Application for Authority to Operate Three 9.0 Meter Ka-band Earth Stations - Gilbert, AZ

1–8. Legal Name of Applicant

Name: EchoStar Satellite L.L.C. Phone Number: 303–723–1000

**DBA Fax Number:** 303–723–1699

Name:

**Street:** 9601 South Meridian Blvd. **E–Mail:** 

City: Englewood State: CO

Country: USA Zipcode: 80112 -

**Attention:** David K Moskowitz

9–16. Name of Contact Representative (If other than applicant)

Name: Pantelis Michalopoulos Phone Number: 202–429–6494

Company: Steptoe & Johnson LLP Fax Number: 202–429–3902

Street: 1330 Connecticut Avenue, N.W. E-Mail: pmichalo@steptoe.com

City: Washington State: DC

**Country:** USA **Zipcode:** 20036–1795

Contact Relationship: Legal Counsel

Title:

#### CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

a.

a1. Earth Station

(N/A) a2. Space Station

h

b1. Application for License of New Station

**b**2. Application for Registration of New Domestic Receive–Only Station

(N/A) b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

(N/A) b5. Assignment of License or Registration

(N/A) b6. Transfer of Control of License or Registration

(N/A) b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

o 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.

17c. Is a fee submitted with this applicat  If Yes, complete and attach FCC Form  Governmental Entity  Other(please explain):  17d.	159. If No, indicate reason for fee exemption	(see 47 C.F.R.Section 1.1114).
Fee Classification BAX – Fixed Satellite 7 Station	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:  (a) Call sign of station:  Not Applicable	<ul><li>19. If this filing is an amendment to a pending</li><li>(a) Date pending application was filed:</li><li>Not Applicable</li></ul>	g application enter:  (b) File number of pending application:  Not Applicable
TYPE OF SERVICE  20. NATURE OF SERVICE: This filing is f	For an authorization to provide or use the following	ing 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
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected	I to a Public Switched Network    N/A
24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all a	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: 18600 Frequency Upper: 30000	
TYPE OF STATION	
25. CLASS OF STATION: Choose the button next to the class of station	n 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

TOTAL OBLIGHTION	
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	
EN VIRONWIEN IAL FOLICI	
28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	Yes No No Rad. Hazard
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	utical en route or
29. Is the applicant a foreign government or the representative of any foreign government?	↑ Yes ♠ No ↑ N/A
30. Is the applicant an alien or the representative of an alien?	O Yes O No O N/A

				~	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?	Yes	0	No ,	1 <b>©</b>	√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?	Yes	0	No i	1 <b>©</b>	√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.					
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.	0	Yes	•	N	0

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.	• Yes Q.36	O No
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.	<b>O</b> Yes	No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting 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	<b>O</b> Yes	<b>⊚</b> 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.	<b>O</b> Yes	<b>⊚</b> 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.	Yes	O No
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.	○ Yes	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station? N/A	hat administr	ation has

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.)

This is an application for authority to operate three new Ka-band earth stations at EchoStar's Gilbert, Arizona earth station facility. The earth stations will be used to deliver additional video and two-way broadband service to consumers.

#### **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.

true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.
44. Applicant is a (an): (Choose the button next to applicable response.)
<ul> <li>Individual</li> <li>Unincorporated Association</li> </ul>
Partnership Corporation
Other (please specify)

45. Name of Person Signing David K. Moskowitz		46. Title of Person Signing Executive Vice President and General Counsel		
47. Please supply any need attach	ments.			
Attachment 1:	Attachment 2:	Attachment 3:		
(U.S. Code	e, Title 18, Section 1001), AND/O	RM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT REVOCATION OF ANY STATION AUTHORIZATION OR FORFEITURE (U.S. Code, Title 47, Section 503).		

### 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: GKA1, GKA2 & E5. Call Sign:

GKA3

E2: Contact Name Karl Jesinghaus E6. Phone (307) 633–5227

Number:

E3. Street: 801 North America E7. City: Gilbert

Sky Blvd.

E8. County: Maricopa

E4. State AZ E9. Zip Code 85233

E10. Area of Operation: CONUS

E11. Latitude: 33 °21 '55.6 "N

E12. Longitude: 111 °48 '49.1 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 NAD-83

E14. Site Elevation (AMSL): 371.25 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.	● Y	es	O No	)	O N/A
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?	OY	es	O No	)	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	0,	Yes	•	9	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as		Yes	(	>	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	(	<b>)</b>	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.		Yes	•	9	No
POINTS OF COMMUNICATION					
Satellite Name: PERMITTED LIST If you selected OTHER, please enter the following:					

E21. Common Name: AMC-15	E22. ITU Name: USASAT-31K		
E23. Orbit Location: 105W	E24. Country: USA		
Satellite Name: PERMITTED LIST If you selected OTHER, pleas	e enter the following:		
E21. Common Name: EchoStar 9	E22. ITU Name: USASAT-31G		
E23. Orbit Location: 121W	E24. Country: USA		
Satellite Name: PERMITTED LIST If you selected OTHER, please enter the following:			
E21. Common Name: AMC-16	E22. ITU Name: USASAT-31U		
E23. Orbit Location: 85W	E24. Country: USA		
·			
Satellite Name: OTHER If you selected OTHER, please enter the following:			
E21. Common Name: AMC-16	E22. ITU Name: USASAT-31U		

## POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: GKA1, GKA2 & GKA3	
E26. Common Name:	E27. Country: USA

E24. Country: USA

# POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: GKA1, GKA2 & GKA3	
E26. Common Name:	E27. Country: USA

### ANTENNA

E23. Orbit Location: 97W

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
GKA1, GKA2 & GKA3	GKA1	1	Vertex	9 Meter	9.0	62.5 dBi at 20.2
						65.1 dBi at 30.0
	GKA2					62.5 dBi at 20.2
						65.1 dBi at 30.0
	GKA3					62.5 dBi at 20.2
						65.1 dBi at 30.0

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level  (meters)	E36. Above Sea Level  (meters)	Height Above Ground	E38. Total Input Power at antenna flange  (Watts)	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
GKA1	0.0/0.0	9.0	380.25	0.0	0.0	0.0	86.9
GKA2	0.0/0.0	9.0	380.25	0.0	0.0	0.0	86.9
GKA3	0.0/0.0	9.0	380.25	0.0	0.0	0.0	86.9

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)
GKA1	18600 18800	R	Left and Right Circular	60M0G7D	0.0	0.0
E50. Modulation entirety.)	`	he complete descript	tion does not appear ir	this box, please go	to the end of the form	to view it in its
GKA1	19700 20200	R	Left and Right Circular	60M0G7D	0.0	0.0
E50. Modulation entirety.)	n and Services (If the	he complete descript	tion does not appear in	this box, please go	to the end of the form	to view it in its
Data Carri	ier					
GKA1	18600 18800	R	Left and Right Circular	300KG2D -	0.0	0.0

E50. Modulation entirety.)	n and Services (If t	he complete descripti	ion does not appear in	n this box, please go	to the end of the form	to view it in its
Data Carr	ier					
GKA1	19700 20200	R	Left and Right Circular	300KG2D -	0.0	0.0
E50. Modulation entirety.)		he complete descripti	ion does not appear in	n this box, please go	to the end of the form	to view it in its
Data Carr	ier					
GKA1	28400 28600	Т	Left and Right Circular	60M0G7D	86.9	45.1
E50. Modulation entirety.)	n and Services (If t	he complete descripti	ion does not appear in	n this box, please go t	to the end of the form	to view it in its
Data Carr	ier					
GKA1	29500 30000	Т	Left and Right Circular	60M0G7D	86.9	45.1

E50. Modulation entirety.)	n and Services (If t	he complete descript	ion does not appear i	n this box, please go	to the end of the form	to view it in its
Data Carr	ier					
GKA1	28400 28600	Т	Left and Right Circular	1M50G2D -	86.9	61.2
E50. Modulation entirety.)  Data Carr	,	he complete descript	ion does not appear i	n this box, please go	to the end of the form	to view it in its
GKA1	29500 30000	Т	Left and Right Circular	1M50G2D -	86.9	61.2
E50. Modulation entirety.)  Data Carr	,	he complete descript	ion does not appear i	n this box, please go	to the end of the form	to view it in its
GKA2	18600 18800	R	Left and Right Circular	60M0G7D	0.0	0.0

E50 M. J. J. J.	1 C (IC /1-	1		41.5 - 1 1 4		
E50. Modulation	and Services (If th	ie complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
entirety.)						
Data Carri	er					
GKA2	19700 20200	R	Left and Right Circular	60M0G7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Data Carri	er					
GKA2	18600 18800	R	Left and Right Circular	300KG2D -	0.0	0.0
E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Data Carri	er					
GKA2	19700 20200	R	Left and Right Circular	300KG2D -	0.0	0.0

E50. Modulation	and Carriage (If th	a complete description	on does not ennear in	this how places so to	the end of the form	to viou it in its
entirety.)	and services (if the	le complete description	on does not appear in	uns box, please go u	o the end of the form	to view it iii its
Data Carri	er					
GKA2	28400 28600	Т	Left and Right Circular	60M0G7D	86.9	45.1
E50. Modulation entirety.)  Data Carri		e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
GKA2	29500 30000	Т	Left and Right Circular	60M0G7D	86.9	45.1
E50. Modulation entirety.)  Data Carri		e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
GKA2	28400 28600	Т	Left and Right Circular	1M50G2D -	86.9	61.2

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Data Carri	er					
GKA2	29500 30000	Т	Left and Right Circular	1M50G2D -	86.9	61.2
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Data Carri	er					
GKA3	18600 18800	R	Linear and Circular	60M0G7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Data Carri	er					
GKA3	19700 20200	R	Left and Right Circular	60M0G7D	0.0	0.0

E50. Modulation entirety.)	n and Services (If t	he complete descript	ion does not appear i	n this box, please go	to the end of the form	n to view it in its
Data Carr	ier					
GKA3	18600 18800	R	Left and Right Circular	300KG2D -	0.0	0.0
E50. Modulation entirety.)  Data Carr	,	he complete descript	ion does not appear i	n this box, please go	to the end of the form	n to view it in its
GKA3	19700 20200	R	Left and Right Circular	300KG2D -	0.0	0.0
E50. Modulation entirety.)  Data Carr	,	he complete descript	ion does not appear i	n this box, please go	to the end of the form	n to view it in its
GKA3	28400 28600	Т	Left and Right Circular	60M0G7D	86.9	45.1

E50. Modulation entirety.)	on 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
Data Carr	rier					
GKA3	29500 30000	Т	Left and Right Circular	60M0G7D	86.9	45.1
E50. Modulation entirety.)  Data Carr		If the complete de	escription does not appear	in this box, please §	go to the end of t	the form to view it in its
GKA3	28400 28600	Т	Left and Right Circular	1M50G2D -	86.9	61.2
E50. Modulation entirety.)		If the complete de	escription does not appear	in this box, please g	go to the end of t	he form to view it in its
GKA3	29500	Т	Left and Right	1M50G2D -	86.9	61.2
	30000		Circular			

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

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 Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
GKA1	Geostationary	18600 30000	61.0/ 157.0	114.2	23.9	241.3	28.4	-6.37
GKA2	Geostationary	18600 30000	61.0/ 157.0	114.2	23.9	241.3	28.4	-6.37
GKA3	Geostationary	18600 30000	61.0/ 157.0	114.2	23.9	241.3	28.4	-6.37
	Geostationary	18600 30000	61.0/ 157.0	114.2	23.9	241.3	28.4	-6.37
	Geostationary	18600 30000	61.0/ 157.0	114.2	23.9	241.3	28.4	-6.37

REMOTE CONTROL POINT LOCATION

E61. Call Sign		E65. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.				
E62. Street Address				
E63. City	E67. County		E64/68. State/Country	E66. Zip Code

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