Date & Time Filed: Jan 26 2011 1:40:20:866PM File Number: SES-MOD-INTR2011-00235

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	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: Mod to add V3. more V7s and additional frequencies and satellites

1–8. Legal N	Name of App	plicant			
]	Name:	KVH Industries, Inc.	Phone Number:	401-845-8148	
	DBA Name:		Fax Number:	401-845-8116	
\$	Street:	50 Enterprise Center	E–Mail:	ffeingold@kvh.com	
	City:	Middletown	State:	RI	
(Country:	USA	Zipcode:	02842 –	
	Attention:	Ms. Felise Feingold			

9–16. Name of Contact Representative

Name: Carlos Nalda Phone Number: 202–626–6659

Company: Squire, Sanders & Dempsey (US) Fax Number: 202–626–6780

LLP

Street: 1201 Pennsylvania Ave. E–Mail: carlos.nalda@ssd.com

Suite 500

City: Washington State: DC

Country: USA Zipcode: 20004–

Attention: Mr. Carlos Nalda Relationship: Legal Counsel

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. a1. Earth Station a2. Space Station	 (N/A) b1. Application for License of New Station (N/A) b2. Application for Registration of New Domestic Receive—Only Station b3. Amendment to a Pending Application b4. Modification of License or Registration b5. Assignment of License or Registration b6. Transfer of Control of License or Registration 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 (N/A) b10. Other (Please specify) (N/A) 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 (N/A) b12. Application for Database Entry b13. Amendment to a Pending Database Entry Application b14. Modification of Database Entry
~	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
Other(please explain): Noncomme	rciai educational ficensee
17d. Fee Classification CGV – Fixed Satellite V	/SAT System

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending apmodification please enter only the file number:	oplication enter both fields, if this filing is a
(a) Call sign of station: E090001	(a) Date pending application was filed:	(b) File number: SESLIC2008110401450

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	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) ESV	
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
23. If applicant is providing INTERNATIONAL COMMON CARRIER sefacilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected to a F	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: Frequency Upper: (Please specify additional frequencies in an attachment)
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
e. Geostationary Space Station
f. Non–Geostationary Space Station
g. Other (please specify) Ku–band ESV Network
AC TEXTE OF EARTH CHATION FACILITY
26. TYPE OF EARTH STATION FACILITY:
Transmit/Receive Transmit-Only Receive-Only N/A
l"For Space Station applications, select 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.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & countries)
j — authorization to change Points of Communication (satellites & tountries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

ENVIRONMENTAL POLICY

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.	-				
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or eronautical 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?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	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?	0	Yes	0	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.		
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.	o Yes	No
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

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.	O 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	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.	• 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.	O Yes	⊚ No	
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?			

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.)

Modification of Authorization request to add a 0.37m ESV terminal to the ESV network, add additional extended Ku-band receive frequencies, and add additional satellite points of communication.

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.	O B
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.	o 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.

44. Applicant is a (an): (Choose the button next to ap	plicable response.)	
Individual		
Unincorporated Association		
Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
-		
45. Name of Person Signing	46. Title of Person Signing	
Felise Feingold	Vice President and General Counsel	
>	•	

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/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: ESV Net E5. Call Sign: E090001

E2: Contact Name Robert Bourget E6. Phone 401 847 3327

Number:

E3. Street: 50 Enterprise E7. City: Middletown

Center

E8. County: Newport

E4. State RI E9. Zip Code 02842

E10. Area of Operation: CONUS, Gulf of Mexico, Caribbean, Atlantic and Pacific coastal areas

E11. Latitude: 0 °0 '0.0 "

E12. Longitude: 0 °0 '0.0 "

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

E14. Site Elevation (AMSL): 0.0 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.	O Yes	s d	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?	O Yes	s	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	Ye	es	٥	No
	-			
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Ye	es	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Ye	es	•	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.	O Ye	es	•	No
POINTS OF COMMUNICATION				
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT 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 Gain Transmint and/or Recieve (dBi atGHz)
ESV Net	ESV2	1000	KVH	TracPhone V3	0.37	31.6 dBi at 11.95
ESV Net	ESV2	1000	KVH	TracPhone V3	0.37	33.25 dBi at 14.25
ESV Net	ESV1	3500	KVH Industries, Inc.	TracPhone V7	0.6	35.5 dBi at 11.95
ESV Net	ESV1	3500	KVH Industries, Inc.	TracPhone V7	0.6	37.4 dBi at 14.25

Id	Diameter	E35. Above Ground Level (meters)	` ′	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
ESV2	0.37/0.37	0.4	0.4	10.0	3.0	0.4	38.021
ESV1	0.6/0.6	0.6	0.6	10.0	4.0	0.6	42.4

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)
ESV2	11700 12200	R	Horizontal and Vertical	18M0G7D	0.0	0.0
E50. Modulation entirety.) Data Servi	`	ne complete descript	tion does not appear in	this box, please go	to the end of the form	to view it in its
ESV2 E50. Modulation	11700 12200	R	Horizontal and Vertical	36M0G7D	0.0 to the end of the form	0.0
entirety.) Data Servi	ces					
ESV2	10950 11200	R	Horizontal and Vertical	27M0G7D	0.0	0.0

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	n this box, please go t	to the end of the form	to view it in its		
Spread Spe	ectrum CRMA Out	bound Data Ser	vices					
ESV2	11450 11700	R	Horizontal and Vertical	27M0G7D	0.0	0.0		
E50. Modulation entirety.) Spread Spe	and Services (If the			n this box, please go t	to the end of the form	to view it in its		
ESV2	11700 12200	R	Horizontal and Vertical	27M0G7D	0.0	0.0		
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.) Spread Spectrum CRMA Outbound Data Services								
ESV2	14000 14500	Т	Horizontal and Vertical	18M0G7D	38.021	1.49		

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.) Direct Sequence Spread Spectrum (DSSS) technique using a random access method called code reuse multiple access (CRMA) to access the satellite. Data Services ESV2 14000 Horizontal and 27M0G7D 42.4 4.11 14500 Vertical 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.) Direct Sequence Spread Spectrum (DSSS) technique using a random access method called code reuse multiple access (CRMA) to access the satellite. Data Services ESV2 14000 Horizontal and 36M0G7D 38.021 -1.52145000 Vertical 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.) Direct Sequence Spread Spectrum (DSSS) technique using a random access method called code reuse multiple access (CRMA) to access the satellite. Data Services ESV1 Horizontal and 0.0 R 27M0G7D 0.0 10950 11200 Vertical

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		
Spread Spe	ectrum CRMA Out	bound Data Ser	vices					
ESV1	11450 11700	R	Horizontal and Vertical	27M0G7D	0.0	0.0		
E50. Modulation entirety.) Spread Spe	ectrum CRMA Out			this box, please go to	o the end of the form	to view it in its		
ESV1	11700 12200	R	Horizontal and Vertical	18M0G7D	0.0	0.0		
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.) Spread Spectrum CRMA Outbound Data Services								
ESV1	11700 12200	R	Horizontal and Vertical	27M0G7D	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		
Spread Spe	ctrum CRMA Out	bound Data Ser	vices					
ESV1	11700 12200	R	Horizontal and Vertical	36M0G7D	0.0	0.0		
E50. Modulation entirety.) Spread Spe	and Services (If the ctrum CRMA Out			this box, please go to	o the end of the form	to view it in its		
ESV1	14000 14500	Т	Horizontal and Vertical	27M0G7D	42.4	4.11		
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.) Spread Spectrum CRMA Outbound Data Services								
ESV1	14000 14500	Т	Horizontal and Vertical	18M0G7D	42.4	5.87		

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.)

Direct Sequence Spread Spectrum (DSSS) technique using a random access method called code reuse multiple access (CRMA) to access the satellite. Data services.

ESV1	14000	T	Horizontal and	36M0G7D	42.4	2.86
	14500		Vertical			

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.)

Direct Sequence Spread Spectrum (DSSS) technique using a random access method called code reuse multiple access (CRMA) to access the satellite. Data services.

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	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)
ESV2	Geostationary	10950 11200	172.0/172.0	0.0	10.0	0.0	10.0	0.0
	Geostationary	11450 11700	172.0/172.0	0.0	10.0	0.0	10.0	0.0

	Geostationary	11700 12200	60.0/172.0	0.0	10.0	0.0	10.0	0.0
	Geostationary	11700 12200	105.0/105.0	0.0	10.0	0.0	10.0	0.0
	Geostationary	11700 12200	125.0/125.0	0.0	10.0	0.0	10.0	0.0
	Geostationary Geostationary	11700 12200	172.0/172.0	0.0	10.0	0.0	10.0	0.0
		14000 14500	60.0/172.0	0.0	10.0	0.0	10.0	-27.7
	Geostationary	14000 14500	105.0/105.0	0.0	10.0	0.0	10.0	-27.7
	Geostationary	14000 14500	125.0/125.0	0.0	10.0	0.0	10.0	-27.7
	Geostationary	14000 14500	172.0/172.0	0.0	10.0	0.0	10.0	-27.7
ESV1	Geostationary	10950 11200	172.0/172.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	172.0/172.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	60.0/172.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	105.0/105.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	125.0/125.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	172.0/172.0	0.0	5.0	0.0	5.0	0.0

Geostationary	14000 14500	60.0/172.0	0.0	5.0	0.0	5.0	-20.0
Geostationary	14000 14500	105.0/105.0	0.0	5.0	0.0	5.0	-20.0
Geostationary	14000 14500	125.0/125.0	0.0	5.0	0.0	5.0	-20.0
Geostationary	14000 14500	172.0/172.0	0.0	5.0	0.0	5.0	-20.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign E030131 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.		E66. Phone Number 760–476–2583		
E62. Street Address 6155 El Camino Real				
E63. City Carlsbad	E68. County San Diego		E67/68. State/Country CA/ USA	E64. Zip Code 92009

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