Date & Time Filed: Feb 25 2021 9:25:17:593PM File Number: SES-AFS-20210225-00404

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: Amendment to Application to Modify ESAA Blanket License (Call Sign E100089)

Name:	Panasonic Avionics Corporation	<b>Phone Number:</b>	949–672–2485
DBA Name:		Fax Number:	
Street:	26200 Enterprise Way	E-Mail:	andrew.thompson@panasonic.aero
City:	Lake Forest	State:	CA
<b>Country:</b>	USA	Zipcode:	92630 –

9–16. Name of Contact Representative

Name: Carlos Nalda **Phone Number:** 5713325626

**Company:** LMI Advisors **Fax Number:** 

Street: 2550 M Street NW E-Mail: cnalda@lmiadvisors.com

City: Washington State: DC

Country: USA Zipcode: 20037–

Attention: Relationship: Other

#### **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

**b** b3. Amendment to a Pending Application

**b**4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

**b**7. 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

**b** 13. Amendment to a Pending Database Entry Application

b14. Modification of Database Entry

17c. Is a fee submitted with this applicati  If Yes, complete and attach FCC Form	on? 159. If No, indicate reason for fee exemption (se	ee 47 C.F.R.Section 1.1114).
Governmental Entity Noncomme	rcial educational licensee	
Other(please explain):		
17d.		
Fee Classification CGB – Mobile Satellite	Earth Stations	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending ap modification please enter only the file number:	oplication enter both fields, if this filing is a
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
E100089	05/13/2020	SESMFS2020051300528

## 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
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
O Connected to a Public Switched Network O Not connected to a	Public Switched Network    N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	pplicable 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 addition	nal 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>b.</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) ESAA
26. TYPE OF EARTH STATION FACILITY:
Transmit/Receive Transmit-Only Receive-Only N/A
"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 & Double
j — authorization to change Points of Communication (satellites & amp; countries)
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**

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, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	ı rou	ite or		
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

 $lackbox{ Yes } lackbox{ No}$ 

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental

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.	<b>o</b> 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.	• Yes	<b>⊚</b> 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	• 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.	• 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 Technical Appe	No No andir
	тесппса Арр	Chuix
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued coordinated or is in the process of coordinating the space station?	, what administr	ation has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete describox, please go to the end of the form to view it in its entirety.)	ption does not ap	ppear in this
Amendment to ESAA license modification to add an additional point of commu	nication.	
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.	<b>●</b> 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.	<b>o</b> c

#### **CERTIFICATION**

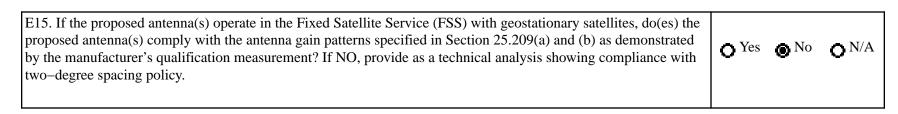
The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The 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.

	plicable response.)
Individual	
O Unincorporated Association	
O Partnership	
Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
45. Name of Person Signing Andrew Thompson	46. Title of Person Signing Director, Global Regulatory and Licensing
Andrew Thompson	

(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 St	ation Site					
E1: Site Identifier:	PPA	E5. Call Sign:	E100089			
E2: Contact Name	Customer Performance Center	E6. Phone Number:	949–462–1395			
E3. Street:	26200 Enterprise Way	E7. City:	Lake Forest			
		E8. County:	Orange			
E4. State	CA	E9. Zip Code	92630			
E10. Area of Operat	ion:	U.S. and international airspace				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
E13. Lat/Lon Coord	linates are:	O NAD-27	O NAD-83	N/A  N/A  Output  Description  N/A  Ou		
E14. Site Elevation (AMSL):		0.0 meters				



E16. If the proposed antenna(s) do not operate in the Fixed Satellite Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	O Yes	O No	● N/A	
E17. Is the facility operated by remote control? If YES, provide the loca point.	ation and telephone number of the control	Yes	0	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	o Yes	•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as				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.			•	No
POINTS OF COMMUNICATION		•		
Satellite Name: OTHER   OTHER   If you selected OTHER, please of	enter the following:			
E21. Common Name: NSS-12	E22. ITU Name:			
E23. Orbit Location: 57 ˚E	E24. Country: Netherlands			
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	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
PPA	PPA	2000	Panasonic	AURA LE	0.89	37.0 dBi at 14.250	

Id	Diameter		, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
PPA	0.0/0.0	0.0	0.0	0.0	10.0	0.0	48.0

# FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode		Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
PPA	10950 12750	R	Horizontal and Vertical	1M05G7D	0.0	0.0

E50. Modulation entirety.)	n and Services (If the	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
QPSK						
PPA	10950 12750	R	Horizontal and Vertical	54M0G7D	0.0	0.0
E50. Modulation entirety.)	n and Services (If the	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
QPSK						
PPA	14000 14500	Т	Horizontal and Vertical	32K0G7D	36.04	27.22
E50. Modulation entirety.)	and Services (If the	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
QPSK						
PPA	14000 14500	Т	Horizontal and Vertical	8M00G7D	48.0	15.2

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

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency 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)
PPA	Geostationary	10950 12750	57.0/57.0	0.0	5.0	360.0	5.0	0.0
	Geostationary	14000 14500	57.0/57.0	0.0	5.0	360.0	5.0	4.971
	Geostationary	14000 14500	57.0/57.0	0.0	5.0	360.0	5.0	-7.048

REMOTE CONTROL POINT LOCATION	
E61. Call Sign	E66. Phone Number 949−462−1395
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address 26200 Enterprise Way	

nty E67/68.	E64. Zip Code
State/Country	92630
CA/ USA	
	State/Country

## 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: SPA E5. Call Sign: E100089

E2: Contact Name Customer E6. Phone 949–462–1395

Performance Number:

Center

E3. Street: 26200 Enterprise E7. City: Lake Forest

Way

E8. County: Orange

E4. State CA E9. Zip Code 92630

E10. Area of Operation: U.S. and international airspace

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	<b>⊚</b> 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	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<b>⊚</b> Ye.	s o	No
	•		
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	O Yes	s 🔞	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Yes	s 💿	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 Yes	s 🔞	No
POINTS OF COMMUNICATION			
Satellite Name: OTHER   OTHER   If you selected OTHER, please enter the following:			

E21. Common Name: NSS-12	E22. ITU Name:
E23. Orbit Location: 57 ˚E	E24. Country: Netherlands

## 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	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
SPA	SPA	1000	Panasonic	SPA	0.949	35.0 dBi at 14.250	

Id	Diameter		, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
SPA	0.0/0.0	0.0	0.0	0.0	10.0	0.0	45.0

# FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
SPA	10950 12750	R	Horizontal and Vertical	1M05G7D	0.0	0.0

E50. Modul entirety.)	ation and Services	(If the complete d	escription does not appear	in this box, please	go to the end of the	he form to view it in its	
QPSK							
SPA	10950 12750	R	Horizontal and Vertical	54M0G7D	0.0	0.0	
E50. Modul entirety.)	ation and Services	(If the complete d	escription does not appear	in this box, please	go to the end of the	ne form to view it in its	
QPSK							
SPA	14000 14500	Т	Horizontal and Vertical	32K0G7D	34.24	25.42	
E50. Modul entirety.)	ation and Services	(If the complete d	escription does not appear	in this box, please	go to the end of the	ne form to view it in its	
QPSK							
SPA	14000 14500	Т	Horizontal and Vertical	8M00G7D	45.0	12.2	

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

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency 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)
SPA	Geostationary	10950 12750	57.0/57.0	0.0	5.0	360.0	5.0	0.0
	Geostationary	14000 14500	57.0/57.0	0.0	5.0	360.0	5.0	0.32
	Geostationary	14000 14500	57.0/57.0	0.0	5.0	360.0	5.0	-12.9

## DEMOTE CONTROL DOINT LOCATION

REMOTE CONTROL POINT LOCATION	
E61. Call Sign	E66. Phone Number
	9494621395
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address 26200 Enterprise Way	

E63. City	E68. County	E67/68.	E64. Zip Code
Lake Forest	Orange	State/Country	92630
		CA/ USA	

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