FCC 312				EXONG 6		T			Page 1: Location	on
Schedule B	FE	DERAL COMMI	UNICA	TIONS C	COMMISSION					
APPLIC	<b>ATION FOR</b>	SATELLITE SPA	ACE AN	ID EART	TH STATION .	AUTHOR	RIZATI	ONS		
		Technical and								
		(Place an "	X" in one of	the blocks be	elow)					
	n of new Domestic ve-Only Station	Amendment to a Per	nding Appl	ication	Modification of Lic	cense/Registra	ntion	Notification of M	Ainor Modification	
	SAT networks at	bile, or VSAT remote tach individual Schedu mmunications, and De	ıle B, Page	e 1 sheets fo	or each hub station	and each re				
	r (HUB, REMOTE1,		c. Telephon		acii nao ana remot	B1j. Geograp	hic Coordin	ates N/S,	B1k. Lat./Lon.	
USHI01	. (1102, 142,10121,	2.		29-8069				Sec E/W	Coordinates are	
B1d. Mailing Street Address of Station or Area of C	peration	B1e. Name of Contact Per	rson							
00.4704.0 # 5 : 45		Joanne Greet				Lat. <u>19</u> °		<u>50.3"</u> N	NAD-27	
93-1704 South Point Road		Joanne Greet				Lon. <u>155</u>	° <u>39'</u>	<u>46.6"</u> W	NAD-83	
B1f. City B1g. Cou	nty	B1h. State B1i. Zip Code					B11. Site E	Elevation (AMSL)		
Naalehu Ka	'u			HI	96772-0842				378.0 meters	
		it locations of all satell locations of all satellit								
Satellite Name and Orbit Location		Satellite Name and Orbit Location				Satellite Name and Orbit Location				
Galileo Constellation (GSAT219, GSAT220, GSAT221, and GSAT222)	MEO									
Orbits										
<b>B3. Destination points for communicatio</b> destination point(s) (countries) where the so										
Satellite Name	List of Destina	tion Points								
Galileo – GSAT219 (MSATNAV-2)	ESA (Non US	Spacecraft)								
Galileo – GSAT220 (MSATNAV-2)	ESA (Non US	S Spacecraft)								
Galileo – GSAT221 (MSATNAV-2)	ESA (Non US	S Spacecraft)								
Galileo – GSAT222 (MSATNAV-2)	ESA (Non US Spacecraft)									

## FEDERAL COMMUNICATIONS COMMISSION APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

B4. Earth Station Antenna Facilities: Use additional pages as needed.

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (dBi atGHz)
USHI01	HI-13M	1	Datron	1453	13.0	46.9 dBi at 2.245 GHz 45.9 dBi at 2.067 GHz

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID**	(b) Antenna Structure Registration No.	Maximum Ar (c) Above Ground Level (meters)	tenna Height (d) Above Mean Sea Level (meters)	(e) Building Height Above Ground Level (meters)***	(f) Maximum Antenna Height Above Rooftop (meters)***	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
HI-13M		20.0	398.0	(meters)	(meters)	200.0	68.9

Notes:

- \* If this is an application for a VSAT network, identify the site (Item B1b, Schedule B, Page 1) where each antenna is located. Also include this Site-ID on Schedule B, Page 5.
- \*\* Identify each antenna in VSAT network or multi-antenna station with a unique identifier, such as HUB, REMOTE1, A1, A2, 10M, 12M, 7M, etc. Use this same antenna ID throughout tables B4, B5, B6, and B7 when referring to the same antenna.
- \*\*\* Attach sketch of site or exemption, See 47 CFR Part 17.

**Page 3: Coordination** 

## APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS

FCC Form 312 - Schedule B: (Technical and Operational Description)

B6. Frequency Coordination Limits: Use additional pages as needed.

(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)	(h) Earth Station Azimuth Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(e) Antenna Elevation Angle Eastern Limit	(d) Range of Satellite Arc Western Limit**	(c) Range of Satellite Arc Eastern Limit**	(b) Frequency Limits (MHz)	(a) Antenna ID*
			5.0	5.0	360.0 W.L.	0.0 W.L.	2215.818	HI-13M
			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2221.956	HI-13M
			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2225.025	HI-13M
			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2228.094	HI-13M
			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2234.232	HI-13M
9.6			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2040.399	HI-13M
9.6			5.0°	5.0°	360.0° W.L.	0.0° W.L.	2046.051	HI-13M
9.6			5.0	5.0	360.0 W.L.	0.0 W.L.	2048.877	HI-13M
9.6			5.0	5.0	360.0 W.L.	0.0 W.L.	2051.703	HI-13M
9.6			5.0	5.0	360.0 W.L.	0.0 W.L.	2057.355	HI-13M
_ _ _								

Notes:

<sup>\*</sup> Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and orbital arc range is associated.

\*\* If operating with geostationary satellites, give the orbital arc limits and the associated elevation and azimuth angles. If operating with non-geostationary satellites, give the notation "NON-GEO" for the satellite arc and give the minimum operational elevation angle and the maximum azimuth angle range.

## FEDERAL COMMUNICATIONS COMMISSION APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS

FCC Form 312 - Schedule B: (Technical and Operational Description)

B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

2.1114111411111	or Operation (Full particula	is are re	quired for et	ten mit eummen)	· ese additiona	pages as nee-	
(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
HI-13M	2215.818	R	L, R	510KG2D			20 kbps data is PSK modulated into a 255 kHz subcarrier with 100 kHz
HI-13M	2221.956	R	L, R	510KG2D			20 kbps data is PSK modulated into a 255 kHz subcarrier with 100 kHz tone
HI-13M	2225.025	R	L, R	510KG2D			20 kbps data is PSK modulated into a 255 kHz subcarrier with 100 kHz tone
HI-13M	2228.094	R	L, R	510KG2D			20 kbps data is PSK modulated into a 255 kHz subcarrier with 100 kHz
HI-13M	2234.232	R	L, R	510KG2D			20 kbps data is PSK modulated into a 255 kHz subcarrier with 100 kHz
HI-13M	2040.399	Т	L, R	200KG2D	68.0	51.0	2 kbps data PSK modulated onto an 8 kHz subcarrier with 100 kHz major ranging tones
HI-13M	2046.051	Т	L, R	200KG2D	68.0	51.0	2 kbps data PSK modulated onto an 8 kHz subcarrier with 100 kHz major ranging tones
HI-13M	2048.877	Т	L, R	200KG2D	68.0	51.0	2 kbps data PSK modulated onto an 8 kHz subcarrier with 100 kHz
HI-13M	2051.703	Т	L, R	200KG2D	68.0	51.0	major ranging tones
HI-13M	2057.355	T	L, R	200KG2D	68.0	51.0	2 kbps data PSK modulated onto an 8 kHz subcarrier with 100 kHz
							major ranging tones

Notes: \* Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and emission is associated. For VSAT networks, include frequencies and emissions for all HUB and REMOTE units.

<sup>\*\*</sup> Indicate whether the earth station transmits or receives in each frequency band.

## FEDERAL COMMUNICATIONS COMMISSION APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

If VSAT Network, provide the SITE-ID (Item B1b) of the station that B8-B13 are in response to (HUB, REMOTE1, etc.):

B8. If the proposed antenna(s) operate in the comply with the antenna gain patterns sp measurements? If NO, provide as an ext		YES	□ NO	N/A						
B9. If the proposed antenna(s) do not operate										
	do(es) the proposed antenna(s) comply with		ns specified in	× Y	YES	NO				
	ted by the manufacturer's qualification measu		al maint							
B10. Is the facility operated by remote control	or. If 1ES, provide the location and telephon	ie number of the contro	от роши.	X Y	YES	□ NO				
Remote Control Point Location:										
B10a. Street Address										
417 Caredean Drive Sui	ite A									
B10b. City	B10c. County		I	B10e. Zip Code						
Horsham	Montgomery		PA		19044					
B10f. Telephone Number		B10g. Call Sign of Con	trol Station (if appropriate)							
215-328-9130										
B11. Is frequency coordination required? If	YES, attach a frequency coordination report a	as an exhibit.		<u> </u>						
				× Y	YES	∐ NO				
B12. Is coordination with another country required? If YES, attach the name of the country(ies)										
and plot of coordination contours as an		YES	$\bowtie$ NO							
B13. FAA Notification - (See 47 CFT Part		VEC	M NO							
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 CFT PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION										