



Table of Contents

1. Summary of Results	- 1 -
2. 28 GHz Common Carrier and LTTS Coordination	- 1 -
3. 28 GHz LMDS Coordination	- 2 -
4. Earth Station Coordination Data	- 3 -
5. Contact Information	- 7 -

1. Summary of Results

On behalf of Hawaii Pacific Teleport, Comsearch performed a coordination notice for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka-Band earth station in Kapolei, Hawaii, which will transmit at 28 GHz¹. Prior-notification letters were sent to the licensees and a copy of the notification data is provided in section four of this report. The earth station coordination was finalized on June 28, 2017.

No objections were received from any of the incumbent 28 GHz licensees.

2. 28 GHz Common Carrier and LTTS Coordination

In accordance with FCC Rules and Regulations, the Ka-Band earth station in Kapolei, Hawaii was prior-coordinated by Comsearch. A notification letter and datasheet for this earth station were sent to the following 28 GHz common carrier fixed microwave licensees on June 15, 2016. These licensees are authorized to operate on frequencies that overlap the frequency range of the proposed earth station.

Licensee	Frequency Range	Authorized Geographic Area
Frontier	27.5 – 29.5 GHz	Continental US
Hawaii Telecom	29.1 – 29.5 GHz	Statewide: Hawaii
Princeton Scientific Capital Management	28.5 – 29.5 GHz	Discrete link in Honolulu, Hawaii

A notification letter and datasheet for the Ka-Band earth station in Kapolei, Hawaii were also sent to the following 28 GHz local television transmission licensee on June 15, 2016. This licensee is authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a nationwide basis.

Licensee	Authorized Geographic Area
Information Super Station, LLC	Continental US

No objections were received from the common carrier or local television transmission service incumbents.

¹ The proposed earth station will operate in the 27.5 – 29.5 GHz portion of the Ka-Band.



3. 28 GHz LMDS Coordination

The proposed earth station will operate on frequencies that overlap Block A of 28 GHz LMDS services. The total frequency allocation for Block A of the LMDS spectrum appears below.

Block A: 27.500-28.350 GHz
29.100-29.250 GHz
31.075-31.225 GHz

Licensee	Market	Market Name	Status	Termination Date
BTA Associates, LLC	BTA192	Honolulu, HI	Terminated	6/1/2012
BTA Associates, LLC	BTA222	Kahului-Wailuku-Lahaina, HI	Terminated	6/1/2012

No active LMDS services were found within the coordination contour of the earth station.



4. Earth Station Coordination Data

This section presents the data pertinent to the proposed Ka-Band earth station in Kapolei, Hawaii. This data was circulated to all incumbent licensees in the shared 28 GHz frequency ranges.

Date: 07/18/2017
Job Number: 170614COMSTC02

Administrative Information

Call Sign: E150010
Licensee Name: Hawaii Pacific Teleport, L.P.

Site Information

KAPOLEI, HI
Latitude (NAD 83): 21° 20' 12.0" N
Longitude (NAD 83): 158° 5' 25.2" W
Climate Zone: A
Rain Zone: 4
Ground Elevation (AMSL): 37.2 m / 122.1 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 188° W to 188° West Longitude
Azimuth Range: 237.7° to 237.7°
Corresponding Elevation Angles: 48.0° / 48.0°
Antenna Centerline (AGL): 8.0 m / 26.3 ft

Antenna Information

Manufacturer:
Gain / Diameter:
3-dB / 15-dB Beamwidth:

Receive

GDS Satcom
61.5 dBi / 9.2 m
0.21° / 0.42°

Transmit

GDS Satcom
64.1 dBi / 9.2 m
0.16° / 0.34°

		<u>54M0G7W - 140MG7W</u>	
Max Available RF Power	(dBW/4 kHz)	-20.7	-28.5
	(dBW/MHz)	3.3	-4.5
Maximum EIRP	(dBW/4 kHz)	43.4	35.7
	(dBW/MHz)	67.4	59.7
	(dBW)	84.7	81.1
Interference Objectives:	Long Term 20%	-156.0 dBW/MHz	20%
	Short Term 0.0025%	-146.0 dBW/MHz	0.01%

Frequency Information

Receive 18.0 GHz

Transmit 28.0 GHz



**Hawaii Pacific Teleport, L.P.
Ka-Band Earth Station – Kapolei, HI
Frequency Coordination Report
28 GHz**

Emission / Frequency Range (MHz)	54M0G7W / 18400.0 - 19700.0	54M0G7W / 27500.0 -
29500.0	140MG7W / 18400.0 - 19700.0	140MG7W / 27500.0 -
29500.0		
Max Great Circle Coordination Distance	136.2 km / 84.6 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi



Coordination Values

KAPOLEI, HI

Licensee Name	Hawaii Pacific Teleport, L.P.		
Latitude (NAD 83)	21° 20' 12.0" N		
Longitude (NAD 83)	158° 5' 25.2" W		
Ground Elevation (AMSL)	37.2 m / 122.1 ft		
Antenna Centerline (AGL)	8.0 m / 26.3 ft		
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz 20%
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz
	0.0025%		
Max Available RF Power	-20.7 (dBW/4 kHz)		

Receive 18.0 GHz

Azimuth (°)	Transmit 28.0 GHz		Receive 18.0 GHz			
	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	12.27	115.71	-10.00	100.00	-10.00	100.00
5	13.58	119.99	-10.00	100.00	-10.00	100.00
10	14.78	124.26	-10.00	100.00	-10.00	100.00
15	15.21	128.15	-10.00	100.00	-10.00	100.00
20	14.56	131.30	-10.00	100.00	-10.00	100.00
25	14.58	134.60	-10.00	100.00	-10.00	100.00
30	13.32	136.70	-10.00	100.00	-10.00	100.00
35	13.20	139.22	-10.00	100.00	-10.00	100.00
40	12.17	140.54	-10.00	100.00	-10.00	100.00
45	11.12	141.26	-10.00	100.00	-10.00	100.00
50	10.47	141.76	-10.00	100.00	-10.00	100.00
55	8.64	140.53	-10.00	100.00	-10.00	100.00
60	7.53	139.43	-10.00	100.00	-10.00	100.00
65	6.28	137.72	-10.00	100.00	-10.00	100.00
70	5.34	135.89	-10.00	100.00	-10.00	100.00
75	5.19	134.42	-10.00	100.00	-10.00	100.00
80	4.80	132.37	-10.00	100.00	-10.00	100.00
85	4.54	130.12	-10.00	100.00	-10.00	100.00
90	3.61	127.12	-10.00	100.00	-10.00	100.00
95	2.31	123.72	-10.00	100.00	-10.00	100.00
100	0.64	120.03	-10.00	108.30	-10.00	100.00
105	0.00	116.95	-10.00	136.18	-10.00	100.00
110	0.00	114.12	-10.00	136.18	-10.00	100.00
115	0.00	111.17	-10.00	136.18	-10.00	100.00
120	0.00	108.10	-10.00	136.18	-10.00	100.00
125	0.00	104.94	-10.00	136.18	-10.00	100.00
130	0.00	101.72	-10.00	136.18	-10.00	100.00
135	0.00	98.44	-10.00	136.18	-10.00	100.00
140	0.00	95.13	-10.00	136.18	-10.00	100.00
145	0.00	91.79	-10.00	136.18	-10.00	100.00
150	0.00	88.45	-10.00	136.18	-10.00	100.00
155	0.00	85.12	-10.00	136.18	-10.00	100.00
160	0.00	81.80	-10.00	136.18	-10.00	100.00



**Hawaii Pacific Teleport, L.P.
Ka-Band Earth Station – Kapolei, HI
Frequency Coordination Report
28 GHz**

165	0.00	78.52	-10.00	136.18	-10.00	100.00
170	0.00	75.29	-10.00	136.18	-10.00	100.00
175	0.00	72.13	-10.00	136.18	-10.00	100.00
180	0.00	69.06	-10.00	136.18	-10.00	100.00
185	0.00	66.09	-10.00	136.18	-10.00	100.00



Coordination Values

KAPOLEI, HI

Licensee Name	Hawaii Pacific Teleport, L.P.		
Latitude (NAD 83)	21° 20' 12.0" N		
Longitude (NAD 83)	158° 5' 25.2" W		
Ground Elevation (AMSL)	37.2 m / 122.1 ft		
Antenna Centerline (AGL)	8.0 m / 26.3 ft		
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz 20%
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz
	0.0025%		
Max Available RF Power	-20.7 (dBW/4 kHz)		

Receive 18.0 GHz

Transmit 28.0 GHz			Receive 18.0 GHz			
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	63.25	-10.00	136.18	-10.00	100.00
195	0.00	60.56	-10.00	136.18	-10.00	100.00
200	0.00	58.05	-10.00	136.18	-10.00	100.00
205	0.00	55.75	-10.00	136.18	-10.00	100.00
210	0.00	53.70	-10.00	136.18	-10.00	100.00
215	0.00	51.91	-10.00	136.18	-10.00	100.00
220	0.00	50.43	-10.00	136.18	-10.00	100.00
225	0.00	49.29	-10.00	136.18	-10.00	100.00
230	0.00	48.50	-10.00	136.18	-10.00	100.00
235	0.00	48.10	-10.00	136.18	-10.00	100.00
240	0.00	48.08	-10.00	136.18	-10.00	100.00
245	0.00	48.46	-10.00	136.18	-10.00	100.00
250	0.00	49.22	-10.00	136.18	-10.00	100.00
255	0.00	50.33	-10.00	136.18	-10.00	100.00
260	0.00	51.79	-10.00	136.18	-10.00	100.00
265	0.00	53.55	-10.00	136.18	-10.00	100.00
270	0.78	55.00	-10.00	102.25	-10.00	100.00
275	0.00	57.88	-10.00	136.18	-10.00	100.00
280	0.32	60.17	-10.00	127.79	-10.00	100.00
285	0.00	63.05	-10.00	136.18	-10.00	100.00
290	0.53	65.61	-10.00	112.72	-10.00	100.00
295	1.15	68.34	-10.00	100.00	-10.00	100.00
300	1.60	71.33	-10.00	100.00	-10.00	100.00
305	2.17	74.42	-10.00	100.00	-10.00	100.00
310	2.99	77.61	-10.00	100.00	-10.00	100.00
315	3.30	81.03	-10.00	100.00	-10.00	100.00
320	4.03	84.48	-10.00	100.00	-10.00	100.00
325	5.15	88.03	-10.00	100.00	-10.00	100.00
330	6.22	91.73	-10.00	100.00	-10.00	100.00
335	7.78	95.58	-10.00	100.00	-10.00	100.00
340	8.50	99.47	-10.00	100.00	-10.00	100.00
345	9.03	103.37	-10.00	100.00	-10.00	100.00
350	10.35	107.49	-10.00	100.00	-10.00	100.00



**Hawaii Pacific Teleport, L.P.
Ka-Band Earth Station – Kapolei, HI
Frequency Coordination Report
28 GHz**

355 12.42 111.90 -10.00 100.00 -10.00 100.00



5. Contact Information

For questions or information regarding the 28 GHz Frequency Coordination Report, please contact:

Contact person:	Joanna Lynch
Title:	Manager, Spectrum & Data Solutions
Company:	Comsearch
Address:	19700 Janelia Farm Blvd., Ashburn, VA 20147
Telephone:	703-726-5711
Fax:	703-726-5599
Email:	jlynch@comsearch.com
Web site:	www.comsearch.com