

Ka-Band Earth Station – Maui, HI

Frequency Coordination Report

28 GHz



Prepared on Behalf of
Hawaii Pacific Teleport,
L.P.

May 22, 2022





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1. Summary of Results

On behalf of HAWAII PACIFIC TELEPORT, L.P., Comsearch performed a coordination notice under Section 25.203(c) and Section 25.136(a)(4) of the FCC's rules for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka-Band earth station in Maui, HI, 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 May 22, 2022.

There are no unresolved objections 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 Maui, HI was prior-coordinated by Comsearch. A notification letter and datasheets for this earth station were sent to the following 28 GHz common carrier fixed microwave licensees. These licensees are authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a nationwide basis or local basis.

Licensee	Authorized Geographic Area
None Identified	

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

Licensee	Authorized Geographic Area
None Identified	

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 – 30.0 GHz portion of the Ka-Band.

3. 28 GHz UMFUS Coordination

There were two 28 GHz UMFUS licensees identified within the coordination distance of the proposed earth station. The proposed earth station will operate on frequencies that overlap Channel L1 & L2 of the UMFUS service. The total frequency allocation for Channels L1 & L2 of the UMFUS spectrum appears below.

Channel: **L1** 27.500 - 27.925 GHz
 L2 27.925 - 28.350 GHz

Licensee	Authorized Geographic Area
McBride Spectrum Partners	Market Based
Verizon	Market Based

There are no unresolved objections from the UMFUS incumbents within coordination distance.



4. Earth Station Coordination Data

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

Job Number: 220118COMSGE02

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: HAWPAC
Licensee Name: Hawaii Pacific Teleport, L.P.

Site Information

MAUI, HI
Venue Name:
Latitude (NAD 83): 20° 49' 1.5" N
Longitude (NAD 83): 156° 27' 16.9" W
Climate Zone: C
Rain Zone: 4
Ground Elevation (AMSL): 36.0 m / 118.1 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Modulation: Digital
Minimum Elevation Angle: 20.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 2.74 m / 9.0 ft

Antenna Information

		Receive - FCC32	Transmit - FCC32
Manufacturer		Kuiper	Kuiper
Model		Model 24001	Model 24001
Gain / Diameter		49.0 dBi / 2.4 m	53.8 dBi / 2.4 m
3-dB / 15-dB Beamwidth		0.77° / 1.70°	0.49° / 1.17°
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)		-41.0 -17.0
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)		12.8 36.8
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%
	Short Term	-146.0 dBW/MHz	0.01%
			-151.0 dBW/4 kHz 20% -128.0 dBW/4 kHz 0.0025%

Frequency Information

	Receive 18.0 GHz	Transmit 28.0 GHz
Emission / Frequency Range (MHz)	50M0G7D - 500MG7D / 17800.0 - 18600.0 50M0G7D - 500MG7D / 18800.0 - 20200.0	50M0G7D - 500MG7D / 27500.0 - 30000.0
Max Great Circle Coordination Distance	242.0 km / 150.4 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	MAUI, HI			
Licensee Name	Hawaii Pacific Teleport, L.P.			
Latitude (NAD 83)	20° 49' 1.5" N			
Longitude (NAD 83)	156° 27' 16.9" W			
Ground Elevation (AMSL)	36.0 m / 118.1 ft			
Antenna Centerline (AGL)	2.74 m / 9.0 ft			
Antenna Model	Kuiper 2.4 meter			
Antenna Mode	Receive 18.0 GHz			
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	Transmit 28.0 GHz
	Short Term	-146.0 dBW/MHz	0.01%	-151.0 dBW/4 kHz 20%
Max Available RF Power	-128.0 dBW/4 kHz 0.0025%			
	-41.0 (dBW/4 kHz)			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 28.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.33	73.48	2.30	242.00	2.30	100.00
5	0.41	71.77	2.30	242.00	2.30	100.00
10	0.47	70.18	2.30	242.00	2.30	100.00
15	0.54	68.75	2.30	242.00	2.30	100.00
20	0.59	67.47	2.30	242.00	2.30	100.00
25	0.69	66.41	2.30	242.00	2.30	100.00
30	0.78	65.53	2.30	242.00	2.30	100.00
35	0.94	64.92	2.30	242.00	2.30	100.00
40	1.05	64.46	2.30	242.00	2.30	100.00
45	1.09	64.15	2.30	242.00	2.30	100.00
50	1.06	63.98	2.30	242.00	2.30	100.00
55	1.16	64.16	2.30	242.00	2.30	100.00
60	1.18	64.46	2.30	242.00	2.30	100.00
65	1.20	64.96	2.30	242.00	2.30	100.00
70	1.25	65.70	2.30	242.00	2.30	100.00
75	1.20	66.53	2.30	242.00	2.30	100.00
80	1.42	67.79	2.30	242.00	2.30	100.00
85	1.60	69.16	2.30	242.00	2.30	100.00
90	1.60	70.52	2.30	242.00	2.30	100.00
95	1.66	72.08	2.30	242.00	2.30	100.00
100	1.67	73.71	2.30	242.00	2.30	100.00
105	1.73	75.49	2.30	242.00	2.30	100.00
110	1.76	77.35	2.30	242.00	2.30	100.00
115	1.78	79.28	2.30	242.00	2.30	100.00
120	1.73	81.25	2.30	242.00	2.30	100.00
125	1.55	83.26	2.30	242.00	2.30	100.00
130	1.41	85.34	2.30	242.00	2.30	100.00
135	1.24	87.47	2.30	242.00	2.30	100.00
140	1.13	89.65	2.30	242.00	2.30	100.00
145	0.96	91.85	2.30	242.00	2.30	100.00
150	0.77	94.06	2.30	242.00	2.30	100.00
155	0.52	96.30	2.30	242.00	2.30	100.00
160	0.36	98.50	2.30	242.00	2.30	100.00
165	0.20	100.68	2.30	242.00	2.30	100.00
170	0.00	102.83	2.30	242.00	2.30	100.00
175	0.00	104.82	2.30	242.00	2.30	100.00
180	0.00	106.72	2.30	242.00	2.30	100.00
185	0.00	108.50	2.30	242.00	2.30	100.00

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180	0.00	106.72	2.30	242.00	2.30	100.00
185	0.00	108.50	2.30	242.00	2.30	100.00



5. Contact Information

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

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