

Ka-Band Earth Station – Columbia, SC

Frequency Coordination Report

28 GHz



Prepared on Behalf of
ViaSat, Inc.

February 24, 2021



COMSEARCH
A CommScope Company

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1. Summary of Results

On behalf of ViaSat, Inc., Comsearch issued 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 Columbia-SC, which will transmit at 28 GHz¹. Prior-notification emails 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 December 23, 2020.

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 Columbia, SC was prior-coordinated by Comsearch. A notification email, datasheet and Google Earth file showing the area around the site outside which the -77.6 dBm/m² per MHz threshold value is not exceeded 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
AT&T	Statewide: SC
Frontier	Nationwide

A notification email, datasheet and Google Earth file showing the area around the site outside which the -77.6 dBm/m² per MHz threshold value is not exceeded for the Ka-Band earth station in Columbia, SC 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
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 – 29.1 GHz & 29.5 – 30.0 GHz portion of the Ka-Band.

3. 28 GHz UMFUS Coordination

Two 28 GHz UMFUS licensees were 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
Cellco Partnership	Market Based

No objections were received 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 Columbia, SC. This data was circulated to all incumbent licensees in the shared 28 GHz frequency ranges.

Date:	11/23/2020	
Job Number:	201123COMSNR43	
Administrative Information		
Status	ENGINEER PROPOSAL	
Call Sign		
Licensee Code	VIASAT	
Licensee Name	ViaSat, Inc	
Site Information		
Site Name	COLUMBIA, SC	
Venue Name		
Latitude (NAD 83)	34° 04' 58.7" N	
Longitude (NAD 83)	80° 52' 31.5" W	
Climate Zone	A	
Rain Zone	1	
Ground Elevation (AMSL)	81.19 m / 266.4 ft	
Link Information		
Satellite Type	Geostationary	
Mode	TO - Transmit-Only	
Modulation	Digital	
Satellite Arc	78° W to 91° West Longitude	
Azimuth Range	174.9° to 197.7°	
Corresponding Elevation Angles	50.3° / 48.9°	
Antenna Centerline (AGL)	1.5 m / 4.9 ft	
Antenna Information		
Antenna Name	Transmit - VES001	
Manufacturer	VIASAT INC.	
Model	13001XX	
Gain / Diameter	52.6 dBi / 2.4 m	
3-dB / 15-dB Beamwidth	0.40° / 0.80°	
Max Available RF Power	(dBW/4 kHz)	-42.5
	(dBW/MHz)	-18.5
Maximum EIRP	(dBW/4 kHz)	9.5
	(dBW/MHz)	33.5
Interference Objectives:	Long Term	-141.0 dBW/4 kHz 20%
	Short Term	-118.0 dBW/4 kHz 0.0025%
Frequency Information		
Frequency	Transmit 28.0 GHz	
Emission / Frequency Range (MHz)	464MG7D / 27500.0 - 29500.0	
Coordination Distance	0.4 km / 0.25 mi	

5. Contact Information

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

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