

# Ka-Band Earth Station – Effingham, IL

## Frequency Coordination Report

28 GHz



Prepared on Behalf of  
ViaSat, Inc.

July 31, 2021



**COMSEARCH**  
A CommScope Company

## **Table of Contents**

<b>1. Summary of Results</b>	<b>- 2 -</b>
<b>2. 28 GHz Common Carrier Coordination</b>	<b>- 2 -</b>
<b>3. 28 GHz UMFUS Coordination</b>	<b>- 3 -</b>
<b>4. Earth Station Coordination Data</b>	<b>- 4 -</b>
<b>5. Contact Information</b>	<b>- 5 -</b>

## 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 Effingham-IL, which will transmit at 28 GHz<sup>1</sup>. 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 July 29, 2021.

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

## 2. 28 GHz Common Carrier Coordination

In accordance with FCC Rules and Regulations, the Ka-Band earth station in Effingham, IL 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/m<sup>2</sup> 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

No objections were received from the common carrier incumbent.

<sup>1</sup> 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

All 28 GHz UMFUS licensees within the coordination distance of the proposed earth station were identified. 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
Broadband One	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 Effingham, IL. This data was circulated to all incumbent licensees in the shared 28 GHz frequency ranges.

Date:	06/29/2021		
Job Number:	210629COMSNR09		
<b>Administrative Information</b>			
Status	ENGINEER PROPOSAL		
Call Sign			
Licensee Code	VIASAT		
Licensee Name	ViaSat, Inc		
<b>Site Information</b>			
Venue Name	EFFINGHAM, IL		
Latitude (NAD 83)	39° 06' 10.29" N		
Longitude (NAD 83)	88° 35' 46.20" W		
Climate Zone	A		
Rain Zone	2		
Ground Elevation (AMSL)	169.74 m / 556.9 ft		
<b>Link Information</b>			
Satellite Type	Geostationary		
Mode	TO - Transmit-Only		
Modulation	Digital		
Satellite Arc	78° W to 91° West Longitude		
Azimuth Range	163.5° to 183.8°		
Corresponding Elevation Angles	43.4° / 44.7°		
Antenna Centerline (AGL)	1.2 m / 3.9 ft		
<b>Antenna Information</b>			
		<b>Transmit - VES000</b>	
Manufacturer	VIASAT INC.		
Model	13138XX		
Gain / Diameter	52.0 dBi / 1.8 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%
<b>Frequency Information</b>			
		<b>Transmit 28.0 GHz</b>	
Emission / Frequency Range (MHz)	464MG7D / 27500.0 - 29500.0		
Coordination Distance	3.5 km / 2.18 mi		

## **5. Contact Information**

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

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