

Ka, Q/V-Band Earth Station – Racine, WI.

Frequency Coordination Report

Ka, Q/V-Band

Receive: 37.5 – 42.5 GHz Transmit: 27.5 – 31.0 GHz, 47.2 – 50.2, 50.4 – 52.4 GHz



Prepared on Behalf of
SPACE EXPLORATION
HOLDINGS

April 27, 2026



Table of Contents

1.	Summary of Results	- 1 -
2.	40/50 GHz Common Carrier and LTTS Coordination	- 1 -
3.	28/40/50 GHz UMFUS Coordination	- 2 -
4.	Earth Station Coordination Data	- 4 -
5.	Contact Information	- 7 -



1. Summary of Results

On behalf of SPACE EXPLORATION HOLDINGS, Comsearch performed a coordination notice under Section 25.203(c) of the FCC's rules for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka, Q/V-band earth station in Racine, WI, which will receive at 40 GHz and transmit at 28 and 50 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 April 27, 2026.

There are no unresolved objections from any of the incumbent 28/40/50 GHz licensees.

2. 28/40/50 GHz Common Carrier and LTTS Coordination

In accordance with FCC Rules and Regulations, the Ka, Q/V-band earth station in Racine, WI was prior-coordinated by Comsearch. A notification letter and datasheets for this earth station were sent to the following 28/40/50 GHz common carrier fixed microwave licensees. These licensees are authorized to operate temporary fixed operations from 38.6 – 40.0 GHz on a nationwide basis or local basis.

Licensee	Authorized Geographic Area
AT&T	Statewide

A notification letter and datasheets for the Ka, Q/V-band earth station in Racine, WI were also sent to the following 40 GHz LTTS licensee. This licensee is authorized to operate temporary fixed operations from 38.6 – 40.0 GHz on a market basis.

Licensee	Authorized Geographic Area
Broadcast Sports International, LLC	Nationwide
Remote Facilities Consulting Services Inc.	Nationwide
DCI II Inc	Nationwide

No objections were received from the common carrier or LTTS incumbents.

¹ The proposed earth station will receive in the 37.5 – 42.5 GHz & transmit in the 47.2-50.2 GHz / 50.4-52.4 GHz portion of the Q/V-Band. Ka-band transmissions will be in the 27.5 – 31.0 GHz band.

3. 28/40/50 GHz UMFUS Coordination

There were ten 28/40/50 GHz UMFUS licensees identified within the coordination distance of the proposed earth station. The proposed earth station will operate on frequencies that overlap portions of the UMFUS service which includes the following frequency ranges:

27.5 GHz – 31.0 GHz
37.5 GHz – 42.5 GHz
47.2 GHz – 50.2 GHz

Licensee	Authorized Geographic Area
AT&T	Market Based
Blue Ridge Wireless	Market Based
Broadband One	Market Based
Columbia Capital	Market Based
DISH Network	Market Based
GeoLinks	Market Based
Jump	Market Based
Monarch Wireless	Market Based
Nsight	Market Based
Scientel Solutions	Market Based
T-Mobile	Market Based
Verizon	Market Based
US Cellular	Market Based



SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

There were no specific objections from the UMFUS incumbents within the coordination distance at the end of the coordination period.



4. Earth Station Coordination Data

This section presents the data pertinent to the proposed Ka, Q/V-band earth station in Racine, WI. This data was circulated to all incumbent licensees in the shared 28/40/50 GHz frequency ranges.

Date: 03/25/2026
Job Number: 260325COMSGE09

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: SPACEX
Licensee Name: SpaceX Services, Inc

Site Information

RACINE, WI
Venue Name: MALTED MILK
Latitude (NAD 83): 42° 45' 2.1" N
Longitude (NAD 83): 87° 48' 5.7" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 194.01 m / 636.5 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Antenna Count: 40
Modulation: Digital
Minimum Elevation Angle: 10.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 1.7 m / 5.6 ft

Antenna Information

Manufacturer: SpaceX
Model: 1.99 meter
Gain / Diameter: 50.0 dBi / 2.0 m
3-dB / 15-dB Beamwidth: 0.50° / 1.00°

Receive - FCC32

Transmit - FCC32

SpaceX
1.99 meter
53.9 dBi / 2.0 m
0.30° / 0.60°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-40.8
-16.8

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)

13.1
37.1

Aggregate EIRP (dBW/MHz)

37.1

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

Emission / Frequency Range (MHz)

Receive 18.0 GHz

60M0D7W - 480MD7W / 17300.0 - 17800.0
60M0D7W - 480MD7W / 17800.0 - 18600.0
60M0D7W - 480MD7W / 18600.0 - 18800.0
60M0D7W - 480MD7W / 18800.0 - 19300.0
60M0D7W - 480MD7W / 19300.0 - 19700.0
60M0D7W - 480MD7W / 19700.0 - 20200.0
60M0D7W - 480MD7W / 20200.0 - 21200.0

Transmit 28.0 GHz

60M0D7W - 480MD7W / 27500.0 - 29100.0
60M0D7W - 480MD7W / 29100.0 - 29500.0
60M0D7W - 480MD7W / 29500.0 - 30000.0
60M0D7W - 480MD7W / 30000.0 - 31000.0

Max Great Circle Coordination Distance
Precipitation Scatter Contour Radius

225.0 km / 139.8 mi
100.0 km / 62.1 mi

100.0 km / 62.1 mi
100.0 km / 62.1 mi

SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

Coordination Values		RACINE, WI				
Licensee Name		SpaceX Services, Inc				
Latitude (NAD 83)		42° 45' 2.1" N				
Longitude (NAD 83)		87° 48' 5.7" W				
Ground Elevation (AMSL)		194.01 m / 636.5 ft				
Antenna Centerline (AGL)		1.7 m / 5.6 ft				
Antenna Model		SpaceX 1.99 meter				
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%	
		-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%	
Short Term						
Max Available RF Power		-40.8 (dBW/4 kHz)				
		Receive 18.0 GHz			Transmit 28.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	91.48	0.00	225.00	0.00	100.00
5	0.00	86.52	0.00	225.00	0.00	100.00
10	0.00	81.56	0.00	225.00	0.00	100.00
15	0.00	76.60	0.00	225.00	0.00	100.00
20	0.00	71.64	0.00	225.00	0.00	100.00
25	0.00	66.68	0.00	225.00	0.00	100.00
30	0.00	61.73	0.00	225.00	0.00	100.00
35	0.00	56.78	0.00	225.00	0.00	100.00
40	0.00	51.84	0.00	225.00	0.00	100.00
45	0.00	46.90	0.00	225.00	0.00	100.00
50	0.00	41.98	0.00	225.00	0.00	100.00
55	0.00	37.07	0.00	225.00	0.00	100.00
60	0.00	32.19	0.00	225.00	0.00	100.00
65	0.00	27.34	0.00	225.00	0.00	100.00
70	0.00	22.56	0.00	225.00	0.00	100.00
75	0.00	17.89	0.00	225.00	0.00	100.00
80	0.00	13.44	0.00	225.00	0.00	100.00
85	0.00	9.55	0.00	225.00	0.00	100.00
90	0.00	7.18	0.00	225.00	0.00	100.00
95	0.00	7.84	0.00	225.00	0.00	100.00
100	0.00	11.01	0.00	225.00	0.00	100.00
105	0.00	15.19	0.00	225.00	0.00	100.00
110	0.00	19.75	0.00	225.00	0.00	100.00
115	0.00	24.47	0.00	225.00	0.00	100.00
120	0.00	29.29	0.00	225.00	0.00	100.00
125	0.00	34.15	0.00	225.00	0.00	100.00
130	0.00	39.04	0.00	225.00	0.00	100.00
135	0.00	43.96	0.00	225.00	0.00	100.00
140	0.00	48.88	0.00	225.00	0.00	100.00
145	0.00	53.82	0.00	225.00	0.00	100.00
150	0.00	58.77	0.00	225.00	0.00	100.00
155	0.00	63.72	0.00	225.00	0.00	100.00
160	0.00	68.67	0.00	225.00	0.00	100.00
165	0.00	73.63	0.00	225.00	0.00	100.00
170	0.00	78.59	0.00	225.00	0.00	100.00
175	0.00	83.55	0.00	225.00	0.00	100.00
180	0.00	88.52	0.00	225.00	0.00	100.00
185	0.00	93.48	0.00	225.00	0.00	100.00

SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

Coordination Values			RACINE, WI			
Licensee Name			SpaceX Services, Inc			
Latitude (NAD 83)			42° 45' 2.1" N			
Longitude (NAD 83)			87° 48' 5.7" W			
Ground Elevation (AMSL)			194.01 m / 636.5 ft			
Antenna Centerline (AGL)			1.7 m / 5.6 ft			
Antenna Model			SpaceX 1.99 meter			
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
Max Available RF Power			-40.8 (dBW/4 kHz)			
			Receive 18.0 GHz		Transmit 28.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	98.44	0.00	225.00	0.00	100.00
195	0.00	103.40	0.00	225.00	0.00	100.00
200	0.00	108.36	0.00	225.00	0.00	100.00
205	0.20	113.31	0.00	225.00	0.00	100.00
210	0.29	118.25	0.00	225.00	0.00	100.00
215	0.36	123.19	0.00	225.00	0.00	100.00
220	0.40	128.12	0.00	225.00	0.00	100.00
225	0.42	133.05	0.00	225.00	0.00	100.00
230	0.39	137.97	0.00	225.00	0.00	100.00
235	0.34	142.87	0.00	225.00	0.00	100.00
240	0.34	147.74	0.00	225.00	0.00	100.00
245	0.37	152.56	0.00	225.00	0.00	100.00
250	0.40	157.32	0.00	225.00	0.00	100.00
255	0.46	161.93	0.00	225.00	0.00	100.00
260	0.44	166.32	0.00	225.00	0.00	100.00
265	0.48	170.09	0.00	225.00	0.00	100.00
270	0.53	172.30	0.00	225.00	0.00	100.00
275	0.56	171.66	0.00	225.00	0.00	100.00
280	0.57	168.62	0.00	225.00	0.00	100.00
285	0.56	164.55	0.00	225.00	0.00	100.00
290	0.47	160.08	0.00	225.00	0.00	100.00
295	0.48	155.39	0.00	225.00	0.00	100.00
300	0.45	150.61	0.00	225.00	0.00	100.00
305	0.36	145.78	0.00	225.00	0.00	100.00
310	0.30	140.91	0.00	225.00	0.00	100.00
315	0.28	136.01	0.00	225.00	0.00	100.00
320	0.33	131.08	0.00	225.00	0.00	100.00
325	0.39	126.14	0.00	225.00	0.00	100.00
330	0.31	121.21	0.00	225.00	0.00	100.00
335	0.22	116.27	0.00	225.00	0.00	100.00
340	0.35	111.31	0.00	225.00	0.00	100.00
345	0.30	106.36	0.00	225.00	0.00	100.00
350	0.00	101.41	0.00	225.00	0.00	100.00
355	0.00	96.45	0.00	225.00	0.00	100.00

SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

Date: 03/18/2026
Job Number: 260325COMSGE09

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: SPACEX
Licensee Name: SpaceX Services, Inc

Site Information

RACINE, WI
Venue Name: MALTED MILK
Latitude (NAD 83): 42° 45' 2.1" N
Longitude (NAD 83): 87° 48' 5.7" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 194.01 m / 636.5 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Antenna Count: 40
Modulation: Digital
Minimum Elevation Angle: 10.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 1.7 m / 5.6 ft

Antenna Information

Manufacturer: SpaceX
Model: 1.99 meter
Gain / Diameter: 55.9 dBi / 2.0 m
3-dB / 15-dB Beamwidth: 0.25° / 0.50°

Receive - FCC32

SpaceX
1.99 meter
55.9 dBi / 2.0 m
0.25° / 0.50°

Transmit - FCC32

SpaceX
1.99 meter
58.1 dBi / 2.0 m
0.20° / 0.40°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-47.8
-23.8

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)

10.3
34.3

Aggregate EIRP (dBW/MHz)

34.3

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

Emission / Frequency Range (MHz)

Receive 40.0 GHz

60M0D7W - 480MD7W / 37500.0 - 42500.0

Transmit 50.0 GHz

60M0D7W - 480MD7W / 47200.0 - 50200.0
60M0D7W - 480MD7W / 50400.0 - 51400.0
60M0D7W - 480MD7W / 51400.0 - 52400.0

Max Great Circle Coordination Distance
Precipitation Scatter Contour Radius

225.0 km / 139.8 mi
100.0 km / 62.1 mi

100.0 km / 62.1 mi
100.0 km / 62.1 mi

SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

Coordination Values		RACINE, WI				
Licensee Name		SpaceX Services, Inc				
Latitude (NAD 83)		42° 45' 2.1" N				
Longitude (NAD 83)		87° 48' 5.7" W				
Ground Elevation (AMSL)		194.01 m / 636.5 ft				
Antenna Centerline (AGL)		1.7 m / 5.6 ft				
Antenna Model		SpaceX 1.99 meter				
Antenna Mode		Receive 40.0 GHz		Transmit 50.0 GHz		
Interference Objectives: Long Term		-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%	
		-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%	
Short Term						
Max Available RF Power		-47.8 (dBW/4 kHz)				
		Receive 40.0 GHz			Transmit 50.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	91.48	0.00	225.00	0.00	100.00
5	0.00	86.52	0.00	225.00	0.00	100.00
10	0.00	81.56	0.00	225.00	0.00	100.00
15	0.00	76.60	0.00	225.00	0.00	100.00
20	0.00	71.64	0.00	225.00	0.00	100.00
25	0.00	66.68	0.00	225.00	0.00	100.00
30	0.00	61.73	0.00	225.00	0.00	100.00
35	0.00	56.78	0.00	225.00	0.00	100.00
40	0.00	51.84	0.00	225.00	0.00	100.00
45	0.00	46.90	0.00	225.00	0.00	100.00
50	0.00	41.98	0.00	225.00	0.00	100.00
55	0.00	37.07	0.00	225.00	0.00	100.00
60	0.00	32.19	0.00	225.00	0.00	100.00
65	0.00	27.34	0.00	225.00	0.00	100.00
70	0.00	22.56	0.00	225.00	0.00	100.00
75	0.00	17.89	0.00	225.00	0.00	100.00
80	0.00	13.44	0.00	225.00	0.00	100.00
85	0.00	9.55	0.00	225.00	0.00	100.00
90	0.00	7.18	0.00	225.00	0.00	100.00
95	0.00	7.84	0.00	225.00	0.00	100.00
100	0.00	11.01	0.00	225.00	0.00	100.00
105	0.00	15.19	0.00	225.00	0.00	100.00
110	0.00	19.75	0.00	225.00	0.00	100.00
115	0.00	24.47	0.00	225.00	0.00	100.00
120	0.00	29.29	0.00	225.00	0.00	100.00
125	0.00	34.15	0.00	225.00	0.00	100.00
130	0.00	39.04	0.00	225.00	0.00	100.00
135	0.00	43.96	0.00	225.00	0.00	100.00
140	0.00	48.88	0.00	225.00	0.00	100.00
145	0.00	53.82	0.00	225.00	0.00	100.00
150	0.00	58.77	0.00	225.00	0.00	100.00
155	0.00	63.72	0.00	225.00	0.00	100.00
160	0.00	68.67	0.00	225.00	0.00	100.00
165	0.00	73.63	0.00	225.00	0.00	100.00
170	0.00	78.59	0.00	225.00	0.00	100.00
175	0.00	83.55	0.00	225.00	0.00	100.00
180	0.00	88.52	0.00	225.00	0.00	100.00
185	0.00	93.48	0.00	225.00	0.00	100.00

SPACE EXPLORATION HOLDINGS
Ka, Q/V-Band Earth Station – Racine, WI
Frequency Coordination Report
28/40/50 GHz

Coordination Values

RACINE, WI	
Licensee Name	SpaceX Services, Inc
Latitude (NAD 83)	42° 45' 2.1" N
Longitude (NAD 83)	87° 48' 5.7" W
Ground Elevation (AMSL)	194.01 m / 636.5 ft
Antenna Centerline (AGL)	1.7 m / 5.6 ft
Antenna Model	SpaceX 1.99 meter
Antenna Mode	Receive 40.0 GHz
Interference Objectives: Long Term	-156.0 dBW/MHz 20%
Short Term	-146.0 dBW/MHz 0.01%
Max Available RF Power	-47.8 (dBW/4 kHz)
	Transmit 50.0 GHz
	-151.0 dBW/4 kHz 20%
	-128.0 dBW/4 kHz 0.0025%

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 40.0 GHz		Transmit 50.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	98.44	0.00	225.00	0.00	100.00
195	0.00	103.40	0.00	225.00	0.00	100.00
200	0.00	108.36	0.00	225.00	0.00	100.00
205	0.20	113.31	0.00	225.00	0.00	100.00
210	0.29	118.25	0.00	225.00	0.00	100.00
215	0.36	123.19	0.00	225.00	0.00	100.00
220	0.40	128.12	0.00	225.00	0.00	100.00
225	0.42	133.05	0.00	225.00	0.00	100.00
230	0.39	137.97	0.00	225.00	0.00	100.00
235	0.34	142.87	0.00	225.00	0.00	100.00
240	0.34	147.74	0.00	225.00	0.00	100.00
245	0.37	152.56	0.00	225.00	0.00	100.00
250	0.40	157.32	0.00	225.00	0.00	100.00
255	0.46	161.93	0.00	225.00	0.00	100.00
260	0.44	166.32	0.00	225.00	0.00	100.00
265	0.48	170.09	0.00	225.00	0.00	100.00
270	0.53	172.30	0.00	225.00	0.00	100.00
275	0.56	171.66	0.00	225.00	0.00	100.00
280	0.57	168.62	0.00	225.00	0.00	100.00
285	0.56	164.55	0.00	225.00	0.00	100.00
290	0.47	160.08	0.00	225.00	0.00	100.00
295	0.48	155.39	0.00	225.00	0.00	100.00
300	0.45	150.61	0.00	225.00	0.00	100.00
305	0.36	145.78	0.00	225.00	0.00	100.00
310	0.30	140.91	0.00	225.00	0.00	100.00
315	0.28	136.01	0.00	225.00	0.00	100.00
320	0.33	131.08	0.00	225.00	0.00	100.00
325	0.39	126.14	0.00	225.00	0.00	100.00
330	0.31	121.21	0.00	225.00	0.00	100.00
335	0.22	116.27	0.00	225.00	0.00	100.00
340	0.35	111.31	0.00	225.00	0.00	100.00
345	0.30	106.36	0.00	225.00	0.00	100.00
350	0.00	101.41	0.00	225.00	0.00	100.00
355	0.00	96.45	0.00	225.00	0.00	100.00



5. Contact Information

For questions or information regarding the Ka, Q/V-band Frequency Coordination Report, please contact:

Contact person:	Gary Edwards
Title:	Senior Manager, Satellite Services
Company:	Comsearch
Address:	21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone:	703-726-5662
Email:	GEdwards@Comsearch.com
Web site:	www.comsearch.com

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
SpaceX Services, Inc
RACINE, WI
Satellite Earth Station

Prepared By:
COMSEARCH
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166
April 27, 2026

TABLE OF CONTENTS

1. CONCLUSIONS 3

2. SUMMARY OF RESULTS 4

3. SUPPLEMENTAL SHOWING 5

4. EARTH STATION COORDINATION DATA..... 9

5. CERTIFICATION..... 16

1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 03/25/2026.

Company

AMG Technology Investment Group LLC
AT&T Mobility Spectrum LLC - Indiana
Acrospire Networks
Addison Consolidated Dispatch
Addison Fire Protection District
Alpha Bravo Communications
Altitude Line, Inc
BNSF Railway Company
Bertram Communications
Blast Communications, Inc.
Blueline Comm
Brandywine Community Schools
Business Only Broadband, LLC
CBS Broadcasting Inc
Cellanet Solutions Ltd
Cellco Partnership - AL/SC
Cellco Partnership - IN & KY Mkts
Cellco Partnership - Michigan
Cellco Partnership -IA/IL/IN/WI
Chicago FCC License Sub, LLC
Chicago SMSA Limited Partnership
Cicero, Town of
City of Aurora
City of Chicago - Office Public Safety
City of Chicago, Dept. of Water
City of Joliet
City of Kenosha PD
City of Naperville
City of Oak Forest
City of Sheboygan
Columbia, County of
Community Consolidated School Dist #46
Community Foundation of NW Indiana
Computer Dynamics of NW Illinois, LLC
Cook County Sheriffs Police
County Information Services, LLC
Dane County of
Dish Wireless LLC
Dontron Inc.
DuPage Public Safety Communications

Dupage County ETSB
Dupage, County of
E-Com Dispatch Center
East Hazel Crest, Village of
Elgin, City of
Elk Grove Village
Essex Telcom, Inc.
Everywhere Wireless, LLC
Express Dial Internet, Inc.
Fourway Computer Products, Inc.
Fox Television Stations, LLC
Fox Valley Internet, Inc.
Getgoing Infrastructure Group, LLC
Grayslake High School Dist 127
Gregory Green Holdings LLC
Grundy County E.T.S.B.
Hillside, Village of
Hinsdale Township High School Dist 86
Illinois Department of Transportation
Interra Credit Union
JSM Holding LLC
Jefferson Microwave, LLC
John G. Shedd Aquarium
Johnson Technology, Inc.
Kaneland Community School District 302
Kankakee County Emergency Telephone Syst
Kendall County Sheriff
Kenosha County of
L.R. Communications
LaGrange School District 102
LaSalle County of
Lake County Emergency Telephone System
Lake in the Hills, Village of
Leaf River Telephone Company
Leeward Energy, LLC
Lemont Fire Protection District
Lyons Township High School District 204
McHenry County Government
Mercury Wireless Indiana, LLC
Mercury Wireless, LLC
Michigan, State Of
MidwayNet, LLC
Midwest Telecom of America, Inc
Milwaukee County OEM
Minooka CCSD #201
Mobile Communications America, Inc.
Moose Brothers, LLC
Municipal Consolidated Dispatch
NBC Telemundo License LLC
Netwurx LLC
New Cingular Wireless PCS LLC - Indiana
New Cingular Wireless PCS LLC - Michigan
New Line Networks, LLC
North Central Tower Co, LLC
Northern Indiana Public Service Company
Oak Lawn Park District

Open Air Wireless
Orland Fire Protection District
Oswego Fire Protection District
Paper Boy Wireless, LLC
Peotone Community Unit District 207
Pick Two LLC
Pierce Broadband, LLC
Plainfield Community School Dist # 202
Porter County Government
Porter, County of
Racine, County of
Rincon Broadcasting Milwaukee LLC
River Valley School District
Rock County Wisconsin
Schaumburg, Village of
Scripps Broadcasting Holdings, LLC
SilverIP Communications, LLC
Southland Communications Center
Southwest Central Dispatch
Spectrum Holding Company LLC
State of Wisconsin - Ed Comm Board
Surf Air Wireless, LLC
SyncWave, LLC
T-Mobile MW LLC
Tahoe Network Infrastructure, LLC
The Laffoon Corporation
Tinley Park, Village of
Towerstream Corp.
Tribune Media Company
UW-Whitewater Police
Union Pacific Railroad Company
Unytite Inc.
Urbancom.net Wireless LLC
Valley View School District
Village of Addison
Village of Bolingbrook
Village of Downers Grove Illinois
Village of Elmwood Park
Village of Fox Lake
Village of Franklin Park
Village of Glenview / NET24B
Village of Hoffman Estates
Village of Mount Pleasant
Village of Mount Prospect
Village of Niles
Village of Orland Park Police Department
Village of Palatine
Village of Tinley Park
W.A.T.C.H. TV Company Inc.
WDJT-TV Limited Partnership
WEC Business Services LLC
WGBO License Partnership, G. P.
WKOW Television
WLS Television, Inc.
Walworth, County of
Weblin Holdings LLC

Webpass Inc.
Weigel Broadcasting Company
Western Will County Communication Center
Wheeling Park District
Will County 9-1-1
Will County Emergency Management
Winnebago County
Wisconsin Electric Power Company
Wisconsin, State of
Xiber, LLC

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Date: 04/27/2026
Job Number: 260325COMSGE09

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: SPACEX
Licensee Name: SpaceX Services, Inc

Site Information

RACINE, WI
Venue Name: MALTED MILK
Latitude (NAD 83): 42° 45' 2.1" N
Longitude (NAD 83): 87° 48' 5.7" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 194.01 m / 636.5 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Antenna Count: 40
Modulation: Digital
Minimum Elevation Angle: 10.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 1.7 m / 5.6 ft

Antenna Information

Receive - FCC32
Manufacturer: SpaceX
Model: 1.99 meter
Gain / Diameter: 50.0 dBi / 2.0 m
3-dB / 15-dB Beamwidth: 0.50° / 1.00°

Transmit - FCC32

SpaceX
1.99 meter
53.9 dBi / 2.0 m
0.30° / 0.60°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-40.8
-16.8

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)

13.1
37.1

Aggregate EIRP (dBW/MHz)

37.1

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

Emission / Frequency Range (MHz)

Receive 18.0 GHz

60M0D7W - 480MD7W / 17300.0 - 17800.0
60M0D7W - 480MD7W / 17800.0 - 18600.0
60M0D7W - 480MD7W / 18600.0 - 18800.0
60M0D7W - 480MD7W / 18800.0 - 19300.0
60M0D7W - 480MD7W / 19300.0 - 19700.0
60M0D7W - 480MD7W / 19700.0 - 20200.0
60M0D7W - 480MD7W / 20200.0 - 21200.0

Transmit 28.0 GHz

60M0D7W - 480MD7W / 27500.0 - 29100.0
60M0D7W - 480MD7W / 29100.0 - 29500.0
60M0D7W - 480MD7W / 29500.0 - 30000.0
60M0D7W - 480MD7W / 30000.0 - 31000.0

Max Great Circle Coordination Distance: 225.0 km / 139.8 mi
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

100.0 km / 62.1 mi
100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values

RACINE, WI

Licensee Name SpaceX Services, Inc
Latitude (NAD 83) 42° 45' 2.1" N
Longitude (NAD 83) 87° 48' 5.7" W
Ground Elevation (AMSL) 194.01 m / 636.5 ft
Antenna Centerline (AGL) 1.7 m / 5.6 ft
Antenna Model SpaceX 1.99 meter
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 -40.8 (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	0.00	91.48	0.00	225.00	0.00	100.00
5	0.00	86.52	0.00	225.00	0.00	100.00
10	0.00	81.56	0.00	225.00	0.00	100.00
15	0.00	76.60	0.00	225.00	0.00	100.00
20	0.00	71.64	0.00	225.00	0.00	100.00
25	0.00	66.68	0.00	225.00	0.00	100.00
30	0.00	61.73	0.00	225.00	0.00	100.00
35	0.00	56.78	0.00	225.00	0.00	100.00
40	0.00	51.84	0.00	225.00	0.00	100.00
45	0.00	46.90	0.00	225.00	0.00	100.00
50	0.00	41.98	0.00	225.00	0.00	100.00
55	0.00	37.07	0.00	225.00	0.00	100.00
60	0.00	32.19	0.00	225.00	0.00	100.00
65	0.00	27.34	0.00	225.00	0.00	100.00
70	0.00	22.56	0.00	225.00	0.00	100.00
75	0.00	17.89	0.00	225.00	0.00	100.00
80	0.00	13.44	0.00	225.00	0.00	100.00
85	0.00	9.55	0.00	225.00	0.00	100.00
90	0.00	7.18	0.00	225.00	0.00	100.00
95	0.00	7.84	0.00	225.00	0.00	100.00
100	0.00	11.01	0.00	225.00	0.00	100.00
105	0.00	15.19	0.00	225.00	0.00	100.00
110	0.00	19.75	0.00	225.00	0.00	100.00
115	0.00	24.47	0.00	225.00	0.00	100.00
120	0.00	29.29	0.00	225.00	0.00	100.00
125	0.00	34.15	0.00	225.00	0.00	100.00
130	0.00	39.04	0.00	225.00	0.00	100.00
135	0.00	43.96	0.00	225.00	0.00	100.00
140	0.00	48.88	0.00	225.00	0.00	100.00
145	0.00	53.82	0.00	225.00	0.00	100.00
150	0.00	58.77	0.00	225.00	0.00	100.00
155	0.00	63.72	0.00	225.00	0.00	100.00
160	0.00	68.67	0.00	225.00	0.00	100.00
165	0.00	73.63	0.00	225.00	0.00	100.00
170	0.00	78.59	0.00	225.00	0.00	100.00
175	0.00	83.55	0.00	225.00	0.00	100.00
180	0.00	88.52	0.00	225.00	0.00	100.00
185	0.00	93.48	0.00	225.00	0.00	100.00

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values

RACINE, WI

Licensee Name SpaceX Services, Inc
Latitude (NAD 83) 42° 45' 2.1" N
Longitude (NAD 83) 87° 48' 5.7" W
Ground Elevation (AMSL) 194.01 m / 636.5 ft
Antenna Centerline (AGL) 1.7 m / 5.6 ft
Antenna Model SpaceX 1.99 meter
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 -40.8 (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)
190	0.00	98.44	0.00	225.00	0.00	100.00
195	0.00	103.40	0.00	225.00	0.00	100.00
200	0.00	108.36	0.00	225.00	0.00	100.00
205	0.20	113.31	0.00	225.00	0.00	100.00
210	0.29	118.25	0.00	225.00	0.00	100.00
215	0.36	123.19	0.00	225.00	0.00	100.00
220	0.40	128.12	0.00	225.00	0.00	100.00
225	0.42	133.05	0.00	225.00	0.00	100.00
230	0.39	137.97	0.00	225.00	0.00	100.00
235	0.34	142.87	0.00	225.00	0.00	100.00
240	0.34	147.74	0.00	225.00	0.00	100.00
245	0.37	152.56	0.00	225.00	0.00	100.00
250	0.40	157.32	0.00	225.00	0.00	100.00
255	0.46	161.93	0.00	225.00	0.00	100.00
260	0.44	166.32	0.00	225.00	0.00	100.00
265	0.48	170.09	0.00	225.00	0.00	100.00
270	0.53	172.30	0.00	225.00	0.00	100.00
275	0.56	171.66	0.00	225.00	0.00	100.00
280	0.57	168.62	0.00	225.00	0.00	100.00
285	0.56	164.55	0.00	225.00	0.00	100.00
290	0.47	160.08	0.00	225.00	0.00	100.00
295	0.48	155.39	0.00	225.00	0.00	100.00
300	0.45	150.61	0.00	225.00	0.00	100.00
305	0.36	145.78	0.00	225.00	0.00	100.00
310	0.30	140.91	0.00	225.00	0.00	100.00
315	0.28	136.01	0.00	225.00	0.00	100.00
320	0.33	131.08	0.00	225.00	0.00	100.00
325	0.39	126.14	0.00	225.00	0.00	100.00
330	0.31	121.21	0.00	225.00	0.00	100.00
335	0.22	116.27	0.00	225.00	0.00	100.00
340	0.35	111.31	0.00	225.00	0.00	100.00
345	0.30	106.36	0.00	225.00	0.00	100.00
350	0.00	101.41	0.00	225.00	0.00	100.00
355	0.00	96.45	0.00	225.00	0.00	100.00

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Date: 03/18/2026
Job Number: 260325COMSGE09

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: SPACEX
Licensee Name: SpaceX Services, Inc

Site Information

RACINE, WI
Venue Name: MALTED MILK
Latitude (NAD 83): 42° 45' 2.1" N
Longitude (NAD 83): 87° 48' 5.7" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 194.01 m / 636.5 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Antenna Count: 40
Modulation: Digital
Minimum Elevation Angle: 10.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 1.7 m / 5.6 ft

Antenna Information

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

Receive - FCC32

SpaceX
1.99 meter
55.9 dBi / 2.0 m
0.25° / 0.50°

Transmit - FCC32

SpaceX
1.99 meter
58.1 dBi / 2.0 m
0.20° / 0.40°

Max Available RF Power (dBW/4 kHz): -47.8
(dBW/MHz): -23.8

Maximum EIRP (dBW/4 kHz): 10.3
(dBW/MHz): 34.3

Aggregate EIRP (dBW/MHz): 34.3

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%

Frequency Information

Emission / Frequency Range (MHz)

Receive 40.0 GHz

60M0D7W - 480MD7W / 37500.0 - 42500.0

Transmit 50.0 GHz

60M0D7W - 480MD7W / 47200.0 - 50200.0
60M0D7W - 480MD7W / 50400.0 - 51400.0
60M0D7W - 480MD7W / 51400.0 - 52400.0

Max Great Circle Coordination Distance: 225.0 km / 139.8 mi
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values

RACINE, WI

Licensee Name	SpaceX Services, Inc		
Latitude (NAD 83)	42° 45' 2.1" N		
Longitude (NAD 83)	87° 48' 5.7" W		
Ground Elevation (AMSL)	194.01 m / 636.5 ft		
Antenna Centerline (AGL)	1.7 m / 5.6 ft		
Antenna Model	SpaceX 1.99 meter		
Antenna Mode	Receive 40.0 GHz		Transmit 50.0 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	-47.8 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 40.0 GHz		Transmit 50.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	91.48	0.00	225.00	0.00	100.00
5	0.00	86.52	0.00	225.00	0.00	100.00
10	0.00	81.56	0.00	225.00	0.00	100.00
15	0.00	76.60	0.00	225.00	0.00	100.00
20	0.00	71.64	0.00	225.00	0.00	100.00
25	0.00	66.68	0.00	225.00	0.00	100.00
30	0.00	61.73	0.00	225.00	0.00	100.00
35	0.00	56.78	0.00	225.00	0.00	100.00
40	0.00	51.84	0.00	225.00	0.00	100.00
45	0.00	46.90	0.00	225.00	0.00	100.00
50	0.00	41.98	0.00	225.00	0.00	100.00
55	0.00	37.07	0.00	225.00	0.00	100.00
60	0.00	32.19	0.00	225.00	0.00	100.00
65	0.00	27.34	0.00	225.00	0.00	100.00
70	0.00	22.56	0.00	225.00	0.00	100.00
75	0.00	17.89	0.00	225.00	0.00	100.00
80	0.00	13.44	0.00	225.00	0.00	100.00
85	0.00	9.55	0.00	225.00	0.00	100.00
90	0.00	7.18	0.00	225.00	0.00	100.00
95	0.00	7.84	0.00	225.00	0.00	100.00
100	0.00	11.01	0.00	225.00	0.00	100.00
105	0.00	15.19	0.00	225.00	0.00	100.00
110	0.00	19.75	0.00	225.00	0.00	100.00
115	0.00	24.47	0.00	225.00	0.00	100.00
120	0.00	29.29	0.00	225.00	0.00	100.00
125	0.00	34.15	0.00	225.00	0.00	100.00
130	0.00	39.04	0.00	225.00	0.00	100.00
135	0.00	43.96	0.00	225.00	0.00	100.00
140	0.00	48.88	0.00	225.00	0.00	100.00
145	0.00	53.82	0.00	225.00	0.00	100.00
150	0.00	58.77	0.00	225.00	0.00	100.00
155	0.00	63.72	0.00	225.00	0.00	100.00
160	0.00	68.67	0.00	225.00	0.00	100.00
165	0.00	73.63	0.00	225.00	0.00	100.00
170	0.00	78.59	0.00	225.00	0.00	100.00
175	0.00	83.55	0.00	225.00	0.00	100.00
180	0.00	88.52	0.00	225.00	0.00	100.00
185	0.00	93.48	0.00	225.00	0.00	100.00

COMSEARCH

Earth Station Data Sheet

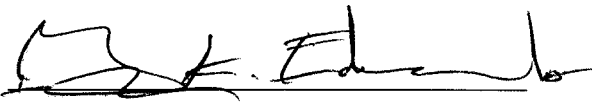
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values		RACINE, WI		
Licensee Name		SpaceX Services, Inc		
Latitude (NAD 83)		42° 45' 2.1" N		
Longitude (NAD 83)		87° 48' 5.7" W		
Ground Elevation (AMSL)		194.01 m / 636.5 ft		
Antenna Centerline (AGL)		1.7 m / 5.6 ft		
Antenna Model		SpaceX 1.99 meter		
Antenna Mode		Receive 40.0 GHz		Transmit 50.0 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			-47.8 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 40.0 GHz		Transmit 50.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	98.44	0.00	225.00	0.00	100.00
195	0.00	103.40	0.00	225.00	0.00	100.00
200	0.00	108.36	0.00	225.00	0.00	100.00
205	0.20	113.31	0.00	225.00	0.00	100.00
210	0.29	118.25	0.00	225.00	0.00	100.00
215	0.36	123.19	0.00	225.00	0.00	100.00
220	0.40	128.12	0.00	225.00	0.00	100.00
225	0.42	133.05	0.00	225.00	0.00	100.00
230	0.39	137.97	0.00	225.00	0.00	100.00
235	0.34	142.87	0.00	225.00	0.00	100.00
240	0.34	147.74	0.00	225.00	0.00	100.00
245	0.37	152.56	0.00	225.00	0.00	100.00
250	0.40	157.32	0.00	225.00	0.00	100.00
255	0.46	161.93	0.00	225.00	0.00	100.00
260	0.44	166.32	0.00	225.00	0.00	100.00
265	0.48	170.09	0.00	225.00	0.00	100.00
270	0.53	172.30	0.00	225.00	0.00	100.00
275	0.56	171.66	0.00	225.00	0.00	100.00
280	0.57	168.62	0.00	225.00	0.00	100.00
285	0.56	164.55	0.00	225.00	0.00	100.00
290	0.47	160.08	0.00	225.00	0.00	100.00
295	0.48	155.39	0.00	225.00	0.00	100.00
300	0.45	150.61	0.00	225.00	0.00	100.00
305	0.36	145.78	0.00	225.00	0.00	100.00
310	0.30	140.91	0.00	225.00	0.00	100.00
315	0.28	136.01	0.00	225.00	0.00	100.00
320	0.33	131.08	0.00	225.00	0.00	100.00
325	0.39	126.14	0.00	225.00	0.00	100.00
330	0.31	121.21	0.00	225.00	0.00	100.00
335	0.22	116.27	0.00	225.00	0.00	100.00
340	0.35	111.31	0.00	225.00	0.00	100.00
345	0.30	106.36	0.00	225.00	0.00	100.00
350	0.00	101.41	0.00	225.00	0.00	100.00
355	0.00	96.45	0.00	225.00	0.00	100.00

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166

DATED: April 27, 2026



E-band Frequency Coordination Report
The “Malted Milk” Gateway (RACINE, WI)
March 17, 2026



Summary

SpaceX performed a coordination notice under Section 25.203(c), Section 25.251, and Appendix 7 of the ITU's Radio Regulations. Prior-notification letters with earth station details were sent to potentially affected terrestrial licensees; a copy of these details are available in this report. The earth station coordination was finalized on April 01, 2026. No objections were received from any terrestrial licensees.

Methodology

SpaceX has completed an interference analysis based on accepted international and Commission methodologies demonstrating that this satellite earth station will not cause harmful interference to existing terrestrial facilities in the band. Specifically, for each known receiver within the great circle coordination distance surrounding the proposed earth station, SpaceX calculated the expected interference/noise ratio (I/N) to the receiver, assuming the SpaceX antenna properties listed on the following page, SpaceX site layout and design, free-space propagation without terrain or clutter, and actual characteristics of receiver(s) obtained from the 70/80/90 GHz link-registration database. Even under these conservative assumptions, SpaceX's analysis confirms that this earth station will not cause interference exceeding 1.0 dB of degradation to the static threshold of existing 70/80 GHz links within the great circle coordination distance.¹

Operators contacted

Prior-coordination letters were sent to the following operators:

1. Aerial Networks LLC
2. Art Institute of Chicago
3. BNSF Railway Co
4. BOB, LLC
5. BOB, LLC dba Business Only Broadband
6. BSO NETWORK, INC.
7. Baltic Networks USA
8. Blast Communications, Inc.
9. Ceragon Networks, Inc.
10. City of Greenfield
11. Communications Law Counsel, PLLC
12. Crown Castle Fiber LLC
13. Digis LLC
14. Elmhurst Community Unit School District 205

¹ If there were any cases in which the interference threshold was exceeded in the conservative free-space analysis for any relevant receiver, SpaceX conducted an additional analysis with more realistic assumptions of terrain and clutter, under which the interference threshold was not exceeded for any relevant receiver. This further ensures that there will be no above-threshold interference to existing receivers.

15. Ethoplex, LLC
16. Everywhere Wireless, LLC
17. Gamma, LLC
18. Geneva Communications LLC
19. Interlakes Wireless
20. Keller and Heckman LLP
21. Kiechel Law
22. LightPointe Communications Inc
23. LiteWire Internet Services, Inc
24. Micronet Communications, Inc.
25. New Line Networks LLC
26. REMEC Broadband Wireless Networks LLC DBA Bridgewave Communications
27. SIAE Microelettronica, Inc.
28. SW Networks
29. Scientel Solutions LLC
30. Seattle's Best Internet, LLC
31. Siklu, Inc
32. SilverIP Communications, LLC
33. Single Digits, Inc.
34. SpaceX
35. Surveillance Technologies, LLC
36. T-MOBILE LICENSE LLC
37. Tahoe Network Infrastructure, LLC
38. Towerstream Corp
39. Village of Burr Ridge
40. Village of Wheeling
41. WILLIAM RAINEY HARPER COLLEGE
42. Webpass Inc
43. Webpass, Inc
44. Whitewater Wideband LLC dba Edge Broadband
45. Wireless Applications Corp

Earth Station Data

This section presents the data that was circulated to all operators that met the criteria for notification for this earth station.

Site Information:

- Transmitting station name: The “Malted Milk” Gateway
- Transmitting station coordinates: 42.75058, -87.8016
- Ground Elevation (AMSL): 192 m
- Antenna Count: 40
- Aggregate EIRP toward the horizon: -9 dBW/MHz

Frequency Information:

- Transmit: 81-86 GHz
- Receive: 71-76 GHz
- Max Great Circle Coordination Distance: 127 km
- Rain Scatter Coordination Distance Contour: 6 km

Link Information:

- Satellite Type: Low Earth Orbit
- Mode: TR – Transmit-Receive
- Modulation: Digital
- Minimum Elevation Angle: 15.0°
- Azimuth Range: 0.0° to 360.0°
- Antenna Centerline (AGL): 1.7 m

Antenna Information:

- Manufacturer: SpaceX
- Model/Diameter: 1.99m
- Gain: 60.9 dBi at 83.5 GHz
- Max Available RF Power: -20.8 dBW/MHz
- Horizon Gain: 0 dBi
- Maximum EIRP: 40.1 dBW/MHz (main beam)
- Permissible RF Interference Power Level²: I/N ≤ -6 dB
- Antenna Mask: ITU-R S.580

² See 47 CFR § 101.105(a)(5)(i). This I/N value would cause a maximum of 1.0 dB of degradation to the static threshold of the protected receiver.

Horizon Angle by Azimuth:

All values are in degrees

Azimuth	Horizon Angle
0.0	0.00
5.0	-0.04
10.0	-0.03
15.0	-0.09
20.0	-0.04
25.0	-0.09
30.0	-0.09
35.0	-0.10
40.0	-0.13
45.0	-0.12
50.0	-0.14
55.0	-0.18
60.0	-0.18
65.0	-0.20
70.0	-0.20
75.0	-0.19
80.0	-0.18
85.0	-0.21
90.0	-0.21
95.0	-0.22
100.0	-0.23
105.0	-0.26
110.0	-0.14
115.0	-0.17
120.0	-0.19
125.0	-0.16
130.0	-0.15
135.0	-0.15
140.0	-0.18
145.0	-0.20
150.0	-0.11
155.0	-0.05
160.0	-0.06
165.0	-0.06
170.0	-0.04
175.0	-0.05
180.0	-0.02
185.0	0.02
190.0	0.08
195.0	0.16



Frequency Coordination Report
E-Band Earth Station

200.0	0.27
205.0	0.41
210.0	0.41
215.0	0.43
220.0	0.42
225.0	0.41
230.0	0.39
235.0	0.48
240.0	0.50
245.0	0.51
250.0	0.39
255.0	0.46
260.0	0.45
265.0	0.47
270.0	0.49
275.0	0.52
280.0	0.42
285.0	0.51
290.0	0.40
295.0	0.45
300.0	0.42
305.0	0.40
310.0	0.35
315.0	0.33
320.0	0.33
325.0	0.29
330.0	0.26
335.0	0.30
340.0	0.35
345.0	0.23
350.0	0.18
355.0	0.03