

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
General Dynamics Satellite Communication Services, LLC
TOBYHANNA, PA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 22, 2016

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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 07/22/2016.

Company

ABC, Inc. - WPVI-TV
AT&T Corp.
American Broadcasting Companies, Inc.
Bergen, County of
Blueline Communications
Borough of Sayreville
Broome County Information Technology
Business Only Broadband, LLC
CBS Communication Services Inc
CBS Radio Stations Inc.
Cellco Partnership- PA Region
City of Bethlehem
City of Jersey City
City of Jersey City, Police Department
City of Lebanon Authority
Clarity Connect, Inc.
Clearwire Spectrum Holdings III, LLC
Conterra Ultra Broadband, LLC
County of Hunterdon
County of Lycoming
DREXEL UNIVERSITY
Diocese of Camden
ECW Wireless, LLC
Eastern Lancaster County School District
Electric Railroad, LLC
Federal Home Loan Bank of New York
Freehold Township Police Department
Geisinger Medical Center
Geodesic Networks LLC
Greater Boston Radio Inc.
Guard Insurance Group
HISPANIC INFORMATION AND TELECOMM NETWORK
High Voltage Communications LLC (CFN)
Highway Networks, LLC
Hoboken Fire Department
Hopewell Radiology Group
Hudson County MIS Department
J & R ELECTRONICS INC
Jefferson Microwave, LLC
Kryptick Technologies

Lackawanna, County of
Limitless Mobile, LLC
MAHWAH TOWNSHIP NEW JERSEY
MPS Communications
Middlesex, County of
Mifflin Mobilecom
NBC Telemundo License Co.
NBC Telemundo License LLC
NEW JERSEY PUBLIC BROADCASTING AUTHORITY
NEW YORK CITY POLICE DEPARTMENT
NEW YORK UNIVERSITY
NW Technologies, LLC
NYC DOT Staten Island Ferry
National Tower Company LLC
NeXXCom Wireless LLC
New Cingular Wireless PCS LLC - NJ
New Cingular Wireless PCS, LLC (NY)
New Cingular Wireless PCS, LLC - PA
New Jersey Telcomm
New Jersey, State of -NJ Transit
New Line Networks, LLC
New York City Police Department TARU
New York Communications Co., Inc
Nextel Comm. of The Mid-Atlantic, Inc.
Nextel of New York, Inc.
Office of Emergency Mng, City of Newark
Otsego, County of
PEG Bandwidth, LLC
Philadelphia, City of
PhillieCo, L.P.
Pitt Power
Plexicomm, LLC
Plymouth Township Police Department
Pottsville Area School District
Qoncept Holdings LLC
READING HOSPITAL & MEDICAL CENTER
Rendezvous Communications LLC
Robin Wesstrom
Rutgers, The State University of N.J.
SCS Networks
SECOM NET
SOMERSET COUNTY (M.I.S.)
SONSHINE FAMILY TELEVISION CORPORATION
Sesame Workshop
Spotlight Media Corp., Inc.
Sprint Spectrum L.P.
Sprint Spectrum LP DBA Sprint PCS
St. Joseph Medical Center
St. Lukes Cornwall Hospital
Standard Backhaul Communications LLC
State of New Jersey
State of New Jersey Infomation Technolog
T-Mobile License LLC
TTWN Networks, LLC
Telecom Transport Management, Inc
The Center for Discovery

The Goldman Sachs Group, Inc.
Tioga, County of
Total Recall Corp
Towerstream Corp.
Town of Vestal
Township of Aberdeen
Township of Lower Merion
Township of Middletown
Turtle Networks 6559
Turtle Networks 6562
Union, County Of
United Health Services Hospital
WILLIAM PATERSON UNIVERSITY
WPHL, LLC
Weblin Holdings LLC
Weehawken, Township of
Wireless Internetwork LLC
World Class Wireless, LLC
Xchange Telecom Corp.
Zayo Group, LLC
Zen Networks, Inc
iSignal
xWave Engineering 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: 07/22/2016
Job Number: 160722COMSGE01

Administrative Information

Status ENGINEER PROPOSAL
Call Sign TOBYHANN
Licensee Code GENDYN
Licensee Name General Dynamics Satellite Comm Services

Site Information

TOBYHANNA, PA
Venue Name
Latitude (NAD 83) 41° 11' 12.7" N
Longitude (NAD 83) 75° 25' 7.3" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 603.73 m / 1980.7 ft

Link Information

Satellite Type Low Earth Orbit
Mode TR - Transmit-Receive
Modulation Digital
Minimum Elevation Angle 5.0°
Azimuth Range 0.0° to 360°
Antenna Centerline (AGL) 5.79 m / 19.0 ft

Antenna Information

		Receive - FCC32		Transmit - FCC32	
Manufacturer		Iridium		Iridium	
Model		3 meters		3 meters	
Gain / Diameter		52.9 dBi / 3.0 m		55.7 dBi / 3.0 m	
3-dB / 15-dB Beamwidth		0.30° / 0.60°		0.23° / 0.45°	
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)			-15.0 9.0	
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)			40.7 64.7	
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

	Receive 18.0 GHz	Transmit 28.0 GHz
Emission / Frequency Range (MHz)	7M50G1D - 14M0G7W / 19400.0 - 19600.0	7M50G1D - 14M0G7W / 29100.0 - 29250.0
Max Great Circle Coordination Distance	142.1 km / 88.3 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	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

TOBYHANNA, PA

Licensee Name General Dynamics Satellite Comm Services
Latitude (NAD 83) 41° 11' 12.7" N
Longitude (NAD 83) 75° 25' 7.3" W
Ground Elevation (AMSL) 603.73 m / 1980.7 ft
Antenna Centerline (AGL) 5.79 m / 19.0 ft
Antenna Model Iridium 3 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 -15.0 (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	1.02	99.72	2.60	142.10	11.50	100.00
5	0.87	94.72	2.60	142.10	11.50	100.00
10	0.56	89.72	2.60	142.10	11.50	100.00
15	0.52	84.73	2.60	142.10	11.50	100.00
20	0.49	79.73	2.60	142.10	11.50	100.00
25	0.48	74.73	2.60	142.10	11.50	100.00
30	0.47	69.73	2.60	142.10	11.50	100.00
35	0.60	64.73	2.60	142.10	11.50	100.00
40	0.50	59.74	2.60	142.10	11.50	100.00
45	0.51	54.74	2.60	142.10	11.50	100.00
50	0.50	49.75	2.60	142.10	11.50	100.00
55	0.57	44.75	2.60	142.10	11.50	100.00
60	0.47	39.76	2.60	142.10	11.50	100.00
65	0.28	34.77	2.60	142.10	11.50	100.00
70	0.00	29.80	2.60	142.10	11.50	100.00
75	0.00	24.82	2.60	142.10	11.50	100.00
80	0.00	19.84	2.60	142.10	11.50	100.00
85	0.26	14.85	2.60	142.10	11.50	100.00
90	0.38	9.90	2.60	142.10	11.50	100.00
95	0.35	5.08	2.60	142.10	11.50	100.00
100	0.40	1.85	2.60	142.10	11.50	100.00
105	0.21	5.65	2.60	142.10	11.50	100.00
110	0.28	10.46	2.60	142.10	11.50	100.00
115	0.41	15.38	2.60	142.10	11.50	100.00
120	0.00	20.39	2.60	142.10	11.50	100.00
125	0.00	25.37	2.60	142.10	11.50	100.00
130	0.00	30.35	2.60	142.10	11.50	100.00
135	0.00	35.34	2.60	142.10	11.50	100.00
140	0.00	40.33	2.60	142.10	11.50	100.00
145	0.00	45.32	2.60	142.10	11.50	100.00
150	0.00	50.31	2.60	142.10	11.50	100.00
155	0.30	55.30	2.60	142.10	11.50	100.00
160	0.00	60.30	2.60	142.10	11.50	100.00
165	0.00	65.30	2.60	142.10	11.50	100.00
170	0.00	70.29	2.60	142.10	11.50	100.00
175	0.00	75.29	2.60	142.10	11.50	100.00
180	0.00	80.28	2.60	142.10	11.50	100.00
185	0.00	85.28	2.60	142.10	11.50	100.00

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

TOBYHANNA, PA

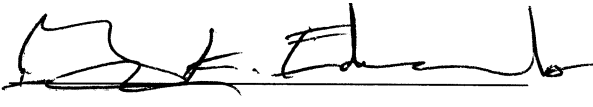
Licensee Name General Dynamics Satellite Comm Services
Latitude (NAD 83) 41° 11' 12.7" N
Longitude (NAD 83) 75° 25' 7.3" W
Ground Elevation (AMSL) 603.73 m / 1980.7 ft
Antenna Centerline (AGL) 5.79 m / 19.0 ft
Antenna Model Iridium 3 meter
Antenna Mode Receive 18.0 GHz Transmit 28.0 GHz
Interference 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 -15.0 (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)
190	0.00	90.28	2.60	142.10	11.50	100.00
195	0.00	95.27	2.60	142.10	11.50	100.00
200	0.00	100.27	2.60	142.10	11.50	100.00
205	0.00	105.27	2.60	142.10	11.50	100.00
210	0.00	110.26	2.60	142.10	11.50	100.00
215	0.00	115.26	2.60	142.10	11.50	100.00
220	0.00	120.25	2.60	142.10	11.50	100.00
225	0.00	125.25	2.60	142.10	11.50	100.00
230	0.00	130.24	2.60	142.10	11.50	100.00
235	0.00	135.23	2.60	142.10	11.50	100.00
240	0.00	140.22	2.60	142.10	11.50	100.00
245	0.00	145.21	2.60	142.10	11.50	100.00
250	0.00	150.20	2.60	142.10	11.50	100.00
255	0.00	155.18	2.60	142.10	11.50	100.00
260	0.00	160.16	2.60	142.10	11.50	100.00
265	0.00	165.11	2.60	142.10	11.50	100.00
270	0.00	170.03	2.60	142.10	11.50	100.00
275	0.00	174.78	2.60	142.10	11.50	100.00
280	0.00	177.75	2.60	142.10	11.50	100.00
285	0.00	174.27	2.60	142.10	11.50	100.00
290	0.00	169.49	2.60	142.10	11.50	100.00
295	0.00	164.57	2.60	142.10	11.50	100.00
300	0.00	159.61	2.60	142.10	11.50	100.00
305	0.00	154.63	2.60	142.10	11.50	100.00
310	0.00	149.65	2.60	142.10	11.50	100.00
315	0.00	144.66	2.60	142.10	11.50	100.00
320	0.00	139.67	2.60	142.10	11.50	100.00
325	0.36	134.69	2.60	142.10	11.50	100.00
330	0.59	129.70	2.60	142.10	11.50	100.00
335	0.82	124.71	2.60	142.10	11.50	100.00
340	1.04	119.72	2.60	142.10	11.50	100.00
345	1.17	114.72	2.60	142.10	11.50	100.00
350	1.11	109.72	2.60	142.10	11.50	100.00
355	1.24	104.72	2.60	142.10	11.50	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
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: July 22, 2016



Ka-Band Earth Station – Tobyhanna, PA

A CommScope Company

General Dynamics Satellite Communication Services LLC

Ka-Band Earth Station – Tobyhanna, PA

Frequency Coordination Report

28 GHz

Frequency Coordination Report

28 GHz



Prepared on Behalf of
General Dynamics
Satellite
Communications
Services, LLC





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Summary of Results

On behalf of General Dynamics Satellite Communication Services, LCC, Comsearch performed a coordination notice for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka-Band earth station in Tobyhanna, Pennsylvania, 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 April 5, 2016.

No objections were received from any of the incumbent 28 GHz licensees. Our notification to the LMDS incumbents was performed under the assumption that the earth station would be operating on a secondary basis to LMDS Block A operations and a contact at General Dynamics has been provided in case any concerns may arise in the future.

28 GHz Common Carrier and LTTS Coordination

In accordance with FCC Rules and Regulations, the Ka-Band earth station in Tobyhanna, Pennsylvania 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 licensee on March 3, 2016. This licensee is authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a nationwide basis.

Licensee	Authorized Geographic Area
Verizon	Continental US

A notification letter and datasheet for the Ka-Band earth station in Tobyhanna, Pennsylvania were also sent to the following 28 GHz local television transmission licensee on March 3, 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

¹ The proposed earth station will operate in the 29.1 – 29.25 GHz portion of the Ka-Band.



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

28 GHz LMDS Coordination

A Notification letter was sent to the following 28 GHz LMDS licensee on March 3, 2016. The proposed earth station will operate on frequencies that overlap Block A of the LMDS service. 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
Nextlink/XO	BTA321	New York, NY
Nextlink/XO	BTA346	Philadelphia, PA—Wilmington, DE

No objections were received from the LMDS incumbents.



Earth Station Coordination Data

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



General Dynamics Satellite Communication Services LLC
Ka-Band Earth Station – Tobyhanna, PA
Frequency Coordination Report
28 GHz

Date: 06/08/2016
 Job Number: <PCNJobCode>

Administrative Information

Status: ENGINEER PROPOSAL
 Call Sign: <PCNCallSign>
 Licensee Code: GENDYN
 Licensee Name: General Dynamics Satellite Comm Services, LLC

Site Information **TOBYHANNA, PA**

Venue Name
 Latitude (NAD 83): 41° 11' 12.7" N
 Longitude (NAD 83): 75° 25' 7.3" W
 Climate Zone: A
 Rain Zone: 2
 Ground Elevation (AMSL): 603.73 m / 1980.7 ft

Link Information

Satellite Type: Low Earth Orbit
 Mode: TR - Transmit-Receive
 Modulation: Digital
 Minimum Elevation Angle: 5.0°
 Azimuth Range: 0.0° to 360°
 Antenna Centerline (AGL): 5.79 m / 19.0 ft

Antenna Information

	Receive - FCC32	Transmit - FCC32
Manufacturer	Iridium	Iridium
Model	3 meters	3 meters
Gain / Diameter	52.9 dBi / 3.0 m	55.7 dBi / 3.0 m
3-dB / 15-dB Beamwidth	0.30° / 0.60°	0.23° / 0.45°
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)	-15.0 9.0
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)	40.7 64.7
Interference Objectives:	Long Term Short Term	-156.0 dBW/MHz 20% -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)	7M50G1D - 14M0G7W / 19400.0 - 19600.0	7M50G1D - 14M0G7W / 29100.0 - 29250.0
Max Great Circle Coordination Distance	142.1 km / 88.3 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi



General Dynamics Satellite Communication Services LLC
Ka-Band Earth Station – Tobyhanna, PA
Frequency Coordination Report
28 GHz

Coordination Values	TOBYHANNA, PA		
Licensee Name	General Dynamics Satellite Comm Services		
Latitude (NAD 83)	41° 11' 12.7" N		
Longitude (NAD 83)	75° 25' 7.3" W		
Ground Elevation (AMSL)	603.73 m / 1980.7 ft		
Antenna Centerline (AGL)	5.79 m / 19.0 ft		
Antenna Model	Iridium 3 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	-15.0 (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	1.02	99.72	2.60	142.10	11.50	100.00
5	0.87	94.72	2.60	142.10	11.50	100.00
10	0.56	89.72	2.60	142.10	11.50	100.00
15	0.52	84.73	2.60	142.10	11.50	100.00
20	0.49	79.73	2.60	142.10	11.50	100.00
25	0.48	74.73	2.60	142.10	11.50	100.00
30	0.47	69.73	2.60	142.10	11.50	100.00
35	0.60	64.73	2.60	142.10	11.50	100.00
40	0.50	59.74	2.60	142.10	11.50	100.00
45	0.51	54.74	2.60	142.10	11.50	100.00
50	0.50	49.75	2.60	142.10	11.50	100.00
55	0.57	44.75	2.60	142.10	11.50	100.00
60	0.47	39.76	2.60	142.10	11.50	100.00
65	0.28	34.77	2.60	142.10	11.50	100.00
70	0.00	29.80	2.60	142.10	11.50	100.00
75	0.00	24.82	2.60	142.10	11.50	100.00
80	0.00	19.84	2.60	142.10	11.50	100.00
85	0.26	14.85	2.60	142.10	11.50	100.00
90	0.38	9.90	2.60	142.10	11.50	100.00
95	0.35	5.08	2.60	142.10	11.50	100.00
100	0.40	1.85	2.60	142.10	11.50	100.00
105	0.21	5.65	2.60	142.10	11.50	100.00
110	0.28	10.46	2.60	142.10	11.50	100.00
115	0.41	15.38	2.60	142.10	11.50	100.00
120	0.00	20.39	2.60	142.10	11.50	100.00
125	0.00	25.37	2.60	142.10	11.50	100.00
130	0.00	30.35	2.60	142.10	11.50	100.00
135	0.00	35.34	2.60	142.10	11.50	100.00
140	0.00	40.33	2.60	142.10	11.50	100.00
145	0.00	45.32	2.60	142.10	11.50	100.00
150	0.00	50.31	2.60	142.10	11.50	100.00
155	0.30	55.30	2.60	142.10	11.50	100.00
160	0.00	60.30	2.60	142.10	11.50	100.00
165	0.00	65.30	2.60	142.10	11.50	100.00
170	0.00	70.29	2.60	142.10	11.50	100.00
175	0.00	75.29	2.60	142.10	11.50	100.00
180	0.00	80.28	2.60	142.10	11.50	100.00
185	0.00	85.28	2.60	142.10	11.50	100.00



General Dynamics Satellite Communication Services LLC
Ka-Band Earth Station – Tobyhanna, PA
Frequency Coordination Report
28 GHz

Coordination Values	TOBYHANNA, PA		
Licensee Name	General Dynamics Satellite Comm Services		
Latitude (NAD 83)	41° 11' 12.7" N		
Longitude (NAD 83)	75° 25' 7.3" W		
Ground Elevation (AMSL)	603.73 m / 1980.7 ft		
Antenna Centerline (AGL)	5.79 m / 19.0 ft		
Antenna Model	Iridium 3 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	-15.0 (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)
190	0.00	90.28	2.60	142.10	11.50	100.00
195	0.00	95.27	2.60	142.10	11.50	100.00
200	0.00	100.27	2.60	142.10	11.50	100.00
205	0.00	105.27	2.60	142.10	11.50	100.00
210	0.00	110.26	2.60	142.10	11.50	100.00
215	0.00	115.26	2.60	142.10	11.50	100.00
220	0.00	120.25	2.60	142.10	11.50	100.00
225	0.00	125.25	2.60	142.10	11.50	100.00
230	0.00	130.24	2.60	142.10	11.50	100.00
235	0.00	135.23	2.60	142.10	11.50	100.00
240	0.00	140.22	2.60	142.10	11.50	100.00
245	0.00	145.21	2.60	142.10	11.50	100.00
250	0.00	150.20	2.60	142.10	11.50	100.00
255	0.00	155.18	2.60	142.10	11.50	100.00
260	0.00	160.16	2.60	142.10	11.50	100.00
265	0.00	165.11	2.60	142.10	11.50	100.00
270	0.00	170.03	2.60	142.10	11.50	100.00
275	0.00	174.78	2.60	142.10	11.50	100.00
280	0.00	177.75	2.60	142.10	11.50	100.00
285	0.00	174.27	2.60	142.10	11.50	100.00
290	0.00	169.49	2.60	142.10	11.50	100.00
295	0.00	164.57	2.60	142.10	11.50	100.00
300	0.00	159.61	2.60	142.10	11.50	100.00
305	0.00	154.63	2.60	142.10	11.50	100.00
310	0.00	149.65	2.60	142.10	11.50	100.00
315	0.00	144.66	2.60	142.10	11.50	100.00
320	0.00	139.67	2.60	142.10	11.50	100.00
325	0.36	134.69	2.60	142.10	11.50	100.00
330	0.59	129.70	2.60	142.10	11.50	100.00
335	0.82	124.71	2.60	142.10	11.50	100.00
340	1.04	119.72	2.60	142.10	11.50	100.00
345	1.17	114.72	2.60	142.10	11.50	100.00
350	1.11	109.72	2.60	142.10	11.50	100.00
355	1.24	104.72	2.60	142.10	11.50	100.00

Contact Information

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