

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Digital Comm Link, Inc.
DAVIE, FL
(13 meter)
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 18, 2017

TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	6
5. CERTIFICATION.....	10

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.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

T-Mobile License LLC

No other carriers reported potential interference cases.

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 06/13/2017.

Company

COLLIER, COUNTY OF
Computer Office Solutions, Inc.
Embarq Florida, Inc.
Florida Power and Light Company
Florida Rural Broadband Alliance, LLC
Florida State
GM Consulting Group, Inc.
Harris Corporation - Florida
HiQ Data Corporation
Martin County Sheriffs Office
Miami-Dade County
New Cingular Wireless PCS LLC - N FL
New Cingular Wireless PCS LLC - S FL
Olympic Wireless, LLC
Palm Beach, County of
Saint Lucie, County of
South Florida Water Management District
T-Mobile License LLC
Verizon Wireless (VAW) LLC - S Florida
Verizon Wireless Personal Comm, LP(S FL)

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: 07/18/2017
Job Number: 170613COMSGE03

Administrative Information

Status ENGINEER PROPOSAL
Call Sign
Licensee Code ZDIGCO
Licensee Name Digital Comm Link, Inc.

Site Information

DAVIE, FL

Venue Name
Latitude (NAD 83) 26° 6' 23.2" N
Longitude (NAD 83) 80° 17' 16.2" W
Climate Zone B
Rain Zone 1
Ground Elevation (AMSL) 1.43 m / 4.7 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 40° W to 143° West Longitude
Azimuth Range 117.4° to 257.2°
Corresponding Elevation Angles 36.2° / 15.9°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer	RSI	RSI
Model	1130C	1130C
Gain / Diameter	53.0 dBi / 13.0 m	55.8 dBi / 13.0 m
3-dB / 15-dB Beamwidth	0.34° / 0.70°	0.24° / 0.50°
Max Available RF Power (dBW/4 kHz)	-15.0	-15.0
(dBW/MHz)	9.0	9.0
Maximum EIRP (dBW/4 kHz)	40.8	40.8
(dBW/MHz)	64.8	64.8
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%
	Short Term	-146.0 dBW/MHz 0.01%
		-154.0 dBW/4 kHz 20%
		-131.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	2M00G7W - 36M0G7W / 3700.0 - 4200.0	2M00G7W - 36M0G7W / 5925.0 - 6425.0
Max Great Circle Coordination Distance	587.8 km / 365.2 mi	198.1 km / 123.1 mi
Precipitation Scatter Contour Radius	594.7 km / 369.5 mi	100.0 km / 62.1 mi

COMSEARCH

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Coordination Values

DAVIE, FL

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Ground Elevation (AMSL) 1.43 m / 4.7 ft
Antenna Centerline (AGL) 5.49 m / 18.0 ft
Antenna Model RSI 13 meter

Antenna Mode Receive 4.0 GHz

Interference Objectives: Long Term -156.0 dBW/MHz 20% Transmit 6.1 GHz -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%

Max Available RF Power -15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	102.29	-10.00	412.20	-10.00	142.21
5	0.00	107.09	-10.00	412.20	-10.00	142.21
10	0.00	103.99	-10.00	412.20	-10.00	142.21
15	0.00	100.00	-10.00	412.20	-10.00	142.21
20	0.00	95.99	-10.00	412.20	-10.00	142.21
25	0.00	91.96	-10.00	412.20	-10.00	142.21
30	0.00	87.93	-10.00	412.20	-10.00	142.21
35	0.00	83.90	-10.00	412.20	-10.00	142.21
40	0.00	79.89	-10.00	412.20	-10.00	142.21
45	0.00	75.91	-10.00	412.20	-10.00	142.21
50	0.00	71.97	-10.00	412.20	-10.00	142.21
55	0.00	68.08	-10.00	412.20	-10.00	142.21
60	0.00	64.27	-10.00	412.20	-10.00	142.21
65	0.00	60.54	-10.00	412.20	-10.00	142.21
70	0.00	56.93	-10.00	412.20	-10.00	142.21
75	0.00	53.46	-10.00	412.20	-10.00	142.21
80	0.27	50.00	-10.00	388.48	-10.00	134.21
85	0.00	47.09	-9.82	414.39	-9.82	142.88
90	0.00	44.28	-9.16	422.82	-9.16	145.45
95	0.00	41.79	-8.53	430.91	-8.53	147.93
100	0.00	39.68	-7.96	438.27	-7.96	150.08
105	0.00	38.02	-7.50	444.43	-7.50	151.98
110	0.00	36.88	-7.17	448.90	-7.17	153.37
115	0.00	36.30	-7.00	451.24	-7.00	154.10
120	0.00	36.31	-7.00	451.21	-7.00	154.09
125	0.00	36.90	-7.18	448.81	-7.18	153.34
130	0.00	38.06	-7.51	444.29	-7.51	151.94
135	0.00	39.73	-7.98	438.09	-7.98	150.02
140	0.00	41.85	-8.54	430.71	-8.54	147.87
145	0.00	44.35	-9.17	422.61	-9.17	145.39
150	0.00	47.17	-9.84	414.18	-9.84	142.81
155	0.00	50.25	-10.00	412.20	-10.00	142.21
160	0.00	53.28	-10.00	412.20	-10.00	142.21
165	0.00	55.84	-10.00	412.20	-10.00	142.21
170	0.00	57.81	-10.00	412.20	-10.00	142.21
175	0.00	59.06	-10.00	412.20	-10.00	142.21
180	0.00	59.49	-10.00	412.20	-10.00	142.21
185	0.00	59.06	-10.00	412.20	-10.00	142.21

COMSEARCH

Earth Station Data Sheet

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Coordination Values

DAVIE, FL

Licensee Name Digital Comm Link, Inc.
Latitude (NAD 83) 26° 6' 23.2" N
Longitude (NAD 83) 80° 17' 16.2" W
Ground Elevation (AMSL) 1.43 m / 4.7 ft
Antenna Centerline (AGL) 5.49 m / 18.0 ft
Antenna Model RSI 13 meter

Antenna Mode Receive 4.0 GHz

Interference Objectives: Long Term -156.0 dBW/MHz 20%
Short Term -146.0 dBW/MHz 0.01%

Transmit 6.1 GHz

-154.0 dBW/4 kHz 20%
-131.0 dBW/4 kHz 0.0025%

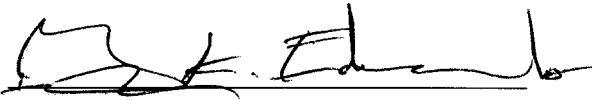
Max Available RF Power

-15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	57.81	-10.00	412.20	-10.00	142.21
195	0.00	55.84	-10.00	412.20	-10.00	142.21
200	0.00	53.28	-10.00	412.20	-10.00	142.21
205	0.00	50.25	-10.00	412.20	-10.00	142.21
210	0.00	46.87	-9.77	415.03	-9.77	143.07
215	0.00	43.22	-8.89	426.18	-8.89	146.48
220	0.00	39.37	-7.88	439.41	-7.88	150.43
225	0.00	35.35	-6.71	455.15	-6.71	155.32
230	0.00	31.22	-5.36	473.39	-5.36	161.24
235	0.00	27.10	-3.83	495.87	-3.83	168.34
240	0.00	23.30	-2.18	521.09	-2.18	176.35
245	0.00	19.99	-0.52	547.86	-0.52	184.90
250	0.00	17.46	0.95	572.48	0.95	192.80
255	0.00	16.10	1.83	587.80	1.83	198.11
260	0.00	16.19	1.77	586.76	1.77	197.78
265	0.00	17.71	0.80	569.92	0.80	191.98
270	0.00	20.34	-0.71	544.74	-0.71	183.90
275	0.00	23.72	-2.38	518.03	-2.38	175.38
280	0.00	27.57	-4.01	493.10	-4.01	167.46
285	0.00	31.72	-5.53	470.94	-5.53	160.47
290	0.00	36.07	-6.93	452.17	-6.93	154.39
295	0.00	40.55	-8.20	435.17	-8.20	149.12
300	0.00	45.12	-9.36	420.22	-9.36	144.66
305	0.00	49.76	-10.00	412.20	-10.00	142.21
310	0.00	54.45	-10.00	412.20	-10.00	142.21
315	0.00	59.17	-10.00	412.20	-10.00	142.21
320	0.00	63.92	-10.00	412.20	-10.00	142.21
325	0.00	68.69	-10.00	412.20	-10.00	142.21
330	0.00	73.47	-10.00	412.20	-10.00	142.21
335	0.00	78.27	-10.00	412.20	-10.00	142.21
340	0.00	83.07	-10.00	412.20	-10.00	142.21
345	0.00	87.88	-10.00	412.20	-10.00	142.21
350	0.00	92.68	-10.00	412.20	-10.00	142.21
355	0.00	97.49	-10.00	412.20	-10.00	142.21

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 18, 2017

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(703)726-5500 <http://www.comsearch.com>

Date: 07/18/2017
Job Number: 170615COMSGE04

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: ZDIGCO
Licensee Name: Digital Comm Link, Inc.

Site Information

DAVIE, FL

Venue Name:
Latitude (NAD 83): 26° 6' 23.2" N
Longitude (NAD 83): 80° 17' 16.2" W
Climate Zone: B
Rain Zone: 1
Ground Elevation (AMSL): 1.43 m / 4.7 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 40° W to 143° West Longitude
Azimuth Range: 117.4° to 257.2°
Corresponding Elevation Angles: 36.2° / 15.9°
Antenna Centerline (AGL): 5.49 m / 18.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer: Andrews
Model: ESA91
Gain / Diameter: 50.7 dBi / 9.1 m
3-dB / 15-dB Beamwidth: 0.50° / 1.00°

Andrews
ESA91
53.9 dBi / 9.1 m
0.31° / 0.62°

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

-15.0
9.0

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

38.9
62.9

Interference Objectives: Long Term: -156.0 dBW/MHz 20%
Short Term: -146.0 dBW/MHz 0.01%

-154.0 dBW/4 kHz 20%
-131.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz): 2M00G7W - 36M0G7W / 3700.0 - 4200.0

2M00G7W - 36M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance: 587.8 km / 365.2 mi
Precipitation Scatter Contour Radius: 594.7 km / 369.5 mi

198.1 km / 123.1 mi
100.0 km / 62.1 mi

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Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
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5	0.00	107.09	-10.00	412.20	-10.00	142.21
10	0.00	103.99	-10.00	412.20	-10.00	142.21
15	0.00	100.00	-10.00	412.20	-10.00	142.21
20	0.00	95.99	-10.00	412.20	-10.00	142.21
25	0.00	91.96	-10.00	412.20	-10.00	142.21
30	0.00	87.93	-10.00	412.20	-10.00	142.21
35	0.00	83.90	-10.00	412.20	-10.00	142.21
40	0.00	79.89	-10.00	412.20	-10.00	142.21
45	0.00	75.91	-10.00	412.20	-10.00	142.21
50	0.00	71.97	-10.00	412.20	-10.00	142.21
55	0.00	68.08	-10.00	412.20	-10.00	142.21
60	0.00	64.27	-10.00	412.20	-10.00	142.21
65	0.00	60.54	-10.00	412.20	-10.00	142.21
70	0.00	56.93	-10.00	412.20	-10.00	142.21
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80	0.27	50.00	-10.00	388.48	-10.00	134.21
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110	0.00	36.88	-7.17	448.90	-7.17	153.37
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120	0.00	36.31	-7.00	451.21	-7.00	154.09
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135	0.00	39.73	-7.98	438.09	-7.98	150.02
140	0.00	41.85	-8.54	430.71	-8.54	147.87
145	0.00	44.35	-9.17	422.61	-9.17	145.39
150	0.00	47.17	-9.84	414.18	-9.84	142.81
155	0.00	50.25	-10.00	412.20	-10.00	142.21
160	0.00	53.28	-10.00	412.20	-10.00	142.21
165	0.00	55.84	-10.00	412.20	-10.00	142.21
170	0.00	57.81	-10.00	412.20	-10.00	142.21
175	0.00	59.06	-10.00	412.20	-10.00	142.21
180	0.00	59.49	-10.00	412.20	-10.00	142.21
185	0.00	59.06	-10.00	412.20	-10.00	142.21

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DAVIE, FL

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Longitude (NAD 83) 80° 17' 16.2" W

Ground Elevation (AMSL) 1.43 m / 4.7 ft

Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Model Andrews 9.1 meter

Antenna Mode Receive 4.0 GHz

Interference Objectives: Long Term -156.0 dBW/MHz 20%
Short Term -146.0 dBW/MHz 0.01%

Transmit 6.1 GHz

-154.0 dBW/4 kHz 20%

-131.0 dBW/4 kHz 0.0025%

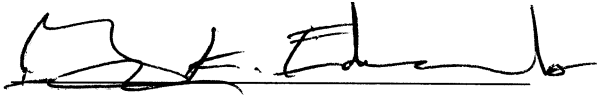
Max Available RF Power -15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
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205	0.00	50.25	-10.00	412.20	-10.00	142.21
210	0.00	46.87	-9.77	415.03	-9.77	143.07
215	0.00	43.22	-8.89	426.18	-8.89	146.48
220	0.00	39.37	-7.88	439.41	-7.88	150.43
225	0.00	35.35	-6.71	455.15	-6.71	155.32
230	0.00	31.22	-5.36	473.39	-5.36	161.24
235	0.00	27.10	-3.83	495.87	-3.83	168.34
240	0.00	23.30	-2.18	521.09	-2.18	176.35
245	0.00	19.99	-0.52	547.86	-0.52	184.90
250	0.00	17.46	0.95	572.48	0.95	192.80
255	0.00	16.10	1.83	587.80	1.83	198.11
260	0.00	16.19	1.77	586.76	1.77	197.78
265	0.00	17.71	0.80	569.92	0.80	191.98
270	0.00	20.34	-0.71	544.74	-0.71	183.90
275	0.00	23.72	-2.38	518.03	-2.38	175.38
280	0.00	27.57	-4.01	493.10	-4.01	167.46
285	0.00	31.72	-5.53	470.94	-5.53	160.47
290	0.00	36.07	-6.93	452.17	-6.93	154.39
295	0.00	40.55	-8.20	435.17	-8.20	149.12
300	0.00	45.12	-9.36	420.22	-9.36	144.66
305	0.00	49.76	-10.00	412.20	-10.00	142.21
310	0.00	54.45	-10.00	412.20	-10.00	142.21
315	0.00	59.17	-10.00	412.20	-10.00	142.21
320	0.00	63.92	-10.00	412.20	-10.00	142.21
325	0.00	68.69	-10.00	412.20	-10.00	142.21
330	0.00	73.47	-10.00	412.20	-10.00	142.21
335	0.00	78.27	-10.00	412.20	-10.00	142.21
340	0.00	83.07	-10.00	412.20	-10.00	142.21
345	0.00	87.88	-10.00	412.20	-10.00	142.21
350	0.00	92.68	-10.00	412.20	-10.00	142.21
355	0.00	97.49	-10.00	412.20	-10.00	142.21

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

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 18, 2017

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Digital Comm Link, Inc.
DAVIE, FL
(7.3 meter)
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 18, 2017

TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	6
5. CERTIFICATION.....	10

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.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

T-Mobile License LLC

No other carriers reported potential interference cases.

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

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 06/15/2017.

Company

COLLIER, COUNTY OF
Computer Office Solutions, Inc.
Embarq Florida, Inc.
Florida Power and Light Company
Florida Rural Broadband Alliance, LLC
Florida State
GM Consulting Group, Inc.
Harris Corporation - Florida
HiQ Data Corporation
Martin County Sheriffs Office
Miami-Dade County
New Cingular Wireless PCS LLC - N FL
New Cingular Wireless PCS LLC - S FL
Olympic Wireless, LLC
Palm Beach, County of
Saint Lucie, County of
South Florida Water Management District
T-Mobile License LLC
Verizon Wireless (VAW) LLC - S Florida
Verizon Wireless Personal Comm, LP(S FL)

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: 07/18/2017
Job Number: 170615COMSGE01

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: ZDIGCO
Licensee Name: Digital Comm Link, Inc.

Site Information

DAVIE, FL

Venue Name:
Latitude (NAD 83): 26° 6' 23.2" N
Longitude (NAD 83): 80° 17' 16.2" W
Climate Zone: B
Rain Zone: 1
Ground Elevation (AMSL): 1.43 m / 4.7 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 40° W to 143° West Longitude
Azimuth Range: 117.4° to 257.2°
Corresponding Elevation Angles: 36.2° / 15.9°
Antenna Centerline (AGL): 3.66 m / 12.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer: General Dynamics
Model: Satcom 7.3m
Gain / Diameter: 48.1 dBi / 7.3 m
3-dB / 15-dB Beamwidth: 0.67° / 1.41°

General Dynamics
Satcom 7.3m
51.8 dBi / 7.3 m
0.44° / 0.92°

Max Available RF Power (dBW/4 kHz): -15.0
(dBW/MHz): 9.0

Maximum EIRP (dBW/4 kHz): 36.8
(dBW/MHz): 60.8

Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz): 2M00G7W - 36M0G7W / 3700.0 - 4200.0

2M00G7W - 36M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance: 587.8 km / 365.2 mi
Precipitation Scatter Contour Radius: 594.7 km / 369.5 mi

198.1 km / 123.1 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

DAVIE, FL

Licensee Name Digital Comm Link, Inc.
Latitude (NAD 83) 26° 6' 23.2" N
Longitude (NAD 83) 80° 17' 16.2" W
Ground Elevation (AMSL) 1.43 m / 4.7 ft
Antenna Centerline (AGL) 3.66 m / 12.0 ft
Antenna Model General Dynamics 7.3 meter
Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz
Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	102.29	-10.00	412.20	-10.00	142.21
5	0.00	107.09	-10.00	412.20	-10.00	142.21
10	0.00	103.99	-10.00	412.20	-10.00	142.21
15	0.00	100.00	-10.00	412.20	-10.00	142.21
20	0.00	95.99	-10.00	412.20	-10.00	142.21
25	0.00	91.96	-10.00	412.20	-10.00	142.21
30	0.00	87.93	-10.00	412.20	-10.00	142.21
35	0.00	83.90	-10.00	412.20	-10.00	142.21
40	0.00	79.89	-10.00	412.20	-10.00	142.21
45	0.00	75.91	-10.00	412.20	-10.00	142.21
50	0.00	71.97	-10.00	412.20	-10.00	142.21
55	0.00	68.08	-10.00	412.20	-10.00	142.21
60	0.00	64.27	-10.00	412.20	-10.00	142.21
65	0.00	60.54	-10.00	412.20	-10.00	142.21
70	0.00	56.93	-10.00	412.20	-10.00	142.21
75	0.44	53.22	-10.00	337.01	-10.00	117.31
80	0.52	49.85	-10.00	319.03	-10.00	113.82
85	0.00	47.09	-9.82	414.39	-9.82	142.88
90	0.33	44.03	-9.09	377.64	-9.09	130.25
95	0.00	41.79	-8.53	430.91	-8.53	147.93
100	0.00	39.68	-7.96	438.27	-7.96	150.08
105	0.00	38.02	-7.50	444.43	-7.50	151.98
110	0.00	36.88	-7.17	448.90	-7.17	153.37
115	0.00	36.30	-7.00	451.24	-7.00	154.10
120	0.00	36.31	-7.00	451.21	-7.00	154.09
125	0.00	36.90	-7.18	448.81	-7.18	153.34
130	0.00	38.06	-7.51	444.29	-7.51	151.94
135	0.00	39.73	-7.98	438.09	-7.98	150.02
140	0.00	41.85	-8.54	430.71	-8.54	147.87
145	0.00	44.35	-9.17	422.61	-9.17	145.39
150	0.00	47.17	-9.84	414.18	-9.84	142.81
155	0.00	50.25	-10.00	412.20	-10.00	142.21
160	0.00	53.28	-10.00	412.20	-10.00	142.21
165	0.00	55.84	-10.00	412.20	-10.00	142.21
170	0.00	57.81	-10.00	412.20	-10.00	142.21
175	0.00	59.06	-10.00	412.20	-10.00	142.21
180	0.00	59.49	-10.00	412.20	-10.00	142.21
185	0.00	59.06	-10.00	412.20	-10.00	142.21

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

DAVIE, FL

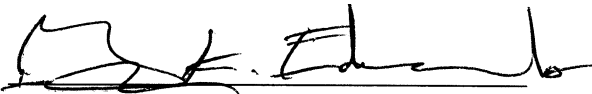
Licensee Name	Digital Comm Link, Inc.				
Latitude (NAD 83)	26° 6' 23.2" N				
Longitude (NAD 83)	80° 17' 16.2" W				
Ground Elevation (AMSL)	1.43 m / 4.7 ft				
Antenna Centerline (AGL)	3.66 m / 12.0 ft				
Antenna Model	General Dynamics 7.3 meter				
Antenna Mode	Receive 4.0 GHz				
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	Transmit 6.1 GHz	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power				-15.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	57.81	-10.00	412.20	-10.00	142.21
195	0.00	55.84	-10.00	412.20	-10.00	142.21
200	0.00	53.28	-10.00	412.20	-10.00	142.21
205	0.00	50.25	-10.00	412.20	-10.00	142.21
210	0.00	46.87	-9.77	415.03	-9.77	143.07
215	0.00	43.22	-8.89	426.18	-8.89	146.48
220	0.00	39.37	-7.88	439.41	-7.88	150.43
225	0.00	35.35	-6.71	455.15	-6.71	155.32
230	0.00	31.22	-5.36	473.39	-5.36	161.24
235	0.00	27.10	-3.83	495.87	-3.83	168.34
240	0.00	23.30	-2.18	521.09	-2.18	176.35
245	0.00	19.99	-0.52	547.86	-0.52	184.90
250	0.00	17.46	0.95	572.48	0.95	192.80
255	0.00	16.10	1.83	587.80	1.83	198.11
260	0.00	16.19	1.77	586.76	1.77	197.78
265	0.00	17.71	0.80	569.92	0.80	191.98
270	0.00	20.34	-0.71	544.74	-0.71	183.90
275	0.00	23.72	-2.38	518.03	-2.38	175.38
280	0.00	27.57	-4.01	493.10	-4.01	167.46
285	0.00	31.72	-5.53	470.94	-5.53	160.47
290	0.00	36.07	-6.93	452.17	-6.93	154.39
295	0.00	40.55	-8.20	435.17	-8.20	149.12
300	0.00	45.12	-9.36	420.22	-9.36	144.66
305	0.00	49.76	-10.00	412.20	-10.00	142.21
310	0.00	54.45	-10.00	412.20	-10.00	142.21
315	0.00	59.17	-10.00	412.20	-10.00	142.21
320	0.00	63.92	-10.00	412.20	-10.00	142.21
325	0.00	68.69	-10.00	412.20	-10.00	142.21
330	0.00	73.47	-10.00	412.20	-10.00	142.21
335	0.00	78.27	-10.00	412.20	-10.00	142.21
340	0.00	83.07	-10.00	412.20	-10.00	142.21
345	0.00	87.88	-10.00	412.20	-10.00	142.21
350	0.00	92.68	-10.00	412.20	-10.00	142.21
355	0.00	97.49	-10.00	412.20	-10.00	142.21

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

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 18, 2017

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Digital Comm Link, Inc.
DAVIE, FL
(3.8 meter)
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 18, 2017

TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	6
5. CERTIFICATION.....	10

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.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

T-Mobile License LLC

No other carriers reported potential interference cases.

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

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 06/15/2017.

Company

COLLIER, COUNTY OF
Computer Office Solutions, Inc.
Embarq Florida, Inc.
Florida Power and Light Company
Florida Rural Broadband Alliance, LLC
Florida State
GM Consulting Group, Inc.
Harris Corporation - Florida
HiQ Data Corporation
Martin County Sheriffs Office
Miami-Dade County
New Cingular Wireless PCS LLC - N FL
New Cingular Wireless PCS LLC - S FL
Olympic Wireless, LLC
Palm Beach, County of
Saint Lucie, County of
South Florida Water Management District
T-Mobile License LLC
Verizon Wireless (VAW) LLC - S Florida
Verizon Wireless Personal Comm, LP(S FL)

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: 07/18/2017
Job Number: 170615COMSGE03

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: ZDIGCO
Licensee Name: Digital Comm Link, Inc.

Site Information

DAVIE, FL

Venue Name:
Latitude (NAD 83): 26° 6' 23.2" N
Longitude (NAD 83): 80° 17' 16.2" W
Climate Zone: B
Rain Zone: 1
Ground Elevation (AMSL): 1.43 m / 4.7 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 40° W to 143° West Longitude
Azimuth Range: 117.4° to 257.2°
Corresponding Elevation Angles: 36.2° / 15.9°
Antenna Centerline (AGL): 2.74 m / 9.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer	Prodelin	Prodelin	
Model	1383	1383	
Gain / Diameter	41.8 dBi / 3.8 m	46.2 dBi / 3.8 m	
3-dB / 15-dB Beamwidth	1.40° / 2.80°	1.00° / 2.00°	
Max Available RF Power (dBW/4 kHz)	-15.0	-15.0	
(dBW/MHz)	9.0	9.0	
Maximum EIRP (dBW/4 kHz)	31.2	31.2	
(dBW/MHz)	55.2	55.2	
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-154.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-131.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	2M00G7W - 36M0G7W / 3700.0 - 4200.0	2M00G7W - 36M0G7W / 5925.0 - 6425.0
Max Great Circle Coordination Distance	587.8 km / 365.2 mi	198.1 km / 123.1 mi
Precipitation Scatter Contour Radius	594.7 km / 369.5 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

DAVIE, FL

Licensee Name Digital Comm Link, Inc.

Latitude (NAD 83) 26° 6' 23.2" N

Longitude (NAD 83) 80° 17' 16.2" W

Ground Elevation (AMSL) 1.43 m / 4.7 ft

Antenna Centerline (AGL) 2.74 m / 9.0 ft

Antenna Model Prodelin 3.8 meter

Antenna Mode Receive 4.0 GHz

Interference Objectives: Long Term -156.0 dBW/MHz 20% Transmit 6.1 GHz -154.0 dBW/4 kHz 20%

Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%

Max Available RF Power -15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	102.29	-10.00	412.20	-10.00	142.21
5	0.00	107.09	-10.00	412.20	-10.00	142.21
10	0.00	103.99	-10.00	412.20	-10.00	142.21
15	0.00	100.00	-10.00	412.20	-10.00	142.21
20	0.00	95.99	-10.00	412.20	-10.00	142.21
25	0.00	91.96	-10.00	412.20	-10.00	142.21
30	0.00	87.93	-10.00	412.20	-10.00	142.21
35	0.00	83.90	-10.00	412.20	-10.00	142.21
40	0.00	79.89	-10.00	412.20	-10.00	142.21
45	0.00	75.91	-10.00	412.20	-10.00	142.21
50	0.00	71.97	-10.00	412.20	-10.00	142.21
55	0.00	68.08	-10.00	412.20	-10.00	142.21
60	0.00	64.27	-10.00	412.20	-10.00	142.21
65	0.33	60.40	-10.00	367.68	-10.00	127.39
70	0.00	56.93	-10.00	412.20	-10.00	142.21
75	0.57	53.16	-10.00	311.05	-10.00	111.35
80	0.64	49.78	-10.00	300.04	-10.00	107.82
85	0.00	47.09	-9.82	414.39	-9.82	142.88
90	0.41	43.97	-9.08	354.79	-9.08	122.92
95	0.00	41.79	-8.53	430.91	-8.53	147.93
100	0.00	39.68	-7.96	438.27	-7.96	150.08
105	0.00	38.02	-7.50	444.43	-7.50	151.98
110	0.00	36.88	-7.17	448.90	-7.17	153.37
115	0.00	36.30	-7.00	451.24	-7.00	154.10
120	0.00	36.31	-7.00	451.21	-7.00	154.09
125	0.00	36.90	-7.18	448.81	-7.18	153.34
130	0.00	38.06	-7.51	444.29	-7.51	151.94
135	0.00	39.73	-7.98	438.09	-7.98	150.02
140	0.00	41.85	-8.54	430.71	-8.54	147.87
145	0.00	44.35	-9.17	422.61	-9.17	145.39
150	0.00	47.17	-9.84	414.18	-9.84	142.81
155	0.00	50.25	-10.00	412.20	-10.00	142.21
160	0.00	53.28	-10.00	412.20	-10.00	142.21
165	0.00	55.84	-10.00	412.20	-10.00	142.21
170	0.00	57.81	-10.00	412.20	-10.00	142.21
175	0.00	59.06	-10.00	412.20	-10.00	142.21
180	0.00	59.49	-10.00	412.20	-10.00	142.21
185	0.00	59.06	-10.00	412.20	-10.00	142.21

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

DAVIE, FL

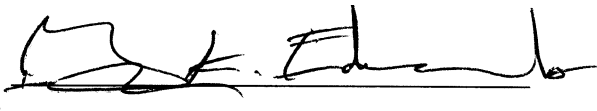
Licensee Name	Digital Comm Link, Inc.				
Latitude (NAD 83)	26° 6' 23.2" N				
Longitude (NAD 83)	80° 17' 16.2" W				
Ground Elevation (AMSL)	1.43 m / 4.7 ft				
Antenna Centerline (AGL)	2.74 m / 9.0 ft				
Antenna Model	Prodelin 3.8 meter				
Antenna Mode	Receive 4.0 GHz				
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	Transmit 6.1 GHz	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power				-15.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	57.81	-10.00	412.20	-10.00	142.21
195	0.00	55.84	-10.00	412.20	-10.00	142.21
200	0.00	53.28	-10.00	412.20	-10.00	142.21
205	0.00	50.25	-10.00	412.20	-10.00	142.21
210	0.00	46.87	-9.77	415.03	-9.77	143.07
215	0.00	43.22	-8.89	426.18	-8.89	146.48
220	0.00	39.37	-7.88	439.41	-7.88	150.43
225	0.00	35.35	-6.71	455.15	-6.71	155.32
230	0.00	31.22	-5.36	473.39	-5.36	161.24
235	0.00	27.10	-3.83	495.87	-3.83	168.34
240	0.00	23.30	-2.18	521.09	-2.18	176.35
245	0.00	19.99	-0.52	547.86	-0.52	184.90
250	0.00	17.46	0.95	572.48	0.95	192.80
255	0.00	16.10	1.83	587.80	1.83	198.11
260	0.00	16.19	1.77	586.76	1.77	197.78
265	0.00	17.71	0.80	569.92	0.80	191.98
270	0.00	20.34	-0.71	544.74	-0.71	183.90
275	0.00	23.72	-2.38	518.03	-2.38	175.38
280	0.00	27.57	-4.01	493.10	-4.01	167.46
285	0.00	31.72	-5.53	470.94	-5.53	160.47
290	0.00	36.07	-6.93	452.17	-6.93	154.39
295	0.21	40.48	-8.18	430.56	-8.18	147.64
300	0.23	45.06	-9.34	408.15	-9.34	140.53
305	0.00	49.76	-10.00	412.20	-10.00	142.21
310	0.00	54.45	-10.00	412.20	-10.00	142.21
315	0.00	59.17	-10.00	412.20	-10.00	142.21
320	0.00	63.92	-10.00	412.20	-10.00	142.21
325	0.00	68.69	-10.00	412.20	-10.00	142.21
330	0.00	73.47	-10.00	412.20	-10.00	142.21
335	0.00	78.27	-10.00	412.20	-10.00	142.21
340	0.00	83.07	-10.00	412.20	-10.00	142.21
345	0.00	87.88	-10.00	412.20	-10.00	142.21
350	0.00	92.68	-10.00	412.20	-10.00	142.21
355	0.00	97.49	-10.00	412.20	-10.00	142.21

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

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 18, 2017

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Digital Comm Link, Inc.
DAVIE, FL
(2.4 meter)
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 18, 2017

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TABLE OF CONTENTS

1. CONCLUSIONS	3
2. SUMMARY OF RESULTS	4
3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	6
5. CERTIFICATION.....	10

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.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

T-Mobile License LLC

No other carriers reported potential interference cases.

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 06/15/2017.

Company

COLLIER, COUNTY OF
Computer Office Solutions, Inc.
Embarq Florida, Inc.
Florida Power and Light Company
Florida Rural Broadband Alliance, LLC
Florida State
GM Consulting Group, Inc.
Harris Corporation - Florida
HiQ Data Corporation
Martin County Sheriffs Office
Miami-Dade County
New Cingular Wireless PCS LLC - N FL
New Cingular Wireless PCS LLC - S FL
Olympic Wireless, LLC
Palm Beach, County of
Saint Lucie, County of
South Florida Water Management District
T-Mobile License LLC
Verizon Wireless (VAW) LLC - S Florida
Verizon Wireless Personal Comm, LP(S FL)

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.

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Date: 07/18/2017
Job Number: 170615COMSGE02

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign:
Licensee Code: ZDIGCO
Licensee Name: Digital Comm Link, Inc.

Site Information

DAVIE, FL

Venue Name:
Latitude (NAD 83): 26° 6' 23.2" N
Longitude (NAD 83): 80° 17' 16.2" W
Climate Zone: B
Rain Zone: 1
Ground Elevation (AMSL): 1.43 m / 4.7 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 40° W to 143° West Longitude
Azimuth Range: 117.4° to 257.2°
Corresponding Elevation Angles: 36.2° / 15.9°
Antenna Centerline (AGL): 2.74 m / 9.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer: Channel Master
Model: 243
Gain / Diameter: 38.0 dBi / 2.4 m
3-dB / 15-dB Beamwidth: 1.30° / 2.60°

Channel Master
243
42.0 dBi / 2.4 m
2.10° / 4.20°

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

-15.0
9.0

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

27.0
51.0

Interference Objectives: Long Term: -156.0 dBW/MHz 20%
Short Term: -146.0 dBW/MHz 0.01%

-154.0 dBW/4 kHz 20%
-131.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz): 2M00G7W - 36M0G7W / 3700.0 - 4200.0

2M00G7W - 36M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance: 587.8 km / 365.2 mi
Precipitation Scatter Contour Radius: 594.7 km / 369.5 mi

198.1 km / 123.1 mi
100.0 km / 62.1 mi

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Earth Station Data Sheet

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Coordination Values

DAVIE, FL

Licensee Name Digital Comm Link, Inc.
Latitude (NAD 83) 26° 6' 23.2" N
Longitude (NAD 83) 80° 17' 16.2" W
Ground Elevation (AMSL) 1.43 m / 4.7 ft
Antenna Centerline (AGL) 2.74 m / 9.0 ft
Antenna Model Channel Master 2.4 meter
Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz
Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -15.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	102.29	-10.00	412.20	-10.00	142.21
5	0.00	107.09	-10.00	412.20	-10.00	142.21
10	0.00	103.99	-10.00	412.20	-10.00	142.21
15	0.00	100.00	-10.00	412.20	-10.00	142.21
20	0.00	95.99	-10.00	412.20	-10.00	142.21
25	0.00	91.96	-10.00	412.20	-10.00	142.21
30	0.00	87.93	-10.00	412.20	-10.00	142.21
35	0.00	83.90	-10.00	412.20	-10.00	142.21
40	0.00	79.89	-10.00	412.20	-10.00	142.21
45	0.00	75.91	-10.00	412.20	-10.00	142.21
50	0.00	71.97	-10.00	412.20	-10.00	142.21
55	0.00	68.08	-10.00	412.20	-10.00	142.21
60	0.00	64.27	-10.00	412.20	-10.00	142.21
65	0.33	60.40	-10.00	367.68	-10.00	127.39
70	0.00	56.93	-10.00	412.20	-10.00	142.21
75	0.57	53.16	-10.00	311.05	-10.00	111.35
80	0.64	49.78	-10.00	300.04	-10.00	107.82
85	0.00	47.09	-9.82	414.39	-9.82	142.88
90	0.41	43.97	-9.08	354.79	-9.08	122.92
95	0.00	41.79	-8.53	430.91	-8.53	147.93
100	0.00	39.68	-7.96	438.27	-7.96	150.08
105	0.00	38.02	-7.50	444.43	-7.50	151.98
110	0.00	36.88	-7.17	448.90	-7.17	153.37
115	0.00	36.30	-7.00	451.24	-7.00	154.10
120	0.00	36.31	-7.00	451.21	-7.00	154.09
125	0.00	36.90	-7.18	448.81	-7.18	153.34
130	0.00	38.06	-7.51	444.29	-7.51	151.94
135	0.00	39.73	-7.98	438.09	-7.98	150.02
140	0.00	41.85	-8.54	430.71	-8.54	147.87
145	0.00	44.35	-9.17	422.61	-9.17	145.39
150	0.00	47.17	-9.84	414.18	-9.84	142.81
155	0.00	50.25	-10.00	412.20	-10.00	142.21
160	0.00	53.28	-10.00	412.20	-10.00	142.21
165	0.00	55.84	-10.00	412.20	-10.00	142.21
170	0.00	57.81	-10.00	412.20	-10.00	142.21
175	0.00	59.06	-10.00	412.20	-10.00	142.21
180	0.00	59.49	-10.00	412.20	-10.00	142.21
185	0.00	59.06	-10.00	412.20	-10.00	142.21

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Coordination Values

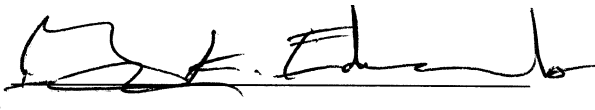
DAVIE, FL

Licensee Name	Digital Comm Link, Inc.				
Latitude (NAD 83)	26° 6' 23.2" N				
Longitude (NAD 83)	80° 17' 16.2" W				
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Antenna Model	Channel Master 2.4 meter				
Antenna Mode	Receive 4.0 GHz				
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	Transmit 6.1 GHz	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power				-15.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	57.81	-10.00	412.20	-10.00	142.21
195	0.00	55.84	-10.00	412.20	-10.00	142.21
200	0.00	53.28	-10.00	412.20	-10.00	142.21
205	0.00	50.25	-10.00	412.20	-10.00	142.21
210	0.00	46.87	-9.77	415.03	-9.77	143.07
215	0.00	43.22	-8.89	426.18	-8.89	146.48
220	0.00	39.37	-7.88	439.41	-7.88	150.43
225	0.00	35.35	-6.71	455.15	-6.71	155.32
230	0.00	31.22	-5.36	473.39	-5.36	161.24
235	0.00	27.10	-3.83	495.87	-3.83	168.34
240	0.00	23.30	-2.18	521.09	-2.18	176.35
245	0.00	19.99	-0.52	547.86	-0.52	184.90
250	0.00	17.46	0.95	572.48	0.95	192.80
255	0.00	16.10	1.83	587.80	1.83	198.11
260	0.00	16.19	1.77	586.76	1.77	197.78
265	0.00	17.71	0.80	569.92	0.80	191.98
270	0.00	20.34	-0.71	544.74	-0.71	183.90
275	0.00	23.72	-2.38	518.03	-2.38	175.38
280	0.00	27.57	-4.01	493.10	-4.01	167.46
285	0.00	31.72	-5.53	470.94	-5.53	160.47
290	0.00	36.07	-6.93	452.17	-6.93	154.39
295	0.21	40.48	-8.18	430.56	-8.18	147.64
300	0.23	45.06	-9.34	408.15	-9.34	140.53
305	0.00	49.76	-10.00	412.20	-10.00	142.21
310	0.00	54.45	-10.00	412.20	-10.00	142.21
315	0.00	59.17	-10.00	412.20	-10.00	142.21
320	0.00	63.92	-10.00	412.20	-10.00	142.21
325	0.00	68.69	-10.00	412.20	-10.00	142.21
330	0.00	73.47	-10.00	412.20	-10.00	142.21
335	0.00	78.27	-10.00	412.20	-10.00	142.21
340	0.00	83.07	-10.00	412.20	-10.00	142.21
345	0.00	87.88	-10.00	412.20	-10.00	142.21
350	0.00	92.68	-10.00	412.20	-10.00	142.21
355	0.00	97.49	-10.00	412.20	-10.00	142.21

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: 

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Senior Manager
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DATED: July 18, 2017