



19700 Janelia Farm Boulevard
Ashburn, VA 20147
703-726-5500
Fax 703-726-5596

July 14, 2016

Office of Engineering and Technology
Federal Communications Commission
Washington, DC 20554

Re: OET – Experimental License Application – **Informal Objection**
Applicant: Georgia Institute of Technology
FCC File Numbers: **0871-EX-ST-2016**
Filing Date: June 15, 2016
Band Objection: 10700 – 11000 MHz

Dear Sir,

Comsearch protects the microwave systems of over 100 FCC licensees in the Atlanta area with licensed and operating 11 GHz point-to-point microwave paths. A review of the referenced FCC Experimental Application finds hundreds of severe interference cases into these paths based on the proposed operating characteristics and the extremely high ERP. We have included a small sample of the potential cases found for reference – the numerous other cases are very similar in margin and severity of impact.

We strongly request that the 10700 – 11000 MHz band be removed from this proposed operation to avoid the severe interference impact on licensed and operating paths. The licensees cover telecommunications, public safety, critical infrastructure, and many other users.

If you have any questions, or require additional information, please don't hesitate to call me on (703) 726-5656 or contact me by email at dmeyer@comsearch.com

Sincerely,
COMSEARCH

David E. Meyer
Senior Manager
Frequency Protection Services

CC: Georgia Institute of Technology

COMSEARCH

INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

CASE 4 of 13

INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level $RX_B = 24.08$ dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) DOBBINS to D) GALLERIA PKW
 WQOX418 WQNX382
 11/16/2011 / 111116AQ
 33 55 15.0 N 33 53 4.5 N
 84 30 5.4 W 84 27 55.0 W
 299.30 m 303.80 m
 140.19 ° 320.21 °
 5.23 km / 3.25 mi
 $RX_D = -34.03$ dBm

GALLERIA PKW, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK-100W-11
 30M0D7W 0.0007 %
 1 CH DIG 100000.000 kbps
 Threshold = -76.0 dBm

Receive
 Commscope
 VHLP2-11A
 34.4 dBi
 65.53 m
 0.0 dB

10755.0000H

Interfering Path Distance 6.40 km / 3.98 mi
 Azimuth 117.97 °
 Free Space Loss (FSPL) 129.6 dB

Antenna Model		Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI		157.79 °	0.0	0.0	0.0	0.0	0.00 / 25.47	10.00 / 25.02	20.00 / 7.56
Site D: VHLP2-11A		337.80 °	33.8	51.0	35.0	50.2			
Total Discrimination			33.8	35.0	35.0	33.8	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)		5.3	6.5	6.5	5.3	67.4	67.0	49.5
0.0 dB OH Loss	C/I (20%)		5.3	6.5	6.5	5.3	67.4	67.0	49.5
0.0 dB OH Loss	C/I (0.01%)		5.3	6.5	6.5	5.3	52.4	52.0	34.5

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	67.4		-60.9	-60.9	

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INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level $RX_B = 24.08$ dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 3340 PEACHTR to D) GALLERIA PKW
 WQKS488 WQNQ382
 10/07/2013 / 13100737
 33 50 51.1 N 33 53 4.5 N
 84 22 16.3 W 84 27 55.0 W
 305.00 m 303.80 m
 295.30 ° 115.25 °
 9.63 km / 5.98 mi
 $RX_D = -38.32$ dBm

GALLERIA PKW, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK
 40M0D7W 0.0007 %
 1 CH DIG 240000.000 kbps
 Threshold = -64.0 dBm

Receive
 Commscope
 VHLP800-11C
 37.4 dBi
 65.53 m
 0.0 dB

10815.0000H

Interfering Path Distance 6.40 km / 3.98 mi
 Azimuth 117.97 °
 Free Space Loss (FSPL) 129.6 dB

Antenna Model		Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI		157.79 °	0.0	0.0	0.0	0.0	0.00 / 32.00	10.00 / 31.69	20.00 / 29.12
Site D: VHLP800-11C		182.76 °	59.0	59.0	60.0	64.0			
Total Discrimination			59.0	60.0	60.0	59.0	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)		23.3	24.3	24.3	23.3	57.7	57.4	54.8
0.0 dB OH Loss	C/I (20%)		23.3	24.3	24.3	23.3	57.7	57.4	54.8
0.0 dB OH Loss	C/I (0.01%)		23.3	24.3	24.3	23.3	42.7	42.4	39.8

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	57.7		-33.4	-33.4	

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INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level RX_B = 24.08 dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 3340 PEACHTR to D) 1355 PEACHTR
 WQKS488 WQKS493
 06/16/2009 / 09061628
 33 50 51.1 N 33 47 30.5 N
 84 22 16.3 W 84 23 7.1 W
 305.00 m 283.86 m
 191.94 ° 11.93 °
 6.32 km / 3.93 mi
 RX_D = -36.66 dBm

1355 PEACHTR, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK-100-11
 30M0D7W 0.0007 %
 1 CH DIG 103100.000 kbps
 Threshold = -77.0 dBm

Receive
 Commscope
 VHLP800-11A
 37.4 dBi
 84.70 m
 0.0 dB

10955.0000H

Interfering Path Distance 18.63 km / 11.58 mi
 Azimuth 135.48 °
 Free Space Loss (FSPL) 138.9 dB

Antenna Model		Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI		175.30 °	0.0	0.0	0.0	0.0	0.00 / 25.47	10.00 / 25.02	20.00 / 7.56
Site D: VHLP800-11A		303.62 °	45.3	51.6	42.0	57.0			
Total Discrimination			45.3	42.0	42.0	45.3	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)		20.5	17.2	17.2	20.5	65.8	65.4	47.9
0.0 dB OH Loss	C/I (20%)		20.5	17.2	17.2	20.5	65.8	65.4	47.9
0.0 dB OH Loss	C/I (0.01%)		20.5	17.2	17.2	20.5	50.8	50.4	32.9

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	65.8		-48.6	-48.6	

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INTERFERENCE CASE ANALYSIS

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level $RX_B = 24.08$ dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 3340 PEACHTR to D) COLONY HOUSE
 WQKS488 WQRX595
 02/01/2013 / 13020150
 33 50 51.1 N 33 47 17.0 N
 84 22 16.3 W 84 22 55.4 W
 305.00 m 293.00 m
 188.67 ° 8.66 °
 6.67 km / 4.15 mi
 $RX_D = -33.14$ dBm

COLONY HOUSE, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 CG11-30-95MB
 30M0D7W 0.0007 %
 1 CH DIG 95000.000 kbps
 Threshold = -77.0 dBm

Receive
 Commscope
 VHLP800-11A
 37.4 dBi
 66.45 m
 0.0 dB

10955.0000H

Interfering Path Distance 19.14 km / 11.89 mi
 Azimuth 135.71 °
 Free Space Loss (FSPL) 139.1 dB

Antenna Model		Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI		175.53 °	0.0	0.0	0.0	0.0	0.00 / 22.00	10.00 / 21.55	20.00 / 4.09
Site D: VHLP800-11A		307.12 °	44.6	50.2	42.0	56.1			
Total Discrimination			44.6	42.0	42.0	44.6	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)		23.5	21.0	21.0	23.5	65.9	65.4	48.0
0.0 dB OH Loss	C/I (20%)		23.5	21.0	21.0	23.5	65.9	65.4	48.0
0.0 dB OH Loss	C/I (0.01%)		23.5	21.0	21.0	23.5	50.9	50.4	33.0

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	65.9		-44.9	-44.9	

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INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level RX_B = 24.08 dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) BANK OF AMER to D) HAMMOND COND
 WQJU290 WQJU292
 09/05/2008 / 08090508
 33 46 14.9 N 33 55 3.2 N
 84 23 10.8 W 84 21 35.6 W
 312.54 m 308.80 m
 8.54 ° 188.56 °
 16.46 km / 10.23 mi
 RX_D = -32.98 dBm

HAMMOND COND, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK-50W-11
 10M0D7W 0.0007 %
 1 CH DIG 50000.000 kbps
 Threshold = -69.0 dBm

Receive
 Commscope
 VHLP4-11A
 40.4 dBi
 140.20 m
 0.0 dB

10935.0000H

Interfering Path Distance 15.41 km / 9.58 mi
 Azimuth 87.52 °
 Free Space Loss (FSPL) 137.2 dB

Antenna Model		Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI		127.34 °	0.0	0.0	0.0	0.0	0.00 / 25.70	10.00 / -5.40	20.00 / -16.20
Site D: VHLP4-11A		79.06 °	59.9	68.5	53.3	72.0			
Total Discrimination			59.9	53.3	53.3	59.9	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)		34.2	27.5	27.5	34.2	61.7	30.6	19.8
0.0 dB OH Loss	C/I (20%)		34.2	27.5	27.5	34.2	61.7	30.6	19.8
0.0 dB OH Loss	C/I (0.01%)		34.2	27.5	27.5	34.2	46.7	15.6	4.8

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	61.7		-34.2	-34.2	

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INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level RX_B = 24.08 dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 3340 PEACHTR to D) 1355 PEACHTR
 WQKS488 WQKS493
 06/16/2009 / 09061628
 33 50 51.1 N 33 47 30.5 N
 84 22 16.3 W 84 23 7.1 W
 305.00 m 283.86 m
 191.94 ° 11.93 °
 6.32 km / 3.93 mi
 RX_D = -36.66 dBm

1355 PEACHTR, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK-100-11
 30M0D7W 0.0007 %
 1 CH DIG 103100.000 kbps
 Threshold = -77.0 dBm

Receive
 Commscope
 VHLP800-11A
 37.4 dBi
 84.70 m
 0.0 dB

10955.0000H

Interfering Path Distance 18.63 km / 11.58 mi
 Azimuth 135.48 °
 Free Space Loss (FSPL) 138.9 dB

Antenna Model	Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI	175.30 °	0.0	0.0	0.0	0.0	00.00 / 25.02	20.00 / 7.56	30.00 / -12.53
Site D: VHLP800-11A	303.62 °	45.3	51.6	42.0	57.0			
Total Discrimination		45.3	42.0	42.0	45.3	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)	20.5	17.2	17.2	20.5	65.4	47.9	27.8
0.0 dB OH Loss	C/I (20%)	20.5	17.2	17.2	20.5	65.4	47.9	27.8
0.0 dB OH Loss	C/I (0.01%)	20.5	17.2	17.2	20.5	50.4	32.9	12.8

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
00.00	65.4		-48.2	-48.2	

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INTERFERENCE CASE ANALYSIS

07/14/2016

RCN: 160709XX

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level RX_B = 24.08 dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 55 MARIETTA to D) AP HILTON
 WQJT382 WQJU291
 06/16/2009 / 09061628
 33 45 21.2 N 33 39 36.8 N
 84 23 27.3 W 84 25 29.9 W
 322.40 m 305.10 m
 196.58 ° 16.56 °
 11.07 km / 6.88 mi
 RX_D = -35.53 dBm

AP HILTON, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 SKYLINK-200W-11
 40M0D7W 0.0007 %
 1 CH DIG 200000.000 kbps
 Threshold = -67.0 dBm

Receive
 Commscope
 VHLP800-11A
 37.4 dBi
 70.40 m
 0.0 dB

11015.0000H

Interfering Path Distance 29.43 km / 18.29 mi
 Azimuth 161.36 °
 Free Space Loss (FSPL) 142.8 dB

Antenna Model	Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI	201.18 °	0.0	0.0	0.0	0.0	15.00 / 28.12	30.00 / 3.65	40.00 / -8.60
Site D: VHLP800-11A	324.85 °	42.0	49.4	42.0	50.0			
Total Discrimination		42.0	42.0	42.0	42.0	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)	22.3	22.3	22.3	22.3	59.6	35.1	22.9
0.0 dB OH Loss	C/I (20%)	22.3	22.3	22.3	22.3	59.6	35.1	22.9
0.0 dB OH Loss	C/I (0.01%)	22.3	22.3	22.3	22.3	44.6	20.1	7.9

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
15.00	59.6		-37.3	-37.3	

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INTERFERENCE CASE ANALYSIS

07/14/2016

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INTERFERING PATHLICENSEE

Georgia Institute of Technology

Site Names A) SMYRNA to B) REMOTE1
 Call Signs SMYRNA REMOTE1
 PCN Ext Date/RCN 07/09/2016 / 160709XX
 Latitude 33 54 42.0 N 33 54 42.1 N
 Longitude 84 31 35.0 W 84 31 35.1 W
 Ground Elevation 324.75 m 325.00 m
 Path Azimuth 320.18 ° 140.18 °
 Path Length 0.00 km / 0.00 mi
 Receive Signal Level RX_B = 24.08 dBm

SMYRNA, GA - Interfering Transmitter (A)RADIO

Manufacturer SAF TEHNIKA
 Model CFIP-11-106
 Emission / Stability 4M00L7D 0.0007 %
 Loading / Data Rate 1 CH DIG 52000.000 kbps
 Tx Power / Tx Loss 30.0 dBm 0.2 dB

ANTENNA

Manufacturer OMNI
 Model OMNI
 Gain 60.0 dBi
 Centerline 6.00 m
 Common Loss 0.0 dB

FREQUENCY & POLARIZATION

10700.0S – 11000.0S

VICTIM PATH

Global Telecom & Technology Americas

C) 3340 PEACHTR to D) COLONY HOUSE
 WQKS488 WQRX595
 02/01/2013 / 13020150
 33 50 51.1 N 33 47 17.0 N
 84 22 16.3 W 84 22 55.4 W
 305.00 m 293.00 m
 188.67 ° 8.66 °
 6.67 km / 4.15 mi
 RX_D = -33.14 dBm

COLONY HOUSE, GA - Victim Receiver (D)

CIELO NETWORKS, INC.
 CG11-30-95MB
 30M0D7W 0.0007 %
 1 CH DIG 95000.000 kbps
 Threshold = -77.0 dBm

Receive
 Commscope
 VHLP800-11A
 37.4 dBi
 66.45 m
 0.0 dB

10955.0000H

Interfering Path Distance 19.14 km / 11.89 mi
 Azimuth 135.71 °
 Free Space Loss (FSPL) 139.1 dB

Antenna Model	Disc Angle	VV	VH	HH	HV	Separation (MHz) / T/I Obj		
Site A: OMNI	175.53 °	0.0	0.0	0.0	0.0	00.00 / 21.55	20.00 / 4.09	30.00 / -16.00
Site D: VHLP800-11A	307.12 °	44.6	50.2	42.0	56.1			
Total Discrimination		44.6	42.0	42.0	44.6	Objective (dB)		
Terrain Loss	C/I Actual (FSPL)	23.5	21.0	21.0	23.5	65.4	48.0	27.9
0.0 dB OH Loss	C/I (20%)	23.5	21.0	21.0	23.5	65.4	48.0	27.9
0.0 dB OH Loss	C/I (0.01%)	23.5	21.0	21.0	23.5	50.4	33.0	12.9

C/I SummaryMargin to Objective (dB)

Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
00.00	65.4		-44.5	-44.5	

INTERFERENCE CASE ANALYSIS

CASE 13 of 13

VICTIM PATH

Vyvx, LLC – Atlanta

C)	GA PACIFIC	to	D)	UPSOUTH
	WLN646			WLN645
				04/09/1993 / 93041308
33	45 27.4 N		33	48 27.4 N
84	23 13.7 W		84	20 28.7 W
	326.44 m			266.80 m
	37.42 °			217.44 °
				6.98 km / 4.34 mi
				RX _D = -27.13 dBm

UPSOUTH, GA - Victim Receiver (D)

COLLINS RADIO COMPANY
MVR-11C
25M0F8W 0.0005 %
1 CH FMV 0.000 kbps
Threshold = -82.5 dBm

Receive
MARK ANTENNA
HP-100A48D RF
40.6 dBi
12.19 m
2.0 dB

10915.0000V

Interfering Path Distance	20.65 km / 12.83 mi
Azimuth	123.92 °
Free Space Loss (FSPL)	139.8 dB

C/I Summary		Margin to Objective (dB)			
Separation (MHz)	C/I OBJ (dB)	VV	VH	HH	HV
0.00	68.5	-13.0			-13.0