

L3Harris Technologies, Inc.
Request for Extension of FCC Special Temporary Authority
Temporary-Fixed Transportable C Band Earth Station
Page 1 of 1

L3Harris Technologies, Inc. ("L3Harris") hereby requests an additional extension of the Special Temporary Authority ("STA") previously granted to L3Harris on August 22, 2022¹ for an additional 30-day period to continue utilizing a 2.4m transmit/receive transportable C-Band terminal using select C band frequencies to a location at the FAA facility located in Collins, OH (I64 BUEC) in order to support FAA Air Traffic Control operations.²

Owing to the loss of existing terrestrial telco service to the FAA facility in Collins, OH (I64 BUEC) caused by the facility's telco carrier decommissioning the existing telco service, and subsequent refusal by the provider to extend operational telco service to the FAA facility, the FAA has determined that the risk to the National Air Space due to this decommissioning requires mitigation as an impact could possibly occur when an outage of main and standby equipment or main and secondary lines occurs at any of the several other supporting facilities, thereby possibly jeopardizing the safety of the flying public. Based on current guidance from FAA personnel, alternate arrangements for the I64 BUEC facility are not projected to be finalized until mid-January 2023.

STA was initially requested for 30 days utilizing C-Band spectrum in conjunction with satellite SES2 transponder 21C. On July 20, 2022 L3Harris had filed a request to extend STA for a 180-day period.³ Because the initial STA grant was scheduled to expire on August 5, 2022, pursuant to Commission guidance an additional 30-day request was made on August 3, 2022 under File No. SES-STA-20220803-00821 to cover STA operations as the July 20, 2022 180-day STA request continued through the 30-day Public Notice period. Because the STA extension under File No. SES-STA-20220803-00821 was scheduled to expire on September 21, 2022, a 30-day extension request was filed on September 20, 2022 under File No. SES-STA-20220920-00980. Subsequently, further 30-day requests were filed on October 20, 2022 under File No. SES-STA-20221020-01106 and November 18, 2022 Under File No. SES-STA-20221118-01271. This additional 30-day request is being filed out of an abundance of caution to cover STA operations until the July 20, 2022 180-day STA request is granted by the Commission. L3Harris notes that the 180-day request has completed the 30-day Public Notice period and is ripe for Commission action.

The C-Band space segment exists within the current operating spectrum of the FAA network of (17) existing remote C-Band sites and is above the FCC mandated 5G spectrum. The allocated bandwidth requested is for a total of less than 200KHz of space segment. Specifically, as noted on the attached SES Digital Network Operations correspondence, C band transmission operations would be on 6355.7847 - 6355.8807 and C band receive operations would be on 4130.7847 - 4130.8807. Also attached is the link budget as well as the look angle values of the I64 BUEC site.

L3Harris has completed a frequency coordination study for the FAA I64 BUEC site and has uploaded the coordination to the 180-day request under SES-STA-20220720-00787. For reference the coordination is also included within this filing.

L3Harris submits that a grant of this application will serve the public interest because it will assist the FAA's mission of ensuring flight safety.

¹ FCC File No. SES-STA-20220803-00821, *See* FCC Public Notice Report No. SES-02494 rel. August 24, 2022 which was an extension of the STA previously granted under File No. SES-STA-20220630-00716

² L3Harris Technologies, Inc. is the prime contractor on the FAA TeleCommunications Infrastructure (FTI) program which carries FAA communications to/from ~5,000 FAA facilities, terrestrially as well via satellite systems

³ FCC File No. SES-STA-20220720-00787, *See* FCC Public Notice Report No. SES-02485 rel. July 27, 2022

SES LINK BUDGET ANALYSIS



PREPARED BY
<[CDATA[Nick Brown]]>
DATE
30-Jun-22
BUSINESS PARTNER

PROJECT
FTISAT Current Eb/No Readings
REVISION
Current Eb/No Readings

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Satellite	SES-2
Orbital location	E -87.00
Transponder information	
Transponder ID	21C
Center frequency and polarisation (U/D)	MHz 6345 VLP / 4120 HLP
Bandwidth	MHz 36.00
Transponder Dlk Saturation EIRP Towards Beam-Peak	dBW 43.47
Transponder Beam-Peak G/T	dB/K 3.64
Saturation flux density, Beam-peak	dBW/m² -90.85
Operational mode	Multiple Carrier, [IBO: -5.5 dB OBO: -4 dB]
Inclined (Yes,No)	No

AGGREGATE RESOURCE REQUIREMENTS

Capacity Balanced / BW / PWR Limited	
Number of carriers in transponder	2
Required bandwidth	MHz 0.2
Allocated bandwidth	MHz 0.19
PEB of carriers	MHz 0.10

ANALYSIS HIGHLIGHTS ACROSS ALL SITES IN ANALYSIS

Link margin review [over sites]	
Site with highest clear sky link margin	USA-33454 at I64-BUEC >USA-WBN-009 14250.0/11950.0 Woodbine K1 (CSM SES-1) : 0.0 dF
Site with lowest clear sky link margin	USA-WBN-004 6175.0/3950.0 Woodbine C5 (CSM, SES-2)>USA-33454 at I64-BUEC : 0.0 dF
Link availability review [over sites]	
Site with highest link availability	-
Site with lowest link availability	-

Calculation type	Clear sky only	Clear sky only
Carrier Name	ADS GW I64-BUEC	ADS RM I64-BUEC
Carrier PEB	MHz 0.07	0.03
Carrier Predicted Total C/(N+I)	dB 9.16	9.16
Link total Eb/No	dB 7.40	7.40
Required Eb/No (including implementation and additional margin)	dB 7.40	7.40
Link closes? [2 out of 2, 100 %]	Yes	Yes
Link margin in clear sky (For ACM carriers, residual margin in CS)	dB 0.00	0.00
Target Link Availability	% yr clear weather only	clear weather only
Achieved Link Availability	% yr clear weather only	clear weather only
Availability Requirement Satisfied? [0 out of 2, 0 %]	clear weather only	clear weather only
ALC: Is the overdrive limit exceeded ?	Not computed	Not computed
Balanced/Power/Bandwidth limited	BW Lim	BW Lim
Carrier PEB to allocated bandwidth ratio	0.76	0.33
Compliance to SES Coordination constraints	No CoCos	No CoCos
Summary of carrier emission levels		
Carrier power density at transmit antenna flange	dBW/Hz -65.54	-55.00
Carrier Uplink EIRP density	dBW/Hz -9.55	-12.71
Carrier power flux spectral density	dBW/m²/Hz -172.11	-175.80
Carrier Downlink EIRP density at beam peak	dBW/Hz -36.31	-40.00

EARTH STATIONS

Tx earth station ID	USA-WBN-004 6175.0/3950.0 Woodbine C5 (CSM, SES-2)	USA-33454 at I64-BUEC
Latitude	°N 39.38	41.27
Longitude	°E -77.08	-82.47
Antenna diameter	m 11.10	2.40
Skew angle at transmit location	deg 11.79	5.12
Effective (Refracted) Elevation	deg 43.49	42.31
Uplink aspect correction	dB 0.02	0.53
Receive earth station ID	USA-33454 at I64-BUEC	USA-WBN-009 14250.0/11950.0 Woodbine K1 (CSM SES-1)
Latitude	°N 41.27	39.38
Longitude	°E -82.47	-77.08
Antenna diameter	m 2.40	9.20
Skew angle at receive location	deg 5.12	11.79
Effective (Refracted) Elevation	deg 42.31	43.49
Effective G/T at the carrier frequency (Clear-Sky)	dB/K 18.65	23.82
Downlink aspect correction	dB 1.09	1.60

CARRIER INFORMATION

Carrier uplink centre frequency	MHz 6345.00	6345.00
Carrier downlink centre frequency	MHz 4120.00	4120.00
Number of carriers	1.00	1.00
Modem		
Modulation setting name (clear sky)	QPSK 0.750	QPSK 0.750
Information rate (clear sky)	Mbps 0.12	0.12
Symbol rate	Msps 0.08	0.08
Aggregate code rate (clear sky)	0.75	0.75
Noise Bandwidth	MHz 0.08	0.08
Spreading Factor	1.00	1.00
Allocated bandwidth	MHz 0.10	0.10
Power Equivalent Bandwidth	MHz 0.07	0.03

SES LINK BUDGET ANALYSIS

ACM analysis (constant SR)			
Spectral efficiency in clear sky	b/sym	1.50	1.50
Clear sky throughput	Mbps	0.12	0.12
Clear sky achievable modulation setting		QPSK 0.750	QPSK 0.750
Is the minimum recommended TPD OBO exceeded ?			
Under fade: Spectral efficiency at required availability	b/sym	N/A	N/A
Under fade: Throughput when meeting the required availability	Mbps	N/A	N/A
Under fade : Mod Cod meeting the required availability		N/A	N/A
LINK BUDGET			
Uplink Calculations			
Carrier Input Backoff in clear sky	dB	-32.43	-36.12
Carrier FD from Uplink E/S	dBW/m ²	-123.24	-126.42
C/N _{UP,Thermal} : Uplink Thermal Noise ratio (clear sky)	dB	22.62	18.94
C/(N+I) _{UP, NO ASI} : Uplink Thermal Noise and interference ratio prior to ASI (clear sky)	dB	20.72	18.02
C/(N+I) _{UP} Uplink Thermal Noise and interference ratio (clear sky)	dB	15.81	12.42
Total propagation loss considering uplink rain fade	dB		
C/(N+I) _{UP} Uplink Thermal Noise and Interference ratio (UL under fade)	dB		
Resulting uplink path availability	% yr	clear weather only	clear weather only
Downlink Calculations			
Carrier Downlink EIRP towards Receive E/S	dBW	11.44	7.26
Carrier Downlink EIRP at beam peak	dBW	12.54	8.85
Carrier Output Backoff (clear sky)	dB	-30.93	-34.62
C/(N+I) _{DN, NO ASI} : Downlink Thermal Noise and interference ratio prior to ASI (clear sky)	dB	12.52	12.49
C/N _{DN,Thermal} : Downlink Thermal Noise ratio (clear sky)	dB	13.53	14.54
C/(N+I) _{DN} Downlink Thermal Noise and interference ratio (clear sky)	dB	10.22	11.94
Total propagation loss considering downlink rain fade	dB		
C/(N+I) _{DN} Downlink Thermal Noise and Interference ratio (DL under fade)	dB		
Resulting downlink path availability	% yr	clear weather only	clear weather only
NOISE CONTRIBUTION ANALYSIS			
Limiting factor		Downlink Thermal Noise	Uplink Adjacent Satellite Interference
Total C/(N+I) clear sky	dB	9.16	9.16
Total Eb/No clear sky	dB	7.40	7.40
Total C/(N+I) (UL fade, DL clear)	dB		
Total C/(N+I) (DL fade, UL clear)	dB		
Total C/(N+I), excluding ASI, clear sky	dB	11.91	11.42
Required C/N (including implementation and additional margin)	dB	9.16	9.16
Required Eb/No (including implementation and additional margin)	dB	7.40	7.40
Link margin in clear sky (For ACM carriers, residual margin in CS)	dB	0.00	0.00
POWER DENSITY REVIEW			
Carrier power density at antenna flange (clear sky)	dBW/Hz	-65.54	-55.00
Uplink EIRP density	dBW/Hz	-9.55	-12.71
Skew angle at transmit location	deg	11.79	5.12
Uplink off-axis EIRP density at 2 deg	dBW/Hz	-44.06	-33.52
Downlink EIRP density at beam peak	dBW/Hz	-36.31	-40.00
HPA Sizing			
Total number of carriers		1.00	1.00
Total EIRP required from E/S	dBW	39.31	36.15
UPC Range	dB	0.00	0.00
HPA type/mode		Not Defined Multi Carrier	Not Defined Multi Carrier
Required backoff	dB	-4.00	-4.00
Required HPA capability	W	0.10	0.70
Recommended HPA size (for a single carrier)	W	HPA type not supplied	HPA type not supplied
Recommended HPA size (to support all carriers)	W	HPA type not supplied	HPA type not supplied

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Antenna Alignment

Produced using Satmaster Pro

Thursday

30 June 2022

Site name I64-BUEC

Satellite name SES-2

Input Parameters	Value	Units
Site latitude	41.268085N	degrees
Site longitude	82.467937W	degrees
Satellite longitude	87.00W	degrees
Inclination	0	degrees
Spot beam polarization cant	0	degrees
Antenna offset focus angle	0	degrees

Satellite Look Angles	Value	Units
Elevation	42.09	degrees
True azimuth	186.85	degrees
Azimuth compass bearing	194.93	degrees
Polarization offset	5.18	degrees
Path distance to satellite	37621.00	km

Modified Polar Mount Settings	Value	Units
Polar axis	41.96	degrees
Polar elevation	48.04	degrees
Declination offset	5.74	degrees
Apex declination	47.69	degrees
Apex elevation	42.31	degrees

From: SES GS
To: Mike Feustel
Attention: SES Digital Network Operations Centre
Control Centre: LU/NB/30-Jun-2022/131260
Our Reference: LU/NB/30-Jun-2022/131260
Subject: **Line Up and Service Authorisation for <Carrier's Customer Not Available>, Contract# <STN not available>, via SES-2.**
Planned Activation Date: **30-Jun-2022**

Email: salesengineering@ses-gs.com
Email: Michael.Feustel@L3Harris.com
Email: dino@ses.com

Transponder	#Carriers Scheduled
21C	2

IMPORTANT: Before activating any carriers please contact the SES Digital Network Operations Centre (DINO) referencing this document for authorisation to radiate.
The DINO can be reached by phone on +352 710 725 333.
This message is valid for 60 days from its issue date. In the event that the carriers listed are not activated within 60 days it will be necessary to contact SES GS Sales Engineering to obtain renewal of authorisation.

The activation of the carriers listed below, in accordance with the reference transmission plan is hereby authorized. All carriers must be activated under the control of the DINO and conform to the parameters in the attached list. Please note that all transmit earth stations must be registered by SES GS and comply with the Earth Station Performance Requirements prior to service activation.

The SES satellite access and escalation procedures are to be found on our website under the following link:

[SES Technical Documents](#)

Best regards

Nick Brown

SES GS

Satellite	Transponder	Pol. (U/L / D/L)	Carrier ID	Tx. E/S	U/L Freq. (MHz)	D/L Freq. (MHz)	Rx. E/S	U/L EIRP (dBW)	D/L EIRP (dBW)	Carrier Details	Allocated BW (MHz)	Lifecycle State
Scheduled												
SES-2	21C	VLP / HLP	CXR-000000097184	USA-WBN-004	6355.7847	4130.7847	USA-33454		12.50	QPSK 115.200 Kb/s 0.0768 Turbo 0.750	0.0960	Scheduled (GW to ADS)
SES-2	21C	VLP / HLP	CXR-000000097183	USA-33454	6355.8807	4130.8807	USA-WBN-004		8.90	QPSK 115.200 Kb/s 0.0768 Turbo 0.750	0.0960	Scheduled (ADS to GW)

Polarization Codes:

LHCP = Left Hand Circular
RHCP = Right Hand Circular

VLP = Vertical Linear
HLP = Horizontal Linear

Carrier Details:

Modulation Type | Data Rate | Symbol
Rate,
Inner Code Type | Inner Code Rate
DVBS2 Mode | Pilots | Frame

GateWay (Woodbine, MD) IF Frequencies

TX I64 BUEC 6355.7847

RX I64 BUEC 4130.8807

**Temporary Remote (Collins,
OH) IF Frequencies**

TX I64 BUEC 6355.8807

RX I64 BUEC 4130.7847

Micronet Communications, Inc.

812 Lexington Dr
Plano, Texas 75075
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M2223013 5.93 GHz
Licensee: L3HARRIS TECHNOLOGIES, INC.

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Pursuant to Parts 25.203 and 101.103(d) of the FCC Rules and Regulations, a frequency coordination study was conducted by Micronet Communications, Inc. for the following proposed earth station:

I64 BUEC, OH

The results of the study indicate that no unacceptable interference will result with existing, proposed or prior coordinated radio facilities.

Coordination was performed with existing, proposed and prior coordinated carriers within coordination range on the following dates:

08/29/2022 No-impact change notification pursuant to Section
101.103(d)(2)(ix) - No response required.
08/19/2022 Original PCN (Expedited response requested by 09/02/2022)
There were no unresolved interference objections.

The attached coordination data was forwarded on the latest date to the following parties within coordination range or their authorized coordination agents:

AGILE NETWORK BUILDERS LLC
AMERICAN ELECTRIC POWER SERVICE CORPORATION
AQ2AT, LLC
BLHC, LLC
BLUELINE COMM
CELLCO PARTNERSHIP
COMMUNITY ISP, INC.
COMSEARCH INC
COUNTY OF SUMMIT, OHIO
DC2A LLC
DTE ELECTRIC COMPANY
EAST OHIO GAS COMPANY
ELECTRIC RAILROAD, LLC
FELHC, INC.
FRONTIER NORTH INC.
FUNDAMENTAL BROADCASTING LLC
GEAUGA, COUNTY OF
GRAND TRUNK WESTERN RAILROAD COMPANY
LAKE COUNTY UTILITIES WWTP
LUCAS, COUNTY OF
METALINK TECHNOLOGIES, INC.
METRO WIRELESS INTERNATIONAL INC.
MICHIGAN, STATE OF
MICRONET COMMUNICATIONS INC
NEW CINGULAR WIRELESS PCS, LLC
NEW LINE NETWORKS LLC
NEW WORLD COMMUNICATIONS OF DETROIT, INC

Micronet Communications, Inc.

812 Lexington Dr
Plano, Texas 75075
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M2223013 5.93 GHz
Licensee: L3HARRIS TECHNOLOGIES, INC.

Page 2

NORFOLK SOUTHERN RAILWAY COMPANY
NORTH COAST WIRELESS COMMUNICATIONS
NOTTHISAGAIN LLC
RADIO DYNAMICS
RADIO ONE, INC.
SW NETWORKS
T-MOBILE LICENSE LLC
THE CITY OF CLEVELAND, OH
W.A.T.C.H. TV COMPANY INC.
WEBLINE HOLDINGS LLC
WIRELESS APPLICATIONS CORP
WORLD CLASS WIRELESS LLC
XIBER, LLC
XWAVE ENGINEERING LLC
ZEN NETWORKS, INC

Respectfully Submitted,



Jeremy Lewis
Systems Engineer

Attached: 1 data sheet

Micronet Communications, Inc.
812 Lexington Dr
Plano, Texas 75075
972-422-7200

File: M2223013

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TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

=====

Company:	L3HARRIS TECHNOLOGIES, INC.		
Site Name, State:	I64 BUEC, OH		
Call Sign:			
Latitude	(NAD83)	41 16	5.1 N
Longitude	(NAD83)	82 28	4.6 W
Elevation AMSL	(ft/m)	879.40	268.04
Receive Frequency Range	(MHz)	3700-4200	
Transmit Frequency Range	(MHz)	5925-6425	
Range of Satellite Orbital Long.	(deg W)	87.00	87.00
Range of Azimuths from North	(deg)	186.85	186.85
Antenna Centerline	(ft/m)	60.00	18.29
Antenna Elevation Angles	(deg)	42.10	42.10

Equipment Parameters		Receive	Transmit
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Antenna Gain, Main Beam	(dbI)	35.50	38.00
15 DB Half Beamwidth	(deg)	6.00	2.00

Antennas Receive: HARRIS CORP ST5000-2.4 (2.4M)
 Transmit: HARRIS CORP ST5000-2.4 (2.4M)

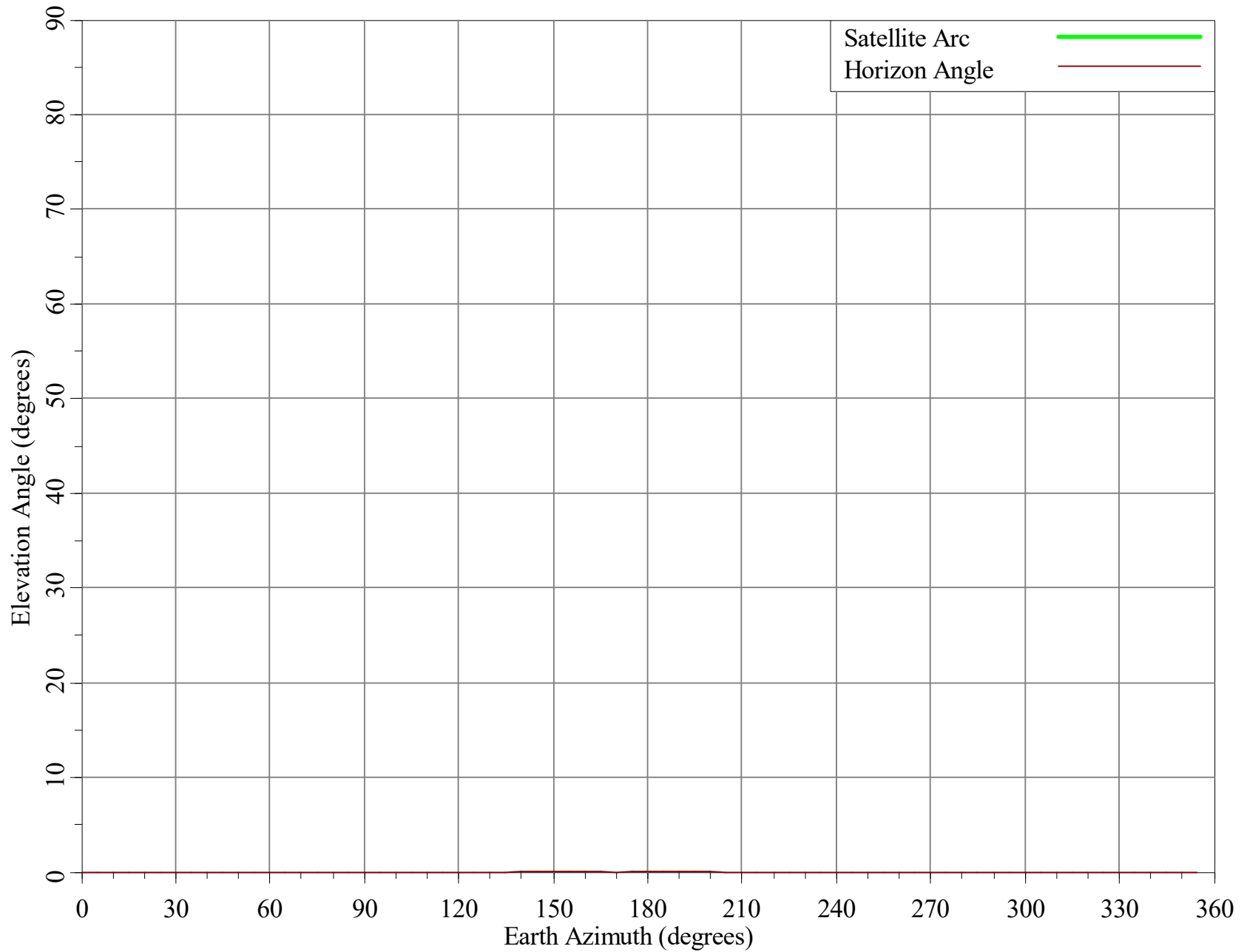
Max Transmitter Power	(dbW/4KHz)	-11.52
Max EIRP Main Beam	(dbW/4KHz)	26.48
Modulation / Emission Designator	DIGITAL 96K6G7W	

Coordination Parameters		Receive	Transmit
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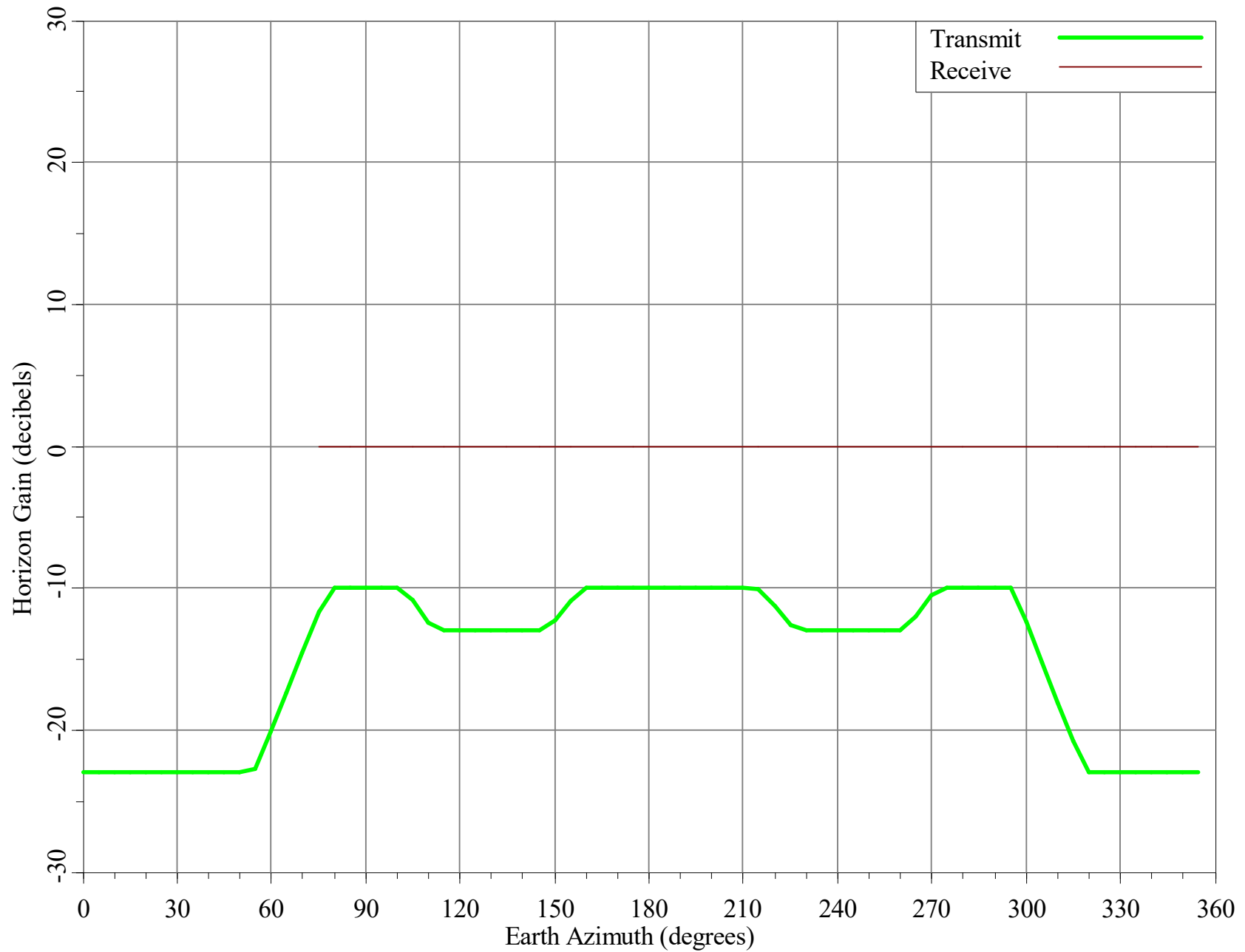
Max Greater Circle Distances	(km)	344.48	137.87
Max Rain Scatter Distances	(km)	452.53	100.01
Max Interference Power Long Term	(dbW)	-158.60	-154.80
Max Interference Power Short Term	(dbW)	-153.90	-126.80
Rain Zone / Radio Zone		2	A

Horizon Angle & Satellite Arc for I64 BUEC, OH

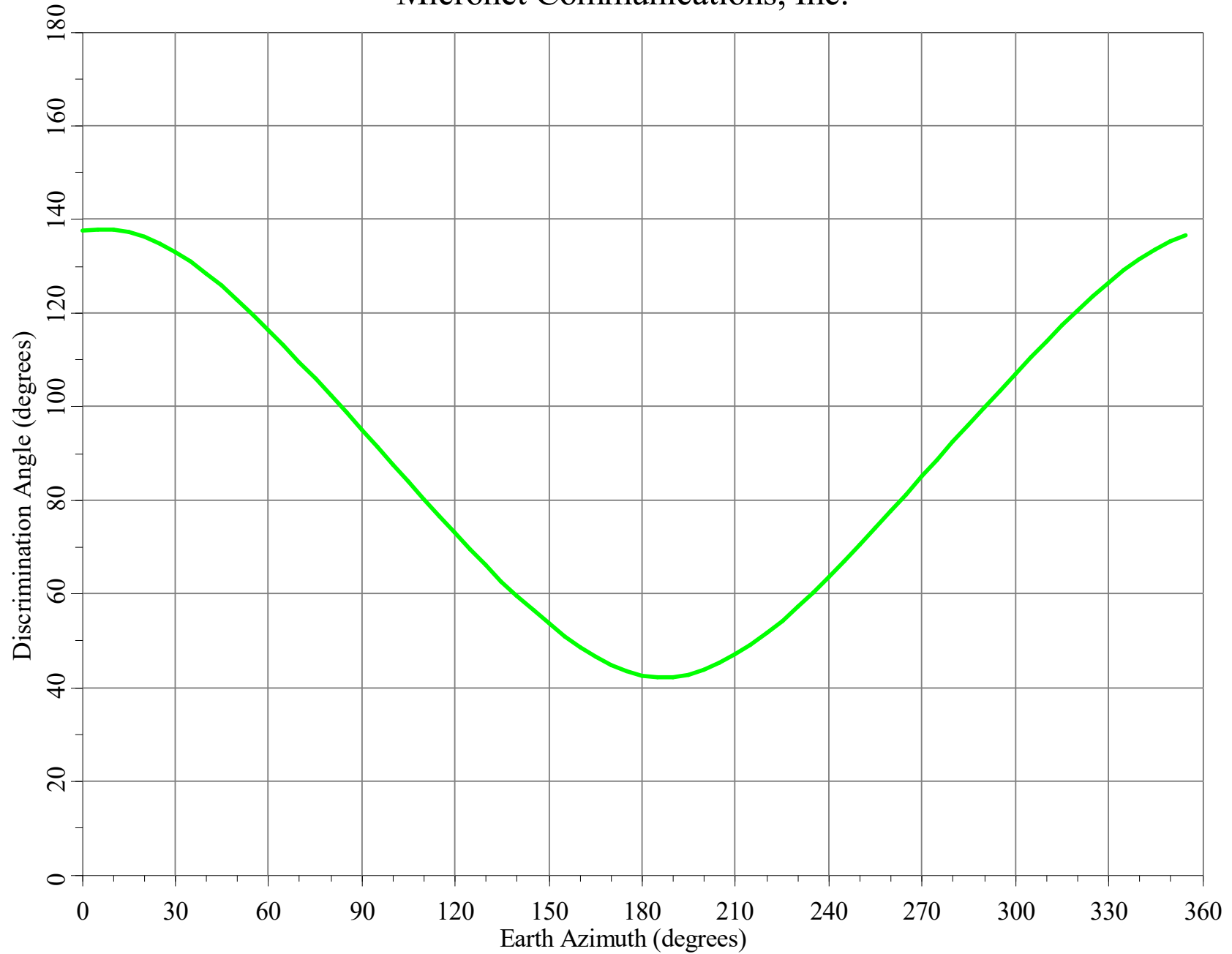
Micronet Communications, Inc.



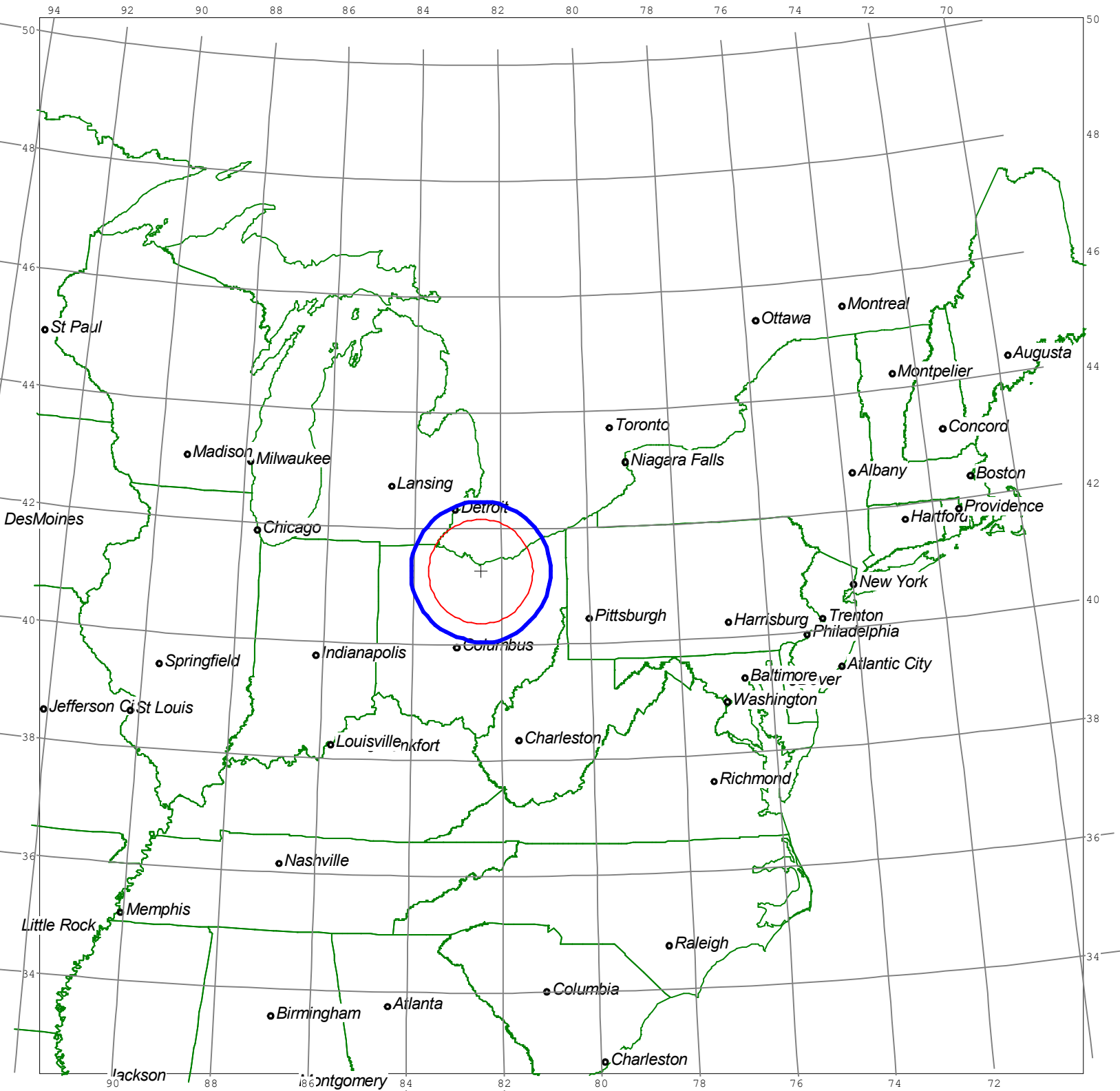
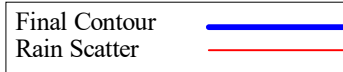
Horizon Gain for I64 BUEC, OH
Micronet Communications, Inc.



Minimum Discrimination Angles for I64 BUEC, OH
Micronet Communications, Inc.



Final Contour & Rain Scatter for I64 BUEC, OH - Transmit

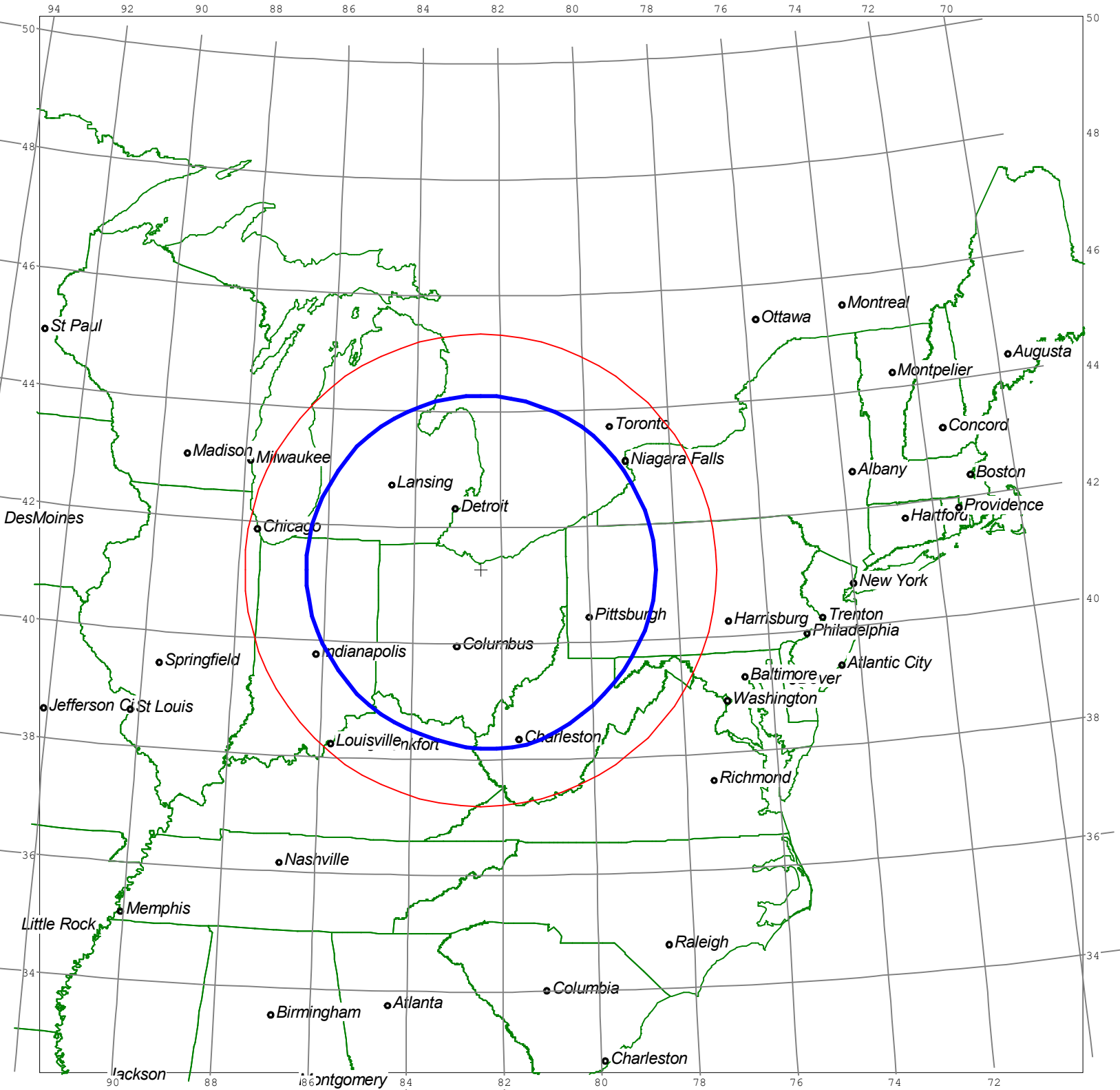


SCALE - 1:10000000 1 inch = 157.8 miles

Final Contour & Rain Scatter for I64 BUEC, OH - Receive

SCALE - 1:10000000 1 inch = 157.8 miles

Final Contour
Rain Scatter



ANALYSIS OF NON-IONIZING RADIATION
for L3HARRIS TECHNOLOGIES INC.
Site: I64 BUEC State: OH
Latitude: 41 16 5.1 Longitude: 82 28 4.6 (NAD83)
08-29-2022

The Office of Science and Technology Bulletin, No. 65, October 1985 and revised August 1997, specifies that the maximum level of non-ionizing radiation that a person may be exposed to over a six minute period is an average power density equal to 5 mW/cm**2 (five milliwatts per centimeter squared) for a controlled environment. For an uncontrolled environment, the maximum level of non-ionizing radiation that a person may be exposed to over a thirty minute period is an average power density equal to 1 mW/cm**2 (one milliwatt per centimeter squared). It is the purpose of this report to determine the maximum power flux densities of the earth station in the far zone, near zone, transition zone, at the main reflector surface, and between the antenna edge and the ground.

Parameters which were used in the calculations:
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Antenna Diameter, (D) = 2.4000 m
Antenna Surface Area (Sa) = $\pi(D^2)/4$ = 4.5239 m**2
Wavelength at 6.1750 GHz (λ) = 0.0485 m
Transmit Power at Flange (P) = 1.7500 Watts
Antenna Gain at Earth Site (GES) = 38.0000 dBi = 6309.5734
Power Ratio:
AntiLog(GES/10)
pi = 3.1415927
Antenna Aperture Efficiency (n) = 0.6000

1. FAR ZONE CALCULATIONS

=====

$$\text{Distance to the Far Zone} \quad (D_f) = \frac{(n) (D^{**2})}{\text{lambda}} = 71.2577 \text{ m}$$

$$\text{Far Zone Power Density} \quad (R_f) = \frac{(G E S) (P)}{4 * \pi * (D_f^{**2})} = 0.1730 \text{ W/m}^{**2}$$
$$= 0.0173 \text{ mW/cm}^{**2}$$

2. NEAR ZONE CALCULATIONS

=====

Power Flux Density is considered to be at a maximum value throughout the entire length of this Zone. The Zone is contained within a cylindrical volume which has the same diameter as the antenna. Beyond the Near Zone, the Power Flux Density will decrease with distance from the Antenna.

$$\text{Distance to the Near Zone} \quad (D_n) = \frac{D^{*2}}{4 * \text{lambda}} = 29.6907 \text{ m}$$

$$\text{Near Zone Power Density} \quad (R_n) = \frac{16.0 (n) P}{\pi (D^{**2})} = 0.9284 \text{ W/m}^{**2}$$
$$= 0.0928 \text{ mW/cm}^{**2}$$

3. TRANSITION ZONE CALCULATIONS

=====

The Power Density begins to decrease with distance in the Transition Zone. While the Power Density decreases inversely with distance in the Transition Zone, the Power Density decreases inversely with the square of the distance in the Far Zone. Since the maximum Power Density in the Transition Zone will not exceed the Near Zone values, it is not calculated.

4. MAIN REFLECTOR ZONE

=====

$$\begin{aligned} \text{Main Reflector Power Density} &= \frac{2(P)}{S_a} = 0.7737 \text{ W/m}^2 \\ &= 0.0774 \text{ mW/cm}^2 \end{aligned}$$

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

=====

Applying uniform illumination of the Main Reflector Surface:

$$\begin{aligned} \text{Main to Ground Power Density} &= \frac{P}{S_a} = 0.3868 \text{ W/m}^2 \\ &= 0.0387 \text{ mW/cm}^2 \end{aligned}$$

CALCULATED SAFETY MARGINS SUMMARY
AND EVALUATION

Controlled Safety Margin = 5.0 - Calculated Zone Value (mW/cm**2)

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	4.9827	Complies with ANSI
2. Near Zone	4.9072	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.9226	Complies with ANSI
5. Main Reflector to Ground	4.9613	Complies with ANSI

Uncontrolled Safety Margin = 1.0 - Calculated Zone Value (mW/cm**2)

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.9827	Complies with ANSI
2. Near Zone	0.9072	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.9226	Complies with ANSI
5. Main Reflector to Ground	0.9613	Complies with ANSI

6. EVALUATION

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- A. Controlled Environment
- B. Uncontrolled Environment
 - All Zones comply with ANSI Standards.