Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Gogo LLC	)	File No. SES-MOD-_____
	)	Call Sign E120106
Modification to Blanket License for Operation of	)	
1000 Technically Identical Ku-Band	)	
Transmit/Receive Earth Stations Aboard Aircraft	)	

MODIFICATION

Gogo LLC ("Gogo") hereby requests a modification of its blanket license to operate 1000 Ku-band transmit/receive earth stations aboard aircraft ("ESAAs") on domestic and international flights.[1] Specifically, Gogo requests that the Commission modify the Gogo ESAA License to: (1) update the satellites authorized as points of communication for the Gogo ESAA network by adding the Telstar 11N and Telstar 18 satellites and deleting NSS-703; and (2) authorize a second type of ESAA antenna (the "ThinKom terminal") for communications with certain of the satellites in the Gogo ESAA network.

A narrative description of the relevant changes is provided here, and Gogo is attaching an FCC Form 312 and Schedule B that identify the new points of communication and describe the operational characteristics of the ThinKom terminal. Supplemental technical information and copies of relevant coordination letters are attached as well. Pursuant to Section 25.117(c) of the Commission's rules, Gogo is providing herein information that is

[1] *Gogo LLC*, Call Sign E120106, File No. SES-MFS-20131114-01015, granted May 13, 2014 (the "Gogo ESAA License").

changing as a result of the modification. Gogo certifies that the remaining information provided in support of the Gogo ESAA License has not changed.[2]

I. CHANGES TO SATELLITES

Gogo requests modification of its license to add the Telstar 11N and Telstar 18 satellites as points of communication for the Gogo ESAA network pursuant to the provisions of Section 25.227(a)(2) and (b)(2). Telstar 11N is U.S.-licensed, and Telstar 18 has already been authorized to serve specific U.S. earth stations. Furthermore, Gogo hereby advises the Commission that it is no longer using the NSS-703 spacecraft for its ESAA operations, as that traffic has now been shifted to SES-6. Updated tables listing the satellites to be used and the associated ground stations are provided in Annex 2 hereto.

Telstar 11N: Telstar 11N is a U.S.-licensed satellite positioned at the 37.55° W.L. orbital location.[3] Gogo seeks authority to use Telstar 11N capacity for ESAA operations on a primary basis in the 14-14.5 GHz uplink spectrum and on an unprotected basis in the 10.95-11.2 GHz and 11.45-11.7 GHz downlink spectrum, consistent with the Commission's orders in the ESAA proceeding[4] and the terms of the satellite license. Gogo also seeks authority to use Telstar 11N capacity for ESAA operations on a nonconforming basis in the 12.5-12.75 GHz

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[2] For the Commission's convenience, Gogo has attached as Annex 1 hereto a table listing the information required pursuant to Section 25.227 of the Commission's rules and providing a cross-reference to the necessary information.

[3] *See Skynet Satellite Corp.*, Call Sign S2357, File No. SAT-MOD-20060821-00091, grant-stamped Sept. 28, 2007.

[4] *Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14-14.5 GHz Frequency Bands*, Notice of Proposed Rulemaking and Report and Order, IB Docket Nos. 12-376 & 05-20, 27 FCC Rcd 16510 (2012) ("*ESAA Order*"); Second Report and Order and Order on Reconsideration, IB Docket No. 12-376 (rel. Apr. 18, 2014) ("*ESAA Second Order*").

downlink spectrum, consistent with the terms of the satellite license. Telstar 11N will provide coverage of Africa.

Telstar 18: Telstar 18 is a foreign-licensed satellite positioned at the 138° E.L. orbital location. Telstar 18 is not on the Commission's Permitted Space Station List, but in a 2005 order, the Commission granted authority for earth station E980250 to add Telstar 18 as a point of communications in the C-band[5] based on a showing under the requirements adopted in the *DISCO II* decision[6] and codified in Section 25.137.[7] The Commission subsequently authorized at least two other U.S. earth stations to communicate with Telstar 18 in the C-band.[8] Because the technical information previously filed at the Commission regarding Telstar 18 has been limited to the C-band (the satellite does not have coverage of any U.S. territory in the Ku-band), Gogo is including as Annex 5 to this application a Ku-band coverage map for the satellite and Ku-band link budgets. In addition, Gogo is providing in Annex 5 an updated orbital debris mitigation statement for Telstar 18 to supplement the information currently on file with respect to the satellite.

Gogo seeks authority to use Telstar 18 capacity for ESAA operations on a primary basis in the 14-14.5 GHz uplink spectrum, consistent with the Commission's orders in the ESAA proceeding. Gogo also seeks authority to use Telstar 18 capacity for ESAA

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[5] *See Loral Skynet Network Services, Inc.*, File No. SES-MOD-20040825-01242, DA 05-1910, 20 FCC Rcd 11856 (Sat. Div. 2005).

[6] *Amendment of the Commission's Policies to Allow Non-U.S. Licensed Space Stations providing Domestic and International Service in the United States*, Report and Order, 12 FCC Rcd 24094 (1997).

[7] 47 C.F.R. § 25.137.

[8] *See Allen Holdings*, File No. SES-MOD-20120105-00016, Call Sign E100091; *Hawaii Pacific Teleport, L.P.*, File No. SES-MFS-20100510-00571, Call Sign E010016.

operations on a nonconforming basis in the 12.2-12.75 GHz downlink spectrum. Telstar 18 will provide coverage of Asia.

Waiver Request: Gogo requests waiver of the Table of Allocations in Section 2.106 of the Commission's rules to permit use of downlink spectrum in the 12.2-12.75 GHz band for ESAA operations. Grant of the requested waiver is consistent with Commission precedent and will serve the public interest.

Prior to adoption of the ESAA decisions, the Commission granted waivers for downlink operations in the 11.7-12.2 GHz conventional Ku-band downlink spectrum "based upon either a showing that the proposed AMSS downlink transmissions will not exceed the 10 dBW/4 kHz limit for routine processing in Section 25.134(g)(2) of the Commission's rules or proof that adjacent satellite operators have consented to the operations."[9] ESAA operators were also permitted to use extended Ku-band frequencies for ESAA downlinks pursuant to the same rationale.[10] The Commission has recognized that "AES terminals on U.S.-registered aircraft may need to access foreign satellites while traveling outside of the United States (*e.g.*, over international waters), and therefore may need to downlink in the extended Ku-band in certain circumstances."[11]

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[9] *See, e.g., Panasonic Avionics Corporation, Application for Authority to Operate Up to 50 Technically Identical Aeronautical Mobile-Satellite Service Aircraft Earth Stations in the 14.0-14.4 GHz and 11.7-12.2 GHz Frequency Bands,* Order and Authorization, 26 FCC Rcd 12557 (Int'l Bur. and OET 2011) at ¶ 11.

[10] *See* Row 44 Inc., File No. SES-MFS-20100715-00903, Call Sign E080100, Attachment at 3 (requesting extension of the waiver of Section 2.106 that Row 44 was granted for conventional Ku-band downlinks to cover the proposed use of the 11.45-11.7 GHz band), granted Dec. 23, 2010.

[11] *Service Rules and Procedures to Govern the Use of Aeronautical Mobile Satellite Service Earth Stations in Frequency Bands Allocated to the Fixed Satellite Service,* IB Docket No. 05-20, Notice of Proposed Rulemaking, 20 FCC Rcd 2906 (2005) at ¶ 18 (footnote omitted).

The Commission's orders in the ESAA proceeding modified the Table of Allocations to permit ESAA operations in the conventional Ku-band, as well as in the 10.95-11.2 GHz and 11.45-11.7 GHz segments of the extended Ku-band. The Commission acknowledged that ESAA operators may also wish to use other downlink spectrum, particularly for reception of transmissions from space stations with little or no U.S. coverage.[12] Although the Commission had not requested comment on changing the allocation status of this downlink spectrum, it specifically contemplated that access to such spectrum could be granted "on a case-by-case basis under Part 25 licensing rules."[13] For example, ESAA operators including Gogo have been authorized to receive downlinks in all or parts of the 12.2-12.75 GHz band.[14]

Consistent with these past rulings, Gogo requests a waiver of the Table of Allocations to permit its terminals to receive transmissions from the Telstar 11N in the 12.5-12.75 GHz band and from the Telstar 18 spacecraft in the 12.2-12.75 GHz band. Neither spacecraft is proposed to be used in U.S. airspace. As noted above, the satellite operators that will provide capacity to Gogo have coordinated the ESAA operations with satellites within six degrees. Authorizing Gogo to receive signals from these satellites will not alter the technical characteristics of the satellites' operations in any way, and therefore will not create harmful interference to other authorized users of the spectrum. Furthermore, Gogo will not claim interference protection from such authorized users. Under these circumstances, grant of a Section 2.106 waiver is justified to permit use of the 12.2-12.75 GHz band band for downlinks as part of the Gogo ESAA network.

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12 *See ESAA Order* at n.43.

13 *Id.*

14 *See, e.g.*, Gogo Blanket License, Section B (authorizing use of the 12.2-12.75 GHz band); *Panasonic Avionics Corporation*, File No. SES-MFS-20120913-00818, Call Sign E100089, granted July 24, 2013, Section B (authorizing use of the 12.2-12.75 GHz band).

II. THINKOM TERMINALS

Gogo also proposes to add a second ESAA antenna type to its authorization. Information regarding the technical characteristics of the ThinKom terminal is being provided with this authorization. The ESAA antenna designed by ThinKom has significant similarities to that company's vehicle-mounted earth station ("VMES") antenna, which was approved last year.[15] Gogo proposes to use the ThinKom terminal with the Telstar 11N and Telstar 18 satellites discussed above as well as with the satellites currently authorized under the Gogo ESAA License with the exception of Eutelsat 172A.

III. COORDINATION AND SPECTRUM SHARING MATTERS

Attached as Annex 3 pursuant to Section 25.227(b)(2) of the Commission's rules are copies of letters confirming that: (1) Gogo's proposed ESAA operations (including both its current and proposed new ESAA terminal) are consistent with the coordination agreements between the Telstar 11N and Telstar 18 satellites and operators of adjacent satellites; and (2) Gogo's proposed operations of the ThinKom terminal have been coordinated with the operators of the satellites on the existing Gogo ESAA License, with the exception of Eutelsat E172A.

Furthermore, Gogo's operations with the additional satellites and the ThinKom terminal will conform to the terms of Gogo's agreements with the National Aeronautics and Space Administration ("NASA") and the National Science Foundation ("NSF"), as required by the Gogo ESAA License.[16]

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[15] *ThinKom Solutions Inc.*, Call Sign E120174, File No. SES-LIC-20120822-00768, granted March 8, 2013.

[16] Gogo ESAA License, Special and General Provisions, Condition 90057. These coordination agreements were submitted prior to adoption of the ESAA rules. Gogo notes that

Finally, Gogo requests a change in the terms and conditions of its ESAA authorization based on the elevation of ESAA networks to primary status in the 14.0-14.5 GHz band. Specifically, Gogo requests removal of condition 90078, which specifies that if a future nongeostationary fixed-satellite service ("NGSO FSS") network commences operations, Gogo will be required to cease operations unless it has successfully coordinated with the NGSO FSS operator or demonstrated that Gogo's operations will not cause harmful interference to the NGSO FSS network.[17] That requirement reflected the unequal priority of ESAA and NGSO FSS networks: there is a primary allocation for NGSO FSS in the 14.0-14.5 GHz band, but prior to effectiveness of the *ESAA Second Order*, aeronautical services were accorded only secondary status in those frequencies.[18] Now that ESAA operations are co-primary with NGSO FSS in the 14.0-14.5 GHz band, Gogo submits that it is no longer necessary or appropriate to require Gogo to operate on a non-harmful interference basis with respect to future NGSO FSS networks in the 14.0-14.5 GHz band and accordingly requests removal of condition 90078.

Section 25.227(c)(1) now prescribes a public notice period for coordination agreements between ESAA network operators and NASA, and Section 25.227(d)(1) prescribes a similar process for coordination agreements between ESAA network operators and NSF. To the extent necessary, Gogo requests that the public notice for this modification application include the notifications relating to Gogo's coordination agreements with NASA and NSF.

[17] Gogo ESAA License, Special and General Provisions, Condition 90078.

[18] *ESAA Second Order*, ¶¶ 7-10.

IV. CONCLUSION

Gogo requests that the Commission modify the Gogo ESAA License to reflect the changes described herein.

Respectfully submitted,

GOGO LLC

By: */s/ William J. Gordon*

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Dated: August 1, 2014

ANNEX 1:

Table of Information Required by Section 25.227

Section 25.227 Requirement	Citation to Information Provided
25.227(a)(4) & 25.227(b)(5)	N/A: Gogo does not propose to use a contention protocol.
25.227(a)(5) & 25.227(b)(6)	No change to 24/7 point of contact: Gogo Network Operations Center, 1250 North Arlington Heights Road, Itasca, IL, +1 866-943-4662, as specified in Form 312 Schedule B, Items E2-E9.
25.227(a)(15)	Gogo certifications are in Annex 6 attached.
25.227(b)(2)(i), (ii) & (iii)	Target satellite operator certifications are in Annex 3 attached.
25.227(b)(2)(iv)	Demonstration regarding compliance with coordination agreements and ceasing emissions is in Annex 4 attached.
25.227(b)(4)	Gogo's ESAA network will operate in U.S. airspace, foreign airspace, and in the airspace over international waters. Coverage areas for the specific satellites to be used in the Gogo network are described in the table found in Annex 2 attached. With the exception of Telstar 18, contours are already on file with the Commission for all the satellites. A coverage map for Telstar 18 is included in Annex 5.
25.227(b)(7)	Gogo certifications are in Annex 6 attached.
25.227(b)(8)	A Radiation Hazard Analysis for the ThinKom antenna is in Annex 7 attached.
25.227(c)	Gogo's coordination agreement with NASA was filed February 1, 2013 in File Nos. SES-LIC-20120619-00574 *et al*.
25.227(d)	Gogo's coordination agreement with NSF was included as Amendment Exhibit B in File No. SES-AMD-20120731-00709.

ANNEX 2:

Updated Spacecraft and Teleport Tables

Satellite	Location	Beam Coverage Area	Tx (GHz)	Rx (GHz)	Use in US airspace?	Satellite Operator
SES-1	101W	North America	14-14.5	11.7–12.2	Yes	SES
SES-4	22W	Europe	14-14.5	12.5-12.75	No	
SES-6	40.5W	East Atlantic Ocean	14-14.5	10.95-11.2; 11.45-11.7	No	
		West Atlantic Ocean	14-14.5	10.95-11.2; 11.45-11.7	Yes	
IS-14	45W	North and South America excludes Brazil	14-14.5	11.7–12.2	Yes	Intelsat
IS-21	58W	Brazil	14-14.5	11.7–12.2	No	
		South Atlantic Ocean	14-14.5	11.45–11.7	No	
IS-22	72.1E	Mobility from Mideast to Japan and to Australia	14-14.5	12.25–12.5	No	
IS-19	166E	Northeast Pacific	14-14.5	12.25-12.75	Yes	
		Northwest Pacific	14-14.5	12.25-12.75	No	
		Australia	14-14.5	12.25-12.75	No	
		Southwest Pacific	14-14.5	12.25-12.75	No	
IS-904	60E	Spot 1 - Western Russia	14-14.5	10.95–11.2; 11.45-11.7	No	
Eutelsat 115WA (Satmex 5)	114.9W	North America	14-14.5	11.7-12.2	Yes	Eutelsat
		Central and South America	14-14.5	11.7-12.2	Yes	
E172A[1]	172E	North Pacific and Northeastern Russia	14-14.5	10.95-11.2; 11.45-11.7; 12.2-12.75	No	
T-11N	37.5W	Africa	14-14.5	10.95-11.2; 11.45-11.7; 12.5-12.75	No	Telesat
		Atlantic	14-14.5	11.45-11.7	No	
T-18	138E	Asia	14-14.5	12.2–12.75	No	

[1] This satellite will only be used for communications with the Aerosat antenna system.

Satellite	Teleport Location	FCC Call Sign
SES-1	Woodbine, MD	E920698
SES-4	Bristow, VA	E020071
	Bristow, VA	E000696
SES-6	Betzdorf, Luxembourg	N/A
IS-14	ATL teleport ATL-C06	E940333
	ATL teleport ATL-K15	E090093
IS-21	Rio de Janeiro, Brazil	N/A
	Mobility: MTN teleport MTN-K02	E030051
IS-22	Kumsan, Korea	N/A
IS-19	Perth, Australia	N/A
	Napa teleport NAP-K31	E980460
	Napa teleport NAP-C30	E980467
IS-904	Moscow, Russia	N/A
Eutelsat 115WA (Satmex 5)	Napa teleport NAP-K31	KA450
E172a	Khabarovsk, Russia	N/A
T-11N	Europe (City TBD)	N/A
	U.S. (City TBD)	TBD
T-18	China (City TBD)	N/A

ANNEX 3:

Satellite Company Letters

INTELSAT.
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11 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-22 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-22 satellite at 72° E.L. under the current ESAA rules including Section 25.227.

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- Intelsat acknowledges that the proposed operation of the Gogo ESAA terminal has the potential to create harmful interference to satellite networks adjacent to IS-22 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels that Gogo provided to Intelsat is consistent with existing coordination agreements to which Intelsat is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-22.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to IS-22.

Sincerely,

Adam P. Ours

Intelsat Corporation
7900 Tysons One Place, McLean, VA 22102-5972 USA **www.intelsat.com** T +1 703-559-6800

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11 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-21 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-21 satellite at 302° E.L. under the current ESAA rules including Section 25.227.

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- Intelsat acknowledges that the proposed operation of the Gogo ESAA terminal has the potential to create harmful interference to satellite networks adjacent to IS-21 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels that Gogo provided to Intelsat is consistent with existing coordination agreements to which Intelsat is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-21.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to IS-21.

Sincerely,

Adam P. Ours

Intelsat Corporation
7900 Tysons One Place, McLean, VA 22102-5972 USA **www.intelsat.com** T +1 703-559-6800

INTELSAT.
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11 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-19 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-19 satellite at 166° E.L. under the current ESAA rules including Section 25.227.

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- Intelsat acknowledges that the proposed operation of the Gogo ESAA terminal has the potential to create harmful interference to satellite networks adjacent to IS-19 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels that Gogo provided to Intelsat is consistent with existing coordination agreements to which Intelsat is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-19.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to IS-19.

Sincerely,

Adam P. Ours

Intelsat Corporation
7900 Tysons One Place, McLean, VA 22102-5972 USA **www.intelsat.com** T +1 703-559-6800

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11 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-14 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-14 satellite at 315° E.L. under the current ESAA rules including Section 25.227.

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- Intelsat acknowledges that the proposed operation of the Gogo ESAA terminal has the potential to create harmful interference to satellite networks adjacent to IS-14 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels that Gogo provided to Intelsat is consistent with existing coordination agreements to which Intelsat is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-14.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to IS-14.

Sincerely,

Adam P. Ours

Intelsat Corporation
7900 Tysons One Place, McLean, VA 22102-5972 USA **www.intelsat.com** T +1 703-559-6800

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11 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W
Washington, D.C. 20554

Re: Engineering Certification of Intelsat for IS-904 Satellite

To Whom It May Concern:

This letter confirms that Intelsat is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the IS-904 satellite at 60° E.L. under the current ESAA rules including Section 25.227

Based upon the representations made to Intelsat by Gogo concerning the contents of its Modification Application:

- Intelsat acknowledges that the proposed operation of the Gogo ESAA terminal has the potential to create harmful interference to satellite networks adjacent to IS-904 that may be unacceptable.
- Intelsat certifies that the proposed use of the ESAA transmit/receive terminals at the power density levels that Gogo provided to Intelsat is consistent with existing coordination agreements to which Intelsat is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from IS-904.
- If the FCC authorizes the operations proposed by Gogo, Intelsat will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to IS-904.

Sincerely

Adam P Ours

Intelsat Corporation
7900 Tysons One Place, McLean, VA 22102-5972 USA **www.intelsat.com** T +1 703-559-6800

TELESAT
1601 Telesat Court
Ottawa, ON, Canada K1B 5P4

EN2014-011
28 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Gogo LLC Application for earth stations aboard aircraft ("ESAA") terminals

To Whom It May Concern:

This letter certifies Telesat is aware that Gogo LLC ("Gogo") is planning to seek authorization from the Federal Communications Commission ("FCC") to operate Ku-band transmit/receive earth stations aboard aircraft ("ESAA") terminals with the T18 and T11N satellites at orbital positions 138E and 37.5W, respectively. Specifically, Telesat understands that Gogo seeks to operate two types of Ku-band ESAA terminals consistent with the FCC's Part 25 rules, including Section 25.227.

Based on the information provided by Gogo, Telesat (i) acknowledges that the proposed operation of the Gogo ESAA terminals has the potential to create harmful interference to satellite networks adjacent to the T18 and T11N satellites that may be unacceptable; (ii) certifies that the power density levels that Gogo provided to Telesat are consistent with the existing coordination agreements between the T18 and T11N satellites and the adjacent satellite systems within 6° of orbital separation from T18 and T11N, and (iii) confirms that if the FCC authorizes the operations proposed by Gogo, Telesat will take into consideration the power density levels associated with such operations in future satellite network coordination with adjacent satellite operators.

Sincerely,

On behalf of Mrs. Elisabeth Neasmith, P. Eng
Manager, International Coordination
Department of CTO
TELESAT

eutelsat

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

July 30, 2014

Re: Engineering Certification of Eutelsat Americas

To Whom It May Concern:

This letter confirms that Eutelsat Americas ("EAS") is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), with the "Gogo 2Ku antenna system". Among other changes, the Modification Application will seek authority for Gogo's ESAA terminals to communicate with the Eutelsat 115WA satellite at 114.9° W.L. under the current ESAA rules including Section 25.227.

Based upon the representations made to EAS by Gogo concerning the contents of its Modification Application:

- EAS and GoGo acknowledge that the proposed operation of the Gogo 2Ku ESAA terminal has the potential to create harmful interference to satellite networks adjacent to Eutelsat 115WA that may be unacceptable.

- Subject to FCC approval, EAS certifies that the proposed use of the GoGo 2Ku ESAA transmit/receive terminals at the agreed power density levels with GoGo, will be consistent with existing coordination agreements to which EAS is a party with all adjacent satellite operators within +/- 6 degrees of orbital separation from Eutelsat 115WA.

- If the FCC authorizes the operations proposed by Gogo, EAS, upon approval, will take into consideration the power density levels associated with the operation of Gogo 2Ku antenna system in all future satellite network coordinations with other operators of satellites adjacent to Eutelsat 115WA, in accordance with the established international regulations.

Sincerely,

Hector Fortis
Eutelsat Americas
International and Regulatory Affairs

07/30/2014
Date

SES

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

July 31, 2014

Re: Engineering Certification of SES

To Whom It May Concern:

This letter certifies that SES is aware that Gogo LLC ("Gogo") is planning to seek a modification to its blanket authorization (the "Modification Application") from the Federal Communications Commission ("FCC") to operate technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAAs"), Call Sign E120106. SES understands that Gogo will be filing the Modification Application pursuant to the current ESAA rules including Section 25.227 and that among other changes, the Modification Application will seek authority for a second type of Gogo ESAA terminals to communicate with the SES-1, SES-4, and SES-6 satellites located at 101° W.L., 22° W.L., and 40.5° W.L., respectively.

SES certifies that the proposed operations of the Gogo ESAA transmit/receive terminals at the power density levels that Gogo provided to SES (and captured in letters executed by Tim Joyce of Gogo on July 30, 2014) are consistent with existing operator-to-operator coordination agreements with all adjacent satellite operators within +/- 6 degrees of orbital separation from SES-1, SES-4 or SES-6. SES also acknowledges that the proposed operations of the Gogo ESAA terminals have the potential to create harmful interference to satellite networks adjacent to SES-1, SES-4 or SES-6 that may be unacceptable. If the FCC authorizes the operations proposed by Gogo, SES will include the power density levels specified by Gogo in all future satellite network coordinations with other operators of satellites adjacent to SES-1, SES-4 or SES-6.

Sincerely,

Daniel C.H. Mah
Regulatory Counsel
SES

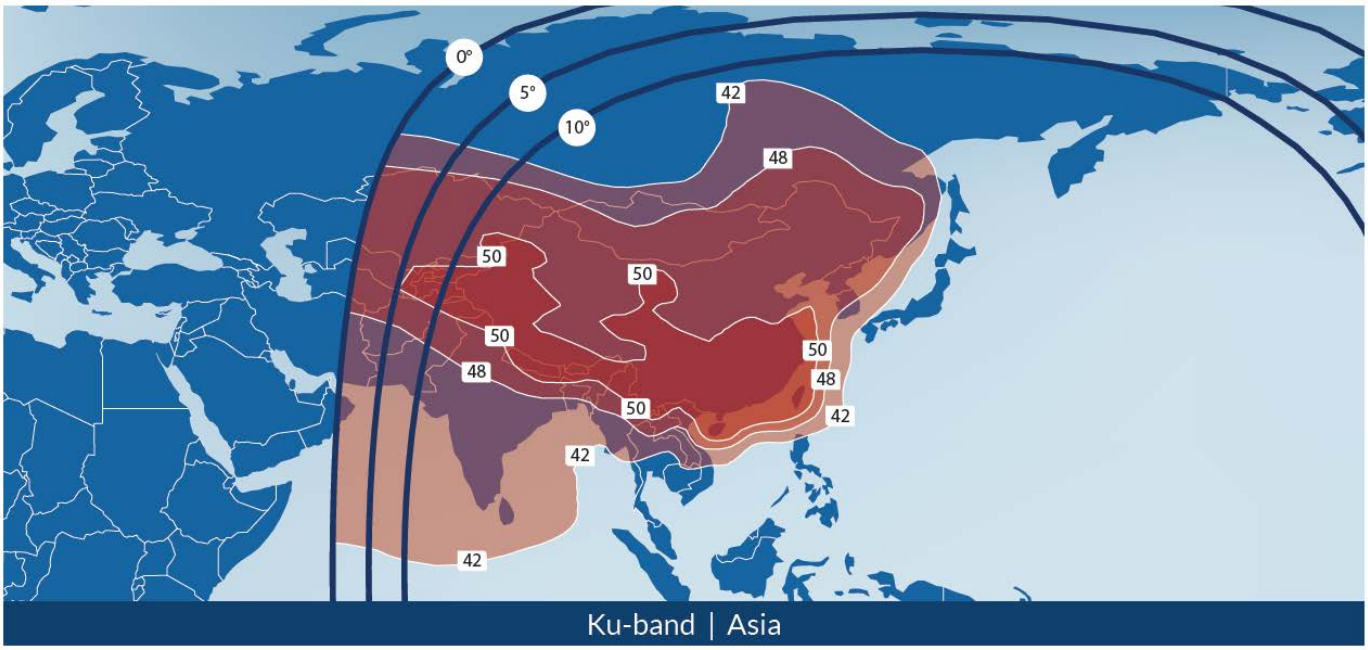
ANNEX 4:

Section 25.227(b)(2)(iv) Compliance Showing

Gogo hereby incorporates by reference Annex 4 of its previous modification application, File No. SES-MFS-20131114-01015 (the "2013 Annex 4"). That document demonstrated that the Gogo ESAA system will comply with all coordination agreements with satellite operators and is capable of detecting and automatically ceasing emissions within 100 milliseconds if the off-axis EIRP spectral density levels are not confirmed to be within the limits supplied to satellite operators. The compliance process for the ThinKom antenna proposed herein is the same as the process for the AeroSat antenna that is described in the 2013 Annex 4.

ANNEX 5:

Telstar 18 Ku-Band Coverage Map, Link Budgets, and Updated Orbital Debris Mitigation Plan



THINKOM 2KU ANTENNA

Forward Link Budget

Hub	Hong Kong, ROC	
Required Eb/No	1.5	dB
Modulation	QPSK	
Info Rate	8706	Kbps
FEC Rate	2/5	
Carrier Rolloff	1.3	
Satellite SFD @ 0 dB/K	-84.2	dBW/m^2
Transponder Atten	0	dB
Transponder ID	KU-2 Beam	

Hub Transmit

Frequency	14.0	GHz
Satellite G/T	6.0	$dB/^oK$
Antenna Diameter	5.6	m
Carrier EIRP	56.6	dBW
Ant. Input PFD	-27.9	dBW/4kHz
Path Loss	206.7	dB
Atm/Point/Pol Loss	0.7	dB

Aircraft Receive Terminal

Frequency	12.2	GHz
Satellite EIRP	45.0	dBW
Downlink PFD@ Beam Center	10.0	dBW/4kHz
Receive Gain	33.0	dB
Terminal G/T	13.0	$dB/^oK$
Path Loss	205.9	dB
Other Losses	0.6	dB

Transponder

Total OPBO	3.0	dB
Carrier OPBO	6.5	dB
C/No Thermal Up	90.6	dB-Hz
C/No Thermal Dn	73.6	dB-Hz
C/Io Total	76.9	dB-Hz
C/No+Io	71.9	dB-Hz
Add'l Link Margin	0.98	dB
% BW per cxr	38.2	%
% Power per cxr	44.7	%
Xpdr BW Alloc	15.3	MHz

Return Link Budget

Terminal	Gogo AES-2	
Required Eb/No	3.5	dB
Modulation	BPSK	
Info Rate	1000	Kbps
FEC Rate	1/2	
Carrier Spacing	1.30	
Carrier Spreading	1.0	
Satellite SFD @ 0 dB/K	-84.2	dBW/m^2
Transponder Atten	0	dB
Transponder ID	KU-2 Beam	

Aircraft Transmit Terminal

Frequency	14.0	GHz
Satellite G/T	3.0	$dB/^oK$
Antenna Diameter	0.3	m
Carrier EIRP	44.7	dBW
Ant Input PFD	-13.6	dBW/4kHz
Path Loss	207.4	dB
Atm/Point/Pol Loss	0.6	dB

Hub Receive

Frequency	12.3	GHz
Satellite EIRP	50.5	dBW
Downlink PFD@ Beam Center	-4.7	dBW/4kHz
Hub G/T	35.0	$dB/^oK$
Path Loss	205.5	dB
Other Losses	0.6	dB

Transponder

Total OPBO	3.0	dB
Carrier OPBO	28.9	dB
C/No Thermal Up	68.2	dB-Hz
C/No Thermal Dn	79.1	dB-Hz
C/Io Total	66.1	dB-Hz
C/No+Io	63.9	dB-Hz
Add"l Link Margin	0.4	dB
% BW per cxr	6.5	%
% Power per cxr	0.26	%
Xpdr BW Alloc	2.6	MHz

AEROSAT H6400 ANTENNA

Forward Link Budget

Hub	Hong Kong, ROC	
Required Eb/No	1.3	dB
Modulation	QPSK	
Info Rate	7200	Kbps
FEC Rate	1/3	
Carrier Rolloff	1.3	
Satellite SFD @ 0 dB/K	-84.2	dBW/m^2
Transponder Atten	0	dB
Transponder ID	KU-2 Beam	

Hub Transmit

Frequency	14.0	GHz
Satellite G/T	6.0	$dB/^oK$
Antenna Diameter	5.6	m
Carrier EIRP	56.6	dBW
Ant. Input PFD	-27.9	dBW/4kHz
Path Loss	206.7	dB
Atm/Point/Pol Loss	0.7	dB

Aircraft Receive Terminal

Frequency	12.2	GHz
Satellite EIRP	45.0	dBW
Downlink PFD@ Beam Center	10.0	dBW/4kHz
Receive Gain	30.8	dB
Terminal G/T	11.0	$dB/^oK$
Path Loss	205.5	dB
Other Losses	0.6	dB

Transponder

Total OPBO	3.0	dB
Carrier OPBO	6.5	dB
C/No Thermal Up	90.6	dB-Hz
C/No Thermal Dn	72.1	dB-Hz
C/Io Total	75.1	dB-Hz
C/No+Io	70.3	dB-Hz
Add'l Link Margin	0.41	dB
% BW per cxr	38.2	%
% Power per cxr	44.7	%
Xpdr BW Alloc	15.3	MHz

Return Link Budget

Terminal	Gogo AES-1	
Required Eb/No	3.5	dB
Modulation	BPSK	
Info Rate	1000	Kbps
FEC Rate	1/2	
Carrier Spacing	1.30	
Carrier Spreading	1.0	
Satellite SFD @ 0 dB/K	-84.2	dBW/m^2
Transponder Atten	0	dB
Transponder ID	KU-2 Beam	

Aircraft Transmit Terminal

Frequency	14.0	GHz
Satellite G/T	3.0	$dB/^oK$
Antenna Diameter	0.3	m
Carrier EIRP	44.7	dBW
Ant Input PFD	-11.3	dBW/4kHz
Path Loss	207.4	dB
Atm/Point/Pol Loss	0.6	dB

Hub Receive

Frequency	12.3	GHz
Satellite EIRP	50.5	dBW
Downlink PFD@ Beam Center	-4.7	dBW/4kHz
Hub G/T	35.0	$dB/^oK$
Path Loss	205.5	dB
Other Losses	0.6	dB

Transponder

Total OPBO	3.0	dB
Carrier OPBO	28.9	dB
C/No Thermal Up	68.2	dB-Hz
C/No Thermal Dn	79.1	dB-Hz
C/Io Total	66.1	dB-Hz
C/No+Io	63.9	dB-Hz
Add"l Link Margin	0.4	dB
% BW per cxr	6.5	%
% Power per cxr	0.26	%
Xpdr BW Alloc	2.6	MHz

TELESAT
1601 Telesat Court
Ottawa, ON, Canada K1B 5P4
Tel: 613-748-0123

EN2014-009
24 July 2014

Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

Re: Orbital debris mitigation plan for Telstar 18 satellite

To Whom It May Concern:

This letter confirms that Telesat is the operator of Telstar 18 ("T18") satellite at the geostationary orbital location 138°E. As requested by Gogo LLC ("Gogo"), the orbital debris mitigation plan for T18 satellite is provided in Annex 1.

Sincerely,

Elisabeth Neasmith, P. Eng
Manager, International Coordination
Department of CTO
TELESAT

Annex 1: Orbital debris mitigation plan for T18 satellite (138°E)

§25.114(d)(14)(i), Debris Release Assessment. The T18 satellite has been designed so that in the normal operation of the satellite no debris will be released by the spacecraft. The spacecraft hardware of T18 has been designed so that individual faults will not cause the loss of the entire spacecraft. All critical components (e.g., computers and control devices) have been built within the structure and shielded from external influences. Items that could not be built within the spacecraft nor shielded (e.g., antennas) are able to withstand impact. The spacecraft can be controlled through both the normal payload antennas and wide angle antennas. The likelihood of both being damaged during a small body collision is minimal. The wide angle antennas on this spacecraft are open waveguides that point towards the earth (there is one set on each side of the spacecraft and either set could be used to successfully de-orbit the spacecraft). These wide angle antennas would continue to operate even if struck and bent.

§25.114(d)(14)(ii), Accidental Explosion Assessment. Telesat has reviewed failure modes for all equipment to assess the possibility of an accidental explosion onboard the spacecraft. In order to ensure that the spacecraft does not explode on orbit, Telesat takes specific precautions. All batteries and fuel tanks are monitored for pressure or temperature variations. Alarms in the Satellite Control Center inform controllers of any variations. Additionally, long-term trending analysis is performed to monitor for any unexpected trends.

The batteries are operated utilizing the manufacturer's automatic recharging scheme. Doing so ensures that charging terminates normally without building up additional heat and pressure. As this process occurs wholly within the spacecraft, it also affords protection from command link failures (on the ground).

In order to ensure that the spacecraft has no explosive risk after it has been successfully de-orbited, all stored energy sources onboard the spacecraft will be removed by venting excess propellant, and all propulsion lines and latch valves will be vented and left open. All battery chargers will be turned off and batteries will be left in a permanent discharge state. These steps will ensure that no buildup of energy can occur resulting in an explosion in the years after the spacecraft is de-orbited.

§25.114(d)(14)(iii), Assessment Regarding Collision with Larger Debris and Other Space Stations. The T18 satellite has been operating at 138°E orbital location since 2004 and Telesat has continuously monitored and minimized the probability of the space station becoming a source of debris by collisions with large debris or other space stations. Telesat will continue use the same approach to minimize the probability of collisions with large debris.

In order to protect against collision with other orbiting objects Telesat has a contract with MIT/Lincoln Labs to provide notification and high-precision orbits for drifter objects when close approaches with our operational satellites are projected. Processing of the notifications is fully automated to ensure efficient response should avoidance maneuver(s) be required to eliminate any threat of collision with the drifter object. For nearby operational satellites Telesat coordinates with operators directly and/or by providing ephemerides to the Space Data Center

and the Joint Space Operations Center (JSpOC). The JSpOC also provides notifications to Telesat for any object they see approaching a Telesat satellite.

To further limit future potential for collision, Telesat will continue to monitor new satellite launches to ensure that future satellites do not present a danger to T18. If a new satellite is located in the vicinity of T18, Telesat will coordinate station keeping activities with the satellite operator to avoid any risk of collision.

§25.114(d)(14)(iv), Post-Mission Disposal Plans. At the end of life, the T18 satellite will be removed from its geostationary orbit at 138°E longitude to an orbit with a perigee altitude no less than 292.6 km above the geostationary orbit of 35786 km. This altitude is determined by using the FCC-recommended equation in section 25.283(a) regarding end-of-life satellite disposal. The corresponding calculations for the T18 satellite are presented below:

Minimum De-orbit Altitude= 36021 km + (1000×CR×A/m)
where
CR = solar pressure radiation coefficient of the spacecraft = 1.6
A/m = area to mass ratio, in square meters per kilogram, of the spacecraft = 0.036

Minimum Deorbit Altitude = 36021 km + (1000×1.6×0.036)
= 36078.6 km
(i.e. 292.6 km above the geostationary orbit of 35786 km0

The propellant needed to achieve the minimum de-orbit altitude is based on the delta-V required. Based on an estimated end-of-life mass of 1853.9 kg, and the delta-V required, approximately 7.8 kg of propellant will be reserved to ensure minimum de-orbit altitude is obtained. Any remaining propellant will be consumed by further raising the orbit until combustion is no longer possible. The remaining species of propellant, either Oxidizer (N204) or Fuel (MMH), will be vented, placing the propulsion system on the spacecraft in "safe" mode.

Propellant tracking is accomplished using a bookkeeping method as per industry standard. Using this method, the ground control station tracks the number of jet seconds utilized for station keeping, momentum control and other attitude control events. The amount of fuel used is determined from the number of jet seconds. This process has been calibrated using data collected from thruster tests conducted on the ground and has been found to be accurate to within a few months of life on the spacecraft.

Propellant Gauging System (PGS) tests can be performed throughout the operational life. This test uses heaters and heat transfer curves to determine the actual fuel still aboard the spacecraft. As the amount of fuel in the tanks decreases, the accuracy of the test results increases. Therefore, operationally, the PGS tests will be performed as the satellite approaches its end of propellant life in order to verify bookkeeping results.

ANNEX 6:

Gogo Certifications

Gogo LLC ("Gogo"), in support of the foregoing application to modify the Gogo ESAA License, hereby certifies as follows:

1. Gogo's target space station operators have confirmed that Gogo's proposed ESAA operations over international waters are within coordinated parameters for adjacent satellites up to 6 degrees away on the geostationary arc.
2. Gogo will comply with the requirements contained in paragraphs (a)(6), (a)(9), (a)(10), and (a)(11) of Section 25.227 of the Commission's rules, 47 C.F.R. § 25.227.

By: */s/ Timothy Joyce*
Timothy Joyce
VP of RF Engineering
Gogo LLC

July 31, 2014

ANNEX 7:

Radiation Hazard Analysis for ThinKom Terminal

This analysis predicts the radiation levels around a proposed earth station terminal, comprised of one array type antenna. This report is developed in accordance with the prediction methods contained in OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, Edition 97-01, pp 26-30. The maximum level of non-ionizing radiation to which personnel may be exposed is limited to a power density level of 5 milliwatts per square centimeter (5 mW/cm^2) averaged over any 6 minute period in a controlled environment and the maximum level of non-ionizing radiation to which the general public is exposed is limited to a power density level of 1 milliwatt per square centimeter (1 mW/cm^2) averaged over any 30 minute period in a uncontrolled environment. Note that the worse-case radiation hazards exist along the beam axis. Under normal circumstances, it is highly unlikely that the antenna axis will be aligned with any occupied area since that would represent a blockage to the desired signals, thus rendering the link unusable and disabling the transmitter.

The Gogo ThinKom AES system will typically operate above 10 degree elevation. The main beam gain of the antenna will vary with elevation as shown in Figure 1 and Table 1 below. The system is equipped with a 50 watt amplifier and has 2.7 db of output circuit losses. The analysis provided considers low elevation and high elevation angle scenarios. The worst case scenario, in terms of worst power density levels, involves the high elevation angle and has been presented here.

TABLE 1 - EARTH STATION TECHNICAL PARAMETER TABLE

Antenna Aperture major axis	0.62 meters
Antenna Aperture minor axis	0.33 meters
Antenna Surface Area	0.2183 sq. meters
Antenna Isotropic Gain	29.54 dBi @10° to 37.6 dBi @70°, see Figure 1
Number of Identical Adj. Antennas	1
Nominal Frequency	14.25 GHz
Nominal Wavelength (λ)	0.0211 meters
Maximum Transmit Power / Carrier	50.00 Watts @70°
Number of Carriers	1
Total Transmit Power	50.00 Watts
W/G Loss from Transmitter to Feed	2.7 dB
Total Feed Input Power	26.8535 Watts
AES Terminal EIRP	43.8 dBW @10° to 51.9 dBW @70° , see Figure 2
Near Field Limit	$R_{nf} = D^2/4\lambda = 5.198$ meters
Far Field Limit	$R_{ff} = 0.6\ D^2/\lambda = 12.5$ meters
Transition Region	R_{nf} to R_{ff}

In the following sections, the power density in the above regions, as well as other critically important areas**,** will be calculated and evaluated. The calculations are done in the order discussed in OET Bulletin 65.

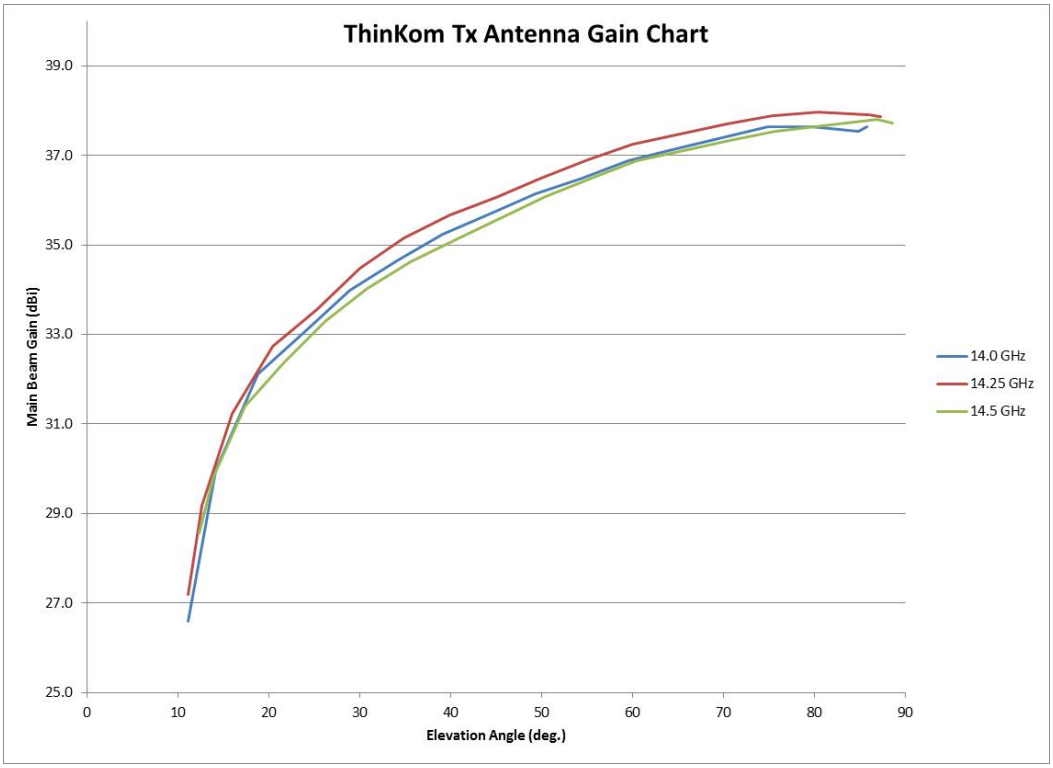


Figure 1 - Gogo ThinKom Antenna Gain versus Elevation Angle

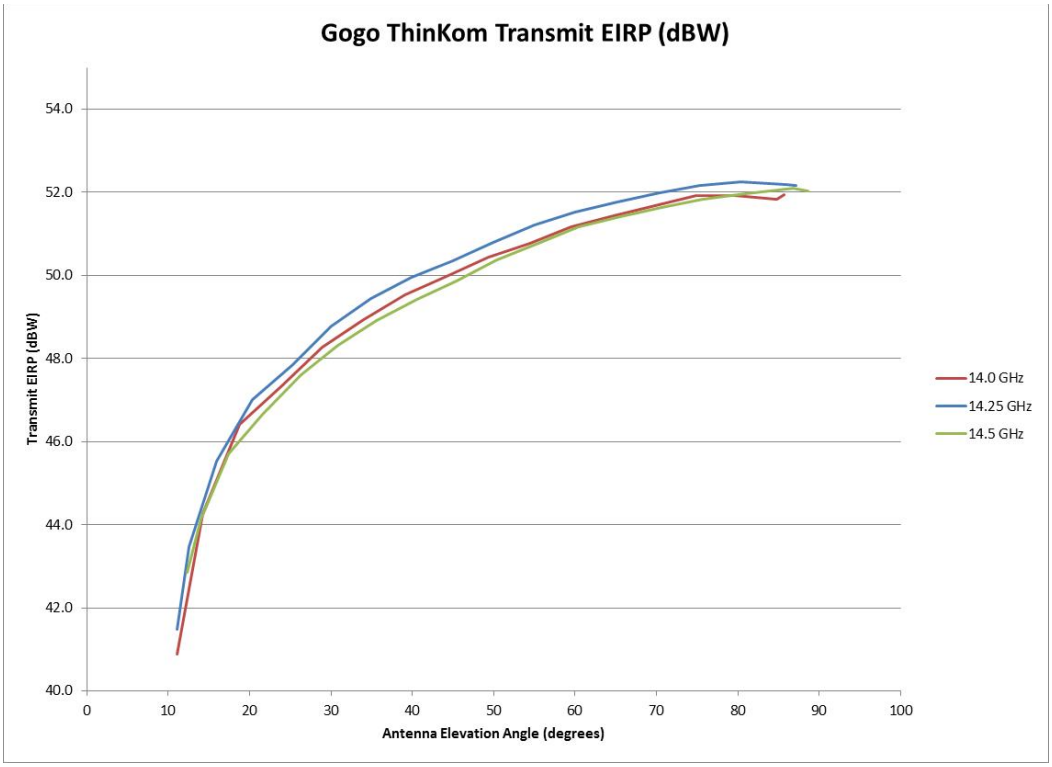


Figure 2 – Gogo ThinKom AES EIRP versus Elevation Angle

1.0 At the Antenna Surface

The power density at the antenna radiating surface can be calculated from the expression:

PD_{refl} = 4P/A = **49.194** mW/cm² (1)

Where: P = total power at feed, milliwatts

A = Total area of reflector, sq. cm

In the normal range of transmit powers for satellite antennas, the power densities at or around the reflector surface are expected to exceed safe levels. This area will not be accessible to the general public. Operators and technicians shall receive training specifying this area as a high exposure area. Procedures have been established that will assure that all transmitters are rerouted or turned off before access by maintenance personnel to this area is possible.

2.0 On-Axis Near Field Region

The geometrical limits of the radiated power in the near field approximate a cylindrical volume with a diameter equal to that of the antenna. In the near field, the power density is neither uniform nor does its value vary uniformly with distance from the antenna. For the purpose of considering radiation hazard it is assumed that the on-axis flux density is at its maximum value throughout the length of this region. The length of this region, i.e., the distance from the antenna to the end of the near field, is computed as Rnf above.

The maximum power density in the near field is given by:

$PD_{nf} = (16\varepsilon P)/(\pi D^2) =$ **7.143** mW/cm² (2) @10° Elevation
45.732 mW/cm² (2) @70° Elevation
from 0 to 5.198 meters

Evaluation

Uncontrolled Environment:	**Does Not Meet Uncontrolled Limits**
Controlled Environment:	**Does not Meet Controlled Limits**

3.0 On-Axis Transition Region

The transition region is located between the near and far field regions. As stated in Bulletin 65, the power density begins to vary inversely with distance in the transition region. The maximum power density in the transition region will not exceed that calculated for the near field region, and the transition region begins at that value. The maximum value for a given distance within the transition region may be computed for the point of interest according to:

PDt = (PDnf)(Rnf)/R = dependent on R (3)
where: PDnf = near field power density
Rnf = near field distance
R = distance to point of interest
For: 5.20 < R < 12.47 meters

We use Eq (3) to determine the safe on-axis distances required for the two occupancy conditions:

Evaluation

Uncontrolled Environment Safe Operating Distance (meters), Rsafeu:	13.9 @10° elevation
	35.1@70° elevation
Controlled Environment Safe Operating Distance (meters), Rsafec:	6.2 @10° elevation
	15.7 @70° elevation

4.0 On-Axis Far-Field Region

The on- axis power density in the far field region (PDff) varies inversely with the square of the distance as follows:

PDff = $PG/(4\pi R^2)$ = dependent on R (4)
where: P = total power at feed
G = Numeric Antenna gain in the direction of interest relative to isotropic radiator
R = distance to the point of interest
For: R > Rff = 12.5 meters
PDff = 1.234 mW/cm² at Rff @10° ,
7.902 mW/cm² at Rff @70°

We use Eq (4) to determine the safe on-axis distances required for the two occupancy conditions:

Evaluation

Uncontrolled Environment Safe Operating Distance (meters), Rsafeu :	See Section 3
Controlled Environment Safe Operating Distance (meters), Rsafec :	See Section 3

5.0 Off-Axis Levels at the Far Field Limit and Beyond

In the far field region, the power is distributed in a pattern of maxima and minima (sidelobes) as a function of the off-axis angle between the antenna center line and the point of interest. Off-axis power density in the far field can be estimated using the antenna radiation patterns prescribed for the antenna in use. This will correspond to the antenna gain pattern for an off-axis angle. For the Gogo AES antenna at 1.5 degrees off axis the antenna gain is:

G_{off} = 29.04 dBi at 1.5 degree @10°
31.60 dBi at 1.5 degree @70° @70°

Considering that satellite antenna beams are aimed skyward, power density in the far field will usually not be a problem except at low look angles. In these cases, the off axis gain reduction may be used to further reduce the power density levels.

For example: At 1.5 degree off axis at the far-field limit, we can calculate the power density as:
G_{off} = 29.04 dBi = 801.01 numeric @10° elevation
31.60 dBi = 1445.44 numeric @70° elevation

$PD_{1.5\ deg\ off\text{-}axis} = PD_{ff} x\ 801.01/G = 1.0999\ mW/cm^2$ (5)
$PD_{ff} x\ 1445.44/G = 1.9848\ mW/cm^2$ (5)

6.0 Off-Axis power density in the Near Field and Transitional Regions

According to Bulletin 65, off-axis calculations in the near field may be performed as follows: assuming that the point of interest is at least one antenna diameter removed from the center of the main beam, the power density at that point is at least a factor of 100 (20 dB) less than the value calculated for the equivalent on-axis power density in the main beam. Therefore, for regions at least Deff meters away from the center line of the antenna, whether behind, below, or in front under of the antenna's main beam, the power density exposure is at least 20 dB below the main beam level as follows:

$PD_{nf(off\text{-}axis)} = PD_{nf}/100$ = **0.07143** mW/cm^2 at D off axis (6) @10°
0.45732 mW/cm^2 at D off axis (6) @70°

See Section 7 for the calculation of the distance vs. elevation angle required to achieve this rule for a given object height.

7.0 Evaluation of Safe Occupancy Area in Front of Antenna

The distance (S) from a vertical axis passing through the antenna center to a safe off axis location in front of the antenna can be determined based on the effective antenna diameter rule (Item 6.0). Assuming a flat area in front of the antenna, the relationship is:

$S = (Deff/ \sin \alpha) + (2(h\text{-}GDeff) - Deff - 2)/(2 \tan \alpha)$ (7)

Where: α = minimum elevation angle of antenna

D = effective antenna diameter in meters

h = maximum height of object to be cleared, meters

For distances equal or greater than determined by equation (7), the radiation hazard will be below safe levels.

For	D =	0.53 meters
	h =	2.0 meters
	GD =	0.0 meters - elevated height of earth station above ground (min)
Then:		
	α	S
	10	7.6 meters
	15	5.1 meters
	20	3.8 meters
	25	3.0 meters

This is a fuselage mounted antenna, and all persons working on or near the antenna will be properly trained regarding radiation hazard. The antenna transmitter will be disabled any time work inside the radome is in progress.

8.0 Summary

The earth station site will be protected from uncontrolled access. The terminal is mounted under a radome on the top of the aircraft fuselage, and it is pointed upward. Access to the terminal will be limited to trained operations personnel. There will also be proper emission warning signs placed and all operating personnel will be aware of the human exposure levels at and around the earth station. The applicant agrees to abide by the conditions specified in Condition 5208 provided below:

> *Condition 5208 - The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled*

exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for worker.

The following table summarizes all of the above calculations:

Table - Summary of All RadHaz Parameters							**ThinKom AES Antenna**
Parameter	Abbr.					Units	Formula
Antenna Elevation Angle Operation Scenario		@10°	@30°	@50°	@70°		
Antenna Dimensions	Dma	0.662	0.662	0.66	0.66	meters	major axis (azimuth)
Effective Aperture Diameter	Deff	0.53	0.53	0.53	0.53	meters	
Antenna Centerline	ACL	10.0	10.0	10.0	10.0	meters	Typically over 10 m
Antenna Surface Area	Sa	0.2183	0.2183	0.2183	0.2183	$meters^2$	$(\pi * Deff^2)/ 4$
Frequency of Operation	f	14.25	14.25	14.25	14.25	GHz	
Wavelength	λ	0.0211	0.0211	0.0211	0.0211	meters	c / f
HPA Output Power	P_{HPA}	50.00	50.00	50.00	50.00	watts	
HPA to Antenna Loss	L_{tx}	2.7	2.7	2.7	2.7	dB	
Transmit Power at Flange	P	14.3	14.3	14.3	14.3	dBW	$10 * Log(P_{HPA}) - L_{tx}$
Antenna Gain	G_{es}	29.54	34.6	36.6	37.6	dBi	Varies with elevation
		898.7	2877.4	4602.6	5754.4	n/a	
PI	π	3.1416	3.1416	3.1416	3.1416	n/a	
Antenna Aperture Efficiency	η	14.52%	46.48%	74.35%	92.96%	n/a	$G_{es} / (PI * Df/\lambda)^2$
Maximum EIRP	EIRP	43.8	48.9	50.9	51.9	dBi	Varies with elevation
1. Reflector Surface Region Calculations		@10°	@30°	@50°	@70°		
Reflector Surface Power Density	PDas	491.94	491.94	491.94	491.94	W/m^2	$(16 * P)/(\pi * Deff^2)$
Reflector Surface Power Density	PDas	**49.194**	**49.194**	**49.194**	**49.194**	mW/cm^2	**Does Not Meet Uncontrolled Limits**
							Does not Meet Controlled Limits
2. On-Axis Near Field Calculations		@10°	@30°	@50°	@70°		
Extent of Near Field	Rnf	5.198	5.198	5.20	5.20	meters	$Dma^2 / (4 *\lambda)$
Extent of Near Field	Rnf	17.05	17.05	17.05	17.05	feet	
Near Field Power Density	PDnf	71.43	228.67	365.78	457.32	W/m^2	$(16 * \eta * P)/ (\pi *Deff^2)$
Near Field Power Density	PDnf	7.143	22.867	36.578	45.732	mW/cm^2	**Does Not Meet Uncontrolled Limits**
							Does not Meet Controlled Limits
3. On-Axis Transition Region Calculations		@10°	@30°	@50°	@70°		
Extent of Transition Region (min)	Rtr	5.20	5.20	5.20	5.20	meters	$Dma^2 / (4 *\lambda)$
Extent of Transition Region (min)		17.05	17.05	17.05	17.05	feet	
Extent of Transition Region (max)	Rtr	12.47	12.47	12.47	12.47	meters	$(0.6 * Dma^2) /\lambda$
Extent of Transition Region (max)		40.91	40.91	40.91	40.91	feet	
Worst Case Transition Region Power Density	PDtr	71.43	228.67	365.78	457.32	W/m^2	$(16 *\eta * P)/ (\pi * Deff^2)$
Worst Case Transition Region Power Density	PDtr	**7.143**	**22.867**	**36.578**	**45.732**	mW/cm^2	**Does Not Meet Uncontrolled Limits**
		@10°	@30°	@50°	@70°		**Does not Meet Controlled Limits**
Uncontrolled Environment Safe Operating Distance	Rsu	13.9	24.8	31.4	35.1	m	=(PDnf)*(Rnf)/Rsu
Controlled Environment Safe Operating Distance	Rsc	6.2	11.1	14.0	15.7	m	=(PDnf)*(Rnf)/Rsc
4. On-Axis Far Field Calculations		@10°	@30°	@50°	@70°		
Distance to the Far Field Region	Rff	12.5	12.5	12.5	12.5	meters	$(0.6 * Dma^2) /\lambda$
		40.91	40.91	40.91	40.91	feet	
On-Axis Power Density in the Far Field	PDff	12.34	39.51	63.20	79.02	W/m^2	$(G_{es} * P) / (4 * \pi * Rf^2)$
On-Axis Power Density in the Far Field	PDff	**1.234**	**3.951**	**6.320**	**7.902**	mW/cm^2	**Does Not Meet Uncontrolled Limits**
							Does not Meet Controlled Limits
5. Off-Axis Levels at the Far Field Limit and Beyond		@10°	@30°	@50°	@70°		
Reflector Surface Power Density	PDs	10.999	24.930	25.161	19.848	W/m^2	$(G_{es} * P) / (4 * \pi * Rf^2)*(Goa/Ges)$
Goa/Ges at example angle θ 1.5 degree		0.891	0.631	0.398	0.251		GoA varies from -0.5 to -6 down at 1.5 deg
Off-Axis Power Density		1.0999	2.4930	2.5161	1.9848	mW/cm^2	**Meets Controlled Limits**
6. Off-axis Power Density in the Near Field and Transitional Regions Calculations							
6. Off-axis Power Density in the Near Field and Transitional Regions Calculations		@10°	@30°	@50°	@70°		
Power density 1/100 of Wn for one diameter removed	PDs	0.7143	2.2867	3.6578	4.5732	W/m^2	$((16 * \eta * P)/ (\pi *Deff^2))/100$
		0.07143	**0.22867**	**0.36578**	**0.45732**	mW/cm^2	**Meets Uncontrolled Limits**
7. Off-Axis Safe Distances from Earth Station							$S = (Deff/ \sin \alpha) + 2(h - GD - 2)/(2 \tan \alpha)$
		@10°	@30°	@50°	@70°		
α = minimum elevation angle of antenna		10	15	20	25	deg	
h = maximum height of object to be cleared, meters		2.0	2.0	2.0	2.0	m	
GD = Ground Elevation Delta antenna-obstacle		0.0	0.0	0.0	0.0	m	
S =		7.6	5.1	3.8	3.0	m	
Note: Maximum FCC power density limits for 14 GHz is 1 mW/cm^2 for general population/uncontrolled exposure as per FCC OE&T Bulletin No. 65,							

ANNEX 8:

Technical Information Regarding the ThinKom Terminal

Gogo ESAA System

Technical Annex

July 31, 2014

Table of Contents

TECHNICAL ANNEX

This Technical Annex describes the operational characteristics of the additional antenna (the "ThinKom antenna") proposed for use with the Gogo Ku-band Earth Stations Aboard Aircraft (ESAA) system.

1. ESAA Overview

The ThinKom antenna subsystem is made up of five major physically separated components, along with the interconnecting RF Cabling. These five major components are the Radome and the Fuselage Mounted Antenna (Antenna), both of which are mounted on the top of the aircraft fuselage and constitute the Satellite Antenna Assembly, together with the KANDU Control Unit, the ModMan Modem/Manager, and the Block Up Converter (BUC), all three of which are mounted within the pressurized airframe, just under and in close proximity to the antenna.

1.1. KANDU

The KANDU serves as the primary antenna control subsystem responsible for satellite acquisition and tracking used by the ThinKom antenna system. The KANDU employs a beacon receiver module for fine satellite tracking; for coarse satellite acquisition and tracking, the aircraft's Inertial Reference Unit (IRU) data and modem-specified satellite orbital slot are used. In addition, the KANDU samples data from the IMU (Inertial Measurement Unit) mounted on each antenna subsystem, to compensate for IRU data delay associated with different IRU data bus transfer delivery systems. The most common data bus systems used for airborne applications are ARINC-429 and ARINC-629. The optimal pointing angle commands for both RX and TX antennas are updated once every 1 msec.

1.2. Ku Antenna System

The Antenna system consists of two separate (variable inclination continuous transverse stub) antenna arrays. Each VICTS array operates by mechanically rotating platters relative to one another to electronically steer the antenna mainbeam without the need for any phase shifters. One VICTS array receives signals via a Low Noise Block Downconverter (LNB), while the other transmits satellite signals via the BUC. Precision direct-drive motors rotate the individual platters to deterministically position and steer the mainbeam in lieu of an elevation-over-azimuth positioner used in traditional on-axis antenna systems. The polarization is similarly controlled via rotation of a separate highly polarization-selective conductive-grid. RF signals to and from the antenna are connected to the BUC via rotary joints and cables, and control and power signals connect to the KANDU via power/control cables.

The BUC is connected between the antenna and the KANDU and ModMan, and upconverts the L-band transmit signal to Ku-band, while the LNB downconverts the received Ku-band signal to L-band.

1.3. Antenna Pointing

For normal operation aircraft maneuvers and environment dynamics, the antenna pointing error is guaranteed to be less than 0.2° between the orbital location of the target satellite and the axis of the main lobe of the antenna. All emissions automatically cease within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the antenna exceeds 0.5°, and transmission is not resumed until the angle is verified to be less than 0.2°. The pointing error is continuously computed by the KANDU based on various inertial and non-inertial sensors. In the event that the pointing error exceeds 0.5°, the KANDU mutes the transmitter by disabling power to the power amplifier within the HPT and does not re-enable it until the pointing error is within 0.2°. Once the HPT is commanded to mute, power is disabled in less than 1 millisecond.

1.4. Fault Management

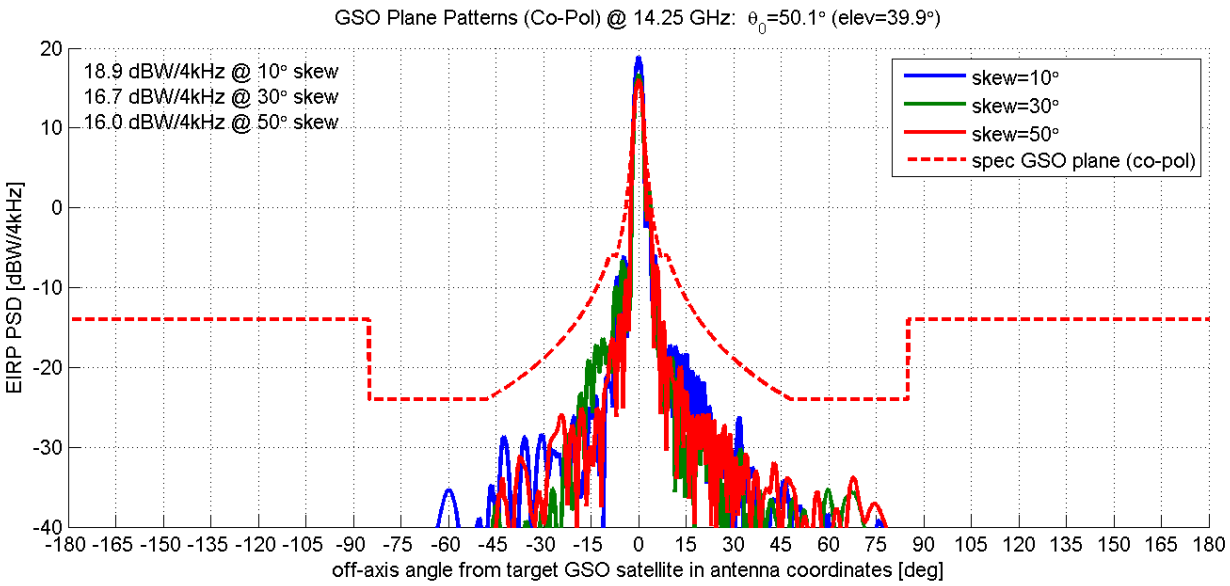
The KANDU subsystem employs a system level fault management software module responsible for health and status monitoring of all line replaceable units as well as fault recovery. The fault management system is responsible for transitioning the system back into normal operation during soft (recoverable) faults and graceful transition to a non-operational mode for hard (unrecoverable) faults. In the case that the TX antenna pointing and or antenna pointing knowledge is compromised in any way, the fault management mutes the HPT.

1.5. Antenna Pattern Characteristics

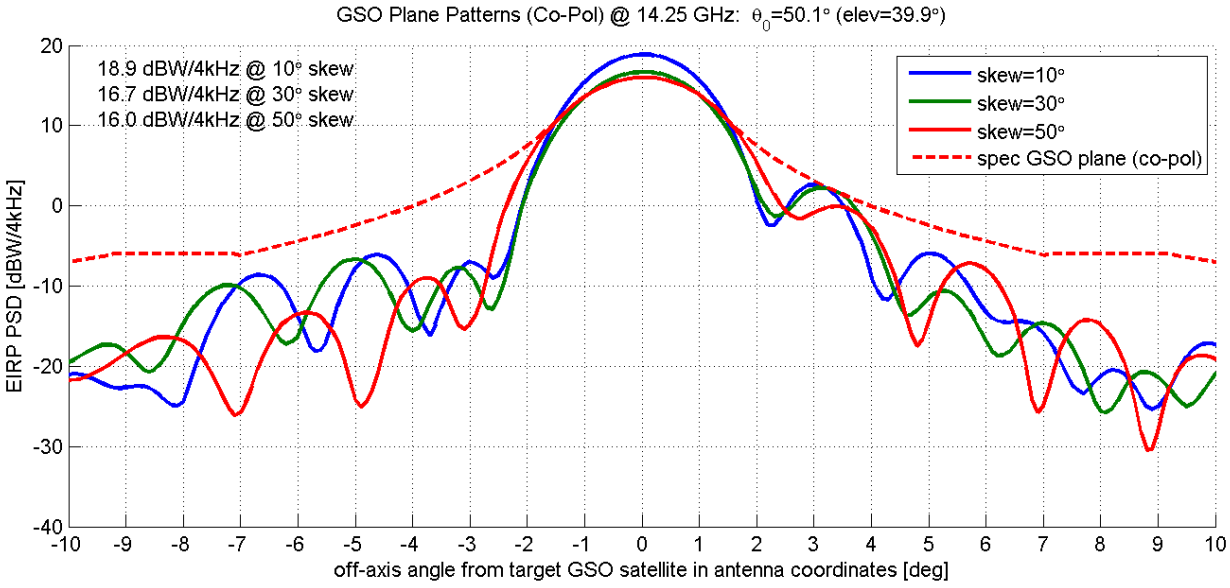
The VICTS phased array antennas contained within the ThinKom terminal have pattern characteristics that change as the mainbeam scans in elevation, so its maximum PSD limits will vary as a function of mainbeam scan and skew. An example pattern cut of the maximum co-polarized EIRP spectral density level for the ThinKom antenna is shown below in Figure 2. A much more comprehensive set of antenna patterns and EIRP spectral density plots is included in Appendix B along with tabulated data in Appendix C. A summary subset of maximum EIRP PSD levels at which the Tx antenna may operate in CONUS while staying compliant with §25.227 is shown in Table 1. The KANDU draws upon a much more comprehensive and detailed database of maximum PSD levels and continually monitors feedback from the ARINC 429 bus to always ensure emissions are fully compliant with §25.227.

Table 1. Maximum EIRP PSD Levels [dBW/4kHz] vs. Scan/Skew for CONUS

		Maximum EIRP PSD [dBW/4kHz]		
freq [GHz]	scan [deg]	skew=10°	skew=30°	skew=50°
14.00	10.5	18.2	18.1	17.7
14.00	30.6	18.2	18.1	17.3
14.00	50.8	18.2	16.7	15.6
14.00	70.7	16.9	15.5	12.9
14.25	9.8	18.7	18.4	17.8
14.25	30.1	18.7	18.4	17.3
14.25	50.1	18.9	16.7	16.0
14.25	69.3	17.4	15.7	13.1
14.50	9.4	19.1	18.8	18.2
14.50	29.7	18.9	18.7	17.8
14.50	49.4	18.7	16.7	16.2
14.50	68.2	17.5	15.9	13.5



(a) expanded view



(b) zoomed-in view to within ±10° of mainbeam

Figure 2. Maximum Off-axis EIRP Spectral Density of the Gogo Antenna (elev=40°)

2. Conclusion

The previous authorization allowed Gogo to bring its extensive experience in pioneering ATG in-flight broadband connectivity and entertainment to a broader segment of the flying public. Adding the new ThinKom antenna system will allow Gogo to provide added service quality for our customers. Coordination has been completed with all satellite operators that have a potential to be affected by the proposed service, assuring that other authorized users will not be subject to harmful interference. Consistent with past Commission precedent, this application should be expeditiously granted.

APPENDIX A: Link Budget

APPENDIX A: Link Budget

Forward Link Budget

Hub	Woodbine, MD	
Required Eb/No	1.3	dB
Modulation	QPSK	
Info Rate	18,465	Kbps
FEC Rate	1/3	
Carrier Rolloff	1.2	
Satellite SFD @ 0 dB/K	-94.5	dBW/m^2
Transponder Atten	9.0	dB
Transponder ID	US Coverage	

Hub Transmit

Frequency	14.4	GHz
Satellite G/T	6.3	dB/^{o}K
Antenna Diameter	9.2	m
Carrier EIRP	71.5	dBW
Ant. Input PFD	-28.1	dBW/4kHz
Path Loss	207.3	dB
Atm/Point/Pol Loss	0.7	dB

Aircraft Receive Terminal

Frequency	12.1	GHz
Satellite EIRP	44.0	dBW
Downlink PFD@ Beam Center	12.8	dBW/4kHz
Receive Gain	33.0	dB
Terminal G/T	12.5	dB/^{o}K
Path Loss	205.6	dB
Other Losses	0.6	dB

Transponder

Total OPBO	0.0	dB
Carrier OPBO	0.0	dB
C/No Thermal Up	98.4	dB-Hz
C/No Thermal Dn	78.5	dB-Hz
C/Io Total	77.1	dB-Hz
C/No+Io	74.7	dB-Hz
Add'l Link Margin	0.78	dB
% BW per cxr	99.9	%
% Power per cxr	99.0	%
Xpdr BW Alloc	36.0	MHz

Return Link Budget

Terminal	Gogo AES-2	
Required Eb/No	3.6	dB
Modulation	BPSK	
Info Rate	1000	Kbps
FEC Rate	2/3	
Carrier Spacing	1.30	
Carrier Spreading	2.0	
Satellite SFD @ 0 dB/K	-95.0	dBW/m^2
Transponder Atten	9.0	dB
Transponder ID	US Coverage	

Aircraft Transmit Terminal

Frequency	14.2	GHz
Satellite G/T	1.0	dB/^{o}K
Antenna Diameter	0.3	m
Carrier EIRP	45.9	dBW
Ant Input PFD	-16.3	dBW/4kHz
Path Loss	207.3	dB
Atm/Point/Pol Loss	0.6	dB

Hub Receive

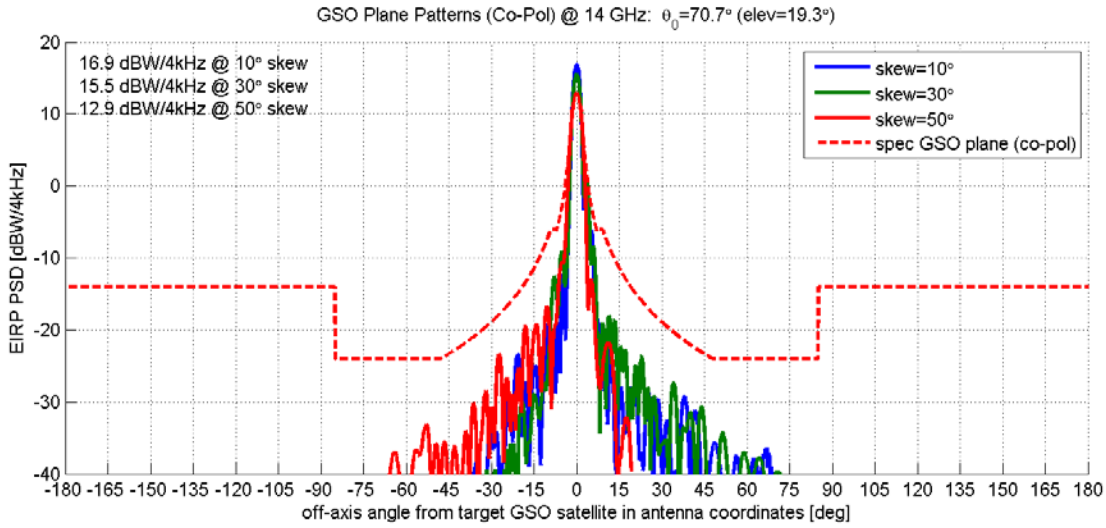
Frequency	11.9	GHz
Satellite EIRP	50.3	dBW
Downlink PFD@ Beam Center	-3.9	dBW/4kHz
Hub G/T	37.3	dB/^{o}K
Path Loss	205.5	dB
Other Losses	0.6	dB

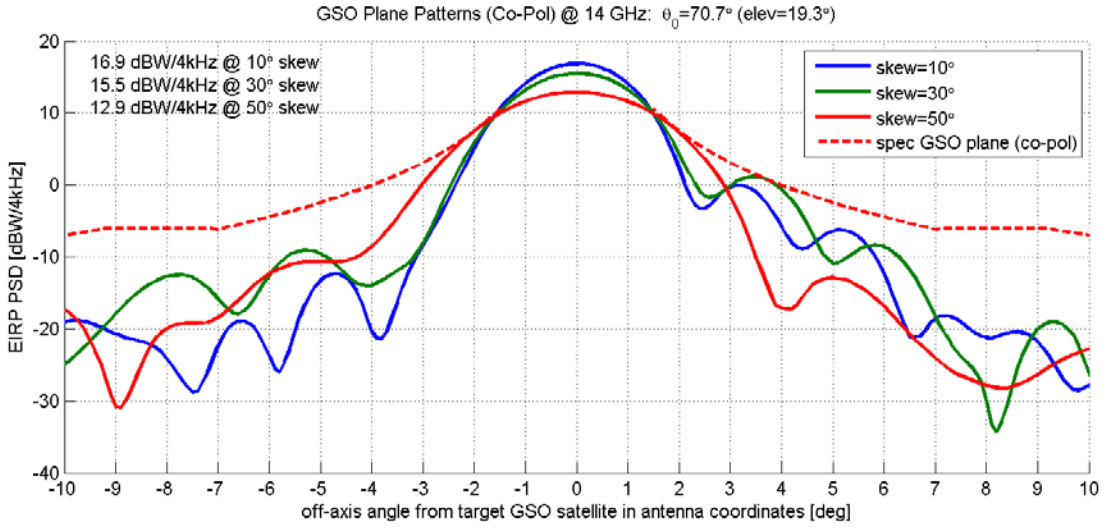
Transponder

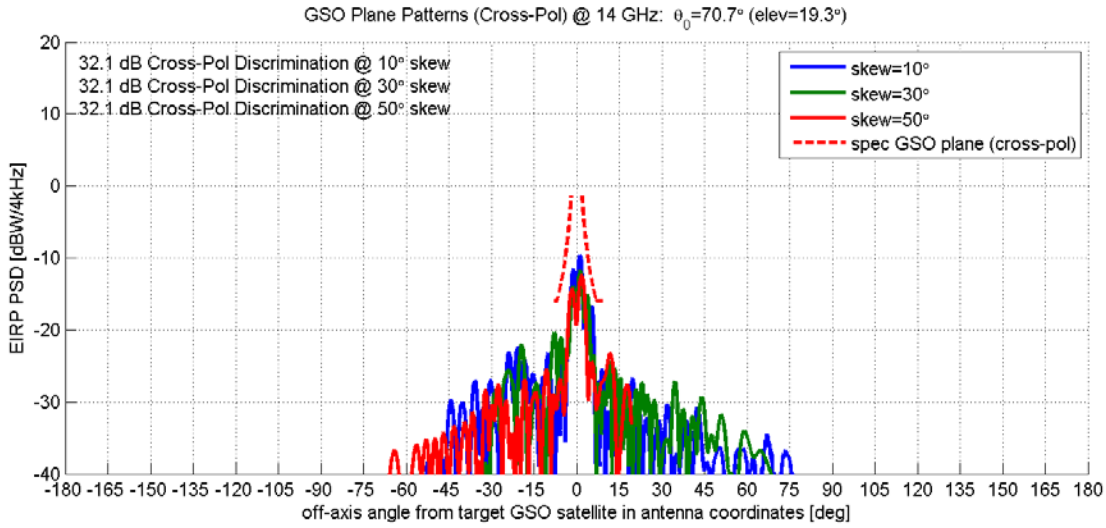
Total OPBO	3.0	dB
Carrier OPBO	27.5	dB
C/No Thermal Up	67.6	dB-Hz
C/No Thermal Dn	82.7	dB-Hz
C/Io Total	69.7	dB-Hz
C/No+Io	65.4	dB-Hz
Add"l Link Margin	1.8	dB
% BW per cxr	10.8	%
% Power per cxr	0.36	%
Xpdr BW Alloc	3.9	MHz

APPENDIX B: Antenna Patterns

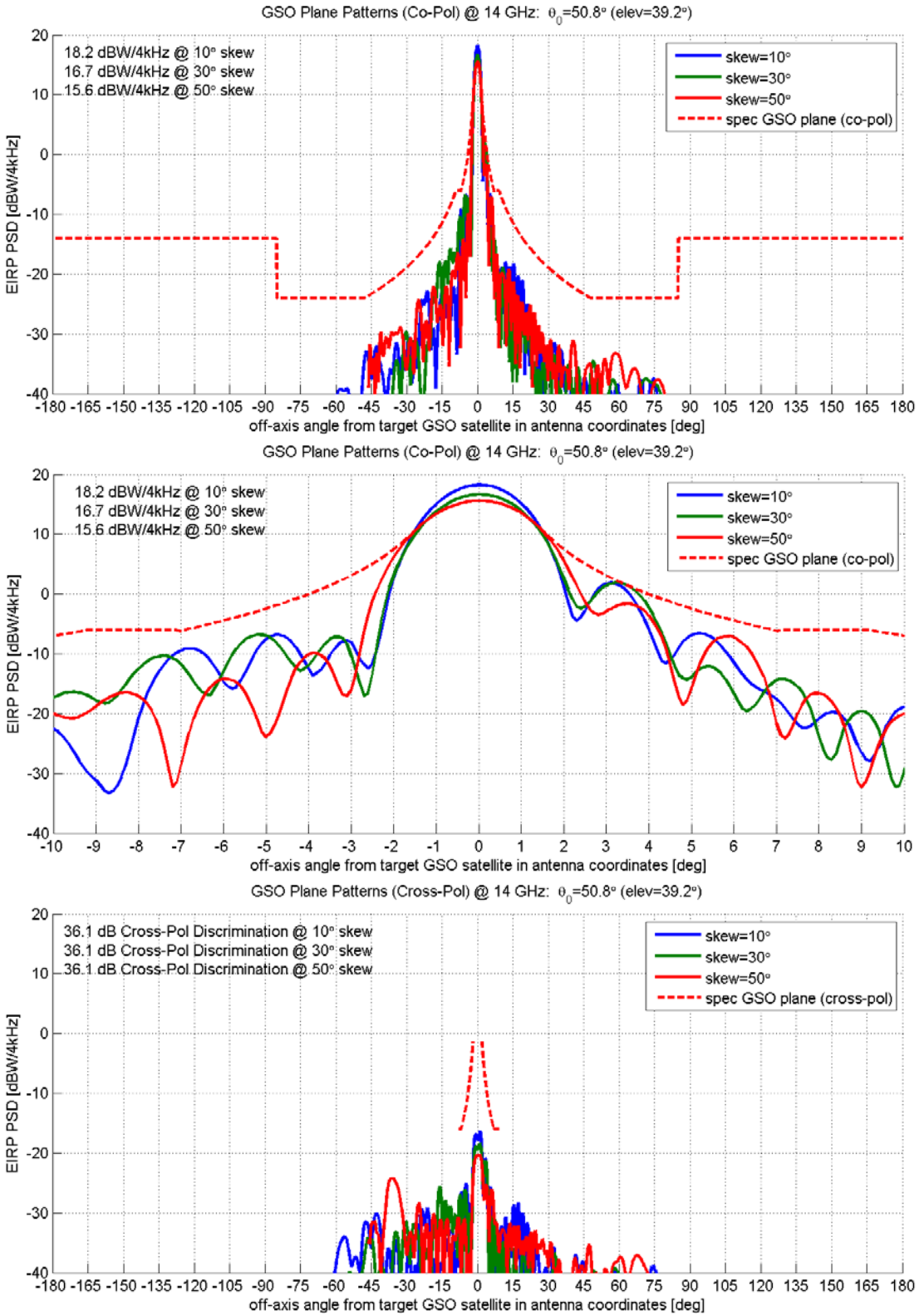
B.1.1 Antenna Patterns, Mainbeam @ Elevation=20° (Scan=70°), 14.00 GHz



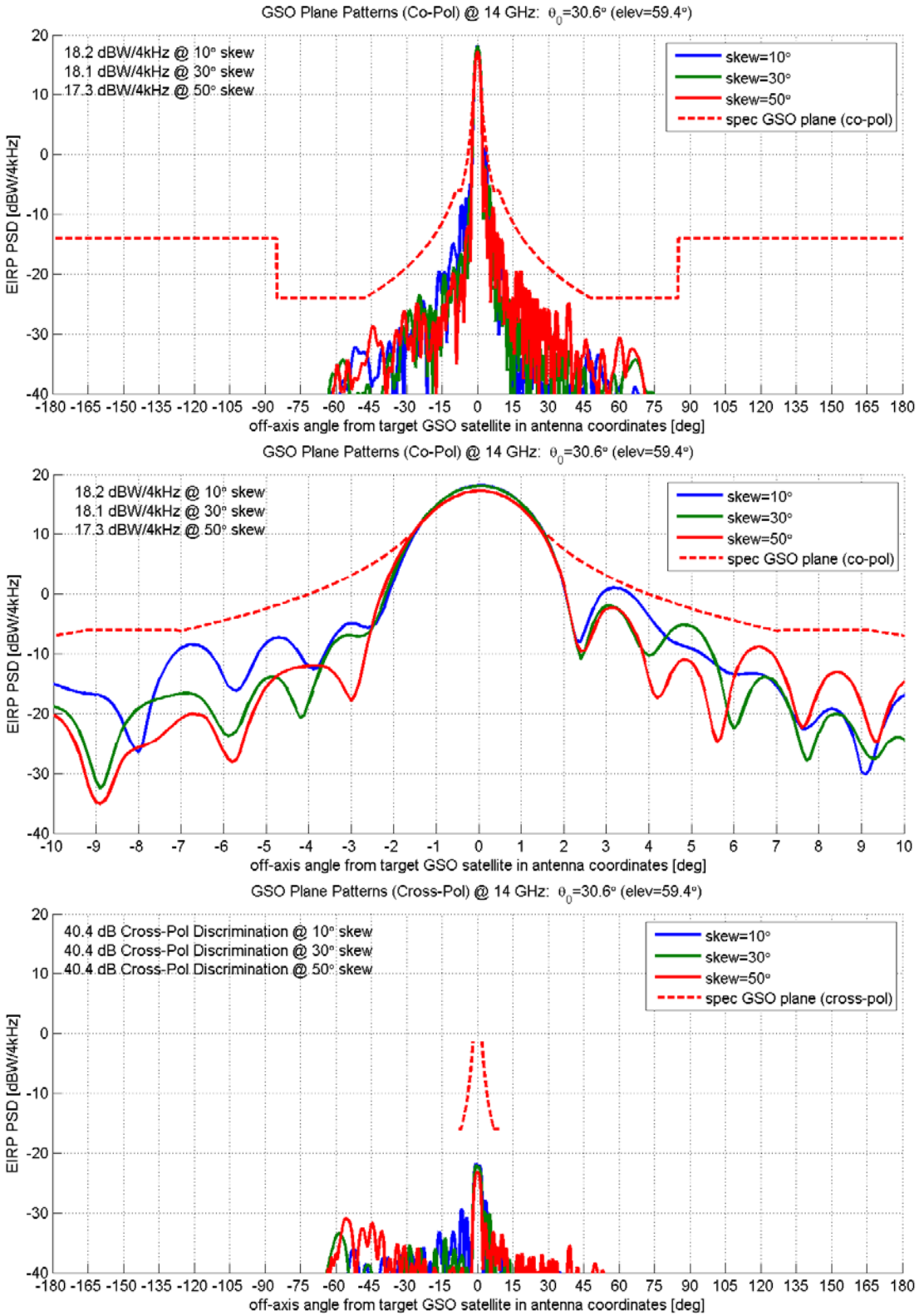




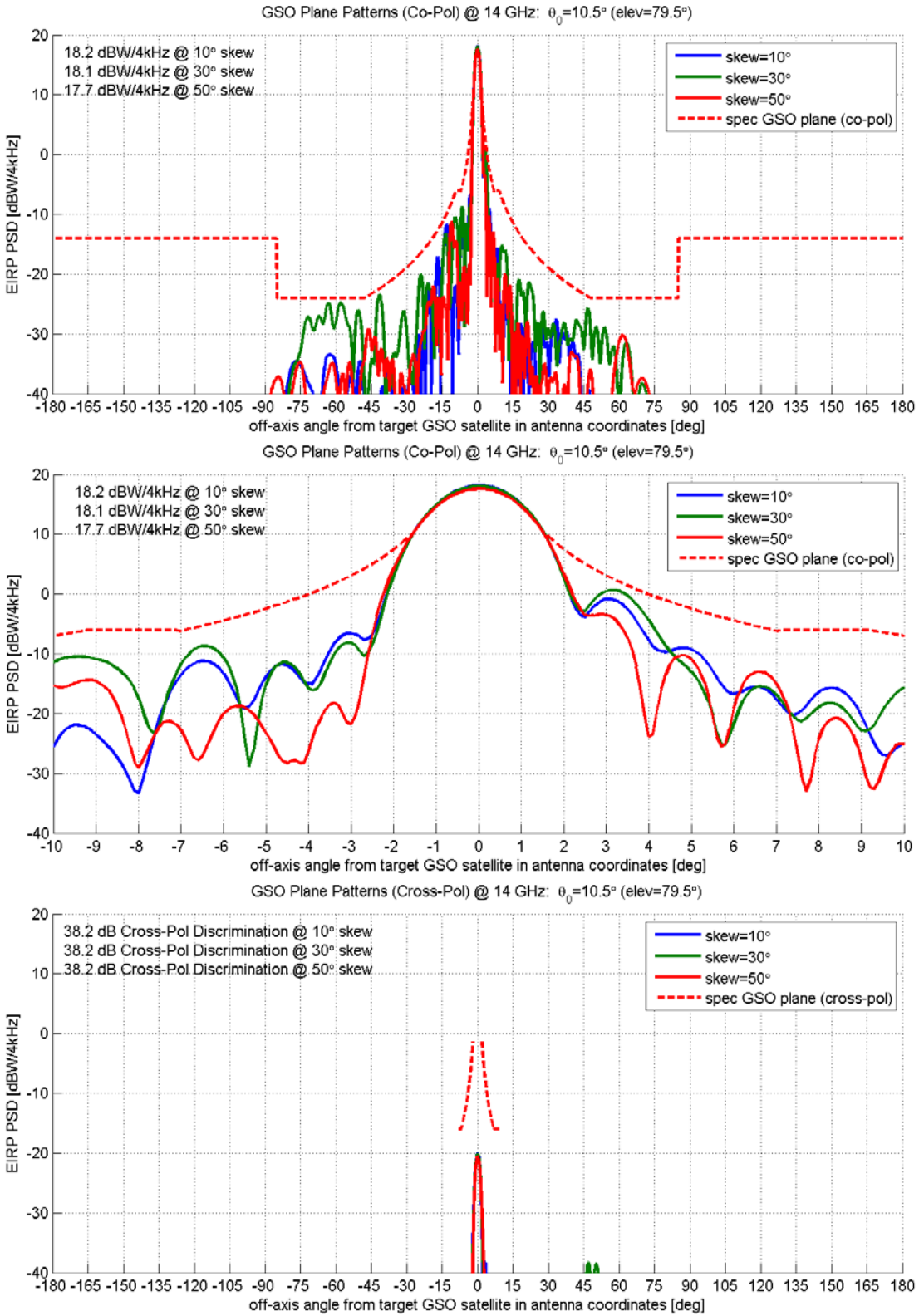
B.1.2 Antenna Patterns, Mainbeam @ Elevation=40° (Scan=50°), 14.00 GHz



B.1.3 Antenna Patterns, Mainbeam @ Elevation=60° (Scan=30°), 14.00 GHz

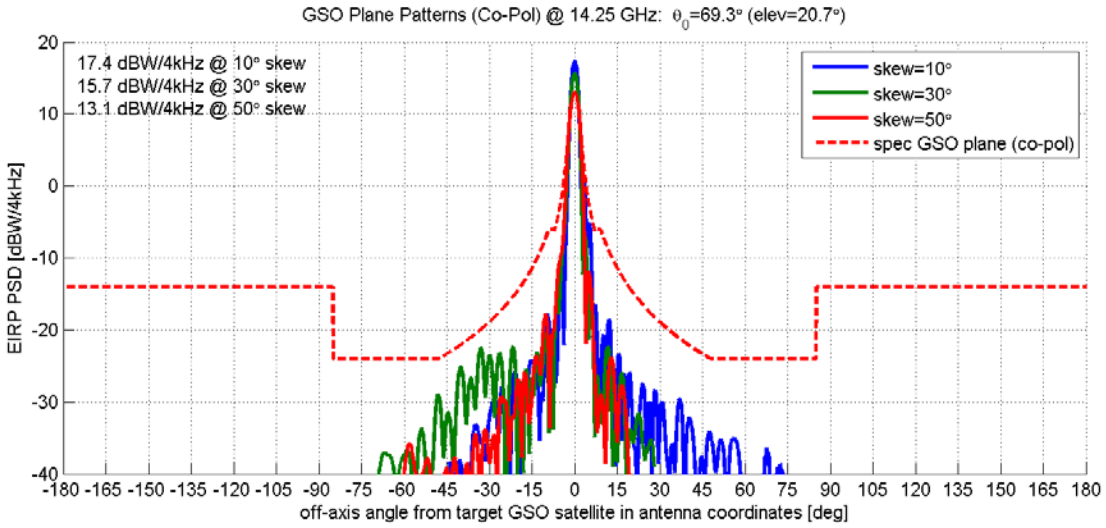


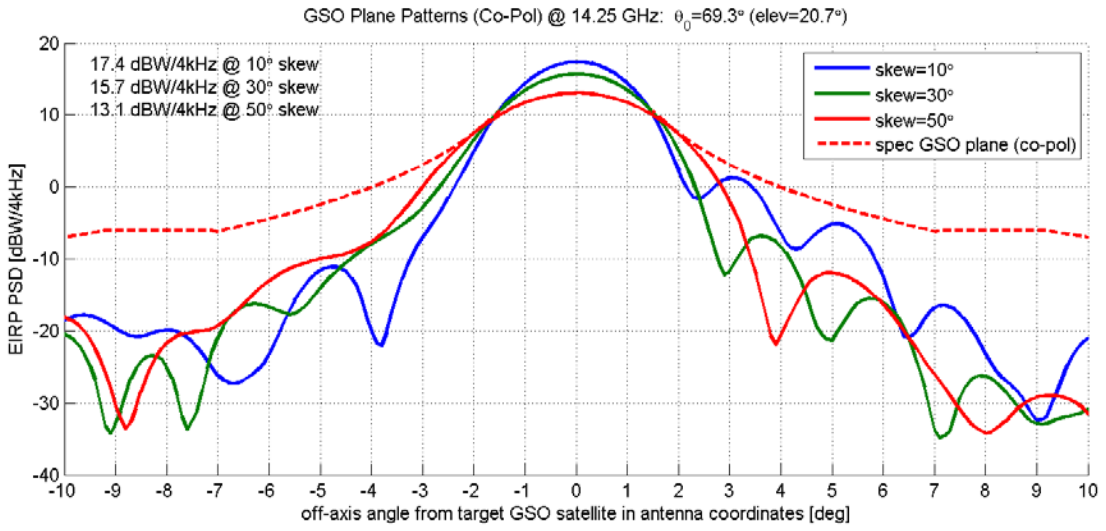
B.1.4 Antenna Patterns, Mainbeam @ Elevation=80° (Scan=10°), 14.00 GHz

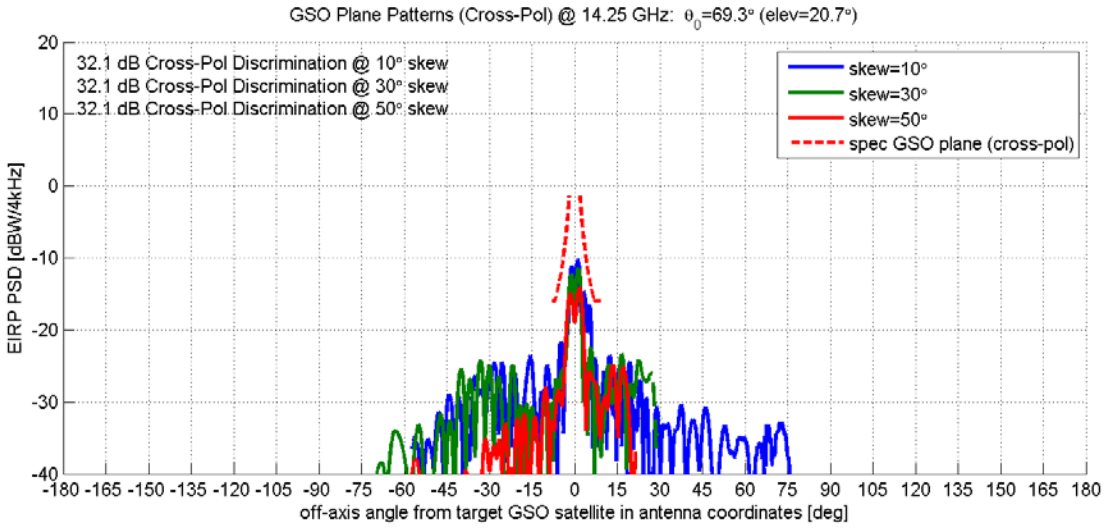


APPENDIX B: Antenna Patterns

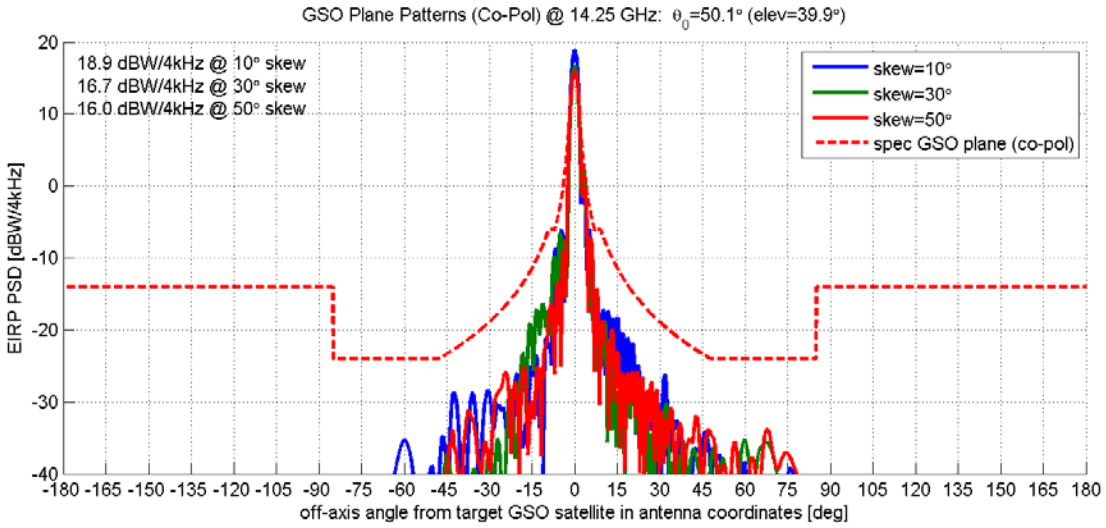
B.2.1 Antenna Patterns, Mainbeam @ Elevation=20° (Scan=70°), 14.25 GHz

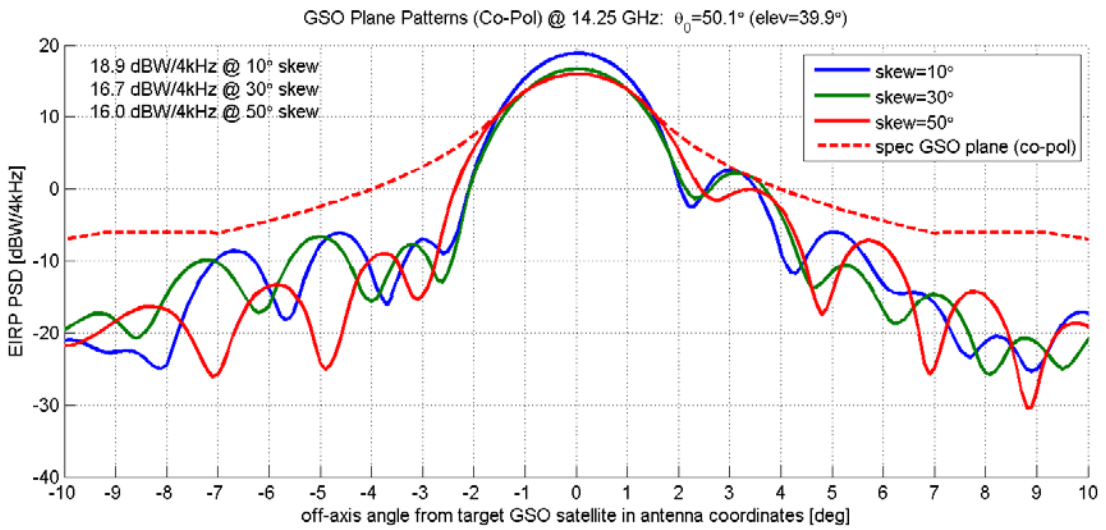


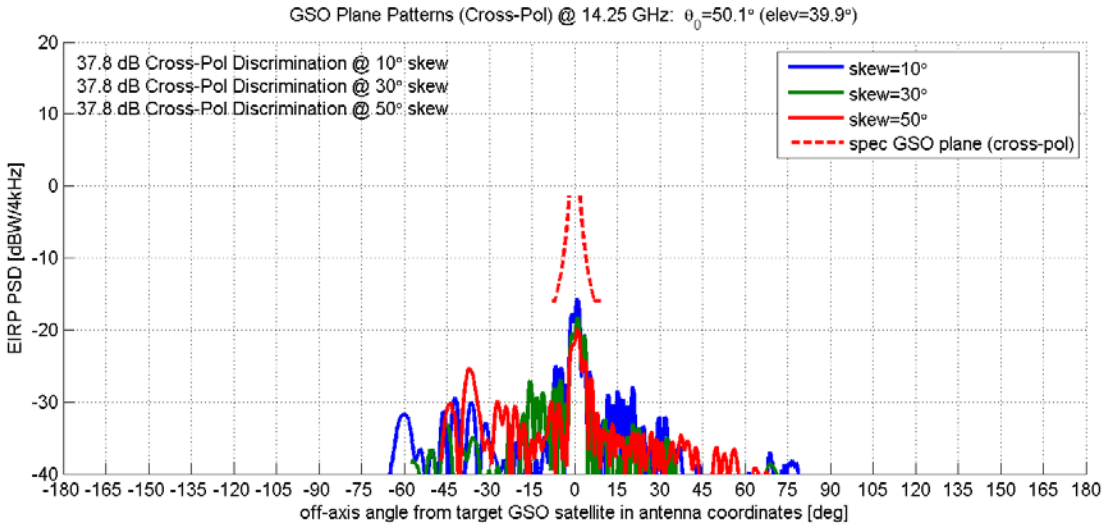




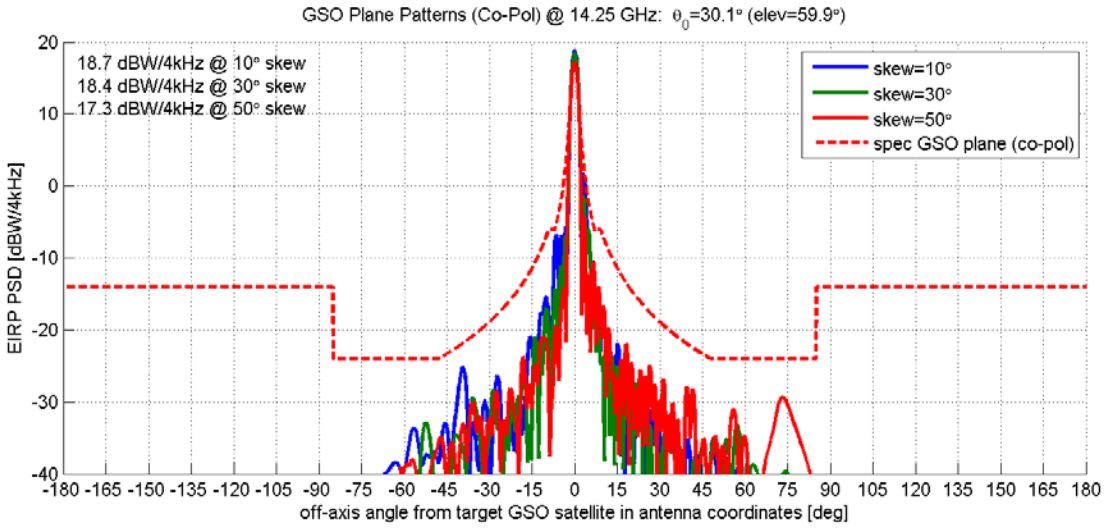
B.2.2 Antenna Patterns, Mainbeam @ Elevation=40° (Scan=50°), 14.25 GHz

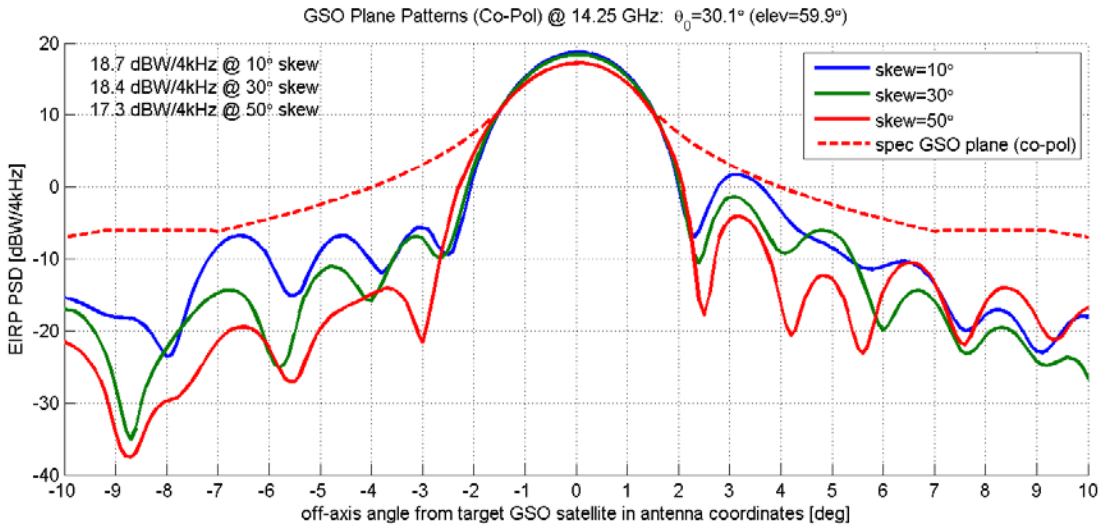


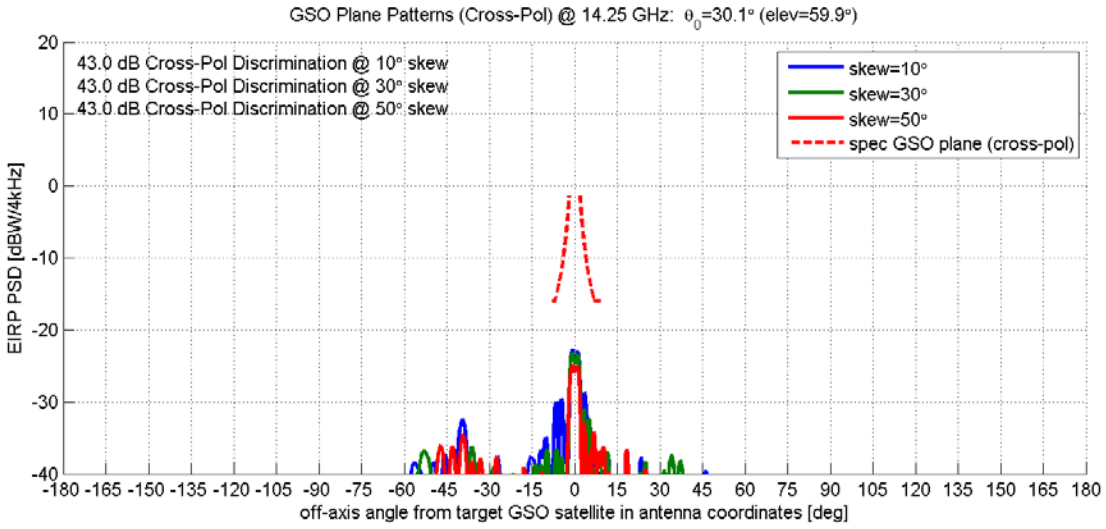




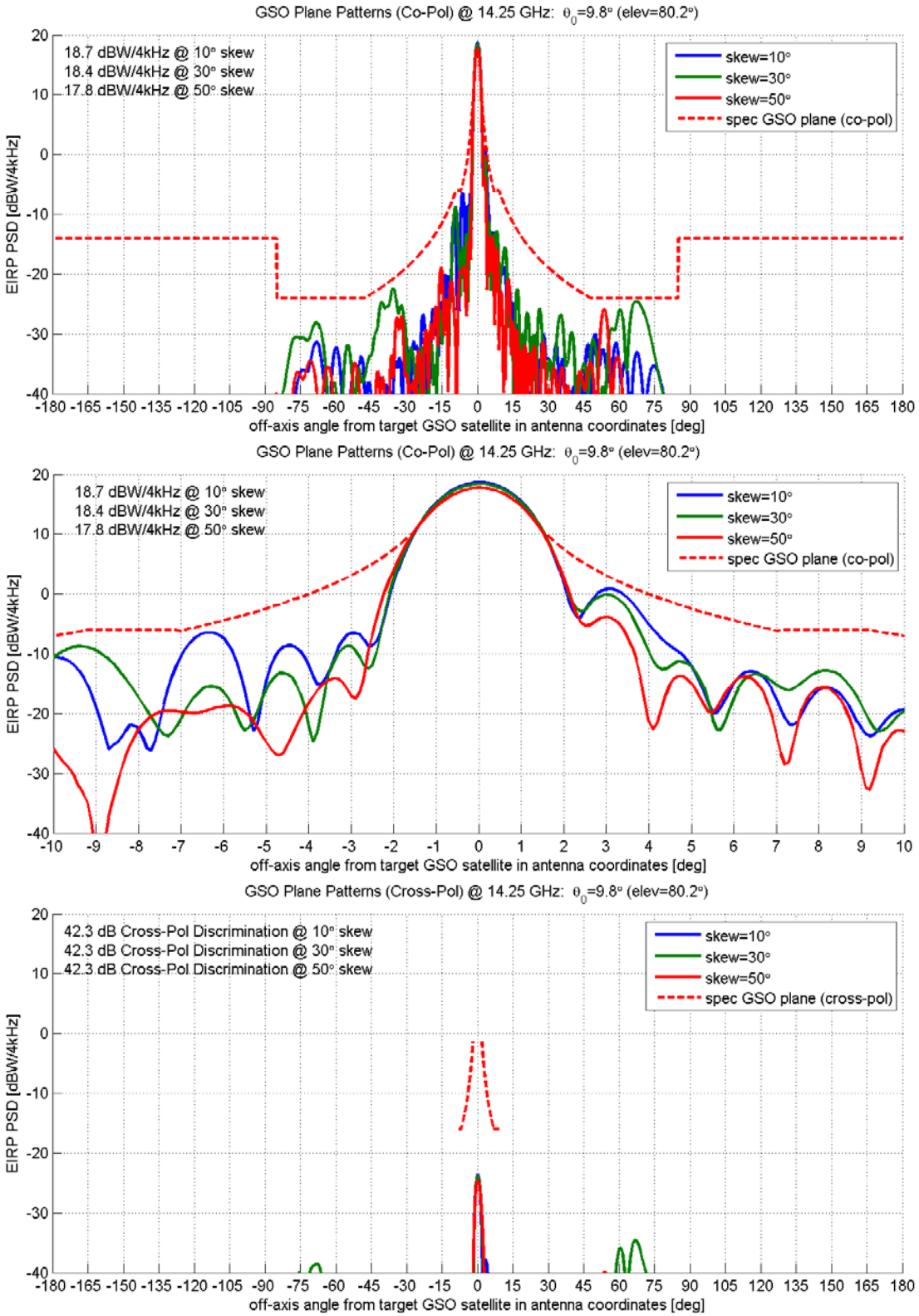
B.2.3 Antenna Patterns, Mainbeam @ Elevation=60° (Scan=30°), 14.25 GHz





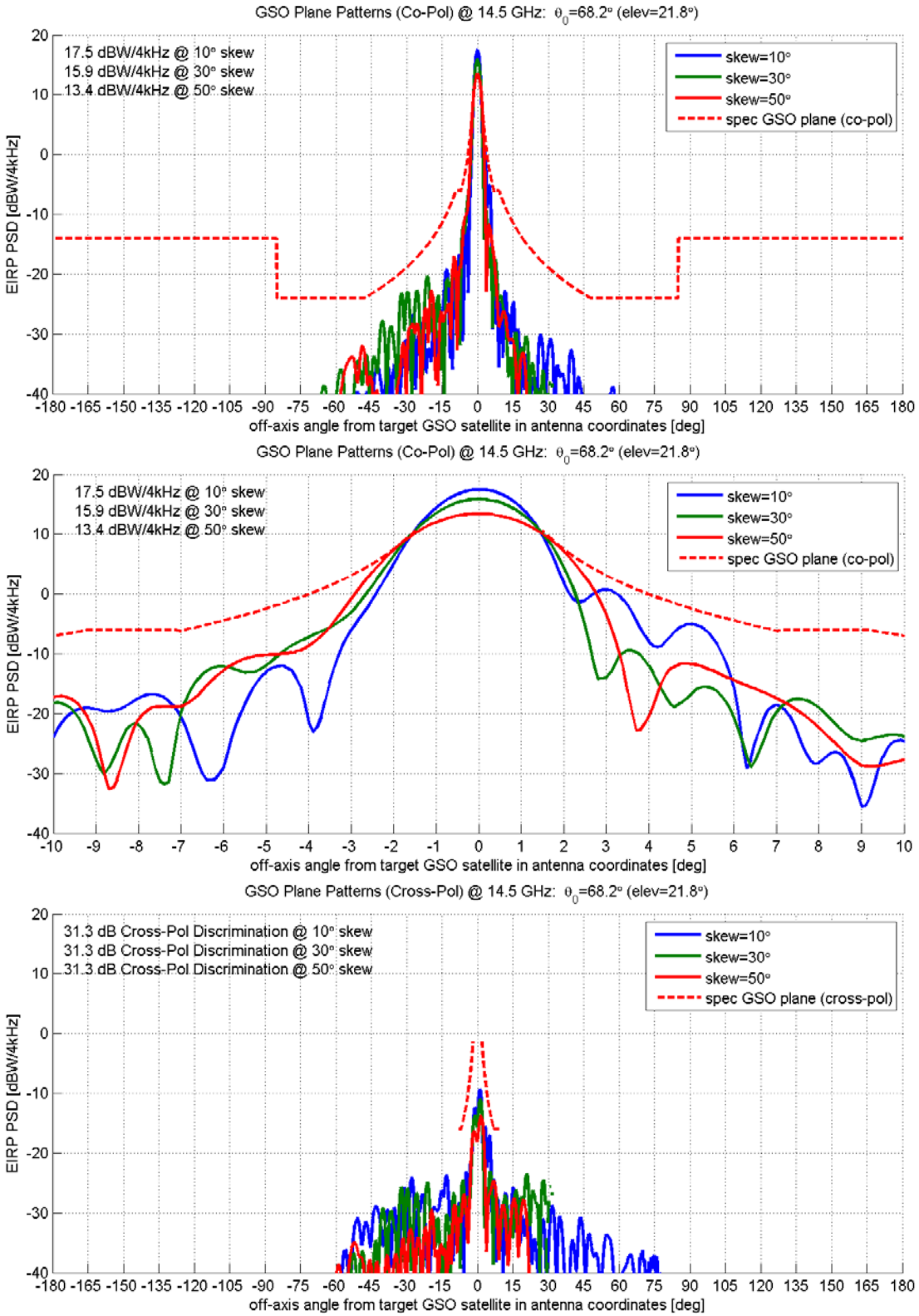


B.2.4 Antenna Patterns, Mainbeam @ Elevation=80° (Scan=10°), 14.25 GHz

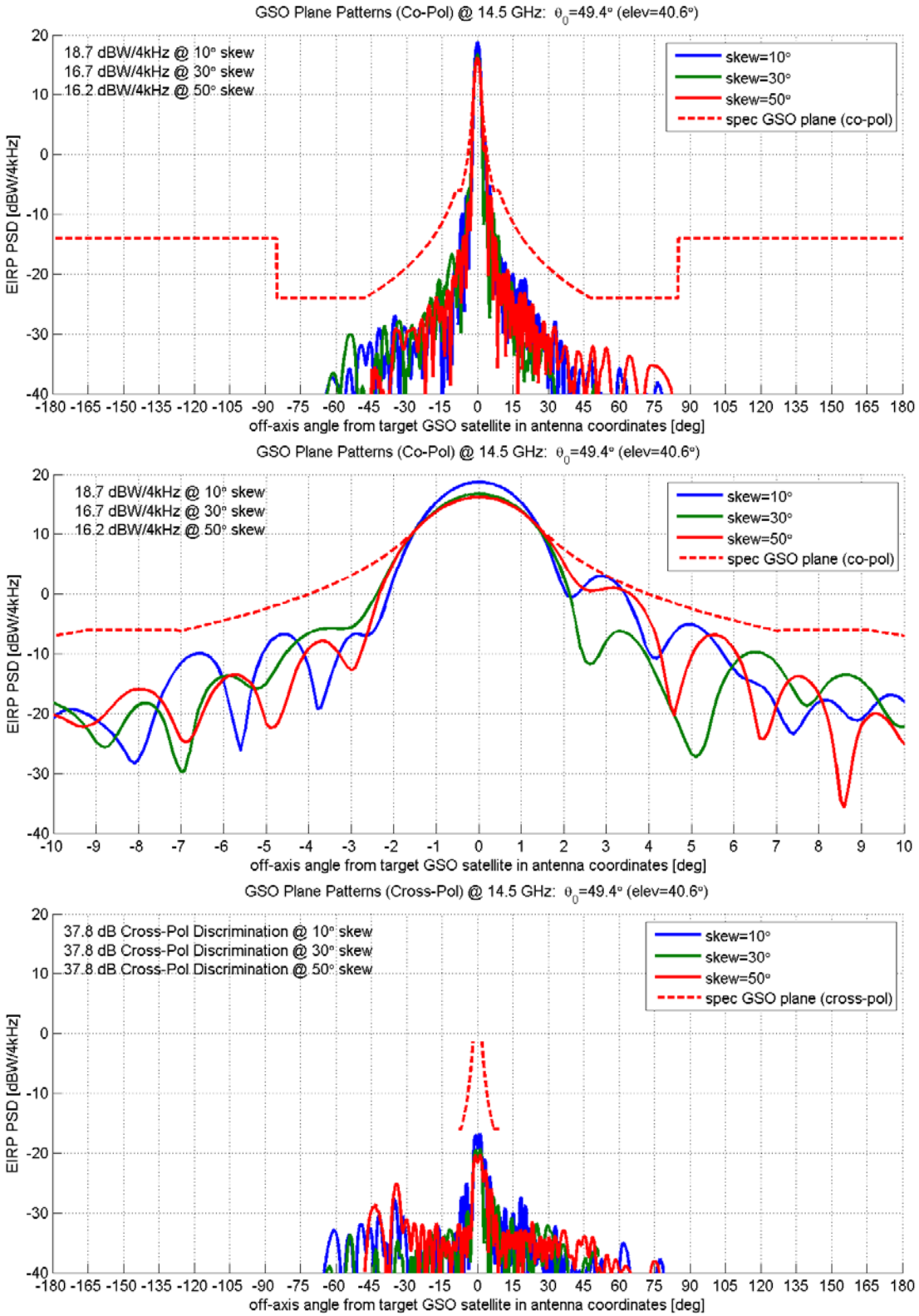


APPENDIX B: Antenna Patterns

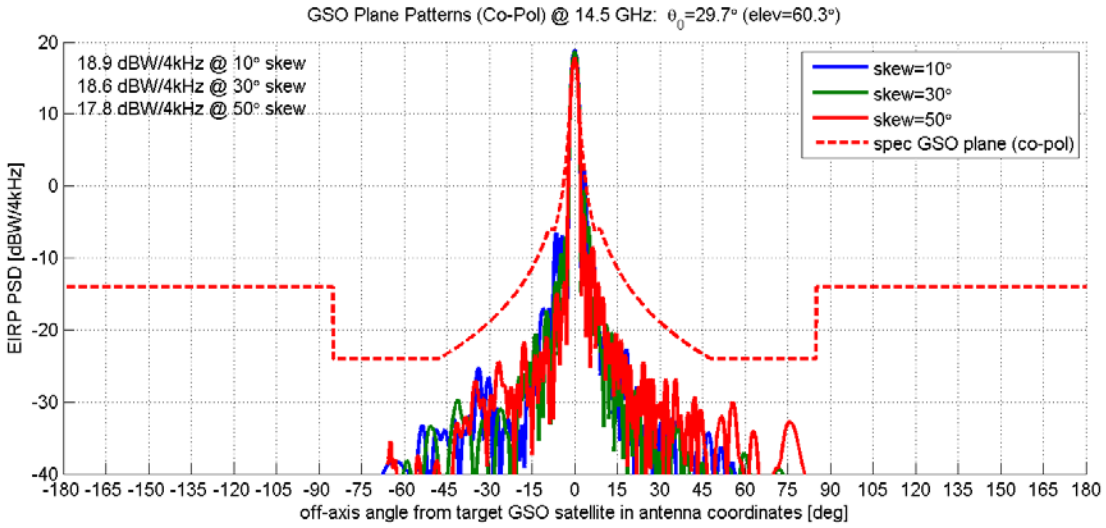
B.3.1 Antenna Patterns, Mainbeam @ Elevation=20° (Scan=70°), 14.50 GHz

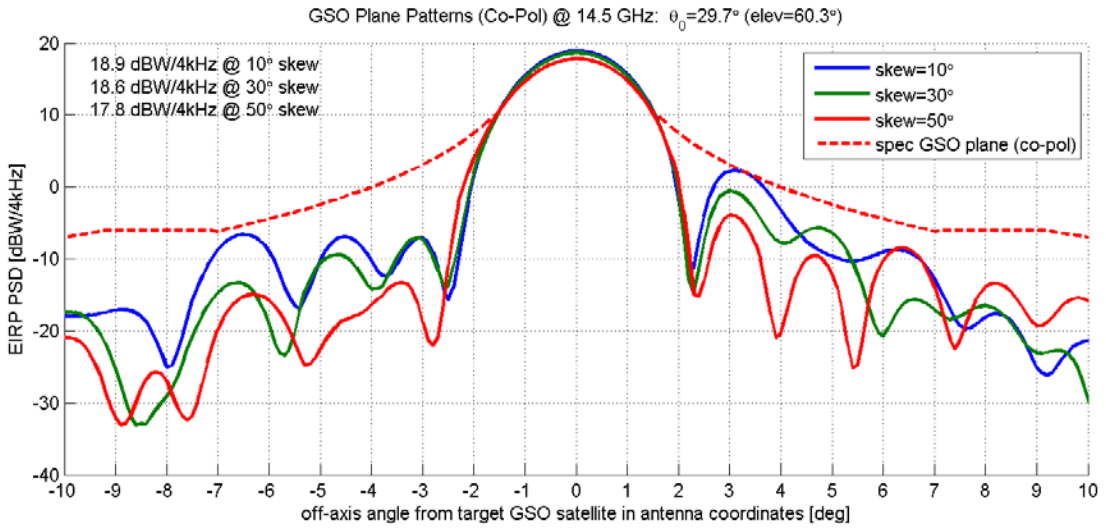


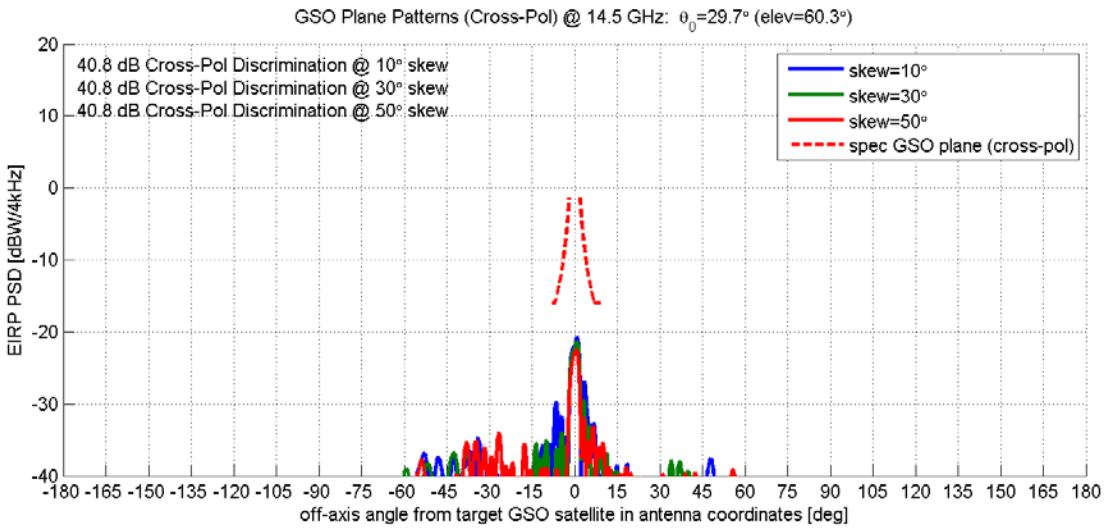
B.3.2 Antenna Patterns, Mainbeam @ Elevation=40° (Scan=50°), 14.50 GHz



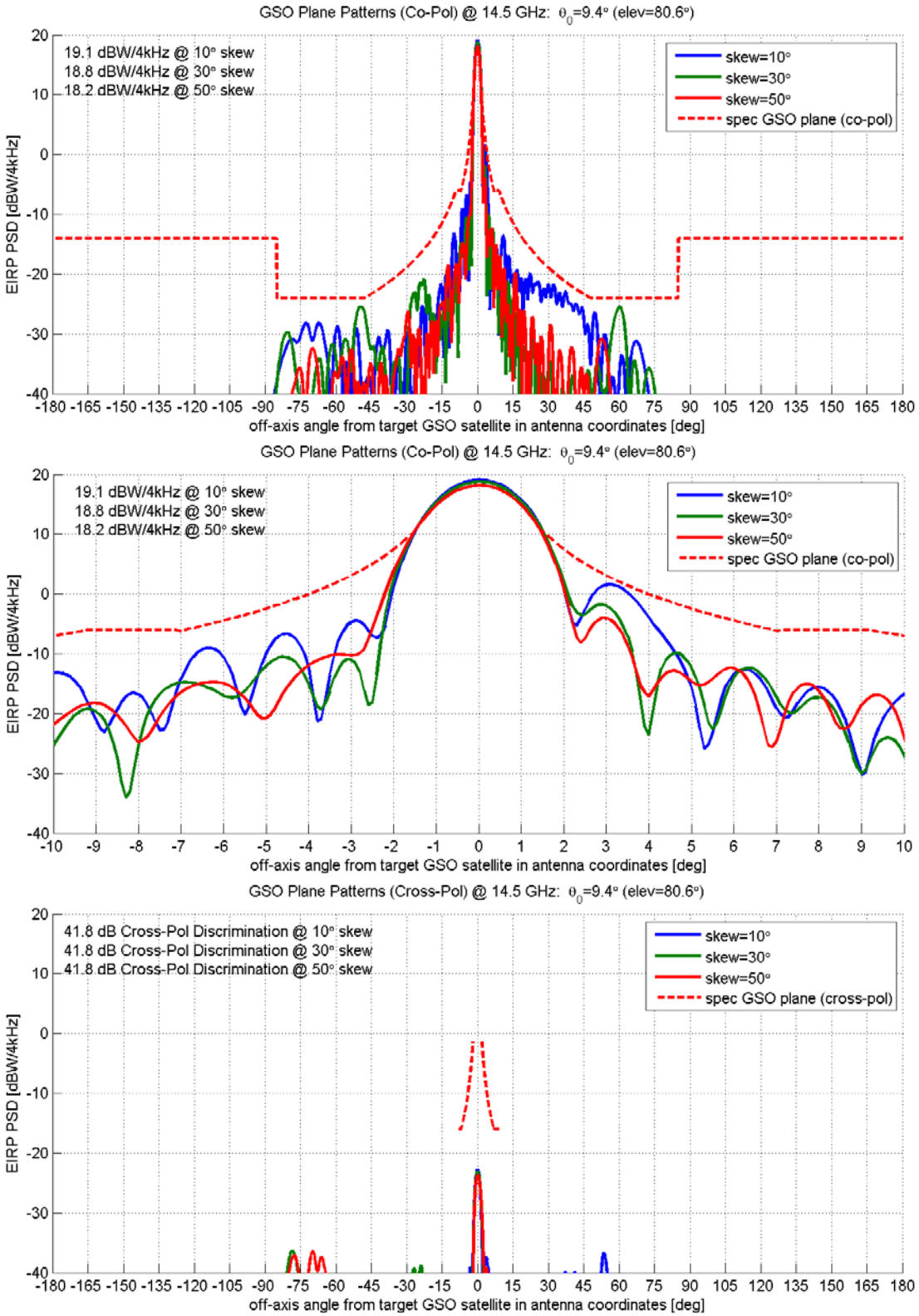
B.3.3 Antenna Patterns, Mainbeam @ Elevation=60° (Scan=30°), 14.50 GHz







B.3.4 Antenna Patterns, Mainbeam @ Elevation=80° (Scan=10°), 14.50 GHz



APPENDIX C: Antenna EIRP Tables

C.1.1 Tabular Data, Mainbeam @ Elevation=20° (Scan=70°), 14.00 GHz

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85			-52.75						-55.92
-80			-49.31						-57.18
-75			-56.44						-47.11
-70			-43.78						-45.59
-65			-37.97						-37.83
-60			-52.99						-43.09
-55	-51.6		-37.4				-42.61		-39.94
-50	-61.89		-37.07				-53.53		-35.18
-45	-46.78		-48.11				-31.78		-43.18
-40	-45.67		-39.05				-30.21		-34.06
-35	-38.71		-43.35				-30.19		-44.05
-30	-34.69	-50.05	-30.97				-27.4	-34.78	-30.73
-25	-35.24	-41.4	-28.29			-43.21	-28.93	-26.49	-29.83
-20	-25.88	-31.89	-27.64			-47.65	-25.24	-23.74	-38.58
-15	-25.42	-29.05	-20.55	-16.43	-20.12	-37.04	-26.53	-28.58	-29.3
-10	-18.98	-24.98	-17.39	-11.61	-17.91	-17.07	-23.23	-30.26	-27.34

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-9.9	-18.85	-24.33	-17.83	-11.59	-17.85	-16.57	-23.33	-29.48	-28.12
-9.8	-18.8	-23.69	-18.5	-11.53	-17.79	-16.07	-23.53	-28.71	-29.21
-9.7	-18.85	-23.03	-19.23	-11.46	-17.73	-15.59	-23.87	-28.25	-30.43
-9.6	-18.99	-22.37	-20.11	-11.37	-17.63	-15.2	-24.34	-27.8	-31.9
-9.5	-19.19	-21.67	-21.53	-11.26	-17.5	-14.81	-24.91	-27.36	-34.2
-9.4	-19.45	-20.95	-23.04	-11.14	-17.36	-14.43	-25.6	-26.96	-36.81
-9.3	-19.75	-20.21	-24.65	-10.97	-17.21	-14.18	-26.38	-26.55	-39.67
-9.2	-20.08	-19.45	-27.06	-10.75	-17.06	-13.92	-27.22	-26.07	-41.24
-9.1	-20.42	-18.68	-29.18	-10.51	-16.87	-13.68	-28.11	-25.56	-41.83
-9	-20.74	-17.92	-30.82	-10.24	-16.66	-13.59	-28.92	-25.01	-41.51
-8.9	-20.99	-17.19	-30.98	-9.95	-16.45	-13.5	-29.56	-24.42	-39.72
-8.8	-21.25	-16.45	-29.92	-9.63	-16.22	-13.43	-30.17	-23.8	-37.2
-8.7	-21.4	-15.79	-28.42	-9.29	-15.98	-13.51	-30.33	-23.22	-34.73
-8.6	-21.56	-15.18	-26.76	-8.93	-15.7	-13.6	-30.51	-22.66	-32.77
-8.5	-21.74	-14.61	-25.02	-8.43	-15.42	-13.71	-30.53	-22.14	-31.58
-8.4	-21.92	-14.11	-23.41	-7.93	-15.13	-13.98	-30.52	-21.68	-30.65
-8.3	-22.26	-13.66	-22.04	-7.41	-14.87	-14.25	-30.77	-21.27	-29.86
-8.2	-22.68	-13.25	-21.12	-6.87	-14.6	-14.55	-31.17	-20.91	-29.39
-8.1	-23.3	-12.96	-20.45	-6.33	-14.31	-14.92	-32.11	-20.68	-29.09
-8	-24.14	-12.71	-19.92	-5.77	-14.02	-15.32	-33.67	-20.49	-28.94
-7.9	-25.1	-12.54	-19.6	-5.21	-13.71	-15.7	-35.83	-20.4	-28.97
-7.8	-26.13	-12.49	-19.43	-4.65	-13.4	-15.96	-38.81	-20.46	-29.15
-7.7	-27.17	-12.46	-19.31	-4.08	-13.11	-16.22	-41.93	-20.53	-29.38
-7.6	-28.08	-12.64	-19.24	-3.5	-12.82	-16.44	-43.27	-20.88	-29.66
-7.5	-28.78	-12.86	-19.23	-2.93	-12.52	-16.27	-42.59	-21.27	-30.01
-7.4	-28.74	-13.21	-19.25	-2.35	-12.2	-16.1	-40.84	-21.83	-30.42
-7.3	-27.38	-13.74	-19.25	-1.82	-11.96	-15.86	-37.3	-22.65	-30.81
-7.2	-25.93	-14.29	-19.1	-1.3	-11.72	-15.27	-33.99	-23.49	-31.03
-7.1	-24.12	-15.03	-18.8	-0.78	-11.48	-14.67	-31.54	-24.76	-31.08
-7	-22.3	-15.85	-18.45	-0.26	-11.24	-14.05	-29.38	-26.21	-31.04
-6.9	-20.97	-16.62	-17.99	0.26	-11.03	-13.41	-28.13	-27.64	-30.86
-6.8	-19.92	-17.26	-17.34	0.79	-10.9	-12.76	-27.36	-28.98	-30.43
-6.7	-19.26	-17.87	-16.66	1.27	-10.78	-12.13	-26.97	-30.31	-29.9
-6.6	-18.97	-17.93	-15.96	1.76	-10.66	-11.66	-26.93	-30.63	-29.32
-6.5	-18.91	-17.49	-15.27	2.24	-10.55	-11.2	-27.15	-30.03	-28.8
-6.4	-19.23	-16.86	-14.59	2.73	-10.53	-10.81	-27.78	-29.12	-28.29
-6.3	-19.77	-15.9	-13.9	3.21	-10.58	-10.6	-28.65	-27.76	-27.77
-6.2	-20.85	-14.7	-13.32	3.62	-10.64	-10.39	-30.06	-26.08	-27.41

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-6.1	-22.2	-13.54	-12.79	4.03	-10.7	-10.23	-31.73	-24.57	-27.14
-6	-23.77	-12.56	-12.32	4.44	-10.8	-10.24	-33.25	-23.56	-26.91
-5.9	-25.51	-11.62	-11.95	4.85	-11.04	-10.26	-34.65	-22.61	-26.83
-5.8	-26	-10.85	-11.65	5.26	-11.3	-10.32	-34.75	-21.91	-26.86
-5.7	-24.6	-10.26	-11.36	5.67	-11.57	-10.53	-32.86	-21.46	-26.92
-5.6	-22.79	-9.67	-11.1	6.08	-11.86	-10.74	-30.73	-21.03	-27.03
-5.5	-20.58	-9.43	-10.92	6.48	-12	-11	-28.67	-21.01	-27.27
-5.4	-18.33	-9.19	-10.78	6.86	-12.07	-11.35	-26.72	-21	-27.58
-5.3	-16.57	-9.1	-10.7	7.24	-12.15	-11.71	-25.28	-21.19	-27.94
-5.2	-15.17	-9.14	-10.67	7.57	-12.21	-12.07	-24.2	-21.57	-28.42
-5.1	-14.04	-9.23	-10.69	7.89	-12.16	-12.39	-23.39	-22	-29.01
-5	-13.29	-9.56	-10.68	8.2	-11.54	-12.73	-22.97	-22.79	-29.55
-4.9	-12.68	-9.96	-10.67	8.53	-10.85	-13.02	-22.69	-23.72	-30.1
-4.8	-12.43	-10.47	-10.69	8.85	-10.11	-13.17	-22.8	-24.86	-30.68
-4.7	-12.29	-11.11	-10.67	9.17	-9.31	-13.32	-23.04	-26.26	-31.18
-4.6	-12.52	-11.8	-10.61	9.49	-8.24	-13.43	-23.71	-27.71	-31.59
-4.5	-12.87	-12.47	-10.5	9.81	-7.03	-13.4	-24.53	-28.75	-31.8
-4.4	-13.67	-13.11	-10.32	10.14	-5.79	-13.37	-26.05	-29.36	-31.87
-4.3	-14.75	-13.63	-10.08	10.45	-4.51	-13.34	-28	-29.6	-31.83
-4.2	-16.37	-13.88	-9.7	10.71	-3.28	-13.31	-30.49	-29.18	-31.48
-4.1	-18.6	-13.98	-9.17	10.96	-2.25	-13.27	-33.61	-28.41	-30.81
-4	-20.45	-13.95	-8.58	11.21	-1.22	-13.28	-35.6	-27.5	-30.08
-3.9	-21.26	-13.62	-7.9	11.46	-0.18	-13.38	-35.04	-26.38	-29.24
-3.8	-21.33	-13.24	-7.13	11.72	0.86	-13.46	-33.25	-25.28	-28.24
-3.7	-20.26	-12.84	-6.32	11.97	1.75	-13.47	-30.81	-24.5	-27.22
-3.6	-18.34	-12.4	-5.48	12.23	2.58	-13.23	-27.95	-23.9	-26.2
-3.5	-16.33	-11.94	-4.55	12.48	3.4	-12.89	-25.63	-23.41	-25.12
-3.4	-14.22	-11.5	-3.57	12.72	4.23	-12.22	-24.31	-23.29	-24.01
-3.3	-12.26	-10.99	-2.59	12.94	5.03	-11.13	-23.14	-23.2	-22.92
-3.2	-10.88	-10.19	-1.61	13.15	5.7	-9.99	-22.55	-23.29	-21.87
-3.1	-9.54	-9.25	-0.67	13.37	6.33	-8.62	-22.01	-23.44	-20.93
-3	-8.36	-8.17	0.21	13.58	6.96	-7.02	-21.81	-23.57	-20.06
-2.9	-7.21	-6.82	1.07	13.78	7.6	-5.43	-21.67	-23.61	-19.26
-2.8	-5.98	-5.35	1.9	13.98	8.15	-3.92	-21.58	-23.58	-18.54
-2.7	-4.71	-3.82	2.71	14.18	8.68	-2.49	-21.5	-23.24	-17.86
-2.6	-3.36	-2.22	3.51	14.37	9.21	-1.08	-21.26	-22.61	-17.2
-2.5	-1.94	-0.66	4.27	14.53	9.75	0.2	-20.86	-21.84	-16.61
-2.4	-0.49	0.81	4.99	14.69	10.25	1.31	-20.26	-20.89	-16.11

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-2.3	0.97	2.22	5.7	14.85	10.69	2.41	-19.4	-19.81	-15.62
-2.2	2.43	3.55	6.35	15.01	11.13	3.41	-18.39	-18.76	-15.22
-2.1	3.82	4.73	6.91	15.18	11.53	4.32	-17.33	-17.83	-14.97
-2	5.15	5.87	7.47	15.34	11.93	5.22	-16.25	-16.93	-14.71
-1.9	6.41	6.91	8.03	15.51	12.26	6.02	-15.25	-16.16	-14.48
-1.8	7.55	7.86	8.53	15.66	12.58	6.74	-14.38	-15.53	-14.36
-1.7	8.66	8.78	9.01	15.77	12.9	7.46	-13.56	-14.95	-14.28
-1.6	9.64	9.53	9.5	15.87	13.22	8.11	-12.97	-14.62	-14.2
-1.5	10.6	10.28	9.94	15.97	13.51	8.71	-12.39	-14.28	-14.22
-1.4	11.41	10.96	10.33	16.07	13.76	9.29	-12.04	-14.08	-14.34
-1.3	12.2	11.59	10.69	16.17	14.01	9.78	-11.73	-13.97	-14.5
-1.2	12.89	12.19	11.03	16.28	14.23	10.23	-11.62	-13.91	-14.74
-1.1	13.54	12.72	11.32	16.38	14.45	10.67	-11.58	-13.99	-15.07
-1	14.12	13.21	11.6	16.46	14.6	11.05	-11.69	-14.14	-15.45
-0.9	14.65	13.65	11.87	16.53	14.76	11.39	-11.92	-14.37	-15.86
-0.8	15.12	14.04	12.09	16.59	14.91	11.73	-12.25	-14.71	-16.34
-0.7	15.52	14.4	12.29	16.66	15.07	12	-12.71	-15.07	-16.89
-0.6	15.88	14.7	12.48	16.72	15.2	12.23	-13.25	-15.46	-17.44
-0.5	16.18	14.95	12.64	16.78	15.29	12.47	-13.83	-15.91	-17.97
-0.4	16.42	15.15	12.73	16.83	15.38	12.62	-14.43	-16.32	-18.46
-0.3	16.62	15.29	12.81	16.86	15.44	12.73	-14.91	-16.55	-18.91
-0.2	16.75	15.4	12.88	16.86	15.5	12.84	-15.24	-16.76	-19.28
-0.1	16.85	15.48	12.9	16.87	15.5	12.89	-15.46	-16.83	-19.33
0	16.87	15.5	12.9	16.87	15.5	12.9	-15.26	-16.63	-19.23
0.1	16.88	15.52	12.91	16.88	15.5	12.92	-15.07	-16.51	-19.05
0.2	16.78	15.44	12.87	16.88	15.5	12.87	-14.36	-15.99	-18.62
0.3	16.67	15.35	12.8	16.89	15.47	12.79	-13.64	-15.43	-17.98
0.4	16.47	15.21	12.72	16.88	15.41	12.71	-12.87	-14.86	-17.29
0.5	16.24	15.02	12.61	16.83	15.32	12.55	-12.07	-14.23	-16.6
0.6	15.94	14.8	12.44	16.79	15.23	12.34	-11.39	-13.6	-15.95
0.7	15.59	14.49	12.26	16.74	15.13	12.12	-10.8	-13.1	-15.32
0.8	15.17	14.14	12.07	16.68	14.97	11.83	-10.32	-12.67	-14.71
0.9	14.67	13.74	11.83	16.62	14.81	11.51	-9.96	-12.3	-14.21
1	14.11	13.27	11.56	16.55	14.65	11.18	-9.71	-12.04	-13.79
1.1	13.45	12.75	11.3	16.46	14.49	10.76	-9.59	-11.84	-13.38
1.2	12.71	12.17	11	16.34	14.3	10.31	-9.6	-11.74	-13.04
1.3	11.87	11.5	10.64	16.23	14.04	9.85	-9.75	-11.78	-12.81
1.4	10.9	10.78	10.27	16.11	13.77	9.25	-10.04	-11.85	-12.6

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
1.5	9.86	9.94	9.89	15.99	13.5	8.6	-10.41	-12.09	-12.42
1.6	8.65	9.05	9.43	15.88	13.23	7.94	-10.98	-12.38	-12.37
1.7	7.39	8.06	8.93	15.76	12.89	7.14	-11.58	-12.77	-12.39
1.8	5.79	6.9	8.42	15.58	12.56	6.29	-12.49	-13.34	-12.41
1.9	4.18	5.74	7.86	15.4	12.23	5.44	-13.41	-13.91	-12.51
2	2.27	4.36	7.23	15.21	11.88	4.43	-14.62	-14.69	-12.7
2.1	0.31	2.94	6.6	15.01	11.45	3.39	-15.89	-15.5	-12.9
2.2	-1.3	1.56	5.95	14.8	10.99	2.33	-17.2	-16.35	-13.13
2.3	-2.63	0.26	5.2	14.6	10.53	1.13	-18.49	-17.22	-13.48
2.4	-3.28	-0.92	4.43	14.34	10.07	-0.04	-19.4	-18.04	-13.85
2.5	-3.24	-1.54	3.67	14.06	9.6	-1.16	-19.89	-18.61	-14.23
2.6	-2.8	-1.68	2.76	13.78	9.08	-1.93	-19.94	-18.92	-14.75
2.7	-2.09	-1.58	1.77	13.49	8.55	-2.53	-19.52	-18.97	-15.35
2.8	-1.3	-1.18	0.77	13.21	7.94	-2.99	-18.8	-18.67	-15.97
2.9	-0.69	-0.64	-0.36	12.92	7.33	-2.86	-18.06	-18.2	-16.7
3	-0.28	-0.12	-1.65	12.58	6.65	-2.59	-17.34	-17.67	-17.58
3.1	-0.04	0.35	-2.98	12.18	5.95	-2.29	-16.78	-17.06	-18.49
3.2	-0.08	0.77	-4.42	11.77	5.24	-1.86	-16.47	-16.47	-19.49
3.3	-0.17	1	-6.15	11.34	4.52	-1.42	-16.21	-16.01	-20.7
3.4	-0.58	1.14	-8.1	10.91	3.78	-0.99	-16.32	-15.6	-22.06
3.5	-1.01	1.17	-10	10.48	2.86	-0.7	-16.42	-15.29	-23.42
3.6	-1.72	1.01	-11.84	9.98	1.93	-0.44	-16.82	-15.17	-24.86
3.7	-2.51	0.79	-13.62	9.39	0.99	-0.2	-17.29	-15.11	-26.44
3.8	-3.51	0.4	-15.31	8.81	0.03	-0.21	-17.95	-15.22	-27.85
3.9	-4.63	-0.08	-16.89	8.22	-0.99	-0.26	-18.72	-15.42	-29.08
4	-5.83	-0.65	-17.09	7.62	-2.02	-0.32	-19.48	-15.7	-29.35
4.1	-7.07	-1.36	-17.21	7.03	-3.12	-0.59	-20.24	-16.11	-29.58
4.2	-8.1	-2.15	-17.3	6.3	-4.41	-0.88	-20.78	-16.6	-29.75
4.3	-8.69	-3.09	-16.68	5.51	-5.71	-1.19	-20.9	-17.22	-29.25
4.4	-8.9	-4.23	-15.67	4.7	-6.97	-1.7	-20.7	-18.03	-28.37
4.5	-8.77	-5.44	-14.66	3.87	-8.24	-2.27	-20.29	-18.93	-27.46
4.6	-8.25	-6.8	-13.89	3.04	-9.54	-2.88	-19.61	-20	-26.67
4.7	-7.73	-8.23	-13.45	2.21	-10.84	-3.72	-18.95	-21.19	-26.04
4.8	-7.2	-9.54	-13.15	1.41	-12.1	-4.62	-18.29	-22.36	-25.49
4.9	-6.69	-10.21	-12.89	0.64	-13.49	-5.53	-17.66	-23.37	-24.98
5	-6.46	-10.89	-12.84	-0.11	-14.77	-6.72	-17.27	-24.47	-24.68
5.1	-6.22	-10.83	-12.97	-0.83	-15.95	-7.99	-16.87	-24.84	-24.54
5.2	-6.29	-10.45	-13.09	-1.54	-16.63	-9.35	-16.76	-24.92	-24.41

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
5.3	-6.41	-10	-13.3	-1.94	-16.78	-10.98	-16.69	-24.92	-24.36
5.4	-6.76	-9.52	-13.66	-1.75	-16.49	-12.66	-16.84	-24.63	-24.45
5.5	-7.22	-9.02	-14.06	-1.54	-15.79	-14.36	-17.1	-24.21	-24.59
5.6	-7.87	-8.68	-14.47	-1.3	-15.2	-14.97	-17.54	-23.87	-24.77
5.7	-8.7	-8.48	-14.99	-1.06	-14.86	-15.28	-18.14	-23.58	-25.07
5.8	-9.71	-8.37	-15.61	-0.81	-14.51	-15.48	-18.95	-23.39	-25.48
5.9	-10.94	-8.44	-16.23	-0.38	-14.14	-14.91	-20.03	-23.39	-25.87
6	-12.38	-8.63	-16.86	0.07	-13.7	-14.2	-21.39	-23.55	-26.27
6.1	-14.02	-8.92	-17.65	0.52	-13.17	-13.45	-23.15	-23.89	-26.89
6.2	-15.9	-9.48	-18.42	0.96	-12.76	-12.93	-25.44	-24.65	-27.46
6.3	-17.75	-10.06	-19.17	1.4	-12.39	-12.47	-28.19	-25.52	-27.97
6.4	-19.46	-10.84	-19.93	1.76	-12.06	-12.03	-31.85	-26.86	-28.7
6.5	-21.09	-11.75	-20.69	1.98	-11.81	-11.91	-35.35	-28.62	-29.42
6.6	-21.08	-12.74	-21.45	2.19	-11.72	-11.86	-37.27	-30.78	-30.03
6.7	-21.05	-14.01	-22.14	2.39	-11.52	-11.84	-38.55	-34.27	-30.48
6.8	-20.24	-15.29	-22.75	2.59	-11.36	-12.09	-35.24	-38.11	-30.78
6.9	-19.23	-16.71	-23.38	2.74	-11.23	-12.41	-31.32	-40.08	-31
7	-18.61	-18.16	-24.04	2.7	-11.26	-12.75	-29.08	-40.45	-31.11
7.1	-18.25	-19.55	-24.64	2.65	-11.35	-13.29	-27.85	-39.12	-30.94
7.2	-18.14	-20.82	-25.24	2.61	-11.46	-13.9	-27.21	-35.99	-30.73
7.3	-18.29	-21.99	-25.81	2.55	-11.62	-14.54	-27.07	-32.42	-30.66
7.4	-18.6	-22.97	-26.23	2.49	-11.86	-15.28	-27.32	-30.02	-30.57
7.5	-19.06	-23.74	-26.54	2.26	-12.26	-16.02	-28.01	-28.79	-30.37
7.6	-19.62	-24.48	-26.83	2.02	-12.71	-16.74	-29.18	-27.95	-30.13
7.7	-20.16	-25.27	-27.12	1.78	-13.19	-17.42	-31.03	-27.51	-29.89
7.8	-20.67	-26.26	-27.39	1.53	-13.75	-18.04	-33.81	-27.36	-29.6
7.9	-21.06	-27.47	-27.64	1.28	-14.57	-18.58	-36.46	-27.33	-29.28
8	-21.22	-30.15	-27.87	0.89	-15.49	-18.94	-37.87	-27.79	-28.98
8.1	-21.26	-33.3	-28.06	0.47	-16.48	-19.18	-38.88	-28.31	-28.69
8.2	-21.06	-34.39	-28.16	0.05	-17.54	-19.33	-36.72	-29.22	-28.41
8.3	-20.81	-32.78	-28.22	-0.38	-18.62	-19.4	-33.97	-30.41	-28.15
8.4	-20.61	-30.64	-28.24	-0.8	-19.55	-19.44	-31.53	-31.63	-27.91
8.5	-20.44	-28.11	-28.07	-1.22	-20.33	-19.48	-29.36	-32.98	-27.73
8.6	-20.41	-25.62	-27.82	-1.63	-20.98	-19.65	-27.81	-34.21	-27.59
8.7	-20.51	-23.65	-27.55	-2.01	-21.49	-19.86	-26.76	-34.54	-27.46
8.8	-20.76	-22.17	-27.22	-2.38	-21.29	-20.06	-26.04	-33.98	-27.36
8.9	-21.19	-20.95	-26.78	-2.72	-20.78	-20.43	-25.62	-33.09	-27.3
9	-21.79	-20.06	-26.34	-2.72	-19.97	-20.94	-25.44	-32.09	-27.26

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
9.1	-22.6	-19.52	-25.91	-2.68	-19.16	-21.49	-25.55	-31.01	-27.22
9.2	-23.61	-19.11	-25.45	-2.61	-18.43	-22.12	-25.94	-30.07	-27.19
9.3	-24.72	-19.05	-25	-2.5	-17.88	-22.77	-26.56	-29.38	-27.16
9.4	-25.91	-19.13	-24.56	-2.31	-17.35	-23.4	-27.53	-28.83	-27.14
9.5	-27.07	-19.44	-24.18	-1.94	-17.01	-23.74	-28.7	-28.52	-27.1
9.6	-27.84	-20.09	-23.84	-1.56	-16.7	-24.02	-30.46	-28.5	-27.03
9.7	-28.5	-20.84	-23.53	-1.18	-16.72	-24.32	-32.41	-28.53	-26.95
9.8	-28.53	-22.4	-23.25	-0.8	-16.78	-24.33	-35.45	-28.88	-26.87
9.9	-28.2	-24.26	-23.02	-0.45	-16.87	-24.06	-38.99	-29.31	-26.74
10	-27.85	-26.31	-22.84	-0.14	-17.07	-23.81	-42.43	-29.77	-26.57
15	-29.9	-23.54	-38.87	-3.74	-15.03	-25.97	-36.81	-28.43	-40.05
20	-29.05	-30.82		-8.5	-29.1	-32.41	-27.44	-39.08	
25	-28.8	-28.07		-11.44	-30.06	-32.03	-32.83	-29.09	
30	-42.49	-35.87		-17.59	-26	-26.84	-39.61	-38.29	
35	-40.71	-30.43		-34.81	-28.13	-34.67	-37.37	-28.01	
40	-44.39	-31.41		-30.82	-31.5	-33.44	-38.13	-35.01	
45	-48.94	-34.23		-29.27	-32	-44.16	-39.48	-31.66	
50	-37.87	-39.35		-32.53	-38.53	-33.62	-36.44	-33.24	
55	-41.92	-43.51		-36.98	-43.63	-38.21	-44.86	-41.3	
60	-55.12	-38.2		-37.71	-25.14	-40.44	-39.44	-34.88	
65	-39.69	-38.21		-37.38	-30.45	-48.12	-42.16	-36.9	
70	-41.43	-39.96		-35.22	-35.31	-39.14	-44.51	-42.24	
75	-43.5	-42.85		-31.84	-34.82	-40.5	-38.04	-44.46	
80	-59.33	-48.45		-35.97	-40.56	-49.56	-55.88	-60.84	
85		-68.69		-40.13	-47.39	-70.41		-59.75	
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									

FCC tabular data for target scan=70deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
155									
160									
165									
170									
175									
180									

C.1.2 Tabular Data, Mainbeam @ Elevation=40° (Scan=50°), 14.00 GHz

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85									
-80									
-75									
-70	-57.48						-48.1		
-65	-53.77						-49.71		
-60	-40.53						-39.06		
-55	-39.27	-52.26					-35.32	-40.64	

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-50	-46.07	-51.17					-39.77	-45.42	
-45	-37.57	-41.3	-36.6			-43.73	-35.84	-34.34	-32.13
-40	-37.55	-45.29	-33.65			-38.79	-40.46	-39.39	-34.46
-35	-33.04	-35.65	-29.93	-30.21	-37	-39.22	-35.52	-33.59	-24.6
-30	-34.29	-29.86	-35.96	-14.31	-32.99	-37.89	-40.28	-31.85	-37.04
-25	-33.71	-34.22	-24.37	-8.56	-27.51	-44.04	-38.98	-33.85	-28.55
-20	-30.56	-32.03	-30.14	-5.52	-27.21	-29.81	-36.22	-39.72	-42.18
-15	-23.07	-25.7	-29.84	-7.7	-29.73	-25.49	-38.31	-31.86	-33.92
-10	-22.52	-17.33	-20.04	-4.19	-17.45	-13.02	-36.9	-31.66	-33.88
-9.9	-22.93	-17.03	-20.32	-3.92	-17.14	-12.63	-38.06	-31.14	-34.04
-9.8	-23.67	-16.74	-20.54	-3.64	-16.89	-12.37	-39.2	-30.68	-34.2
-9.7	-24.5	-16.53	-20.71	-3.36	-16.69	-12.21	-40.33	-30.34	-34.37
-9.6	-25.55	-16.44	-20.79	-3.12	-16.61	-12.11	-40.94	-30.21	-34.54
-9.5	-26.76	-16.38	-20.74	-2.89	-16.72	-12.15	-41.18	-30.14	-34.67
-9.4	-27.92	-16.5	-20.57	-2.67	-16.91	-12.26	-40.87	-30.34	-34.7
-9.3	-28.92	-16.7	-20.25	-2.45	-17.15	-12.39	-39.89	-30.67	-34.62
-9.2	-29.82	-16.98	-19.83	-2.27	-17.44	-12.61	-38.7	-31.21	-34.44
-9.1	-30.54	-17.4	-19.34	-2.2	-18.13	-12.89	-37.74	-32.16	-34.18
-9	-31.19	-17.83	-18.8	-2.14	-18.94	-13.19	-36.93	-33.23	-33.83
-8.9	-32	-18.13	-18.24	-2.08	-19.83	-13.48	-36.42	-34.61	-33.4
-8.8	-32.91	-18.29	-17.8	-2.03	-20.8	-13.8	-36.15	-36.13	-32.89
-8.7	-33.3	-18.2	-17.39	-2.06	-22.28	-14.16	-36.14	-37.25	-32.38
-8.6	-32.97	-17.72	-17.02	-2.19	-24.42	-14.33	-36.42	-37.5	-31.89
-8.5	-32.1	-16.93	-16.76	-2.33	-26.72	-14.43	-36.9	-36.87	-31.48
-8.4	-30.6	-16.07	-16.55	-2.47	-29.19	-14.48	-37.56	-35.73	-31.11
-8.3	-28.55	-15.04	-16.46	-2.62	-31.91	-14.31	-38.3	-33.9	-30.84
-8.2	-26.15	-14.06	-16.57	-2.97	-30.48	-14.09	-38.85	-32.15	-30.76
-8.1	-23.37	-13.24	-16.82	-3.34	-28.78	-13.82	-39.08	-30.82	-30.83
-8	-20.78	-12.49	-17.17	-3.73	-26.83	-13.47	-38.84	-29.69	-30.98
-7.9	-18.74	-11.82	-17.64	-4.13	-24.6	-13.07	-36.92	-28.72	-31.23
-7.8	-16.81	-11.28	-18.33	-4.65	-23.02	-12.66	-35	-28	-31.66
-7.7	-15.3	-10.84	-19.38	-5.27	-22.16	-12.36	-33.22	-27.46	-32.32
-7.6	-13.91	-10.51	-20.92	-5.89	-21.26	-12.06	-31.49	-27.09	-33.24
-7.5	-12.78	-10.37	-22.93	-6.51	-20.32	-11.79	-30.15	-26.96	-34.37
-7.4	-11.8	-10.31	-25.79	-7.11	-19.48	-11.68	-29.03	-26.96	-35.81
-7.3	-10.97	-10.41	-29.19	-7.54	-19.3	-11.58	-28.11	-27.15	-37.44
-7.2	-10.35	-10.73	-32.28	-7.94	-19.57	-11.54	-27.5	-27.61	-39.25
-7.1	-9.78	-11.1	-31.46	-8.29	-19.89	-11.7	-26.94	-28.16	-40.62

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-7	-9.46	-11.82	-28.68	-8.61	-20.25	-11.87	-26.71	-29.19	-41.33
-6.9	-9.17	-12.6	-25.83	-8.3	-21.12	-12.14	-26.49	-30.37	-41.37
-6.8	-9.13	-13.56	-23.09	-7.79	-22.38	-12.56	-26.59	-32.22	-40.77
-6.7	-9.15	-14.66	-20.76	-7.25	-23.2	-13	-26.76	-34.72	-39.62
-6.6	-9.41	-15.7	-18.9	-6.69	-23.61	-13.55	-27.21	-37.42	-38.16
-6.5	-9.81	-16.45	-17.51	-6.02	-23.82	-14.24	-27.82	-39.9	-36.54
-6.4	-10.42	-16.85	-16.38	-5.19	-23.65	-14.95	-28.67	-41.82	-35.16
-6.3	-11.26	-16.89	-15.54	-4.36	-22.69	-15.84	-29.77	-42.25	-34.05
-6.2	-12.26	-15.68	-14.82	-3.54	-20.87	-16.85	-30.98	-38.9	-33.04
-6.1	-13.42	-14.32	-14.32	-2.76	-18.86	-17.87	-32.2	-35.39	-32.24
-6	-14.66	-12.92	-14.18	-2.17	-16.71	-19.04	-33.39	-32.76	-31.75
-5.9	-15.46	-11.53	-14.22	-1.6	-14.64	-20.3	-33.89	-30.82	-31.41
-5.8	-15.9	-10.23	-14.37	-1.04	-12.67	-21.58	-33.85	-29.19	-31.13
-5.7	-15.59	-9.21	-14.75	-0.5	-11.17	-22.84	-33.12	-28.05	-30.97
-5.6	-14.53	-8.36	-15.48	-0.2	-9.93	-24.15	-31.69	-27.21	-30.97
-5.5	-13.18	-7.7	-16.51	0.07	-8.82	-25.6	-30.16	-26.6	-31.13
-5.4	-11.74	-7.27	-17.83	0.34	-7.76	-25.57	-28.79	-26.27	-31.43
-5.3	-10.34	-6.96	-19.4	0.59	-6.75	-25.11	-27.59	-26.08	-31.88
-5.2	-9.17	-6.81	-21.18	0.64	-5.96	-24.62	-26.64	-26.06	-32.48
-5.1	-8.29	-6.87	-23.12	0.61	-5.36	-22.97	-25.96	-26.27	-33.17
-5	-7.57	-6.97	-23.87	0.57	-4.79	-21.03	-25.43	-26.53	-34.21
-4.9	-7.15	-7.41	-23.25	0.52	-4.27	-18.95	-25.19	-27.15	-35.54
-4.8	-6.86	-7.91	-21.91	0.21	-3.78	-17.38	-25.08	-27.86	-37.05
-4.7	-6.86	-8.65	-20.15	-0.26	-3.52	-15.72	-25.27	-28.91	-38.71
-4.6	-7.01	-9.58	-18.05	-0.75	-3.36	-13.97	-25.61	-30.29	-40.36
-4.5	-7.44	-10.57	-15.9	-1.28	-3.24	-12.75	-26.28	-32.07	-41.74
-4.4	-8.09	-11.49	-14.01	-2.15	-3.17	-11.52	-27.2	-34.62	-42.64
-4.3	-8.97	-12.3	-12.39	-3.23	-3.21	-10.33	-28.51	-38.06	-43.03
-4.2	-10.15	-12.87	-11.41	-4.35	-3.47	-9.54	-30.35	-41.2	-42.52
-4.1	-11.35	-12.47	-10.64	-5.48	-3.81	-8.75	-32.64	-41.68	-41.53
-4	-12.54	-11.9	-10.06	-6.07	-4.23	-8.06	-36.32	-41.45	-40.04
-3.9	-13.65	-11.07	-9.87	-6.2	-4.71	-7.68	-39.72	-39.68	-38.81
-3.8	-13.18	-10.07	-9.99	-6.19	-5.35	-7.34	-38.65	-37.24	-37.91
-3.7	-12.61	-9.08	-10.31	-6.05	-5.97	-7.14	-37.33	-34.81	-37.22
-3.6	-11.54	-8.29	-10.93	-4.88	-6.51	-7.21	-35.23	-33.03	-36.82
-3.5	-10.29	-7.64	-12.04	-3.13	-6.99	-7.32	-32.84	-31.7	-36.84
-3.4	-9.25	-7.22	-13.62	-1.35	-7.14	-7.54	-31	-30.72	-37.25
-3.3	-8.45	-7.18	-15.34	0.42	-6.23	-7.89	-29.77	-30.25	-37.82

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-3.2	-7.88	-7.44	-16.92	1.94	-4.99	-8.25	-28.82	-30.06	-38.63
-3.1	-7.85	-8.39	-17.04	3.33	-3.53	-8.36	-28.5	-30.28	-39.96
-3	-8.02	-10.38	-16.13	4.7	-1.88	-8.13	-28.37	-30.95	-41.02
-2.9	-9.29	-12.82	-13.55	6.06	-0.2	-7.78	-28.99	-31.77	-41.8
-2.8	-10.79	-15.01	-10.01	7.07	1.29	-6.71	-29.81	-33.01	-40.95
-2.7	-11.76	-17.1	-6.56	7.99	2.74	-5.16	-31.07	-34.28	-39.06
-2.6	-12.43	-16.57	-3.58	8.9	4.15	-3.47	-32.52	-35.33	-36.64
-2.5	-11.68	-13.18	-1.25	9.81	5.41	-1.73	-33.68	-36.04	-34.27
-2.4	-9.54	-8.64	0.55	10.55	6.45	0.01	-34.46	-35.92	-32.26
-2.3	-6.65	-4.68	2.16	11.28	7.42	1.77	-34.19	-34.36	-30.43
-2.2	-3.37	-1.62	3.69	11.98	8.37	3.2	-32.2	-31.54	-28.72
-2.1	-0.1	1.19	5.01	12.65	9.25	4.52	-29.38	-28.85	-27.34
-2	2.48	3.07	6.1	13.16	10.02	5.85	-26.91	-27	-26.36
-1.9	4.59	4.88	7.18	13.68	10.7	6.9	-24.74	-25.23	-25.39
-1.8	6.4	6.39	8.18	14.19	11.38	7.94	-23	-23.87	-24.51
-1.7	7.97	7.69	9.07	14.66	12.04	8.96	-21.59	-22.81	-23.78
-1.6	9.37	8.88	9.86	15.06	12.62	9.78	-20.44	-21.89	-23.19
-1.5	10.6	9.93	10.6	15.46	13.11	10.54	-19.51	-21.15	-22.67
-1.4	11.7	10.88	11.28	15.86	13.58	11.27	-18.75	-20.53	-22.21
-1.3	12.69	11.77	11.89	16.21	14.05	11.87	-18.13	-19.98	-21.83
-1.2	13.57	12.51	12.48	16.5	14.46	12.46	-17.64	-19.6	-21.47
-1.1	14.37	13.23	13	16.8	14.81	13.02	-17.26	-19.26	-21.2
-1	15.05	13.82	13.43	17.07	15.13	13.49	-17.02	-19.07	-21.02
-0.9	15.66	14.35	13.84	17.27	15.44	13.91	-16.87	-18.95	-20.85
-0.8	16.19	14.84	14.24	17.45	15.72	14.27	-16.82	-18.86	-20.66
-0.7	16.67	15.25	14.55	17.63	15.95	14.57	-16.83	-18.86	-20.56
-0.6	17.07	15.64	14.8	17.8	16.11	14.87	-16.92	-18.87	-20.52
-0.5	17.41	15.96	15.04	17.9	16.28	15.11	-17.06	-18.91	-20.48
-0.4	17.7	16.2	15.25	18	16.45	15.3	-17.23	-19.01	-20.44
-0.3	17.91	16.39	15.41	18.11	16.55	15.46	-17.43	-19.14	-20.41
-0.2	18.08	16.53	15.5	18.18	16.6	15.53	-17.61	-19.26	-20.42
-0.1	18.17	16.61	15.58	18.21	16.63	15.58	-17.75	-19.36	-20.47
0	18.24	16.67	15.62	18.24	16.67	15.62	-17.87	-19.44	-20.49
0.1	18.2	16.64	15.61	18.26	16.67	15.6	-17.87	-19.41	-20.44
0.2	18.15	16.61	15.56	18.21	16.61	15.55	-17.85	-19.39	-20.45
0.3	18	16.47	15.47	18.13	16.52	15.45	-17.7	-19.32	-20.5
0.4	17.81	16.28	15.33	18.05	16.43	15.26	-17.51	-19.21	-20.47
0.5	17.55	16.04	15.14	17.96	16.32	15.06	-17.29	-19.07	-20.41

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
0.6	17.22	15.75	14.94	17.8	16.14	14.87	-17.03	-18.9	-20.37
0.7	16.82	15.4	14.67	17.64	15.91	14.57	-16.8	-18.72	-20.35
0.8	16.32	15.02	14.33	17.48	15.69	14.26	-16.6	-18.55	-20.31
0.9	15.8	14.52	13.97	17.26	15.46	13.9	-16.43	-18.44	-20.27
1	15.14	13.98	13.6	17	15.16	13.45	-16.4	-18.37	-20.23
1.1	14.47	13.32	13.09	16.74	14.78	13	-16.38	-18.42	-20.3
1.2	13.61	12.62	12.52	16.47	14.4	12.54	-16.54	-18.5	-20.4
1.3	12.7	11.84	11.93	16.1	14.03	11.99	-16.76	-18.67	-20.51
1.4	11.62	10.95	11.3	15.71	13.6	11.4	-17.17	-18.96	-20.66
1.5	10.42	9.96	10.56	15.33	13.07	10.75	-17.7	-19.33	-20.92
1.6	9.04	8.8	9.73	14.86	12.54	10	-18.4	-19.86	-21.24
1.7	7.4	7.46	8.86	14.32	12.02	9.26	-19.32	-20.56	-21.6
1.8	5.6	6.04	7.92	13.78	11.46	8.47	-20.38	-21.32	-22.02
1.9	3.32	4.34	6.83	13.24	10.72	7.6	-21.78	-22.3	-22.57
2	0.86	2.55	5.62	12.52	9.98	6.66	-23.3	-23.34	-23.2
2.1	-1.56	0.78	4.36	11.8	9.24	5.64	-24.94	-24.37	-23.84
2.2	-3.79	-0.82	2.94	11.08	8.48	4.56	-26.52	-25.31	-24.63
2.3	-4.45	-2.1	1.45	10.22	7.5	3.48	-27.19	-26.06	-25.43
2.4	-3.91	-2.38	-0.06	9.25	6.5	2.31	-27.11	-26.24	-26.21
2.5	-2.79	-2.01	-1.38	8.24	5.5	1.03	-26.48	-26	-26.88
2.6	-1.45	-1.39	-2.4	7.19	4.45	-0.28	-25.41	-25.52	-27.39
2.7	-0.15	-0.53	-3.14	5.67	3.1	-1.6	-24.19	-24.72	-27.75
2.8	0.77	0.29	-3.51	4.14	1.69	-2.89	-23.12	-23.87	-27.86
2.9	1.41	0.95	-3.32	2.62	0.26	-4.13	-22.18	-23.11	-27.62
3	1.75	1.39	-2.93	0.67	-1.34	-5.15	-21.53	-22.46	-27.25
3.1	1.86	1.77	-2.49	-1.48	-3.56	-6.12	-21.09	-21.86	-26.82
3.2	1.77	1.89	-2.12	-3.61	-5.99	-6.94	-20.84	-21.49	-26.39
3.3	1.48	1.89	-1.85	-5.07	-8.57	-7.28	-20.81	-21.24	-26
3.4	0.99	1.71	-1.66	-4.68	-11.65	-7.51	-20.95	-21.16	-25.66
3.5	0.32	1.37	-1.58	-4.26	-15.91	-7.6	-21.28	-21.25	-25.4
3.6	-0.55	0.94	-1.68	-3.82	-18.83	-7.59	-21.78	-21.45	-25.29
3.7	-1.59	0.37	-1.98	-2.59	-20.66	-7.51	-22.43	-21.78	-25.33
3.8	-2.85	-0.35	-2.35	-1.25	-19.52	-7.4	-23.29	-22.28	-25.45
3.9	-4.25	-1.16	-2.83	0.07	-16.16	-7.32	-24.25	-22.88	-25.67
4	-6	-2.34	-3.65	1.05	-13.55	-7.22	-25.5	-23.91	-26.18
4.1	-7.77	-3.57	-4.68	1.7	-11.49	-7.23	-26.81	-25.02	-26.84
4.2	-9.63	-5.01	-5.83	2.35	-10.33	-7.33	-28.28	-26.49	-27.6
4.3	-11.22	-6.59	-7.19	2.9	-9.66	-7.42	-29.66	-28.24	-28.59

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
4.4	-11.6	-8.29	-9.22	3.05	-9.15	-7.6	-30.45	-30.43	-29.82
4.5	-11.02	-10.13	-11.83	3.2	-8.72	-7.86	-30.72	-33.37	-31.23
4.6	-10.26	-11.99	-14.64	3.35	-8.58	-8.17	-30.56	-36.96	-32.7
4.7	-9.1	-13.53	-17.17	3.24	-8.57	-8.63	-29.54	-40.26	-34.08
4.8	-8.03	-14.09	-18.6	3.07	-8.67	-9.16	-28.51	-41.89	-34.92
4.9	-7.45	-14.32	-17.83	2.9	-8.75	-9.7	-27.71	-41.07	-34.83
5	-6.88	-13.84	-15.78	2.57	-9.02	-10.4	-26.89	-37.99	-33.96
5.1	-6.69	-13.12	-13.58	2.13	-9.34	-11.22	-26.39	-35.15	-32.7
5.2	-6.58	-12.53	-11.64	1.68	-9.71	-12.06	-25.95	-33.03	-31.35
5.3	-6.7	-12.2	-10.12	1.16	-10.15	-13.03	-25.73	-31.76	-30.09
5.4	-6.98	-12.09	-8.97	0.42	-10.7	-14	-25.67	-31.01	-28.97
5.5	-7.38	-12.21	-8.11	-0.33	-11.3	-14.94	-25.73	-30.58	-28.02
5.6	-8.02	-12.67	-7.53	-1.08	-11.95	-15.86	-26.02	-30.61	-27.27
5.7	-8.71	-13.3	-7.25	-1.91	-12.68	-16.69	-26.36	-30.84	-26.76
5.8	-9.6	-14.26	-7.12	-2.73	-13.51	-17.39	-26.94	-31.46	-26.41
5.9	-10.51	-15.48	-7.08	-3.55	-14.42	-17.46	-27.56	-32.4	-26.11
6	-11.49	-16.77	-7.31	-4	-15.4	-17.45	-28.4	-33.67	-26.04
6.1	-12.48	-18.03	-7.73	-4.28	-16.27	-17.38	-29.29	-35.74	-26.14
6.2	-13.4	-19.18	-8.25	-4.54	-17.4	-17.18	-30.36	-38.61	-26.3
6.3	-14.25	-19.6	-8.88	-4.39	-18.74	-17.01	-31.53	-41.96	-26.53
6.4	-14.97	-19.25	-9.79	-3.88	-20.14	-16.92	-32.78	-45.12	-26.93
6.5	-15.53	-18.62	-11.02	-3.36	-20.97	-17.04	-34.14	-46.74	-27.5
6.6	-15.98	-17.67	-12.33	-2.82	-22.03	-17.25	-35.53	-45.05	-28.09
6.7	-16.35	-16.53	-13.77	-2.29	-23.17	-17.65	-36.86	-40.75	-28.7
6.8	-16.67	-15.56	-16.18	-1.77	-23.64	-18.34	-38.1	-37.4	-29.47
6.9	-17.11	-14.95	-18.84	-1.28	-23.66	-19.11	-39.03	-35.35	-30.2
7	-17.61	-14.4	-21.64	-1	-23.47	-20.14	-39.76	-33.63	-30.87
7.1	-18.28	-14.2	-23.57	-0.74	-22.56	-21.35	-40.24	-32.52	-31.38
7.2	-19.1	-14.22	-24.11	-0.49	-22.45	-22.56	-40.51	-31.83	-31.71
7.3	-20.01	-14.44	-23.42	-0.52	-22.57	-23.31	-40.55	-31.41	-31.9
7.4	-20.96	-14.9	-21.88	-0.57	-22.87	-23.54	-40.31	-31.25	-31.95
7.5	-21.82	-15.55	-19.97	-0.62	-23.04	-23.48	-39.79	-31.28	-31.87
7.6	-22.35	-16.41	-18.62	-0.96	-23.5	-22.67	-39.03	-31.49	-31.73
7.7	-22.37	-17.77	-17.56	-1.37	-24.3	-21.58	-37.98	-32.12	-31.6
7.8	-22.14	-19.28	-16.83	-1.78	-25.43	-20.4	-36.96	-32.86	-31.49
7.9	-21.5	-21.47	-16.61	-2.49	-27.83	-19.31	-35.99	-34.13	-31.53
8	-20.86	-23.91	-16.63	-3.33	-29.08	-18.41	-35.09	-35.6	-31.65
8.1	-20.33	-26.01	-16.8	-4.2	-29.53	-17.58	-34.38	-37.77	-31.82

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
8.2	-19.91	-27.38	-17.25	-5.46	-28.7	-17.11	-33.78	-40.89	-32.11
8.3	-19.73	-27.74	-18.04	-7.04	-26.51	-16.7	-33.39	-44.45	-32.54
8.4	-19.82	-26.79	-19.06	-8.65	-25.26	-16.38	-33.22	-47.16	-33.03
8.5	-20.13	-24.46	-20.29	-10.46	-24.11	-16.46	-33.24	-47.47	-33.58
8.6	-20.92	-22.21	-22.15	-12.39	-22.56	-16.57	-33.64	-45.89	-34.22
8.7	-21.78	-21.09	-24.98	-14.23	-21.11	-16.74	-34.11	-42.54	-34.91
8.8	-23.48	-20.25	-28.4	-14.58	-20.02	-17.17	-35.23	-39.71	-35.56
8.9	-25.26	-19.77	-31.34	-12.64	-19.16	-17.73	-36.44	-37.7	-36.11
9	-26.57	-19.65	-32.32	-10.63	-18.42	-18.39	-38.09	-36.4	-36.48
9.1	-27.76	-19.78	-31.51	-8.73	-17.76	-19.3	-39.9	-35.52	-36.66
9.2	-27.9	-20.3	-29.8	-7.2	-17.22	-20.23	-41.1	-34.99	-36.69
9.3	-27.03	-21.32	-27.56	-5.71	-16.94	-21.33	-41.64	-34.87	-36.53
9.4	-25.76	-22.63	-25.4	-4.44	-16.74	-22.77	-41.33	-34.9	-36.09
9.5	-23.86	-25.05	-23.59	-3.66	-16.6	-24.2	-39.41	-35.37	-35.59
9.6	-21.89	-28.08	-22.22	-2.9	-16.57	-25.77	-37.14	-36.01	-35.09
9.7	-20.68	-30.84	-21.39	-2.24	-16.75	-27.55	-35.46	-37.1	-34.6
9.8	-19.73	-32.24	-20.8	-1.9	-16.99	-28.92	-34.03	-38.6	-34.13
9.9	-19.21	-31.98	-20.34	-1.57	-17.28	-30.02	-33.09	-40.31	-33.7
10	-18.94	-29.75	-20.03	-1.33	-17.79	-30.8	-32.46	-42.16	-33.36
15	-19.42	-36.56	-21.47	-10.6	-30.77	-30.63	-29.83	-52.15	-33.58
20	-36.38	-31.17	-29.39	-17.19	-33.53	-26.82	-40.82	-38.16	-36.52
25	-31.3	-54.47	-35.49	-21.81	-43.88	-43.6	-35.92	-46.06	-35.41
30	-34.38	-32.98	-37.36	-22.76	-32.31	-38.64	-43.03	-41.76	-39.12
35	-33.19	-38.95	-34.49	-37.97	-31.84	-28.91	-39.96	-43.88	-39.27
40	-44.9	-39.97	-31.91	-27.2	-24.02	-33.83	-43.26	-50.55	-44.22
45	-37.61	-44.45	-39.58	-23.45	-18.63	-36.32	-38.44	-48.73	-39.95
50	-39.11	-36.23	-38.58	-24.67	-37.54	-38.05	-44.06	-40.13	-40.29
55	-46.63	-44.28	-37.21	-20.54	-36.16	-30.64	-47.43	-52.53	-40.15
60	-40.64	-42.66	-33.79	-30.97	-50.02	-37.65	-44.34	-40.46	-37.65
65	-40.56	-43.62	-36.7	-34.6	-39.5	-47.39	-55.27	-44.13	-39.59
70	-39.37	-38.13	-41.39	-27.29	-38.41	-42.08	-43.02	-44.35	-38.33
75	-38.74	-38.17	-38.2	-36.93	-40.12	-42.03	-39.48	-43.37	-41.36
80	-52.61	-44.72	-41.52	-33.29	-42	-51.85	-60.73	-50.44	-47.66
85	-54.38	-54.85	-53.69	-42.82	-46.78	-53.31	-55.41	-54.44	-54.84
90									
95									
100									
105									

FCC tabular data for target scan=50deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.1.3 Tabular Data, Mainbeam @ Elevation=60° (Scan=30°), 14.00 GHz

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-95									
-90									
-85									
-80	-52.89						-59.91		
-75	-46.7						-48.63		
-70	-41.54	-51.64					-44.89	-43.02	
-65	-43.07	-46.39	-42.08				-49.32	-42.84	-40.33
-60	-41.47	-37	-37.04			-42.56	-45.81	-34.1	-36.76
-55	-39.42	-36.92	-34.52		-41.89	-35.4	-41.11	-38.81	-31.14
-50	-33.16	-40.14	-36.75	-26.97	-43.9	-42.27	-40.52	-41.16	-34.49
-45	-38.57	-43.74	-29.43	-27.79	-39.2	-40.03	-48.06	-40.14	-32.02
-40	-33.05	-38.84	-33.22	-23.02	-37.68	-38.27	-37.58	-42.77	-33.96
-35	-52.23	-38.27	-30.92	-24.71	-40.89	-38.83	-55.28	-43.95	-39.38
-30	-29.85	-30.21	-29.96	-13.81	-26.85	-38.46	-39.9	-44.17	-40.15
-25	-33.66	-24.39	-26.35	-7.43	-27.39	-42.33	-44.11	-38.85	-36.27
-20	-29.66	-25.38	-34.04	-7.93	-23.89	-32.09	-38.31	-41.87	-46.8
-15	-23.28	-27.59	-27.85	-5.92	-22.18	-28.23	-38.57	-52.98	-41.45
-10	-15.06	-18.89	-20.27	-12.38	-18.82	-32.89	-33.46	-36.07	-39.69
-9.9	-15.31	-19.08	-20.69	-12.86	-19.19	-33.65	-33.88	-36	-40.19
-9.8	-15.56	-19.37	-21.28	-12.26	-19.74	-31.22	-34.32	-36.02	-40.87
-9.7	-15.82	-19.84	-22.15	-10.73	-20.52	-27.51	-34.88	-36.18	-41.83
-9.6	-16.08	-20.55	-23.29	-9.23	-21.39	-23.98	-35.47	-36.54	-43.1
-9.5	-16.3	-21.52	-24.66	-7.89	-22.62	-21.43	-36.05	-37.13	-44.67
-9.4	-16.48	-22.82	-26.59	-6.7	-24.4	-19.39	-36.61	-37.98	-46.7
-9.3	-16.61	-24.8	-29.16	-5.54	-26.56	-17.59	-37.07	-39.24	-48.62
-9.2	-16.68	-26.94	-31.7	-4.65	-29.05	-16.3	-37.35	-40.7	-49.82
-9.1	-16.74	-29.13	-33.69	-3.99	-31.83	-15.38	-37.6	-42.69	-50.38
-9	-16.85	-31.37	-34.85	-3.35	-32.91	-14.53	-37.67	-45.01	-50.42
-8.9	-17	-32.48	-35.14	-2.88	-32.28	-13.99	-37.76	-47.51	-49.86
-8.8	-17.33	-31.79	-34.64	-2.56	-29.92	-13.53	-37.9	-49.75	-48.61
-8.7	-17.78	-29.68	-33.42	-2.26	-27.4	-13.15	-38.09	-51.14	-46.93
-8.6	-18.5	-27.22	-31.64	-2.12	-25.17	-13.14	-38.44	-51.01	-44.92
-8.5	-19.62	-24.97	-29.65	-2.1	-23.17	-13.18	-39.05	-48.31	-43.66
-8.4	-20.87	-22.86	-28.03	-2.09	-21.54	-13.29	-39.76	-44.97	-42.62
-8.3	-22.78	-21.61	-26.96	-2.25	-20.3	-13.6	-40.94	-43.04	-41.81
-8.2	-24.6	-20.59	-26.33	-2.5	-19.39	-13.95	-42.09	-41.58	-41.3
-8.1	-25.75	-19.77	-25.95	-2.77	-18.58	-14.49	-42.99	-40.47	-41.03
-8	-26.44	-19.15	-25.68	-3.19	-17.98	-15.07	-43.7	-39.69	-40.89

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-7.9	-25.08	-18.66	-25.46	-3.68	-17.43	-15.63	-43.53	-39.13	-40.9
-7.8	-21.63	-18.25	-25.17	-4.16	-17.01	-16.09	-42.37	-38.73	-41.06
-7.7	-18.44	-17.98	-24.86	-4.71	-16.77	-16.3	-40.82	-38.57	-41.22
-7.6	-16.22	-17.69	-24.48	-5.26	-16.56	-16.2	-38.32	-38.43	-41.37
-7.5	-14.1	-17.51	-23.92	-5.79	-16.36	-15.85	-35.97	-38.33	-41.47
-7.4	-12.67	-17.32	-23.29	-6.05	-16.18	-15.27	-34.32	-38.24	-41.46
-7.3	-11.39	-17.13	-22.67	-6.24	-16.17	-14.58	-32.83	-38.13	-41.34
-7.2	-10.41	-16.96	-22.04	-6.39	-16.09	-13.84	-31.69	-37.99	-41.1
-7.1	-9.66	-16.8	-21.37	-6.04	-15.94	-13.11	-30.81	-37.83	-40.69
-7	-9.05	-16.67	-20.87	-5.65	-15.85	-12.41	-30.09	-37.64	-40.27
-6.9	-8.73	-16.61	-20.44	-5.27	-15.66	-11.88	-29.68	-37.44	-39.85
-6.8	-8.44	-16.62	-20.11	-4.68	-15.35	-11.46	-29.31	-37.23	-39.44
-6.7	-8.48	-16.78	-20.04	-4.11	-15	-11.11	-29.29	-37.11	-39.22
-6.6	-8.57	-17.12	-20.15	-3.57	-14.73	-11.05	-29.31	-37.06	-39.12
-6.5	-8.91	-17.67	-20.37	-3.17	-14.34	-11.08	-29.59	-37.11	-39.12
-6.4	-9.39	-18.48	-20.86	-2.78	-13.87	-11.14	-30.01	-37.24	-39.28
-6.3	-10.09	-19.52	-21.89	-2.48	-13.5	-11.49	-30.66	-37.46	-39.71
-6.2	-11.13	-20.72	-23.19	-2.37	-13.12	-11.96	-31.69	-37.78	-40.3
-6.1	-12.24	-22.09	-24.81	-2.27	-12.71	-12.54	-32.84	-38.28	-41.04
-6	-13.82	-23.3	-26.42	-2.29	-12.45	-13.41	-34.9	-38.92	-42.13
-5.9	-15.34	-23.68	-27.56	-2.48	-12.26	-14.31	-36.99	-39.63	-43.51
-5.8	-15.95	-23.55	-28.11	-2.7	-12.09	-15.25	-39	-40.39	-45.05
-5.7	-16.22	-22.93	-27.75	-3.07	-11.95	-16.37	-40.83	-41.12	-46.61
-5.6	-15.74	-21.67	-26.16	-3.59	-12.05	-17.46	-41.41	-41.75	-48.04
-5.5	-14.44	-19.81	-23.84	-4.12	-12.21	-18.35	-40.67	-42.17	-48.96
-5.4	-13.08	-18.08	-21.61	-4.71	-12.41	-18.83	-39.51	-42.31	-49.07
-5.3	-11.55	-16.73	-19.67	-5.33	-12.5	-19.21	-36.99	-42.16	-48.27
-5.2	-10.06	-15.5	-18.12	-5.94	-12.55	-19.45	-34.62	-41.79	-46.92
-5.1	-9.1	-14.68	-16.75	-6.02	-12.5	-19.62	-33.28	-41.31	-45.5
-5	-8.26	-14.11	-15.59	-5.98	-12.04	-19.88	-32.16	-40.65	-44.31
-4.9	-7.72	-13.86	-14.7	-5.87	-11.23	-20.39	-31.43	-40.01	-43.37
-4.8	-7.42	-13.92	-14.05	-4.92	-10.26	-21.39	-31.01	-39.52	-42.6
-4.7	-7.26	-14.17	-13.47	-3.98	-9.12	-22.84	-30.75	-39.16	-41.96
-4.6	-7.44	-14.85	-13.02	-3.03	-7.93	-23.46	-30.84	-39	-41.56
-4.5	-7.67	-16.02	-12.76	-2.07	-6.72	-23.04	-30.99	-39.13	-41.42
-4.4	-8.37	-17.49	-12.53	-1.12	-5.5	-22.2	-31.57	-39.47	-41.34
-4.3	-9.14	-19.27	-12.34	-0.31	-4.57	-20.57	-32.25	-40.12	-41.33
-4.2	-10.24	-20.68	-12.22	0.34	-3.68	-18.44	-33.29	-41.03	-41.39

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-4.1	-11.44	-20.33	-12.13	0.98	-2.81	-15.9	-34.59	-42.21	-41.48
-4	-12.28	-18.15	-12.04	1.4	-2.16	-13.81	-36.16	-43.8	-41.55
-3.9	-12.51	-16.13	-11.95	1.71	-1.68	-11.88	-38.11	-45.81	-41.56
-3.8	-12.44	-14.08	-11.95	2.01	-1.27	-10.06	-39.86	-47	-41.48
-3.7	-11.07	-12.11	-12.04	1.99	-1.04	-8.9	-40.32	-47.02	-41.31
-3.6	-9.69	-10.43	-12.2	1.91	-0.96	-7.86	-40.41	-46.51	-41.13
-3.5	-8.38	-9.17	-12.55	1.76	-1	-6.99	-39.55	-45.38	-40.94
-3.4	-7.17	-8.18	-13.22	1.19	-1.27	-6.48	-38.37	-43.75	-40.76
-3.3	-6.19	-7.49	-14.17	0.59	-1.83	-6.04	-37.24	-42.33	-40.7
-3.2	-5.51	-7.15	-15.32	-0.31	-2.51	-5.73	-36.22	-41.63	-40.88
-3.1	-4.98	-6.89	-16.7	-1.8	-3.36	-5.59	-35.38	-41.14	-41.17
-3	-4.89	-6.92	-17.87	-3.35	-4.53	-5.44	-35.04	-41.62	-41.67
-2.9	-4.9	-7.11	-16.83	-5.35	-5.71	-5.15	-34.85	-42.41	-42.22
-2.8	-5.21	-7.17	-14.65	-7.6	-6.91	-4.65	-35.08	-43.29	-42.69
-2.7	-5.52	-6.99	-11.39	-9.8	-5.85	-4	-35.44	-44.19	-42.95
-2.6	-5.6	-6.57	-8.01	-7.48	-4.17	-2.92	-35.91	-44.95	-42.64
-2.5	-5.37	-5.7	-5.17	-4.25	-2.14	-1.54	-36.39	-45.08	-41.59
-2.4	-4.79	-4.18	-2.53	-1.03	-0.02	-0.07	-36.63	-44.12	-40.02
-2.3	-3.45	-2.57	-0.34	1.32	2.06	1.5	-36.35	-42.51	-38.08
-2.2	-1.9	-0.54	1.48	3.64	4.06	3.09	-35.74	-38.95	-36.14
-2.1	0.18	1.52	3.25	5.62	5.69	4.64	-34.17	-35.52	-34.19
-2	2.25	3.42	4.81	7.1	7.14	5.92	-32.5	-32.86	-32.51
-1.9	4.15	5.12	6.17	8.57	8.56	7.17	-30.8	-30.86	-31.14
-1.8	5.9	6.66	7.42	9.77	9.76	8.42	-29.15	-29.24	-29.91
-1.7	7.5	8.08	8.62	10.85	10.75	9.5	-27.69	-27.84	-28.77
-1.6	8.87	9.35	9.68	11.92	11.73	10.47	-26.5	-26.7	-27.81
-1.5	10.17	10.6	10.6	12.71	12.64	11.4	-25.4	-25.6	-27.06
-1.4	11.28	11.59	11.51	13.5	13.41	12.2	-24.56	-24.86	-26.31
-1.3	12.33	12.54	12.33	14.22	14.09	13	-23.81	-24.17	-25.68
-1.2	13.25	13.38	13.04	14.79	14.75	13.7	-23.21	-23.61	-25.19
-1.1	14.07	14.15	13.71	15.37	15.29	14.26	-22.73	-23.16	-24.75
-1	14.8	14.86	14.34	15.87	15.83	14.83	-22.37	-22.78	-24.35
-0.9	15.43	15.48	14.88	16.3	16.3	15.34	-22.12	-22.49	-24.03
-0.8	16	16	15.34	16.73	16.65	15.76	-21.94	-22.33	-23.82
-0.7	16.48	16.5	15.79	17.05	17	16.12	-21.86	-22.19	-23.59
-0.6	16.91	16.89	16.17	17.35	17.35	16.42	-21.83	-22.14	-23.43
-0.5	17.26	17.26	16.46	17.63	17.57	16.68	-21.86	-22.08	-23.33
-0.4	17.55	17.54	16.72	17.81	17.74	16.94	-21.92	-22.1	-23.25

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-0.3	17.79	17.74	16.95	17.98	17.92	17.06	-21.99	-22.17	-23.19
-0.2	17.97	17.91	17.1	18.08	18.02	17.15	-22.08	-22.22	-23.17
-0.1	18.1	18.03	17.18	18.12	18.08	17.24	-22.16	-22.26	-23.15
0	18.16	18.1	17.25	18.16	18.1	17.25	-22.22	-22.28	-23.13
0.1	18.15	18.09	17.24	18.11	18.04	17.19	-22.26	-22.33	-23.18
0.2	18.07	17.99	17.15	18.04	17.97	17.12	-22.27	-22.35	-23.21
0.3	17.93	17.87	17.04	17.95	17.9	16.96	-22.27	-22.35	-23.22
0.4	17.73	17.69	16.87	17.77	17.7	16.79	-22.23	-22.33	-23.3
0.5	17.48	17.44	16.61	17.59	17.47	16.58	-22.17	-22.3	-23.41
0.6	17.16	17.13	16.3	17.34	17.24	16.26	-22.12	-22.31	-23.51
0.7	16.79	16.72	15.96	17.04	16.94	15.94	-22.07	-22.36	-23.64
0.8	16.34	16.28	15.52	16.73	16.57	15.59	-22.05	-22.42	-23.88
0.9	15.81	15.76	15	16.27	16.18	15.14	-22.07	-22.51	-24.14
1	15.19	15.15	14.42	15.8	15.72	14.64	-22.15	-22.69	-24.46
1.1	14.49	14.44	13.75	15.28	15.23	14.1	-22.3	-22.96	-24.87
1.2	13.7	13.62	13	14.66	14.71	13.5	-22.54	-23.33	-25.37
1.3	12.8	12.71	12.15	14.05	14.07	12.89	-22.88	-23.8	-25.95
1.4	11.76	11.74	11.16	13.28	13.39	12.13	-23.36	-24.32	-26.67
1.5	10.6	10.55	10.09	12.44	12.72	11.33	-23.96	-25.08	-27.5
1.6	9.28	9.21	8.89	11.6	11.92	10.54	-24.72	-26.01	-28.45
1.7	7.71	7.64	7.37	10.46	11.01	9.64	-25.69	-27.17	-29.75
1.8	5.91	5.9	5.68	9.34	10.12	8.63	-26.88	-28.5	-31.24
1.9	3.7	3.88	3.81	7.99	9.09	7.63	-28.42	-30.06	-32.89
2	0.99	1.31	1.39	6.34	7.98	6.51	-30.39	-31.94	-34.74
2.1	-2.06	-1.9	-1.77	4.71	6.81	5.38	-33.02	-34.07	-36.72
2.2	-5.07	-5.33	-5.16	2.03	5.45	4.16	-36.98	-35.94	-38.43
2.3	-7.91	-8.64	-8.45	-0.82	3.98	2.74	-42.2	-36.54	-39.46
2.4	-7.97	-10.85	-9.62	-3.56	2.54	1.35	-43.2	-36.26	-38.62
2.5	-6.18	-9.53	-9.45	-6.13	0.7	-0.04	-41.02	-34.99	-37.39
2.6	-4.11	-6.98	-8.04	-8.76	-1.33	-1.69	-37.99	-33.45	-35.99
2.7	-2.31	-4.75	-6.14	-8.65	-3.26	-3.25	-35.04	-32.06	-34.67
2.8	-0.87	-3.28	-4.43	-7.11	-5.95	-4.74	-32.5	-30.98	-33.57
2.9	0.07	-2.41	-3.15	-5.7	-8.74	-6.14	-30.78	-30.19	-32.66
3	0.69	-1.94	-2.46	-3.76	-11.12	-7.35	-29.56	-29.74	-32.05
3.1	0.95	-1.98	-2.31	-1.76	-11.85	-8.21	-28.8	-29.63	-31.79
3.2	1.04	-2.16	-2.32	-0.26	-11.98	-8.69	-28.27	-29.65	-31.64
3.3	0.93	-2.68	-2.63	0.42	-12.17	-8.95	-27.99	-29.99	-31.68
3.4	0.68	-3.52	-3.26	1.12	-11.74	-9.02	-27.88	-30.64	-31.94

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
3.5	0.27	-4.61	-4.15	1.32	-11.15	-8.97	-27.97	-31.63	-32.37
3.6	-0.31	-5.94	-5.27	1.44	-10.79	-8.86	-28.26	-33.06	-32.9
3.7	-0.97	-7.43	-6.73	1.44	-10.59	-8.75	-28.68	-34.87	-33.59
3.8	-1.8	-8.86	-8.81	1.13	-10.4	-8.74	-29.31	-37.48	-34.47
3.9	-2.69	-9.82	-11.37	0.82	-10.36	-8.76	-30.06	-40.78	-35.39
4	-3.65	-10.32	-14.31	0.23	-10.61	-8.89	-30.96	-43.33	-36.26
4.1	-4.63	-10.13	-16.62	-0.49	-11.05	-9.06	-31.97	-43.82	-37.01
4.2	-5.56	-9.35	-17.47	-1.3	-11.47	-9.3	-33.03	-42.41	-37.53
4.3	-6.4	-8.32	-16.84	-2.52	-12.08	-9.74	-34.09	-39.93	-37.74
4.4	-7.16	-7.26	-15.43	-3.75	-12.83	-10.17	-35.13	-36.99	-37.68
4.5	-7.73	-6.32	-13.58	-5.27	-13.66	-10.62	-35.94	-34.48	-37.31
4.6	-8.15	-5.69	-12.37	-6.99	-14.76	-11.26	-36.57	-32.85	-36.9
4.7	-8.45	-5.28	-11.45	-8.63	-15.73	-11.91	-36.91	-31.72	-36.54
4.8	-8.68	-5.12	-10.97	-9.33	-16.68	-12.56	-37.06	-30.97	-36.28
4.9	-8.9	-5.18	-11.01	-10.02	-17.86	-13.27	-37.19	-30.54	-36.24
5	-9.16	-5.4	-11.47	-9.82	-18.94	-13.98	-37.36	-30.3	-36.41
5.1	-9.45	-5.75	-12.24	-8.84	-19.92	-14.58	-37.62	-30.18	-36.75
5.2	-9.86	-6.42	-13.66	-7.85	-20.41	-15.03	-38.14	-30.41	-37.38
5.3	-10.32	-7.33	-16.14	-6.85	-21.05	-15.43	-38.76	-30.81	-38.33
5.4	-10.85	-8.56	-19.32	-5.83	-21.65	-15.62	-39.7	-31.5	-39.45
5.5	-11.43	-10.02	-22.77	-5.07	-21.84	-15.66	-40.7	-32.37	-40.61
5.6	-11.98	-11.93	-24.73	-4.59	-22.26	-15.69	-41.51	-33.52	-41.4
5.7	-12.51	-14.6	-24.05	-4.1	-22.65	-15.63	-42.11	-35.07	-41.63
5.8	-12.96	-17.98	-20.95	-4.07	-22.6	-15.6	-42.36	-37.02	-41.22
5.9	-13.24	-21.3	-16.94	-4.05	-22.72	-15.6	-41.89	-39.33	-40.06
6	-13.46	-22.49	-13.99	-4.21	-22.93	-15.67	-41.22	-42.51	-38.56
6.1	-13.46	-21.65	-12.1	-4.61	-22.71	-15.8	-40.35	-44.67	-37.13
6.2	-13.41	-19.77	-10.74	-5	-22.17	-15.94	-39.48	-44.37	-35.83
6.3	-13.34	-17.76	-9.8	-5.82	-21.81	-16.26	-38.78	-42.97	-34.79
6.4	-13.27	-16.08	-9.24	-6.7	-21.81	-16.6	-38.22	-41.02	-34.05
6.5	-13.27	-14.9	-8.97	-7.76	-21.59	-16.96	-37.85	-38.96	-33.54
6.6	-13.41	-14.23	-8.82	-9.04	-21.57	-17.44	-37.76	-37.49	-33.15
6.7	-13.59	-13.88	-9.01	-10.3	-21.6	-17.89	-37.79	-36.46	-33.07
6.8	-14.06	-13.95	-9.48	-11.22	-21.82	-18.38	-38.23	-35.85	-33.22
6.9	-14.6	-14.2	-10.05	-12.03	-22.23	-18.94	-38.8	-35.47	-33.45
7	-15.42	-14.91	-11.01	-12.22	-22.63	-19.39	-39.81	-35.49	-33.92
7.1	-16.38	-15.93	-12.35	-11.52	-22.98	-19.87	-41.1	-35.77	-34.6
7.2	-17.53	-17.25	-13.98	-10.79	-23.71	-20.41	-42.98	-36.22	-35.39

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
7.3	-18.9	-18.97	-15.97	-9.76	-24.53	-20.9	-45.64	-36.88	-36.25
7.4	-20.27	-21.09	-18.73	-8.73	-25.31	-21.52	-48.96	-37.71	-37.19
7.5	-21.45	-23.74	-21.18	-7.85	-26.13	-22.21	-54.31	-38.82	-38.13
7.6	-22.5	-26.16	-22.38	-7.17	-27.06	-22.84	-58.65	-39.97	-38.73
7.7	-22.51	-27.87	-21.75	-6.53	-28.15	-23.83	-56.17	-41.08	-38.92
7.8	-22.11	-27.4	-20.03	-6.22	-29.21	-24.92	-51.59	-41.91	-38.78
7.9	-21.44	-25.28	-17.98	-5.97	-30.26	-25.91	-47.84	-42.32	-38.38
8	-20.6	-23.14	-16.07	-5.87	-31.27	-26.96	-45.38	-42.38	-37.74
8.1	-19.85	-21.72	-14.61	-5.96	-32.2	-27.85	-43.54	-42.41	-37.05
8.2	-19.45	-20.64	-13.74	-6.06	-33.31	-28.42	-42.54	-42.12	-36.44
8.3	-19.2	-20.18	-13.27	-6.47	-34.45	-28.16	-41.85	-42.01	-36.07
8.4	-19.41	-20.04	-13.01	-6.9	-35.58	-27.48	-41.77	-42.01	-35.8
8.5	-19.81	-20.17	-13.11	-7.51	-36.23	-26.83	-41.91	-42.04	-35.73
8.6	-20.67	-20.62	-13.54	-8.29	-36.35	-25.62	-42.46	-42.18	-35.87
8.7	-21.94	-21.38	-14.18	-9.11	-36.08	-24.45	-43.36	-42.48	-36.14
8.8	-23.74	-22.4	-15.06	-10.27	-35.48	-23.47	-44.77	-42.87	-36.53
8.9	-26.59	-23.79	-16.69	-11.45	-34.33	-22.78	-47.26	-43.1	-37.19
9	-29.82	-25.45	-18.56	-12.72	-32.78	-22.15	-50.11	-43.48	-37.91
9.1	-30.16	-26.57	-20.93	-14.07	-31.25	-21.61	-51.8	-43.15	-38.68
9.2	-29.31	-27.35	-23.13	-15.34	-29.94	-21.38	-53.14	-42.7	-39.28
9.3	-27.28	-27.63	-24.64	-15.98	-28.65	-21.22	-52.23	-42.24	-39.67
9.4	-24.69	-27.21	-24.66	-16.62	-27.56	-21.13	-49.76	-41.66	-39.75
9.5	-22.32	-26.15	-22.35	-16.55	-26.6	-21.18	-46.93	-40.95	-39.26
9.6	-20.57	-25	-19.95	-16.18	-25.68	-21.35	-44.3	-40.45	-38.47
9.7	-19.08	-24.46	-17.99	-15.77	-24.85	-21.58	-41.87	-40.23	-37.53
9.8	-18.17	-24	-16.5	-15.24	-24.27	-21.87	-40.35	-40.03	-36.55
9.9	-17.44	-24	-15.38	-14.7	-23.74	-22.22	-39.09	-40.1	-35.63
10	-17.02	-24.36	-14.66	-14.46	-23.3	-22.65	-38.21	-40.36	-34.88
15	-34.48	-25.16	-23.95	-18.31	-30.9	-31.92	-48.53	-40.69	-40.74
20	-32.45	-26.7	-22.5	-25.57	-27.56	-28.42	-45.93	-40.36	-41.91
25	-35.7	-35.7	-24.72	-29.59	-22.82	-25.79	-48.3	-50.17	-42.9
30	-42.8	-29.65	-26.03	-23.85	-39.63	-28.29	-47.43	-46.04	-39.45
35	-44.66	-36.64	-31.44	-22.98	-32.34	-38.39	-40.09	-46.86	-46.05
40	-39.44	-38.11	-39.05	-32.58	-33.99	-27.91	-51.07	-42.74	-43.24
45	-43.66	-35.69	-33.44	-38.18	-37.35	-41.44	-44.52	-42.61	-44.38
50	-36.19	-41	-37.79	-27.87	-38.4	-47.26	-56.76	-44.79	-38.53
55	-37.83	-43.44	-43.28	-35.27	-39.51	-39.44	-46.1	-47.44	-44.52
60	-39.08	-45.9	-30.7	-33.54	-33.53	-48.92	-48.13	-51.65	-43.35

FCC tabular data for target scan=30deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
65	-42.67	-35.27	-32.61	-37.15	-31.28	-39.45	-54.62	-53.9	-41.57
70	-42.02	-37.75	-37.59	-36.32	-36.46	-40.71	-58.52	-46.65	-49.29
75	-48.67	-40.25	-41.41	-34.79	-39.11	-44.47	-60.6	-54.59	-49.94
80	-45.06	-44.84	-48.27	-35.3	-45.68	-52.15	-53.49	-52	-52.26
85	-52.92	-51.07	-58.32	-41.89	-55.12	-54.41	-58.18	-56.41	-60.62
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.1.4 Tabular Data, Mainbeam @ Elevation=80° (Scan=10°), 14.00 GHz

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90		-47.23	-45.36					-65.66	-48.3
-85	-52.67	-42.68	-37.26				-67.76	-54.67	-49.92
-80	-37.54	-40.26	-46.83				-63.52	-48.9	-44.74
-75	-35.26	-32.93	-34.81	-44.86	-47.79	-47.28	-56.29	-45.38	-40.5
-70	-39.63	-29.07	-44.64	-33.18	-46.2	-43.16	-55.27	-46.12	-53.99
-65	-36.43	-27.94	-39.67	-29.74	-38.78	-36.11	-53.74	-49.98	-49.3
-60	-35.12	-28.01	-37.61	-34.49	-45.28	-37.84	-54.78	-49.07	-55.84
-55	-39.44	-28.38	-37.07	-46.51	-35.75	-39.63	-58.36	-51.33	-54.27
-50	-34.75	-26.58	-41.09	-36.86	-42.6	-38.74	-55.49	-55.57	-59.13
-45	-48.99	-34.61	-32.2	-31.62	-45.08	-41.06	-55.9	-55.38	-60.12
-40	-39.3	-28.31	-34.56	-34.73	-37.35	-39.36	-47.21	-61.4	-57.62
-35	-46	-33.28	-41.02	-34.02	-35.28	-45.15	-52.02	-58.78	-56.56
-30	-43.53	-29.72	-43.75	-20.9	-32.41	-34.21	-53.28	-61.18	-47.9
-25	-30.13	-24.02	-35.88	-10.16	-32.52	-36.88	-56.36	-57.51	-47.86
-20	-27.67	-22.92	-25.19	-6.4	-27.02	-35.95	-50.08	-53.17	-52.59
-15	-19.9	-21.64	-27.18	-8.82	-22.73	-39.44	-57.62	-55.68	-59.45
-10	-25.47	-11.38	-15.36	-2.12	-15.81	-20.71	-60.8	-50.54	-61.64
-9.9	-24.29	-11.09	-15.57	-1.82	-14.96	-20.89	-61.24	-52.7	-59.37
-9.8	-23.25	-10.82	-15.63	-1.72	-14.12	-21.3	-61.76	-55.26	-55.79
-9.7	-22.54	-10.64	-15.5	-1.7	-13.48	-21.89	-61	-57.43	-52.94
-9.6	-22.17	-10.55	-15.24	-1.73	-12.89	-22.68	-58.97	-58.41	-50.88
-9.5	-21.86	-10.5	-14.93	-2.03	-12.46	-23.56	-57.03	-57.92	-49.19
-9.4	-21.93	-10.46	-14.62	-2.34	-12.27	-24.92	-55.51	-56.64	-47.86
-9.3	-22.04	-10.49	-14.47	-2.9	-12.13	-26.2	-53.97	-55.32	-47.28
-9.2	-22.41	-10.57	-14.37	-3.64	-12.38	-27.31	-53.03	-53.83	-46.86
-9.1	-22.87	-10.72	-14.35	-4.41	-12.93	-28.17	-52.31	-53.17	-46.6
-9	-23.44	-10.9	-14.57	-5.88	-13.52	-27.93	-51.81	-52.92	-46.73
-8.9	-24.12	-11.09	-14.98	-7.38	-14.81	-27.03	-51.56	-53.02	-47.14

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-8.8	-24.86	-11.29	-15.48	-9.84	-16.48	-25.81	-51.44	-53.71	-47.68
-8.7	-25.62	-11.54	-16.18	-13.85	-18.26	-24.32	-51.42	-54.8	-48.46
-8.6	-26.43	-11.95	-17.35	-18	-20.77	-23.31	-51.47	-56.56	-49.82
-8.5	-27.35	-12.45	-18.65	-17.81	-22.73	-22.37	-51.39	-59.71	-51.42
-8.4	-28.4	-13.01	-20.43	-16.39	-23.87	-21.52	-51.18	-63.06	-53.13
-8.3	-29.66	-13.72	-22.8	-14.25	-20.04	-21.08	-50.83	-63.91	-55.38
-8.2	-31.17	-14.64	-25.59	-10.96	-16.28	-20.89	-50.33	-62.25	-58.53
-8.1	-32.82	-15.81	-28.16	-7.76	-13.15	-20.78	-49.67	-60.88	-61.98
-8	-33.35	-17.48	-29.14	-5.86	-11.35	-20.87	-49.01	-58.65	-62.82
-7.9	-31.21	-19.58	-27.95	-4.49	-9.64	-21.47	-48.36	-55.9	-59.1
-7.8	-28.59	-21.59	-26.42	-3.2	-8.17	-22.21	-47.76	-53.58	-55.69
-7.7	-25.82	-22.97	-24.75	-2.5	-7.21	-23.07	-47.29	-51.92	-53.55
-7.6	-23.06	-23.19	-23.29	-1.8	-6.32	-24.68	-46.93	-50.56	-52.18
-7.5	-20.57	-21.91	-22.2	-1.37	-5.64	-26.87	-46.66	-49.24	-51.01
-7.4	-18.73	-19.18	-21.35	-1.14	-5.22	-29.46	-46.61	-48.37	-50.13
-7.3	-16.96	-16.57	-21.21	-0.93	-4.84	-31.23	-46.61	-47.47	-49.99
-7.2	-15.68	-14.6	-21.47	-1.1	-4.65	-31.52	-46.85	-46.8	-49.88
-7.1	-14.5	-12.99	-21.94	-1.29	-4.62	-30.63	-47.16	-46.18	-49.89
-7	-13.52	-11.7	-22.77	-1.67	-4.66	-28.71	-47.64	-45.66	-50.19
-6.9	-12.75	-10.72	-24.08	-2.27	-4.95	-26.67	-48.3	-45.27	-50.71
-6.8	-12.06	-9.95	-25.78	-2.88	-5.34	-24.83	-49.04	-44.97	-51.28
-6.7	-11.66	-9.29	-27.38	-3.92	-5.75	-23.27	-50.09	-44.7	-51.7
-6.6	-11.31	-8.94	-27.85	-5.05	-6.42	-22.48	-51.21	-44.65	-51.62
-6.5	-11.22	-8.71	-27.05	-6.24	-7.11	-21.98	-52.69	-44.73	-51.5
-6.4	-11.24	-8.73	-25.64	-7.56	-7.8	-21.78	-54.33	-45.06	-51.02
-6.3	-11.46	-8.92	-24.06	-8.91	-8.4	-21.95	-56.12	-45.55	-50.15
-6.2	-11.88	-9.26	-22.52	-8.9	-8.89	-22.49	-57.96	-46.22	-49.05
-6.1	-12.44	-9.84	-21.06	-8.51	-9.11	-23.42	-59.48	-47.16	-47.98
-6	-13.34	-10.66	-20.02	-7.82	-8.72	-24.83	-59.56	-48.44	-47.12
-5.9	-14.46	-11.87	-19.37	-6.57	-8.27	-26.34	-58.83	-50.45	-46.5
-5.8	-15.82	-13.64	-18.92	-5.31	-7.66	-27.85	-57.62	-53.55	-45.93
-5.7	-17.38	-15.75	-18.73	-4.34	-6.94	-29.26	-56.09	-57.4	-45.64
-5.6	-18.67	-19.32	-18.77	-3.51	-6.23	-28.5	-54.57	-59.93	-45.6
-5.5	-19.16	-24.53	-19	-2.78	-5.68	-26.6	-53.32	-59.65	-45.66
-5.4	-18.83	-28.89	-19.46	-2.48	-5.29	-24.05	-52.32	-57.35	-45.79
-5.3	-17.96	-26.4	-20.11	-2.18	-4.99	-21.35	-51.51	-54.3	-46.28
-5.2	-16.42	-21.69	-20.97	-2.21	-5	-19.77	-50.89	-51.58	-46.81
-5.1	-14.94	-17.72	-22.17	-2.4	-5.12	-18.43	-50.35	-49.43	-47.25

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-5	-13.75	-15.08	-23.3	-2.68	-5.29	-17.24	-49.91	-47.91	-47.71
-4.9	-12.84	-13.42	-24.39	-3.37	-5.89	-16.44	-49.54	-46.92	-48.11
-4.8	-12.13	-12.25	-25.71	-4.07	-6.57	-15.76	-49.21	-46.36	-48.34
-4.7	-11.86	-11.76	-27.2	-4.92	-7.32	-15.18	-48.94	-46.22	-48.46
-4.6	-11.7	-11.37	-28.08	-5.86	-8.1	-14.62	-48.63	-46.16	-48.36
-4.5	-12	-11.45	-28.3	-6.69	-8.8	-14.07	-48.27	-46.45	-48.3
-4.4	-12.44	-11.79	-27.89	-6.27	-8.85	-13.49	-47.84	-47.01	-48.43
-4.3	-13.12	-12.45	-27.85	-5.81	-8.01	-12.86	-47.3	-48.09	-48.78
-4.2	-14.05	-13.46	-28.3	-4.72	-6.99	-12.06	-46.67	-49.77	-49.38
-4.1	-14.87	-14.71	-28.24	-3.19	-5.65	-11.26	-46.02	-51.95	-50.38
-4	-14.95	-15.86	-26.41	-1.69	-4.18	-10.46	-45.19	-54.35	-52.27
-3.9	-14.98	-16.08	-24.05	-0.52	-2.72	-9.6	-44.37	-56.37	-55.67
-3.8	-13.83	-15.88	-22.02	0.65	-1.6	-8.85	-43.57	-56.86	-59.09
-3.7	-12.29	-14.75	-20.51	1.59	-0.64	-8.15	-42.78	-54.62	-59.57
-3.6	-10.81	-13.05	-19.34	2.33	0.24	-7.51	-42.07	-51.08	-57.17
-3.5	-9.49	-11.41	-18.46	3.05	0.75	-7.21	-41.48	-47.97	-53.36
-3.4	-8.24	-10.06	-18.19	3.37	1.21	-6.99	-40.95	-45.61	-49.53
-3.3	-7.5	-9.03	-18.67	3.69	1.54	-6.88	-40.66	-43.84	-47.05
-3.2	-6.88	-8.38	-19.97	3.77	1.53	-7.19	-40.43	-42.61	-45.15
-3.1	-6.62	-8.2	-21.46	3.65	1.44	-7.95	-40.46	-41.75	-43.6
-3	-6.59	-8.21	-21.73	3.5	1.06	-8.91	-40.66	-41.08	-42.57
-2.9	-6.77	-8.6	-20.42	2.81	0.33	-10.34	-41.12	-40.69	-41.96
-2.8	-7.19	-9.51	-17.83	2.11	-0.47	-12.17	-41.97	-40.66	-41.57
-2.7	-7.72	-10.35	-14.08	0.84	-2.27	-13.27	-43.11	-40.81	-41.46
-2.6	-7.49	-9.8	-10.24	-1.01	-4.69	-13.34	-45.16	-41.61	-42.14
-2.5	-6.73	-8.55	-6.71	-2.91	-7.38	-11.51	-47.86	-42.77	-43.16
-2.4	-5.34	-6.66	-3.73	-6.66	-7.97	-7.53	-48.92	-44.15	-45.07
-2.3	-3.34	-4.18	-1.33	-10.34	-7.64	-3.91	-47.78	-45.54	-47.39
-2.2	-1.03	-1.43	0.72	-9.32	-5.94	-0.87	-45.15	-46.44	-49.11
-2.1	1.16	1.08	2.67	-4.24	-2.2	1.5	-42.16	-45.96	-49.04
-2	3.17	3.06	4.38	0.71	1.25	3.47	-38.99	-42.53	-46.34
-1.9	5.02	4.99	5.8	3.14	4.02	5.21	-36.24	-39.17	-42.03
-1.8	6.62	6.61	7.18	5.56	5.94	6.83	-34.11	-36.39	-38.19
-1.7	8.09	8.09	8.45	7.52	7.82	8.13	-32.24	-33.94	-35.13
-1.6	9.42	9.42	9.58	9.06	9.32	9.35	-30.62	-31.86	-32.82
-1.5	10.59	10.57	10.6	10.58	10.55	10.48	-29.23	-30.18	-30.99
-1.4	11.69	11.61	11.59	11.66	11.76	11.5	-27.93	-28.72	-29.27
-1.3	12.6	12.59	12.47	12.73	12.68	12.4	-26.88	-27.37	-27.85

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-1.2	13.48	13.43	13.22	13.64	13.57	13.18	-25.86	-26.25	-26.71
-1.1	14.24	14.24	13.96	14.42	14.42	13.95	-24.98	-25.18	-25.62
-1	14.94	14.92	14.62	15.18	15.05	14.61	-24.16	-24.3	-24.67
-0.9	15.58	15.51	15.18	15.72	15.64	15.17	-23.42	-23.55	-23.88
-0.8	16.11	16.06	15.69	16.27	16.16	15.69	-22.79	-22.85	-23.19
-0.7	16.63	16.53	16.18	16.72	16.6	16.18	-22.17	-22.25	-22.53
-0.6	17	16.95	16.55	17.1	17.03	16.55	-21.71	-21.71	-22.04
-0.5	17.37	17.3	16.85	17.47	17.37	16.85	-21.25	-21.27	-21.65
-0.4	17.64	17.55	17.14	17.7	17.6	17.16	-20.89	-20.93	-21.27
-0.3	17.87	17.76	17.35	17.92	17.82	17.38	-20.58	-20.64	-20.99
-0.2	18.04	17.93	17.48	18.06	17.93	17.48	-20.33	-20.41	-20.82
-0.1	18.12	18.01	17.57	18.14	18.03	17.58	-20.16	-20.26	-20.68
0	18.2	18.1	17.66	18.2	18.1	17.66	-20.01	-20.11	-20.55
0.1	18.16	18.05	17.6	18.14	18.05	17.59	-19.98	-20.11	-20.58
0.2	18.09	17.96	17.5	18.09	17.96	17.49	-19.98	-20.15	-20.65
0.3	17.93	17.81	17.39	17.93	17.82	17.39	-20.07	-20.24	-20.73
0.4	17.72	17.61	17.2	17.72	17.59	17.19	-20.22	-20.39	-20.89
0.5	17.46	17.37	16.91	17.49	17.37	16.88	-20.42	-20.59	-21.15
0.6	17.12	17.08	16.59	17.13	17.05	16.56	-20.72	-20.83	-21.44
0.7	16.73	16.64	16.27	16.77	16.63	16.22	-21.06	-21.23	-21.73
0.8	16.25	16.19	15.76	16.3	16.19	15.67	-21.5	-21.63	-22.19
0.9	15.71	15.64	15.22	15.78	15.59	15.1	-22.01	-22.15	-22.68
1	15.1	15.04	14.65	15.21	14.98	14.52	-22.6	-22.7	-23.18
1.1	14.39	14.38	13.99	14.53	14.31	13.77	-23.29	-23.32	-23.75
1.2	13.6	13.61	13.2	13.84	13.46	12.89	-24.08	-24.05	-24.44
1.3	12.72	12.71	12.38	12.95	12.54	11.99	-24.98	-24.89	-25.14
1.4	11.71	11.74	11.54	12.01	11.46	11	-26.03	-25.8	-25.85
1.5	10.6	10.6	10.43	10.97	10.18	9.64	-27.21	-26.89	-26.76
1.6	9.32	9.42	9.25	9.7	8.86	8.22	-28.59	-27.99	-27.7
1.7	7.93	8.03	8.02	8.43	7.1	6.73	-30.16	-29.31	-28.66
1.8	6.37	6.43	6.63	6.71	4.96	4.61	-31.99	-30.81	-29.69
1.9	4.62	4.73	5.02	4.91	2.54	1.97	-34.17	-32.41	-30.85
2	2.8	2.82	3.37	2.63	-1.94	-0.95	-36.68	-34.34	-32.01
2.1	0.62	0.82	1.69	-0.3	-7.11	-4.39	-40.71	-36.45	-33.14
2.2	-1.42	-0.91	0	-3.29	-10.79	-7.27	-44.37	-38.9	-34.41
2.3	-2.71	-2.08	-1.51	-11.84	-8.81	-7.83	-46.09	-41.97	-35.63
2.4	-3.56	-2.79	-2.74	-21.18	-5.61	-6.17	-46.79	-45.24	-36.77
2.5	-3.82	-2.81	-3.47	-22.04	-2.67	-3.84	-46.25	-47.46	-37.85

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
2.6	-2.98	-1.93	-3.58	-13.18	-0.33	-1.73	-43.37	-47.68	-38.89
2.7	-2.11	-1.05	-3.54	-5.11	1.67	0.01	-40.52	-48.12	-39.74
2.8	-1.58	-0.38	-3.41	-3.49	2.66	1.14	-39.58	-46.92	-40.41
2.9	-1.06	0.16	-3.39	-1.94	3.33	1.68	-38.7	-45.34	-41.05
3	-0.84	0.49	-3.47	-1.05	3.82	2.11	-38.24	-43.89	-41.54
3.1	-0.82	0.62	-3.71	-0.61	3.92	2.36	-38.08	-42.88	-41.89
3.2	-0.94	0.61	-4.2	-0.24	3.95	2.32	-38.09	-42.21	-42.23
3.3	-1.34	0.5	-5.02	-0.41	3.77	2.11	-38.43	-41.52	-42.64
3.4	-1.81	0.17	-6.01	-0.58	3.32	1.82	-38.84	-41.23	-42.91
3.5	-2.58	-0.29	-7.4	-1.11	2.78	1.32	-39.65	-40.98	-43.19
3.6	-3.45	-0.94	-9.49	-1.81	1.88	0.54	-40.56	-40.93	-43.66
3.7	-4.46	-1.69	-12.12	-2.66	0.8	-0.3	-41.83	-40.91	-44.08
3.8	-5.58	-2.5	-15.7	-3.99	-0.36	-1.31	-43.41	-40.9	-44.46
3.9	-6.73	-3.41	-20.11	-5.34	-2.19	-2.61	-45.52	-40.92	-44.92
4	-7.79	-4.39	-23.83	-7.52	-4.2	-4.13	-49.05	-40.98	-45.5
4.1	-8.78	-5.51	-23.46	-9.93	-6.18	-5.78	-53.52	-41.19	-45.88
4.2	-9.38	-6.65	-19.13	-12.75	-7.7	-7.58	-55.61	-41.51	-46.26
4.3	-9.61	-7.74	-15.81	-16.41	-8.75	-9.17	-56.37	-41.77	-46.71
4.4	-9.65	-8.73	-13.43	-20	-7.9	-10.4	-56.14	-42.09	-47.04
4.5	-9.52	-9.61	-11.75	-17.61	-6.07	-10.83	-54.39	-42.45	-47.24
4.6	-9.26	-10.4	-10.76	-14.25	-4.24	-10.27	-50.93	-42.84	-47.48
4.7	-9.07	-11.08	-10.41	-11.62	-2.94	-9.1	-48	-43.41	-47.83
4.8	-9.01	-11.67	-10.24	-10	-1.8	-7.98	-46.48	-44.02	-47.98
4.9	-9.04	-12.28	-10.4	-8.42	-0.87	-6.97	-45.09	-44.65	-48.28
5	-9.27	-13.03	-11	-7.86	-0.4	-6.31	-44.19	-45.38	-48.89
5.1	-9.65	-13.85	-11.85	-7.31	-0.07	-5.78	-43.55	-46.13	-49.55
5.2	-10.17	-14.89	-12.99	-7.08	-0.02	-5.45	-43.11	-46.97	-50.38
5.3	-10.96	-16.37	-14.7	-7.14	-0.22	-5.36	-43.01	-47.99	-51.76
5.4	-11.78	-17.93	-17.3	-7.25	-0.47	-5.45	-42.89	-49.01	-53.75
5.5	-12.9	-20.36	-20.55	-7.83	-1.13	-5.72	-43.13	-50.31	-55.67
5.6	-14.03	-23.21	-23.84	-8.41	-1.96	-6.12	-43.34	-51.74	-57.34
5.7	-15.03	-25.24	-25.56	-9.34	-2.99	-6.88	-43.77	-53.15	-59.06
5.8	-15.95	-25.29	-25.1	-10.44	-4.68	-7.76	-44.31	-54.38	-60.57
5.9	-16.62	-23.59	-22.6	-11.59	-6.52	-8.77	-44.91	-55.37	-60.95
6	-16.68	-21.6	-19.1	-12.94	-8.44	-10.31	-45.74	-55.97	-59.32
6.1	-16.63	-19.73	-16.89	-14.27	-10.23	-12.3	-46.57	-55.16	-56.12
6.2	-16.31	-18	-15.23	-14.75	-11.43	-14.41	-47.55	-54.21	-53.48
6.3	-15.92	-16.91	-14.09	-14.93	-10.19	-16.8	-48.54	-53.25	-51.83

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
6.4	-15.65	-16.17	-13.45	-14.72	-8.13	-18.93	-49.43	-52.29	-50.82
6.5	-15.53	-15.68	-13.11	-13.69	-6.03	-19.56	-50.22	-51.46	-50.15
6.6	-15.53	-15.45	-12.96	-12.66	-4.57	-19.34	-50.87	-50.89	-49.72
6.7	-15.79	-15.52	-13.07	-11.85	-3.24	-17.03	-51.2	-50.6	-49.61
6.8	-16.2	-15.68	-13.53	-11.07	-2.22	-14.66	-51.34	-50.41	-49.73
6.9	-16.83	-16.26	-14.11	-10.51	-1.63	-12.96	-51.35	-50.76	-49.97
7	-17.65	-16.9	-14.96	-10.2	-1.11	-11.59	-51.24	-51.15	-50.37
7.1	-18.5	-17.73	-16.24	-9.89	-0.92	-10.72	-51.09	-51.84	-50.89
7.2	-19.32	-18.69	-17.85	-10	-0.94	-10.12	-50.94	-52.82	-51.47
7.3	-20.02	-19.66	-19.9	-10.12	-1.07	-9.58	-50.79	-53.94	-52.04
7.4	-20.36	-20.52	-22.84	-10.46	-1.69	-9.34	-50.65	-55.23	-52.59
7.5	-19.96	-21.1	-26.94	-10.98	-2.41	-9.29	-50.55	-56.58	-53.03
7.6	-19.44	-21.24	-30.92	-11.56	-3.38	-9.3	-50.46	-57.56	-53.37
7.7	-18.67	-20.8	-32.93	-12.52	-4.91	-9.44	-50.39	-57.39	-53.63
7.8	-17.8	-20.17	-31	-13.46	-6.62	-9.81	-50.35	-56.82	-53.93
7.9	-17.04	-19.54	-27.22	-14.74	-8.9	-10.21	-50.36	-56.1	-54.25
8	-16.47	-18.95	-24.2	-16.12	-11.19	-10.62	-50.47	-55.14	-54.6
8.1	-15.92	-18.45	-22.38	-17.51	-13.1	-11.31	-50.63	-54.25	-55.05
8.2	-15.78	-18.23	-21.46	-18.96	-11.42	-11.97	-51.12	-53.78	-55.89
8.3	-15.66	-18.24	-20.93	-20.37	-8.8	-12.59	-51.61	-53.64	-56.83
8.4	-15.8	-18.39	-20.73	-20.34	-6.1	-13.31	-52.48	-53.65	-57.94
8.5	-16.1	-18.79	-20.94	-20.03	-4.25	-14.06	-53.57	-54.03	-59.23
8.6	-16.52	-19.41	-21.5	-19.46	-2.51	-14.68	-54.9	-54.69	-60.37
8.7	-17.22	-20.14	-22.34	-18.44	-1.2	-15.24	-56.79	-55.35	-61.06
8.8	-17.98	-21.08	-23.53	-17.46	-0.25	-15.87	-58.86	-55.82	-61.21
8.9	-19.1	-22.14	-25.42	-16.76	0.64	-16.55	-59.69	-55.93	-60
9	-20.38	-22.84	-27.82	-16.08	1.14	-17.25	-60.11	-55.34	-58.49
9.1	-21.84	-22.9	-30.57	-15.56	1.53	-18.01	-59.45	-54	-56.95
9.2	-23.49	-22.61	-32.36	-15.2	1.86	-19.09	-57.66	-52.36	-55.48
9.3	-25.09	-21.92	-32.64	-14.87	1.91	-20.47	-55.38	-50.75	-54.24
9.4	-26.24	-20.68	-31.52	-14.78	1.95	-22.04	-53.68	-49.26	-53.27
9.5	-26.93	-19.39	-29.53	-14.7	1.8	-23.82	-52.63	-47.94	-52.48
9.6	-27.08	-18.39	-27.6	-14.75	1.45	-25.65	-51.89	-46.94	-51.93
9.7	-26.57	-17.5	-26.38	-14.88	1.08	-27.2	-51.57	-46.07	-51.59
9.8	-25.91	-16.73	-25.44	-15.05	0.48	-26.95	-51.48	-45.3	-51.36
9.9	-25.4	-16.15	-25.03	-15.37	-0.2	-24.74	-51.68	-44.72	-51.33
10	-25.1	-15.73	-25.13	-15.68	-0.92	-22.33	-52.22	-44.29	-51.52
15	-31.84	-30.18	-37.09	-29.22	-7.05	-29.94	-51.08	-49.87	-52.14

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
20	-30.25	-26.08	-37.44	-23.68	-39.65	-17.34	-52.96	-53.19	-50.07
25	-40.59	-30.36	-36.99	-22.7	-35.76	-23.1	-52.48	-52.47	-56.03
30	-35.13	-29.21	-40.24	-28.83	-41.55	-26.57	-48.99	-45.74	-52.01
35	-33.37	-31.16	-47.87	-23.42	-32.42	-34.21	-50.15	-44.89	-52.52
40	-31.5	-31.14	-33.01	-24.17	-50.53	-9.66	-49.07	-50.03	-43.39
45	-52.81	-32.44	-41.73	-29.44	-38.48	-22.98	-51.94	-51.26	-45.25
50	-55.02	-28.95	-48.87	-30.48	-44.32	-32.87	-51.08	-38.74	-49.23
55	-41.49	-31.68	-60.2	-37.24	-37.07	-45.27	-55.07	-46.81	-46.16
60	-50.56	-45.11	-31.37	-35.29	-48.94	-33.74	-54.69	-46.96	-60.2
65	-44.59	-35.68	-36.88	-35.98	-35.65	-36.21	-54.22	-47.54	-46.19
70	-49.72	-38.32	-37.48	-54.26	-43.55	-42.43	-50.05	-52.34	-48.41
75	-63.75	-51.34	-45.86	-33.46	-47.9	-45.86	-50.7	-59.69	-52.54
80	-50.45	-70.35		-32.04	-37.23	-49.07	-64.61	-69.44	
85				-41.39	-38.6	-47.77			
90				-37.57	-40.84	-44.2			
95				-44.65					
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.2.1 Tabular Data, Mainbeam @ Elevation=20° (Scan=70°), 14.25 GHz

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85		-65.66	-80.07					-63.28	-62.51
-80		-58.96	-60.74					-54.64	-53.44
-75		-57.33	-50.62					-46.26	-47.12
-70		-42.79	-49.9					-40.66	-47.63
-65		-37.54	-58.18					-37.81	-45.9
-60		-37.34	-39.92					-37.53	-44.35
-55	-47.36	-36.46	-40.54				-36.94	-33.14	-39.3
-50	-49.22	-39.38	-47.64				-38.07	-43.12	-41.4
-45	-46.36	-32.02	-39.07				-31.46	-38.55	-44
-40	-38.84	-25.22	-50.35				-32.13	-25.46	-47.11
-35	-33.26	-31.07	-34.51				-26.4	-37.57	-43.07
-30	-32.26	-23.47	-38.46				-27.56	-24.91	-39.6
-25	-29.26	-30.67	-30.03			-48.91	-25.89	-39.04	-35.85
-20	-31.38	-38.4	-26.94		-28.23	-39.53	-36.61	-39.9	-32.61
-15	-24.34	-26.61	-29.44	-17.02	-16.54	-40.81	-25	-30.74	-36.96
-10	-18.55	-20.49	-18.16	-17.3	-11.18	-18.41	-25.63	-30.87	-28.38
-9.9	-18.23	-20.82	-18.45	-17.93	-10.94	-17.88	-25.3	-32.02	-28.72

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-9.8	-17.92	-21.4	-18.84	-18.61	-10.7	-17.35	-24.98	-33.54	-29.19
-9.7	-17.85	-22.18	-19.42	-19.32	-10.44	-16.83	-24.9	-35.49	-29.86
-9.6	-17.82	-23.31	-20.19	-19.64	-10.18	-16.35	-24.88	-38.35	-30.73
-9.5	-17.93	-24.77	-21.14	-19.87	-9.93	-15.88	-25.02	-42.12	-31.8
-9.4	-18.14	-26.74	-22.41	-20.02	-9.72	-15.43	-25.27	-44.79	-33.19
-9.3	-18.43	-30.05	-24.09	-19.86	-9.5	-15.08	-25.63	-43.84	-34.98
-9.2	-18.81	-33.24	-25.92	-19.62	-9.29	-14.74	-26.11	-41.51	-36.93
-9.1	-19.24	-34.33	-28	-19.28	-9.07	-14.43	-26.66	-38.62	-38.97
-9	-19.68	-32.89	-30.4	-18.85	-8.93	-14.25	-27.27	-36.12	-40.5
-8.9	-20.12	-31.14	-32.26	-18.32	-8.82	-14.07	-27.9	-33.9	-41.5
-8.8	-20.46	-28.88	-33.62	-17.7	-8.74	-13.95	-28.48	-32.55	-41.99
-8.7	-20.69	-26.72	-32.69	-16.97	-8.68	-13.96	-28.98	-31.41	-40.85
-8.6	-20.83	-25.25	-30.75	-16.15	-8.63	-14	-29.37	-30.7	-39.1
-8.5	-20.73	-24.27	-28.48	-15.19	-8.69	-14.1	-29.42	-30.29	-37.17
-8.4	-20.6	-23.65	-26.46	-14.14	-8.76	-14.36	-29.42	-30.12	-35.61
-8.3	-20.37	-23.44	-24.85	-13.07	-8.83	-14.64	-29.17	-30.24	-34.55
-8.2	-20.12	-23.5	-23.47	-12	-8.9	-14.98	-28.87	-30.57	-33.69
-8.1	-19.98	-23.96	-22.37	-10.91	-9.03	-15.45	-28.62	-31.2	-33.05
-8	-19.9	-25.1	-21.66	-9.87	-9.23	-15.95	-28.39	-32.33	-32.75
-7.9	-19.95	-26.57	-21.14	-8.84	-9.44	-16.45	-28.27	-33.64	-32.67
-7.8	-20.14	-29.01	-20.68	-7.84	-9.64	-16.93	-28.26	-35.27	-32.67
-7.7	-20.44	-31.88	-20.4	-6.85	-9.84	-17.42	-28.34	-37.02	-32.82
-7.6	-20.93	-33.77	-20.27	-5.88	-10.09	-17.78	-28.56	-38.33	-33.13
-7.5	-21.53	-32.42	-20.16	-4.93	-10.35	-17.8	-28.85	-37.81	-33.46
-7.4	-22.33	-31	-20.07	-4.21	-10.61	-17.81	-29.25	-36.99	-33.76
-7.3	-23.24	-28.28	-19.98	-3.53	-10.87	-17.58	-29.7	-35.21	-33.93
-7.2	-24.23	-25.23	-19.86	-2.86	-11.1	-16.9	-30.18	-33.17	-34.02
-7.1	-25.33	-22.71	-19.68	-2.2	-11.23	-16.18	-30.69	-31.35	-33.99
-7	-26.25	-20.91	-19.32	-1.54	-11.36	-15.39	-31.2	-29.93	-33.63
-6.9	-26.81	-19.44	-18.83	-0.89	-11.48	-14.53	-31.73	-28.73	-33.05
-6.8	-27.23	-18.33	-18.3	-0.25	-11.6	-13.65	-32.31	-27.85	-32.43
-6.7	-27.3	-17.6	-17.7	0.34	-11.56	-12.85	-33.14	-27.33	-31.8
-6.6	-27.22	-16.99	-16.97	0.91	-11.43	-12.21	-34.16	-26.97	-31.14
-6.5	-26.91	-16.61	-16.23	1.48	-11.3	-11.57	-36.16	-26.83	-30.49
-6.4	-26.44	-16.37	-15.49	1.96	-11.16	-11.03	-39	-26.84	-29.89
-6.3	-25.93	-16.24	-14.82	2.43	-11	-10.65	-41.1	-26.97	-29.47
-6.2	-25.32	-16.32	-14.17	2.91	-10.75	-10.27	-42.1	-27.32	-29.1
-6.1	-24.55	-16.44	-13.55	3.38	-10.5	-10.01	-42.03	-27.71	-28.78

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-6	-23.28	-16.67	-13.03	3.85	-10.27	-9.88	-39.21	-28.23	-28.6
-5.9	-21.84	-16.96	-12.55	4.33	-10.04	-9.76	-35.58	-28.79	-28.5
-5.8	-20.27	-17.27	-12.08	4.8	-9.87	-9.76	-32.46	-29.35	-28.41
-5.7	-18.62	-17.53	-11.67	5.27	-9.77	-9.9	-29.64	-29.78	-28.4
-5.6	-17.13	-17.76	-11.33	5.74	-9.68	-10.04	-27.4	-30.09	-28.48
-5.5	-15.83	-17.62	-11.03	6.16	-9.6	-10.31	-25.81	-29.97	-28.6
-5.4	-14.64	-17.21	-10.77	6.55	-9.55	-10.7	-24.47	-29.52	-28.75
-5.3	-13.66	-16.64	-10.55	6.92	-9.73	-11.09	-23.49	-28.97	-28.97
-5.2	-12.79	-15.84	-10.37	7.29	-9.92	-11.6	-22.68	-28.3	-29.22
-5.1	-12.12	-14.93	-10.17	7.66	-10.09	-12.2	-22.14	-27.61	-29.45
-5	-11.6	-14.04	-9.98	8.03	-10.25	-12.85	-21.79	-27	-29.66
-4.9	-11.25	-13.24	-9.84	8.41	-10.35	-13.46	-21.63	-26.56	-29.91
-4.8	-11.09	-12.42	-9.72	8.78	-10.34	-14.03	-21.7	-26.15	-30.16
-4.7	-11.07	-11.79	-9.59	9.15	-10.26	-14.6	-21.93	-25.97	-30.38
-4.6	-11.33	-11.12	-9.47	9.47	-10.1	-14.87	-22.47	-25.78	-30.54
-4.5	-11.72	-10.51	-9.3	9.79	-9.87	-14.94	-23.17	-25.68	-30.63
-4.4	-12.59	-9.95	-9.09	10.11	-9.24	-14.98	-24.42	-25.62	-30.65
-4.3	-13.62	-9.38	-8.8	10.44	-8.36	-14.79	-25.9	-25.58	-30.45
-4.2	-15.58	-8.89	-8.46	10.76	-7.42	-14.47	-28.64	-25.56	-30.15
-4.1	-18.03	-8.4	-8.11	11.07	-6.44	-14.13	-32.05	-25.53	-29.86
-4	-20.06	-7.95	-7.69	11.37	-5.38	-13.82	-33.97	-25.53	-29.46
-3.9	-21.69	-7.53	-7.15	11.67	-4.14	-13.5	-34.37	-25.52	-28.86
-3.8	-22.03	-7.11	-6.54	11.92	-2.92	-13.17	-33.73	-25.47	-28.17
-3.7	-20.16	-6.69	-5.87	12.18	-1.7	-12.85	-31.52	-25.4	-27.43
-3.6	-17.66	-6.27	-5.1	12.43	-0.5	-12.48	-28.97	-25.31	-26.58
-3.5	-15.19	-5.81	-4.26	12.69	0.6	-12.06	-26.77	-25.18	-25.65
-3.4	-12.81	-5.32	-3.47	12.94	1.54	-11.38	-24.85	-25.03	-24.8
-3.3	-10.89	-4.79	-2.65	13.2	2.47	-10.62	-23.44	-24.85	-23.95
-3.2	-9.44	-4.18	-1.77	13.46	3.39	-9.81	-22.53	-24.55	-23.08
-3.1	-8.14	-3.51	-0.88	13.71	4.29	-8.64	-21.84	-24.19	-22.21
-3	-7.07	-2.8	0.02	13.93	5.07	-7.41	-21.48	-23.76	-21.34
-2.9	-6.03	-2.01	0.9	14.14	5.83	-6.16	-21.21	-23.12	-20.55
-2.8	-4.99	-1.19	1.77	14.34	6.58	-4.78	-21.12	-22.48	-19.79
-2.7	-3.94	-0.3	2.59	14.53	7.32	-3.38	-21.07	-21.67	-19.07
-2.6	-2.78	0.63	3.35	14.72	7.98	-2.01	-20.96	-20.8	-18.46
-2.5	-1.57	1.6	4.09	14.92	8.55	-0.75	-20.8	-19.9	-17.9
-2.4	-0.3	2.59	4.82	15.11	9.11	0.45	-20.43	-18.97	-17.36
-2.3	1.02	3.61	5.53	15.27	9.67	1.63	-19.85	-18.02	-16.85

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-2.2	2.35	4.61	6.2	15.43	10.22	2.65	-19.14	-17.11	-16.42
-2.1	3.68	5.59	6.85	15.58	10.71	3.65	-18.21	-16.27	-16.02
-2	5	6.55	7.47	15.74	11.18	4.63	-17.22	-15.46	-15.66
-1.9	6.25	7.46	8.02	15.9	11.64	5.47	-16.2	-14.77	-15.42
-1.8	7.46	8.3	8.52	16.06	12.08	6.3	-15.19	-14.17	-15.25
-1.7	8.58	9.11	9.02	16.22	12.48	7.11	-14.29	-13.63	-15.08
-1.6	9.62	9.85	9.5	16.35	12.81	7.79	-13.49	-13.23	-14.95
-1.5	10.6	10.6	9.93	16.46	13.15	8.45	-12.8	-12.83	-14.93
-1.4	11.49	11.24	10.36	16.56	13.48	9.09	-12.25	-12.61	-14.92
-1.3	12.34	11.86	10.78	16.66	13.8	9.6	-11.77	-12.42	-14.92
-1.2	13.08	12.43	11.11	16.76	14.09	10.11	-11.47	-12.32	-15.07
-1.1	13.79	12.96	11.4	16.87	14.34	10.6	-11.24	-12.32	-15.28
-1	14.41	13.46	11.7	16.97	14.56	10.99	-11.17	-12.37	-15.49
-0.9	14.99	13.9	11.95	17.04	14.76	11.38	-11.18	-12.55	-15.78
-0.8	15.5	14.28	12.17	17.1	14.96	11.75	-11.33	-12.81	-16.16
-0.7	15.93	14.63	12.38	17.16	15.11	12.02	-11.6	-13.16	-16.54
-0.6	16.32	14.91	12.57	17.22	15.25	12.3	-11.96	-13.63	-16.95
-0.5	16.63	15.15	12.72	17.29	15.39	12.55	-12.47	-14.16	-17.41
-0.4	16.9	15.35	12.85	17.35	15.53	12.71	-13.01	-14.73	-17.88
-0.3	17.1	15.49	12.94	17.41	15.62	12.85	-13.59	-15.34	-18.35
-0.2	17.27	15.63	13	17.41	15.65	12.97	-14.16	-15.9	-18.7
-0.1	17.36	15.68	13.03	17.4	15.68	13.01	-14.5	-16.19	-18.9
0	17.4	15.71	13.05	17.4	15.71	13.05	-14.72	-16.41	-19.07
0.1	17.38	15.7	13.05	17.4	15.74	13.06	-14.63	-16.35	-19.11
0.2	17.3	15.63	13	17.4	15.71	12.99	-14.26	-15.99	-18.83
0.3	17.18	15.55	12.94	17.4	15.67	12.93	-13.79	-15.57	-18.5
0.4	16.98	15.39	12.89	17.37	15.61	12.83	-13.17	-14.97	-18.14
0.5	16.73	15.2	12.74	17.33	15.53	12.65	-12.53	-14.32	-17.68
0.6	16.41	14.97	12.57	17.28	15.41	12.44	-11.92	-13.7	-17.18
0.7	16.03	14.67	12.4	17.24	15.26	12.19	-11.35	-13.12	-16.68
0.8	15.57	14.33	12.19	17.19	15.1	11.86	-10.9	-12.6	-16.22
0.9	15.04	13.92	11.95	17.15	14.93	11.53	-10.55	-12.18	-15.79
1	14.45	13.46	11.69	17.08	14.77	11.14	-10.3	-11.86	-15.37
1.1	13.76	12.97	11.41	16.96	14.52	10.68	-10.23	-11.61	-15
1.2	13.01	12.39	11.09	16.84	14.23	10.21	-10.22	-11.51	-14.71
1.3	12.11	11.79	10.74	16.72	13.93	9.68	-10.41	-11.46	-14.47
1.4	11.15	11.11	10.37	16.61	13.63	9.05	-10.66	-11.5	-14.27
1.5	10	10.33	9.94	16.49	13.3	8.39	-11.12	-11.69	-14.14

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
1.6	8.76	9.54	9.46	16.35	12.91	7.64	-11.68	-11.88	-14.12
1.7	7.32	8.56	8.99	16.17	12.51	6.77	-12.45	-12.32	-14.1
1.8	5.74	7.57	8.51	15.98	12.06	5.89	-13.36	-12.77	-14.08
1.9	4.06	6.43	7.9	15.8	11.58	4.9	-14.38	-13.38	-14.24
2	2.3	5.15	7.29	15.61	11.04	3.81	-15.54	-14.14	-14.41
2.1	0.68	3.82	6.68	15.43	10.46	2.71	-16.67	-14.95	-14.57
2.2	-0.58	2.19	5.98	15.22	9.87	1.55	-17.68	-16.06	-14.86
2.3	-1.49	0.42	5.21	14.95	9.27	0.36	-18.5	-17.27	-15.22
2.4	-1.68	-1.59	4.42	14.66	8.65	-0.76	-18.8	-18.76	-15.61
2.5	-1.28	-3.91	3.55	14.37	7.86	-1.56	-18.66	-20.55	-16.08
2.6	-0.73	-6.31	2.58	14.09	7.06	-2.09	-18.2	-22.5	-16.67
2.7	0.02	-8.59	1.56	13.8	6.27	-2.51	-17.32	-24.62	-17.3
2.8	0.66	-10.78	0.5	13.46	5.48	-2.42	-16.49	-26.96	-17.98
2.9	1	-12.26	-0.71	13.08	4.69	-2.04	-15.82	-28.9	-18.8
3	1.28	-11.66	-2.08	12.69	3.93	-1.6	-15.21	-29.66	-19.76
3.1	1.24	-10.5	-3.44	12.3	3.22	-1.12	-14.89	-30.08	-20.72
3.2	1.12	-9.4	-5.04	11.91	2.58	-0.64	-14.65	-29.68	-21.84
3.3	0.73	-8.38	-7.31	11.52	2.01	-0.18	-14.69	-27.81	-23.41
3.4	0.21	-7.31	-9.66	11.02	1.71	0.13	-14.85	-25.8	-25.04
3.5	-0.52	-7.06	-12.05	10.49	1.56	0.36	-15.22	-25.14	-26.72
3.6	-1.44	-6.84	-14.83	9.95	1.5	0.56	-15.77	-24.55	-28.69
3.7	-2.53	-6.88	-17.77	9.39	1.52	0.59	-16.46	-24.35	-30.72
3.8	-3.81	-7.2	-20.7	8.83	1.63	0.53	-17.31	-24.56	-32.66
3.9	-5.17	-7.6	-21.93	8.21	1.89	0.42	-18.21	-24.89	-33.88
4	-6.51	-8.34	-20.71	7.43	2.16	0.11	-19.08	-25.82	-34.02
4.1	-7.75	-9.23	-19.15	6.64	2.45	-0.26	-19.85	-27	-33.82
4.2	-8.51	-10.34	-17.6	5.85	2.75	-0.64	-20.31	-28.8	-33.27
4.3	-8.59	-11.72	-16.25	5.06	2.94	-1.23	-20.31	-31.27	-31.87
4.4	-8.5	-13.27	-15	4.26	3.09	-1.88	-20.17	-33.65	-30.28
4.5	-7.79	-15.17	-13.72	3.12	3.21	-2.53	-19.53	-34.65	-28.87
4.6	-7.09	-17.47	-12.87	1.94	3.32	-3.56	-18.9	-34.16	-27.9
4.7	-6.45	-19.44	-12.46	0.75	3.41	-4.64	-18.25	-33.37	-27.28
4.8	-5.81	-20.45	-12.13	-0.44	3.37	-5.75	-17.6	-31.63	-26.73
4.9	-5.43	-21.14	-11.91	-1.67	3.23	-7.22	-17.14	-29.61	-26.29
5	-5.15	-21.28	-11.92	-2.74	3.07	-8.76	-16.75	-27.8	-26.06
5.1	-5.08	-20.18	-12.05	-3.57	2.89	-10.34	-16.57	-26.32	-25.95
5.2	-5.18	-19.06	-12.2	-4.37	2.64	-11.91	-16.55	-24.82	-25.85
5.3	-5.45	-18.04	-12.45	-5.12	2.31	-13.58	-16.71	-24.03	-25.82

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
5.4	-5.9	-16.99	-12.88	-5.84	1.91	-15.2	-17.05	-23.36	-25.94
5.5	-6.5	-16.16	-13.29	-6.16	1.39	-15.15	-17.55	-22.84	-26.02
5.6	-7.3	-15.77	-13.7	-5.31	0.84	-14.92	-18.28	-22.6	-26.08
5.7	-8.29	-15.46	-14.34	-4.46	0.16	-14.55	-19.22	-22.42	-26.22
5.8	-9.48	-15.5	-14.97	-3.62	-0.57	-13.74	-20.42	-22.51	-26.39
5.9	-10.95	-15.71	-15.59	-2.77	-1.33	-12.89	-22.01	-22.73	-26.54
6	-12.57	-16.06	-16.36	-1.97	-2.37	-12	-23.93	-23.09	-26.68
6.1	-14.68	-16.64	-17.22	-1.44	-3.57	-11.56	-26.91	-23.66	-26.81
6.2	-16.79	-17.34	-18.06	-0.96	-5.04	-11.17	-29.89	-24.35	-26.91
6.3	-18.8	-18.28	-18.94	-0.48	-6.61	-10.82	-33.2	-25.32	-26.99
6.4	-20.8	-19.58	-19.97	-0.01	-8.29	-10.86	-36.44	-26.67	-27
6.5	-20.95	-21.05	-21	0.42	-10.39	-10.93	-34.71	-28.34	-27
6.6	-20.51	-23.03	-21.95	0.57	-13.11	-11.05	-31.47	-30.92	-27
6.7	-19.6	-25.41	-23.04	0.72	-15.28	-11.51	-28.86	-34.22	-26.99
6.8	-18.41	-27.91	-24.18	0.87	-16.79	-12.02	-26.86	-37.63	-26.97
6.9	-17.44	-30.88	-25.18	1.01	-17.64	-12.56	-25.44	-41.35	-26.98
7	-16.82	-33.78	-26.07	1.1	-17.77	-13.41	-24.56	-44.92	-27.02
7.1	-16.49	-34.91	-26.96	1.03	-15.32	-14.29	-24.05	-43.98	-27.11
7.2	-16.45	-34.59	-27.94	0.95	-13.14	-15.21	-23.87	-39.41	-27.22
7.3	-16.67	-33.96	-28.98	0.87	-11.25	-16.43	-23.99	-34.9	-27.36
7.4	-17.07	-31.74	-30	0.79	-9.65	-17.64	-24.33	-32.69	-27.55
7.5	-17.73	-29.33	-31.02	0.62	-8.41	-18.84	-24.97	-30.84	-27.82
7.6	-18.48	-27.79	-31.97	0.36	-7.79	-19.93	-25.77	-29.56	-28.09
7.7	-19.52	-26.97	-32.81	0.09	-7.31	-20.91	-27.03	-28.75	-28.39
7.8	-20.58	-26.42	-33.39	-0.18	-6.91	-21.76	-28.45	-28.12	-28.83
7.9	-21.94	-26.27	-33.85	-0.44	-6.59	-22.05	-30.74	-27.83	-29.3
8	-23.24	-26.37	-34.23	-0.74	-6.42	-22.21	-33.16	-27.72	-29.77
8.1	-24.44	-26.63	-34.12	-1.07	-6.46	-22.25	-34.92	-27.78	-30.36
8.2	-25.54	-27.14	-33.58	-1.38	-6.6	-22.14	-36.24	-28.07	-31.06
8.3	-26.36	-27.77	-33.05	-1.69	-6.79	-22.05	-36.3	-28.48	-31.77
8.4	-27.01	-28.51	-32.51	-1.99	-7.04	-22.02	-35.45	-29.07	-32.47
8.5	-27.62	-29.42	-31.72	-2.19	-7.45	-22.36	-34.34	-29.92	-33.18
8.6	-28.27	-30.31	-30.98	-2.36	-7.99	-22.76	-33.23	-30.85	-33.87
8.7	-29.11	-31.18	-30.36	-2.5	-8.63	-23.26	-32.3	-32.05	-34.52
8.8	-30.28	-32	-29.85	-2.62	-9.32	-24.37	-31.77	-33.36	-34.9
8.9	-31.57	-32.66	-29.51	-2.68	-10.17	-25.52	-31.64	-34.67	-35.07
9	-32.34	-32.81	-29.26	-2.58	-11.21	-26.85	-31.78	-35.97	-35.19
9.1	-32.29	-32.96	-29.07	-2.47	-12.37	-28.9	-32.35	-37.25	-35.17

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
9.2	-31.91	-32.81	-29	-2.35	-13.61	-30.61	-32.92	-37.67	-34.8
9.3	-30.11	-32.54	-29.01	-2.21	-14.91	-31.67	-33.43	-37.7	-34.22
9.4	-28.37	-32.28	-29.03	-2.05	-16.57	-30.19	-33.84	-37.58	-33.66
9.5	-26.52	-32.07	-29.16	-1.88	-18.33	-28.76	-33.32	-36.99	-33.07
9.6	-24.73	-31.88	-29.46	-1.71	-19.21	-27.35	-32.58	-36.3	-32.43
9.7	-23.41	-31.7	-29.76	-1.54	-19.57	-26.03	-31.36	-35.69	-31.79
9.8	-22.34	-31.53	-30.14	-1.38	-19.5	-24.81	-29.93	-35.15	-31.2
9.9	-21.58	-31.33	-30.73	-1.31	-18.49	-23.72	-28.67	-34.66	-30.72
10	-21.09	-30.91	-31.47	-1.26	-17.42	-23.09	-27.62	-34.33	-30.33
15	-27.28	-38.44	-35.49	-4.99	-21.2	-26.11	-32.29	-32.08	-33.73
20	-30.14	-34.21	-50.65	-21.24	-32.19	-32.15	-27.89	-27.52	-41.3
25	-34.92	-37.52		-7.01	-25.66	-34.65	-29.69	-27.15	
30	-33.55			-14.56	-23.49	-33.82	-39.67		
35	-38.51			-25.67	-30.11	-34.53	-35.08		
40	-32.59			-42.2	-29.51	-34.58	-37.22		
45	-37.94			-41.93	-27.27	-45.41	-33.71		
50	-39.39			-28.54	-36.76	-38.88	-44.8		
55	-35.87			-30.34	-29.72	-42.45	-37.16		
60	-55.6			-34.34	-31.89	-42.62	-35.02		
65	-47.52			-49.53	-32.68	-31.21	-35.76		
70	-41.46			-36.7	-33.82	-33.65	-36.21		
75	-47.48			-31.8	-32.27	-35.47	-37.82		
80	-55.38			-34.51	-36.67	-41.2	-52.08		
85	-60.86			-41.95	-46.1	-50.36	-56.73		
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									

FCC tabular data for target scan=70deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
160									
165									
170									
175									
180									

C.2.2 Tabular Data, Mainbeam @ Elevation=40° (Scan=50°), 14.25 GHz

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85									
-80									
-75									
-70	-55.62						-49.55		
-65	-43.74						-40.19		
-60	-35.38						-31.71		
-55	-42.78	-45.36					-37.07	-39.64	
-50	-39.21	-41.37					-36.7	-36.81	

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-45	-42.05	-37.41	-40.48			-47.24	-37.08	-33.1	-31.35
-40	-40.53	-43.52	-46.13		-43.06	-47.31	-40.16	-37.28	-38.13
-35	-31.13	-39.85	-34.45	-22.36	-44.14	-39.08	-33.57	-35.5	-28.14
-30	-29	-37.1	-39.43	-15.15	-29.39	-34.58	-36.4	-39.73	-36.4
-25	-30.94	-44.42	-26.61	-8.95	-27.66	-42.61	-38.06	-53.97	-32.32
-20	-27.11	-34.48	-32.62	-9.46	-33.23	-27.34	-36.86	-43.56	-33.92
-15	-25.23	-22.22	-30.14	-8.28	-22.99	-23.44	-43.26	-29.71	-35.42
-10	-21.1	-19.51	-21.8	-4.76	-19.63	-15.02	-35.83	-35.29	-34.96
-9.9	-20.93	-19.21	-21.67	-4.77	-19.02	-14.5	-36.42	-35.39	-34.93
-9.8	-21.03	-18.77	-21.56	-4.78	-18.55	-14.09	-37.14	-35.14	-34.82
-9.7	-21.22	-18.32	-21.38	-4.73	-18.2	-13.7	-37.9	-34.74	-34.67
-9.6	-21.5	-17.93	-21.06	-4.66	-17.91	-13.44	-38.32	-34.24	-34.47
-9.5	-21.83	-17.59	-20.69	-4.59	-17.69	-13.26	-38.51	-33.69	-34.2
-9.4	-22.16	-17.32	-20.3	-4.51	-17.54	-13.11	-38.32	-33.21	-33.87
-9.3	-22.46	-17.35	-19.85	-4.42	-17.66	-13.1	-37.76	-33.08	-33.48
-9.2	-22.69	-17.4	-19.37	-4.34	-17.85	-13.15	-36.97	-32.98	-33.05
-9.1	-22.75	-17.76	-18.89	-4.25	-18.12	-13.21	-36.03	-33.27	-32.6
-9	-22.67	-18.29	-18.42	-4.16	-18.47	-13.31	-35.01	-33.81	-32.11
-8.9	-22.59	-18.92	-17.93	-4.06	-18.95	-13.42	-34.15	-34.56	-31.58
-8.8	-22.49	-19.66	-17.48	-4.03	-19.68	-13.55	-33.55	-35.77	-31.1
-8.7	-22.51	-20.43	-17.14	-4.02	-20.52	-13.62	-33.12	-37.19	-30.75
-8.6	-22.74	-20.74	-16.82	-4.01	-21.48	-13.68	-33	-38.4	-30.42
-8.5	-23.1	-20.4	-16.52	-4	-22.56	-13.77	-33.07	-39.2	-30.11
-8.4	-23.72	-19.77	-16.42	-4.04	-23.35	-13.71	-33.47	-39.5	-29.99
-8.3	-24.42	-18.76	-16.4	-4.14	-24.24	-13.59	-34.13	-38.72	-29.96
-8.2	-24.88	-17.37	-16.43	-4.23	-25.16	-13.43	-35.1	-36.96	-29.97
-8.1	-24.95	-16	-16.55	-4.33	-26.07	-13.18	-36.42	-35.26	-30.07
-8	-24.5	-14.74	-16.8	-4.44	-26.27	-12.89	-37.48	-33.6	-30.29
-7.9	-22.4	-13.52	-17.22	-4.61	-25.14	-12.56	-37.69	-32	-30.65
-7.8	-20.3	-12.54	-17.85	-4.79	-23.68	-12.26	-37.78	-30.8	-31.14
-7.7	-18.34	-11.74	-18.7	-4.97	-22.07	-11.95	-35.89	-29.87	-31.78
-7.6	-16.39	-11.06	-19.8	-5.14	-20.38	-11.63	-33.87	-29.12	-32.6
-7.5	-14.79	-10.55	-21.06	-5.34	-19.5	-11.44	-32.05	-28.6	-33.48
-7.4	-13.34	-10.19	-22.48	-5.54	-18.81	-11.25	-30.32	-28.27	-34.44
-7.3	-12.11	-9.92	-24.04	-5.74	-18.21	-11.06	-28.88	-28.04	-35.77
-7.2	-11.14	-9.93	-25.31	-5.93	-17.69	-11.05	-27.74	-28.15	-37.27
-7.1	-10.27	-9.97	-26.17	-6.04	-17.37	-11.06	-26.74	-28.31	-38.85
-7	-9.65	-10.28	-25.78	-6.08	-17.43	-11.08	-26.06	-28.78	-39.83

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-6.9	-9.09	-10.75	-24.39	-6.09	-17.58	-11.31	-25.46	-29.46	-40.22
-6.8	-8.81	-11.39	-22.4	-6.1	-17.72	-11.55	-25.18	-30.38	-40.08
-6.7	-8.61	-12.36	-20.3	-6.02	-17.91	-11.8	-24.99	-31.86	-39.26
-6.6	-8.66	-13.49	-18.59	-5.77	-18.5	-12.23	-25.07	-33.66	-37.83
-6.5	-8.84	-14.66	-17.21	-5.5	-19.24	-12.67	-25.29	-35.81	-36.29
-6.4	-9.27	-15.83	-15.94	-5.23	-20.07	-13.15	-25.77	-38.23	-34.81
-6.3	-9.93	-16.82	-14.93	-4.92	-20	-13.83	-26.47	-40.28	-33.54
-6.2	-10.88	-17.23	-14.31	-4.52	-19.68	-14.5	-27.46	-41.25	-32.64
-6.1	-12.26	-16.93	-13.82	-4.13	-19.04	-15.18	-28.86	-40.76	-31.86
-6	-13.89	-16.32	-13.45	-3.76	-17.95	-15.82	-30.54	-39.31	-31.19
-5.9	-15.6	-14.57	-13.33	-3.39	-16.48	-16.45	-32.45	-36.29	-30.74
-5.8	-17.38	-12.77	-13.35	-3.11	-15.27	-17	-34.55	-33.43	-30.4
-5.7	-18.14	-11.29	-13.47	-2.84	-13.89	-17.29	-35.69	-31.45	-30.16
-5.6	-17.96	-10.02	-13.9	-2.57	-12.52	-17.6	-35.94	-30.04	-30.1
-5.5	-16.95	-8.93	-14.72	-2.31	-11.23	-17.75	-35.24	-28.92	-30.25
-5.4	-14.85	-8.09	-15.7	-2.31	-10.13	-17.32	-33.29	-28.1	-30.45
-5.3	-12.39	-7.46	-16.9	-2.32	-9.23	-16.84	-30.89	-27.53	-30.71
-5.2	-10.43	-6.95	-19.06	-2.34	-8.41	-16.21	-28.98	-27.09	-31.15
-5.1	-9	-6.76	-21.66	-2.37	-7.66	-15.3	-27.61	-26.99	-31.82
-5	-7.81	-6.63	-24.31	-2.77	-6.97	-14.39	-26.5	-26.95	-32.62
-4.9	-7.06	-6.8	-25.11	-3.19	-6.47	-13.44	-25.86	-27.21	-33.57
-4.8	-6.45	-7.1	-24.36	-3.66	-6.12	-12.52	-25.35	-27.6	-34.62
-4.7	-6.21	-7.6	-22.91	-4.19	-5.86	-11.56	-25.24	-28.2	-35.73
-4.6	-6.1	-8.42	-20.74	-5.68	-5.66	-10.65	-25.26	-29.14	-36.75
-4.5	-6.3	-9.4	-17.99	-7.26	-5.59	-9.86	-25.61	-30.28	-37.49
-4.4	-6.68	-10.76	-15.39	-8.91	-5.79	-9.06	-26.16	-32.01	-37.89
-4.3	-7.35	-12.58	-13.14	-10.55	-6.21	-8.38	-27.02	-34.51	-38.07
-4.2	-8.35	-14.25	-11.45	-11.35	-6.77	-7.86	-28.25	-37.28	-37.96
-4.1	-9.67	-15.21	-10.53	-11.95	-7.45	-7.35	-29.94	-40.37	-37.43
-4	-11.75	-15.64	-9.79	-12.35	-8.6	-7	-32.73	-42.96	-36.61
-3.9	-13.79	-15.26	-9.2	-11.93	-10.24	-6.81	-35.58	-43.16	-35.81
-3.8	-15.04	-13.76	-9.03	-9.02	-11.89	-6.64	-38.77	-40.36	-35.24
-3.7	-16.19	-12.12	-9.05	-6.05	-13.48	-6.77	-41.71	-37.33	-34.81
-3.6	-14.77	-10.69	-9.25	-3.03	-14.58	-7.11	-39.46	-34.99	-34.52
-3.5	-12.63	-9.4	-10.04	-0.56	-14.09	-7.53	-35.78	-33.04	-34.58
-3.4	-10.82	-8.43	-11.51	0.96	-12.52	-8.51	-32.94	-31.57	-35.01
-3.3	-9.28	-7.92	-13.22	2.47	-10.18	-9.84	-30.77	-30.75	-35.6
-3.2	-8.04	-7.71	-14.93	3.95	-7.08	-11.31	-29.06	-30.3	-36.35

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-3.1	-7.42	-7.87	-15.39	5.21	-4.44	-12.02	-28.26	-30.14	-37.27
-3	-6.94	-8.65	-14.71	6.28	-2.34	-12.08	-27.62	-30.44	-38.08
-2.9	-7.25	-9.53	-13.71	7.34	-0.45	-11.72	-27.69	-30.78	-38.78
-2.8	-7.66	-11.17	-11.67	8.39	1.35	-9.83	-27.87	-31.93	-38.87
-2.7	-8.33	-12.76	-8.82	9.25	2.91	-7.53	-28.73	-33.21	-38.27
-2.6	-9.01	-12.83	-5.71	10.04	4.26	-5.09	-29.81	-34.3	-37.12
-2.5	-8.63	-11.59	-2.92	10.83	5.41	-2.87	-30.86	-35.1	-35.56
-2.4	-7.48	-9.57	-0.69	11.61	6.54	-0.69	-31.82	-35.38	-33.75
-2.3	-5.67	-6.85	1.15	12.23	7.59	1.46	-32.17	-34.8	-31.89
-2.2	-3.09	-3.55	2.88	12.83	8.49	3.01	-31.58	-33.37	-30.11
-2.1	-0.37	-0.51	4.4	13.43	9.3	4.52	-30.52	-31.76	-28.6
-2	2	1.63	5.6	13.99	10.06	5.98	-28.6	-29.67	-27.55
-1.9	4.22	3.66	6.77	14.45	10.81	7.01	-26.35	-27.59	-26.52
-1.8	6.09	5.33	7.88	14.91	11.46	8.04	-24.48	-26	-25.55
-1.7	7.78	6.79	8.85	15.38	12.08	9.07	-22.82	-24.69	-24.8
-1.6	9.27	8.12	9.7	15.78	12.62	9.89	-21.47	-23.58	-24.2
-1.5	10.6	9.27	10.52	16.14	13.15	10.72	-20.38	-22.7	-23.67
-1.4	11.79	10.33	11.25	16.51	13.62	11.51	-19.5	-21.98	-23.23
-1.3	12.85	11.29	11.9	16.87	14.06	12.11	-18.82	-21.38	-22.91
-1.2	13.8	12.12	12.53	17.14	14.44	12.72	-18.31	-21	-22.61
-1.1	14.65	12.92	13.1	17.41	14.8	13.3	-17.96	-20.66	-22.38
-1	15.41	13.56	13.57	17.66	15.13	13.76	-17.75	-20.52	-22.29
-0.9	16.07	14.14	14.01	17.89	15.43	14.22	-17.67	-20.47	-22.22
-0.8	16.65	14.68	14.45	18.06	15.71	14.62	-17.72	-20.48	-22.14
-0.7	17.16	15.13	14.8	18.23	15.93	14.91	-17.84	-20.59	-22.12
-0.6	17.6	15.55	15.08	18.41	16.13	15.2	-18.06	-20.73	-22.15
-0.5	17.97	15.9	15.34	18.53	16.28	15.46	-18.32	-20.88	-22.19
-0.4	18.28	16.17	15.57	18.63	16.44	15.64	-18.59	-21.05	-22.18
-0.3	18.52	16.39	15.74	18.72	16.55	15.81	-18.83	-21.2	-22.1
-0.2	18.7	16.53	15.86	18.81	16.62	15.91	-18.98	-21.24	-22.02
-0.1	18.8	16.63	15.94	18.84	16.65	15.94	-19	-21.22	-21.96
0	18.86	16.68	15.97	18.86	16.68	15.97	-18.91	-21.09	-21.79
0.1	18.83	16.66	15.96	18.88	16.7	15.96	-18.59	-20.78	-21.53
0.2	18.76	16.63	15.94	18.87	16.65	15.9	-18.23	-20.47	-21.3
0.3	18.61	16.49	15.83	18.79	16.54	15.8	-17.78	-20.08	-21.08
0.4	18.41	16.3	15.67	18.71	16.44	15.63	-17.31	-19.7	-20.84
0.5	18.13	16.04	15.48	18.63	16.35	15.41	-16.87	-19.35	-20.59
0.6	17.78	15.71	15.27	18.47	16.18	15.19	-16.47	-19.03	-20.37

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
0.7	17.37	15.34	14.99	18.31	15.94	14.91	-16.13	-18.74	-20.19
0.8	16.87	14.91	14.63	18.15	15.71	14.57	-15.89	-18.53	-20.06
0.9	16.3	14.4	14.25	17.94	15.48	14.2	-15.72	-18.39	-19.95
1	15.59	13.85	13.84	17.68	15.21	13.75	-15.72	-18.3	-19.87
1.1	14.83	13.12	13.32	17.42	14.82	13.28	-15.77	-18.4	-19.91
1.2	13.91	12.36	12.73	17.15	14.43	12.82	-15.99	-18.53	-20.01
1.3	12.93	11.47	12.11	16.79	14.04	12.25	-16.29	-18.8	-20.14
1.4	11.78	10.49	11.39	16.43	13.63	11.59	-16.76	-19.16	-20.37
1.5	10.51	9.41	10.6	16.07	13.1	10.93	-17.34	-19.62	-20.67
1.6	9.05	8.19	9.75	15.6	12.56	10.17	-18.08	-20.21	-21.01
1.7	7.29	6.83	8.79	15.07	12.03	9.4	-19.07	-20.91	-21.44
1.8	5.41	5.34	7.7	14.55	11.43	8.64	-20.14	-21.7	-21.98
1.9	3.04	3.6	6.58	14	10.74	7.67	-21.61	-22.67	-22.53
2	0.68	1.89	5.4	13.31	10	6.69	-23.07	-23.6	-23.1
2.1	-0.96	0.47	4.04	12.61	9.26	5.72	-24.59	-24.42	-23.77
2.2	-2.43	-0.72	2.69	11.92	8.42	4.62	-26.03	-25.1	-24.39
2.3	-2.41	-1.29	1.38	11.04	7.52	3.53	-26.56	-25.4	-24.97
2.4	-1.62	-1.23	0.25	10.09	6.55	2.36	-26.56	-25.29	-25.43
2.5	-0.63	-0.8	-0.62	9.14	5.57	1.11	-25.97	-24.92	-25.73
2.6	0.55	-0.17	-1.26	8.01	4.37	-0.12	-24.76	-24.33	-25.91
2.7	1.57	0.62	-1.63	6.6	3.13	-1.31	-23.57	-23.53	-25.95
2.8	2.12	1.35	-1.59	5.17	1.85	-2.44	-22.6	-22.74	-25.79
2.9	2.58	1.8	-1.26	3.69	0.48	-3.61	-21.69	-22.05	-25.5
3	2.61	2.11	-0.89	1.23	-1.45	-4.68	-21.21	-21.51	-25.19
3.1	2.55	2.21	-0.55	-1.23	-3.41	-5.42	-20.81	-21.15	-24.86
3.2	2.22	2.17	-0.26	-3.7	-5.4	-6.05	-20.71	-20.9	-24.54
3.3	1.75	2.02	-0.1	-5.56	-8.1	-6.51	-20.76	-20.76	-24.31
3.4	1.05	1.71	-0.06	-7.09	-12.13	-6.69	-21.04	-20.78	-24.18
3.5	0.12	1.27	-0.16	-8.56	-15.83	-6.8	-21.53	-20.94	-24.13
3.6	-1	0.68	-0.38	-8.46	-19.2	-6.82	-22.21	-21.27	-24.16
3.7	-2.49	-0.17	-0.71	-5.97	-19.07	-6.79	-23.22	-21.88	-24.3
3.8	-4.13	-1.06	-1.25	-3.5	-16.48	-6.71	-24.37	-22.54	-24.61
3.9	-6.42	-2.24	-1.96	-1.21	-14.43	-6.72	-26.11	-23.55	-25.08
4	-8.96	-3.54	-2.75	-0.19	-12.92	-6.79	-28.11	-24.72	-25.62
4.1	-10.57	-5.05	-3.81	0.81	-11.77	-6.83	-30.09	-26.21	-26.39
4.2	-11.61	-6.89	-5.24	1.8	-10.76	-6.92	-32.11	-28.38	-27.48
4.3	-11.67	-8.88	-6.87	2.21	-9.95	-7.1	-33	-31.1	-28.77
4.4	-10.77	-10.79	-8.68	2.49	-9.44	-7.33	-32.55	-34.56	-30.22

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
4.5	-9.49	-12.53	-10.99	2.78	-9.34	-7.65	-31.41	-38.55	-31.95
4.6	-8.32	-13.75	-13.81	2.9	-9.33	-8.05	-30.02	-41.22	-33.85
4.7	-7.25	-13.65	-16.04	2.86	-9.33	-8.45	-28.52	-39.56	-35.45
4.8	-6.54	-13.03	-17.51	2.81	-9.51	-8.98	-27.39	-36.03	-36.66
4.9	-6.11	-12.25	-16.67	2.69	-9.83	-9.64	-26.56	-33.23	-36.08
5	-5.94	-11.51	-14.4	2.37	-10.23	-10.3	-26.04	-31.31	-34.51
5.1	-6	-10.92	-12.17	2.05	-10.59	-11.09	-25.8	-29.88	-32.78
5.2	-6.24	-10.67	-10.44	1.72	-11.07	-11.94	-25.76	-29.09	-31.04
5.3	-6.7	-10.64	-9.2	1.13	-11.62	-12.87	-25.95	-28.69	-29.6
5.4	-7.33	-10.85	-8.31	0.52	-12.22	-13.82	-26.36	-28.61	-28.54
5.5	-8.13	-11.4	-7.69	-0.1	-12.87	-14.73	-26.95	-28.96	-27.74
5.6	-9.09	-12.11	-7.35	-0.83	-13.5	-15.59	-27.77	-29.49	-27.2
5.7	-10.13	-13.09	-7.14	-1.56	-14.17	-16.07	-28.74	-30.45	-26.79
5.8	-11.28	-14.3	-7.23	-2.29	-14.88	-16.48	-29.94	-31.77	-26.66
5.9	-12.35	-15.62	-7.54	-2.91	-15.57	-16.78	-31.17	-33.62	-26.76
6	-13.26	-16.91	-7.97	-3.47	-16.32	-16.71	-32.42	-36.56	-26.97
6.1	-13.98	-18.11	-8.59	-4.01	-17.19	-16.54	-33.5	-39.97	-27.32
6.2	-14.37	-18.68	-9.53	-4.27	-18.08	-16.32	-34.19	-42.62	-27.94
6.3	-14.53	-18.62	-10.74	-4.26	-18.69	-16.19	-34.54	-44.01	-28.78
6.4	-14.55	-18.24	-12.09	-4.24	-19.44	-16.1	-34.51	-43.69	-29.73
6.5	-14.44	-17.42	-13.82	-4.11	-20.55	-16.02	-34.07	-40.86	-30.85
6.6	-14.39	-16.43	-16.69	-3.84	-21.5	-16.24	-33.6	-37.31	-32.42
6.7	-14.49	-15.61	-20.18	-3.57	-22.32	-16.53	-33.19	-34.81	-34.16
6.8	-14.69	-15.11	-24.08	-3.34	-23.13	-16.86	-32.87	-33.47	-35.93
6.9	-15.24	-14.7	-25.76	-3.19	-24.05	-17.55	-32.91	-32.42	-37.11
7	-15.9	-14.64	-24.95	-3.05	-25.04	-18.26	-33.06	-31.9	-37.47
7.1	-16.86	-14.78	-22.81	-2.95	-26.06	-19.01	-33.53	-31.68	-37.21
7.2	-18.02	-15.13	-20.18	-3.09	-27.11	-19.84	-34.2	-31.71	-36.38
7.3	-19.38	-15.76	-17.81	-3.23	-28.41	-20.58	-35.13	-32.03	-35.18
7.4	-20.98	-16.56	-16.39	-3.4	-29.45	-21.21	-36.38	-32.56	-34.03
7.5	-22.37	-17.63	-15.27	-3.94	-30.92	-21.3	-37.67	-33.39	-33.06
7.6	-22.98	-19.05	-14.54	-4.49	-32.79	-21.29	-38.98	-34.58	-32.29
7.7	-23.46	-20.64	-14.29	-5.05	-34.94	-21.15	-40.31	-36.06	-31.87
7.8	-22.73	-22.53	-14.26	-6.11	-35.16	-20.55	-40.08	-38.39	-31.61
7.9	-21.92	-24.53	-14.41	-7.19	-34.04	-19.96	-39.66	-41.09	-31.51
8	-21.27	-25.63	-14.84	-8.3	-30.67	-19.45	-38.86	-44.32	-31.61
8.1	-20.73	-25.81	-15.55	-9.7	-27.72	-19.05	-37.88	-47.45	-31.91
8.2	-20.49	-25.38	-16.52	-11.08	-25.78	-18.71	-37.07	-48.66	-32.39

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
8.3	-20.59	-24.3	-17.74	-12.41	-24.49	-18.45	-36.49	-46.57	-32.99
8.4	-20.91	-22.92	-19.4	-12.08	-23.19	-18.42	-36.09	-42.78	-33.78
8.5	-21.74	-21.74	-21.86	-11.43	-22.07	-18.54	-36.15	-39.7	-34.88
8.6	-22.69	-21.18	-24.79	-10.72	-21.13	-18.77	-36.31	-38.17	-36.05
8.7	-23.87	-20.74	-28.32	-9.34	-20.38	-19.19	-37.07	-36.92	-37.24
8.8	-25.07	-20.73	-30.41	-7.85	-19.72	-19.65	-37.98	-36.24	-38.26
8.9	-25.38	-20.95	-30.34	-6.38	-19.15	-20.41	-39.03	-35.82	-39
9	-25.09	-21.36	-28.21	-5.38	-18.77	-21.38	-40.15	-35.61	-39.27
9.1	-24.23	-22.04	-25.12	-4.49	-18.49	-22.39	-40.72	-35.68	-39
9.2	-22.87	-22.88	-22.68	-3.62	-18.28	-23.53	-40.54	-35.93	-38.29
9.3	-21.36	-23.74	-21.14	-3.12	-18.19	-25.06	-39.79	-36.32	-37.25
9.4	-20.04	-24.48	-20.11	-2.7	-18.27	-26.64	-38.47	-36.86	-36.35
9.5	-18.87	-25.08	-19.3	-2.28	-18.39	-28.38	-36.79	-37.35	-35.52
9.6	-18.05	-24.71	-18.88	-2.11	-18.59	-30.4	-35.36	-37.49	-34.86
9.7	-17.5	-23.99	-18.71	-2.03	-19.06	-31.97	-34.18	-37.46	-34.39
9.8	-17.2	-23.05	-18.68	-1.95	-19.58	-33.17	-33.31	-37.06	-34.07
9.9	-17.15	-21.99	-18.81	-2.15	-20.14	-34.38	-32.76	-36.37	-33.87
10	-17.34	-20.97	-19.11	-2.43	-20.93	-35.06	-32.51	-35.56	-33.83
15	-18.48	-32.83	-22.96	-7.06	-30.58	-32.35	-29.15	-40.57	-34.94
20	-24.43	-28.59	-26.91	-17.61	-27.55	-33.32	-30.88	-35.94	-35.15
25	-35.39	-37.48	-31.55	-27.36	-28.46	-45.43	-40.74	-39.2	-39.59
30	-33.46	-36.45	-36.23	-25.18	-38.84	-36.06	-32.96	-42.49	-38.36
35	-33.72	-40.93	-38.2	-29.46	-46.87	-31.62	-38.06	-37.4	-37.43
40	-48.5	-40.72	-35.6	-27.42	-22.17	-31.73	-51.07	-51.33	-35.59
45	-36.03	-41.34	-43.88	-35.61	-35.72	-47.23	-43.29	-41.78	-51.85
50	-38	-39.95	-38.95	-14.71	-37.75	-37.79	-40.72	-44.86	-36.33
55	-42.68	-47.06	-41.48	-25.59	-36.83	-32.01	-49.45	-52.88	-38.94
60	-38.77	-35.45	-40.53	-30.68	-38.54	-40.93	-42.2	-41.78	-44.17
65	-44.51	-36.79	-45.15	-29.1	-50.03	-43.19	-54.12	-47.34	-40.63
70	-44.93	-37.9	-37.48	-32.28	-53.44	-54.86	-42.14	-39.11	-42.06
75	-40.27	-47.45	-37.18	-33.42	-47.57	-43.98	-39.1	-44.87	-40.33
80	-46.17	-52.94	-42.56	-35.82	-48.21	-57.96	-42.49	-50.46	-45.66
85	-59.78	-59.99	-50.7	-43.18	-52.98	-61.6	-56.03	-61.49	-57.67
90									
95									
100									
105									
110									

FCC tabular data for target scan=50deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.2.3 Tabular Data, Mainbeam @ Elevation=60° (Scan=30°), 14.25 GHz

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-90									
-85									
-80	-54.65						-66.45		
-75	-45.42						-51.62		
-70	-41.38	-55.47					-43.59	-51.71	
-65	-39.26	-50.88	-43.58				-43.86	-46.95	-41.31
-60	-39.58	-46.59	-39.12			-42.94	-47.1	-46.41	-46.82
-55	-35.88	-44.12	-41.82	-44.3	-41.1	-37.99	-39.18	-39.79	-48.67
-50	-37.06	-39	-38.33	-29.07	-40.77	-40.4	-38.64	-45.44	-45.07
-45	-33.53	-48.03	-41.14	-29.78	-40.69	-42.83	-38.25	-49.16	-48.74
-40	-25.98	-35.72	-34.65	-32.65	-39.97	-41.85	-32.93	-44.06	-35.91
-35	-34.71	-30.4	-32.75	-29.43	-31.74	-36.45	-46.8	-40.71	-44.62
-30	-40.67	-34.36	-32.53	-27.61	-28.47	-36.18	-52.71	-48.85	-40.9
-25	-34.6	-39.84	-32.59	-15.82	-37.74	-39.28	-41.09	-51.15	-44.3
-20	-29.81	-29.55	-38.07	-10.56	-40.81	-28.58	-45.85	-45.37	-44.4
-15	-22.62	-34.29	-30.68	-6.36	-35.42	-32.62	-37.86	-52.77	-43.5
-10	-15.42	-16.99	-21.57	-7.12	-17.16	-24.21	-35.14	-37.1	-42.14
-9.9	-15.58	-17.11	-21.86	-7.97	-17.11	-25.71	-35.42	-36.82	-41.92
-9.8	-15.8	-17.28	-22.26	-8.47	-17.13	-27.07	-35.78	-36.61	-41.74
-9.7	-16.1	-17.73	-22.78	-8.86	-17.27	-27.96	-36.28	-36.66	-41.62
-9.6	-16.45	-18.36	-23.47	-9.21	-17.68	-27.67	-36.85	-36.9	-41.59
-9.5	-16.82	-19.16	-24.38	-8.48	-18.29	-26.45	-37.43	-37.26	-41.69
-9.4	-17.18	-20.23	-25.43	-7.64	-19	-24.8	-38	-37.85	-41.83
-9.3	-17.52	-21.51	-26.8	-6.78	-19.92	-22.88	-38.5	-38.58	-42.12
-9.2	-17.78	-23.11	-28.83	-5.81	-21.41	-21.13	-38.84	-39.56	-42.57
-9.1	-17.99	-25.29	-31.39	-4.85	-23.16	-19.64	-39.08	-40.93	-43.1
-9	-18.09	-27.91	-34.2	-3.9	-25.16	-18.25	-39.07	-42.54	-43.71
-8.9	-18.14	-30.84	-36.45	-3.2	-30.4	-17.18	-38.95	-44.83	-44.46
-8.8	-18.21	-33.79	-37.45	-2.5	-35.99	-16.26	-38.82	-47.47	-45.32
-8.7	-18.3	-35.22	-37.6	-1.85	-37.6	-15.62	-38.71	-49.89	-46.14
-8.6	-18.51	-33.47	-36.97	-1.43	-33.92	-15.19	-38.73	-51.5	-46.9
-8.5	-18.92	-30.37	-35.11	-1.04	-28.59	-14.85	-38.99	-51.29	-47.58
-8.4	-19.51	-27.76	-33.29	-0.7	-24.94	-14.55	-39.47	-49.21	-48.1
-8.3	-20.43	-26.04	-31.8	-0.56	-23.02	-14.47	-40.43	-46.75	-48.48
-8.2	-21.61	-24.59	-30.77	-0.41	-21.6	-14.57	-41.76	-44.69	-48.67
-8.1	-22.63	-23.41	-30.14	-0.36	-20.49	-14.69	-43.45	-43.25	-48.7
-8	-23.52	-22.35	-29.78	-0.47	-19.69	-14.87	-45.41	-42.2	-48.59
-7.9	-23.34	-21.33	-29.54	-0.58	-19.19	-15.06	-46.44	-41.41	-48.42

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-7.8	-21.73	-20.41	-29.35	-0.79	-18.98	-15.29	-46	-41.01	-48.23
-7.7	-19.33	-19.43	-28.64	-1.12	-19.01	-15.4	-44.41	-40.77	-48.02
-7.6	-17.01	-18.56	-27.86	-1.45	-19.15	-15.4	-41.89	-40.68	-47.88
-7.5	-14.76	-17.72	-27	-1.9	-19.43	-15.3	-38.83	-40.61	-47.81
-7.4	-12.95	-16.93	-25.95	-2.44	-20.04	-15.01	-36.59	-40.52	-47.84
-7.3	-11.43	-16.24	-24.72	-2.97	-20.76	-14.63	-34.82	-40.37	-48.01
-7.2	-10.19	-15.62	-23.48	-3.59	-20.91	-14.18	-33.44	-40.11	-48.29
-7.1	-9.17	-15.09	-22.38	-4.25	-20.93	-13.69	-32.35	-39.73	-48.58
-7	-8.35	-14.73	-21.49	-4.9	-20.79	-13.18	-31.49	-39.24	-48.82
-6.9	-7.72	-14.39	-20.76	-5.42	-19.86	-12.65	-30.85	-38.7	-49.1
-6.8	-7.2	-14.35	-20.15	-5.91	-18.64	-12.29	-30.34	-38.15	-49.31
-6.7	-6.94	-14.38	-19.73	-6.36	-17.13	-11.98	-30.11	-37.58	-49.31
-6.6	-6.79	-14.63	-19.51	-6.43	-16.03	-11.68	-30	-37.11	-49.09
-6.5	-6.85	-15.11	-19.46	-6.49	-14.99	-11.61	-30.12	-36.77	-48.72
-6.4	-7.05	-15.88	-19.56	-6.48	-13.9	-11.64	-30.41	-36.57	-48.33
-6.3	-7.45	-17.1	-19.89	-6.3	-13.08	-11.7	-30.94	-36.55	-47.93
-6.2	-8.08	-18.9	-20.46	-6.12	-12.47	-11.99	-31.74	-36.75	-47.44
-6.1	-8.87	-20.98	-21.26	-5.99	-11.86	-12.32	-32.77	-37.07	-47.01
-6	-10.07	-22.98	-22.38	-5.93	-11.5	-12.76	-34.44	-37.87	-46.77
-5.9	-11.45	-24.63	-23.79	-5.88	-11.42	-13.5	-36.4	-38.91	-46.59
-5.8	-12.88	-25.12	-25.37	-5.98	-11.37	-14.25	-38.32	-40.41	-46.46
-5.7	-14.32	-24.63	-26.58	-6.21	-11.43	-15	-40.15	-42.12	-46.44
-5.6	-15.12	-23.1	-27.08	-6.44	-11.87	-16.05	-40.84	-43.78	-46.5
-5.5	-15.12	-20.49	-27.08	-6.81	-12.46	-17.12	-40.2	-45.24	-46.54
-5.4	-14.61	-17.49	-26.21	-7.22	-13.11	-18.14	-38.84	-46.38	-46.57
-5.3	-13.21	-15.16	-24.36	-7.62	-14.28	-19.13	-36.61	-46.51	-46.67
-5.2	-11.5	-13.81	-22.52	-7.76	-15.47	-19.99	-34.15	-45.26	-46.67
-5.1	-10.15	-12.63	-20.92	-7.86	-16.57	-20.84	-32.6	-43.59	-46.61
-5	-8.93	-11.87	-19.73	-7.82	-16.53	-21.17	-31.35	-41.78	-46.57
-4.9	-8.02	-11.36	-18.84	-7.16	-15.95	-21.33	-30.49	-40.07	-46.54
-4.8	-7.37	-11.06	-18.06	-6.49	-14.98	-21.24	-29.93	-38.81	-46.49
-4.7	-6.94	-11.15	-17.51	-5.69	-13.23	-20.47	-29.6	-38.16	-46.51
-4.6	-6.84	-11.36	-17.14	-4.72	-11.35	-19.52	-29.58	-37.76	-46.69
-4.5	-6.84	-11.94	-16.72	-3.76	-9.54	-18.34	-29.68	-37.73	-46.9
-4.4	-7.26	-12.75	-16.34	-2.97	-8.03	-16.87	-30.2	-38	-47.17
-4.3	-7.78	-13.68	-16.03	-2.27	-6.76	-15.37	-30.83	-38.51	-47.59
-4.2	-8.56	-14.75	-15.71	-1.57	-5.64	-13.89	-31.8	-39.42	-48.04
-4.1	-9.5	-15.7	-15.3	-1.17	-4.79	-12.56	-32.98	-40.69	-48.44

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-4	-10.43	-15.88	-14.86	-0.81	-4.19	-11.28	-34.36	-42.5	-48.75
-3.9	-11.29	-14.71	-14.56	-0.52	-3.64	-10.12	-36.02	-45.26	-48.94
-3.8	-12.01	-13.42	-14.3	-0.57	-3.27	-9.27	-37.64	-48.6	-48.98
-3.7	-11.31	-11.79	-14.05	-0.62	-3.26	-8.49	-38.21	-49.65	-48.9
-3.6	-10.43	-10.26	-14.13	-0.93	-3.35	-7.89	-38.56	-50.05	-48.66
-3.5	-9.22	-9.04	-14.49	-1.56	-3.64	-7.6	-37.59	-49.23	-48.36
-3.4	-7.89	-8.09	-15.13	-2.21	-4.48	-7.38	-36.13	-47.73	-48.04
-3.3	-6.84	-7.38	-16.29	-3.63	-5.53	-7.36	-34.9	-46.19	-47.64
-3.2	-6.14	-6.97	-18.11	-5.38	-7.18	-7.64	-34.01	-45.23	-47.1
-3.1	-5.59	-6.93	-20.09	-7.16	-10.86	-7.97	-33.27	-45.37	-46.45
-3	-5.67	-7.13	-21.62	-7.98	-15.01	-8.05	-33.14	-45.78	-45.64
-2.9	-5.8	-8.17	-18.84	-8.61	-19.09	-7.85	-33.05	-48.43	-44.39
-2.8	-6.91	-9.32	-15.37	-7.96	-14.59	-7.37	-33.7	-51.8	-42.91
-2.7	-8.24	-9.8	-11.65	-4.82	-9.48	-6.34	-34.55	-51.89	-41.24
-2.6	-9.08	-9.7	-8.24	-1.7	-4.44	-4.8	-36.05	-50.01	-39.59
-2.5	-9.38	-8.9	-5.36	0.8	-1.5	-3.15	-38.03	-47.31	-38.03
-2.4	-8.9	-7.1	-2.67	2.91	1.19	-1.3	-39.43	-43.28	-36.42
-2.3	-6.56	-4.79	-0.2	4.98	3.52	0.68	-39.3	-38.86	-34.76
-2.2	-4.13	-2.29	1.51	6.48	5.14	2.48	-38.92	-35.57	-33.53
-2.1	-1.27	0.28	3.17	7.93	6.69	4.08	-36.69	-33.35	-32.29
-2	1.53	2.71	4.78	9.27	8.18	5.55	-34.36	-31.34	-31.04
-1.9	3.85	4.71	6.17	10.31	9.36	7	-32.13	-29.76	-30.01
-1.8	5.85	6.45	7.38	11.34	10.43	8.24	-30.05	-28.45	-29.14
-1.7	7.64	8.04	8.56	12.25	11.48	9.3	-28.26	-27.27	-28.29
-1.6	9.12	9.33	9.7	13.05	12.36	10.36	-26.96	-26.39	-27.47
-1.5	10.52	10.6	10.6	13.85	13.2	11.31	-25.76	-25.52	-26.93
-1.4	11.63	11.67	11.48	14.49	13.95	12.13	-24.96	-24.87	-26.42
-1.3	12.7	12.64	12.34	15.11	14.58	12.91	-24.23	-24.34	-25.9
-1.2	13.64	13.53	13.06	15.69	15.18	13.59	-23.68	-23.91	-25.57
-1.1	14.49	14.32	13.7	16.16	15.78	14.22	-23.25	-23.59	-25.33
-1	15.26	15.05	14.32	16.64	16.24	14.8	-22.94	-23.35	-25.11
-0.9	15.91	15.71	14.9	17.04	16.65	15.26	-22.79	-23.18	-24.94
-0.8	16.52	16.25	15.34	17.39	17.05	15.69	-22.7	-23.17	-24.95
-0.7	17	16.76	15.77	17.74	17.37	16.11	-22.75	-23.19	-24.97
-0.6	17.45	17.15	16.18	17.99	17.67	16.42	-22.86	-23.36	-24.99
-0.5	17.81	17.52	16.46	18.22	17.91	16.66	-23.07	-23.53	-25.12
-0.4	18.12	17.83	16.7	18.43	18.06	16.9	-23.31	-23.74	-25.28
-0.3	18.36	18.06	16.93	18.54	18.2	17.06	-23.58	-23.99	-25.42

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-0.2	18.53	18.22	17.1	18.66	18.35	17.16	-23.86	-24.26	-25.56
-0.1	18.66	18.32	17.16	18.7	18.39	17.23	-24.11	-24.47	-25.7
0	18.71	18.38	17.21	18.71	18.38	17.21	-24.31	-24.64	-25.8
0.1	18.71	18.39	17.25	18.72	18.37	17.19	-24.4	-24.7	-25.85
0.2	18.64	18.31	17.14	18.62	18.28	17.13	-24.38	-24.64	-25.81
0.3	18.51	18.19	17.01	18.52	18.18	16.95	-24.26	-24.55	-25.73
0.4	18.31	17.97	16.86	18.37	18.04	16.76	-24.05	-24.36	-25.62
0.5	18.05	17.71	16.63	18.16	17.79	16.58	-23.79	-24.11	-25.49
0.6	17.71	17.4	16.29	17.96	17.54	16.26	-23.52	-23.86	-25.35
0.7	17.3	17	15.93	17.66	17.29	15.91	-23.27	-23.62	-25.21
0.8	16.8	16.53	15.55	17.34	16.94	15.56	-23.09	-23.45	-25.07
0.9	16.23	15.94	14.99	16.99	16.53	15.12	-22.96	-23.38	-25.09
1	15.56	15.3	14.41	16.52	16.13	14.63	-22.94	-23.37	-25.14
1.1	14.8	14.59	13.79	16.05	15.62	14.12	-23	-23.45	-25.22
1.2	13.94	13.77	13.04	15.47	15.12	13.51	-23.17	-23.65	-25.45
1.3	12.97	12.84	12.17	14.85	14.56	12.9	-23.47	-23.98	-25.83
1.4	11.89	11.79	11.26	14.21	13.87	12.22	-23.88	-24.45	-26.26
1.5	10.6	10.55	10.27	13.38	13.19	11.42	-24.49	-25.13	-26.78
1.6	9.17	9.28	8.96	12.55	12.48	10.64	-25.24	-25.86	-27.68
1.7	7.39	7.63	7.62	11.6	11.65	9.85	-26.28	-26.96	-28.64
1.8	5.39	5.78	6.1	10.5	10.76	8.87	-27.5	-28.28	-29.81
1.9	2.84	3.4	4.21	9.4	9.81	7.91	-29.17	-30.1	-31.44
2	-0.31	0.44	1.98	7.89	8.74	6.94	-31.3	-32.46	-33.5
2.1	-3.44	-2.85	-0.61	6.35	7.68	5.82	-33.91	-35.3	-35.87
2.2	-5.53	-6.28	-4.2	4.49	6.46	4.64	-37.54	-38.85	-38.79
2.3	-7.02	-9.43	-9.71	1.99	5.06	3.44	-41.39	-42.55	-41.99
2.4	-6.2	-10.62	-15.82	-0.49	3.69	2.16	-42.41	-43.49	-44.39
2.5	-4.41	-9.06	-17.89	-4.95	2.07	0.88	-42.22	-41.4	-44.18
2.6	-2.58	-6.51	-14.95	-10.28	0.32	-0.46	-40	-38.3	-41.57
2.7	-0.96	-4.34	-10.28	-14.4	-1.42	-1.81	-36.42	-35.6	-38.31
2.8	0.35	-2.89	-7.04	-11.67	-3.66	-3.05	-33.2	-33.64	-35.92
2.9	1.04	-1.84	-5.37	-8.97	-6	-4.23	-31.54	-32.22	-34.53
3	1.58	-1.5	-4.59	-6.27	-8.08	-5.27	-30.28	-31.52	-33.72
3.1	1.67	-1.38	-4.11	-3.53	-9.19	-6.15	-29.64	-31.06	-33.13
3.2	1.69	-1.57	-4.06	-0.92	-10.05	-6.81	-29.12	-30.93	-32.92
3.3	1.49	-2.02	-4.36	-0.05	-10.87	-7.3	-28.87	-31.11	-33.03
3.4	1.15	-2.72	-4.91	0.84	-10.38	-7.68	-28.79	-31.57	-33.32
3.5	0.69	-3.65	-5.73	1.37	-9.99	-7.93	-28.85	-32.35	-33.88

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
3.6	0.03	-4.78	-6.96	1.58	-9.72	-8.09	-29.12	-33.44	-34.82
3.7	-0.66	-6	-8.6	1.8	-9.43	-8.27	-29.43	-34.84	-36.08
3.8	-1.52	-7.3	-10.56	1.56	-9.32	-8.47	-29.92	-37.12	-37.57
3.9	-2.38	-8.53	-13.27	1.32	-9.43	-8.68	-30.42	-40.29	-39.77
4	-3.3	-9.1	-16.33	0.91	-9.76	-8.89	-30.98	-42.77	-42.27
4.1	-4.21	-9.22	-19.24	0.29	-10.06	-9.23	-31.55	-44.35	-44.62
4.2	-5.03	-8.99	-20.63	-0.33	-10.58	-9.61	-32.07	-44.28	-45.73
4.3	-5.71	-8.39	-19.66	-1.37	-11.35	-9.98	-32.52	-42.11	-44.97
4.4	-6.34	-7.56	-17.27	-2.43	-12.23	-10.45	-32.94	-38.93	-43.14
4.5	-6.75	-6.9	-14.96	-3.65	-13.22	-11.03	-33.27	-36.66	-41.1
4.6	-7.13	-6.4	-13.53	-5.06	-14.28	-11.58	-33.61	-35.06	-39.57
4.7	-7.44	-6.05	-12.7	-6.48	-15.37	-12.17	-33.98	-33.82	-38.44
4.8	-7.75	-5.95	-12.31	-7.67	-16.73	-12.83	-34.38	-33.06	-37.69
4.9	-8.1	-6.05	-12.36	-8.85	-18.15	-13.48	-34.91	-32.6	-37.31
5	-8.5	-6.33	-12.84	-9.4	-19.25	-14.06	-35.57	-32.37	-37.23
5.1	-8.94	-6.85	-13.69	-9.14	-19.93	-14.57	-36.32	-32.43	-37.39
5.2	-9.46	-7.43	-15.13	-8.88	-20.57	-15.12	-37.31	-32.54	-37.86
5.3	-9.99	-8.48	-17.36	-8.13	-21.1	-15.46	-38.33	-33.15	-38.55
5.4	-10.5	-9.72	-20.2	-7.34	-21.05	-15.69	-39.4	-33.91	-39.38
5.5	-10.94	-11.27	-22.39	-6.74	-21.28	-15.91	-40.31	-35.02	-40.26
5.6	-11.23	-13.09	-23.12	-6.37	-21.55	-16.03	-40.77	-36.44	-40.95
5.7	-11.39	-15.11	-22.1	-6	-21.65	-16.09	-40.82	-38.27	-41.22
5.8	-11.42	-17.22	-19.65	-6.1	-21.8	-16.13	-40.55	-40.89	-40.9
5.9	-11.25	-19.06	-16.76	-6.22	-22.26	-16.2	-39.75	-44.63	-40.03
6	-11.05	-19.91	-14.54	-6.57	-22.69	-16.28	-38.93	-48.33	-38.95
6.1	-10.8	-19.17	-13.04	-7.17	-22.96	-16.34	-38.1	-49.13	-37.85
6.2	-10.58	-17.81	-11.95	-7.78	-23.34	-16.51	-37.39	-48.2	-36.78
6.3	-10.45	-16.54	-11.16	-8.82	-23.62	-16.7	-36.92	-45.9	-35.86
6.4	-10.41	-15.55	-10.71	-9.86	-23.73	-16.88	-36.65	-43.21	-35.18
6.5	-10.49	-14.8	-10.56	-10.85	-23.73	-17.19	-36.58	-41.18	-34.73
6.6	-10.74	-14.46	-10.55	-11.74	-23.56	-17.51	-36.77	-40.03	-34.37
6.7	-11.1	-14.35	-10.81	-12.57	-23.19	-17.79	-37.11	-39.3	-34.24
6.8	-11.71	-14.63	-11.43	-12.06	-22.81	-18.21	-37.76	-39.13	-34.41
6.9	-12.46	-15.15	-12.18	-11.51	-22.48	-18.65	-38.58	-39.34	-34.67
7	-13.43	-15.89	-13.26	-10.62	-22.14	-19.04	-39.65	-39.88	-35.18
7.1	-14.57	-16.89	-14.73	-9.46	-21.85	-19.57	-40.84	-40.86	-35.99
7.2	-15.87	-18.17	-16.52	-8.33	-21.64	-20.1	-42.09	-42.35	-37.05
7.3	-17.27	-19.67	-18.46	-7.49	-21.59	-20.59	-43.27	-44.34	-38.31

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
7.4	-18.55	-21.15	-20.44	-6.66	-21.62	-21.3	-44.01	-46.94	-40.43
7.5	-19.62	-22.65	-21.61	-6.09	-21.74	-22	-44.11	-49.76	-43.08
7.6	-20.04	-23.13	-21.98	-5.68	-21.98	-22.63	-43.69	-49.94	-46.02
7.7	-19.81	-23.06	-20.92	-5.33	-22.35	-23.52	-42.77	-48.5	-47.12
7.8	-19.27	-22.52	-19.15	-5.27	-22.85	-24.37	-41.8	-46.25	-46.62
7.9	-18.55	-21.67	-17.45	-5.21	-23.51	-25.11	-40.95	-43.83	-45.25
8	-17.83	-20.77	-15.99	-5.4	-24.28	-25.66	-40.29	-41.71	-43.25
8.1	-17.35	-20.06	-15.14	-5.67	-25.18	-26.16	-39.88	-40.12	-41.18
8.2	-17.08	-19.67	-14.47	-6.05	-26.28	-26.48	-39.71	-39.16	-39.48
8.3	-17.13	-19.51	-14.06	-6.64	-27.51	-26.18	-39.84	-38.43	-38.27
8.4	-17.4	-19.66	-14	-7.24	-28.94	-25.79	-40.16	-38	-37.54
8.5	-17.95	-20	-14.14	-8.07	-30.52	-25.35	-40.77	-37.72	-37.07
8.6	-18.75	-20.58	-14.47	-8.94	-32.03	-24.62	-41.67	-37.64	-36.83
8.7	-19.76	-21.44	-15.1	-9.84	-32.96	-23.88	-42.96	-37.78	-36.87
8.8	-20.92	-22.42	-15.97	-10.78	-33.55	-23.25	-44.81	-37.97	-37.12
8.9	-22.16	-23.35	-16.99	-11.73	-33.78	-22.69	-47.07	-38.21	-37.5
9	-22.8	-24.21	-18.3	-12.23	-33.6	-22.14	-49.07	-38.46	-38
9.1	-23	-24.71	-19.62	-12.74	-32.87	-21.67	-51.04	-38.79	-38.52
9.2	-22.66	-24.8	-20.67	-12.85	-31.75	-21.37	-51.38	-39.07	-38.94
9.3	-21.9	-24.59	-21.21	-12.67	-30.47	-21.09	-50.3	-39.28	-39.16
9.4	-20.97	-24.29	-21.19	-12.46	-29.18	-20.81	-48.4	-39.47	-39.14
9.5	-20.03	-24	-20.76	-12.05	-27.82	-20.71	-46.14	-39.67	-38.88
9.6	-19.14	-23.65	-19.7	-11.64	-26.89	-20.61	-43.79	-39.92	-38.33
9.7	-18.53	-23.86	-18.63	-11.4	-26	-20.51	-42.16	-40.43	-37.7
9.8	-18.11	-24.17	-17.79	-11.23	-25.11	-20.54	-41.11	-40.93	-37.14
9.9	-17.97	-25.08	-17.2	-11.18	-24.28	-20.6	-40.44	-41.84	-36.69
10	-18.02	-26.52	-16.8	-11.38	-23.55	-20.67	-40.03	-43.16	-36.35
15	-22.33	-26.23	-27.07	-17.45	-30.69	-36.17	-40.63	-41.52	-42.04
20	-32.13	-28.12	-24.63	-30.07	-25.98	-26.44	-45.96	-41.54	-40.63
25	-33.53	-29.75	-26.96	-27.02	-19.68	-34.64	-42.58	-38.46	-39.47
30	-36.94	-39.05	-31.34	-17.44	-25.95	-43.7	-57.1	-43.61	-49.04
35	-47.79	-35.43	-34.22	-33.04	-35.78	-34.45	-45.39	-39.72	-40.83
40	-35.31	-46.55	-29.88	-34.13	-32.63	-28.38	-49.8	-48.68	-49.85
45	-42.83	-35.9	-36.13	-41.72	-33.02	-42.92	-43.87	-46.63	-45.31
50	-40.16	-37.08	-35.77	-28.88	-39.73	-38.72	-45.08	-43.08	-51.83
55	-41.03	-46.34	-32.91	-33.42	-38.08	-51.75	-51.64	-50.17	-47.74
60	-41.74	-51.47	-34.84	-31.33	-31.53	-40.6	-52.69	-57.61	-42.32
65	-51.14	-41.31	-55.48	-32.76	-36.59	-42.32	-53.56	-47.2	-54.86

FCC tabular data for target scan=30deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
70	-44.75	-41.86	-33.72	-35.56	-47.21	-43.46	-51.79	-56.73	-48.93
75	-45.58	-39.95	-30.47	-40.2	-41.34	-41.35	-55.3	-47.28	-52.74
80	-42.1	-50.09	-36.2	-37.25	-43.9	-43.18	-48.2	-59.04	-58.12
85	-52.69	-53.23	-44.05	-45.1	-51.6	-54.04	-58.95	-60.38	-57.31
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.2.4 Tabular Data, Mainbeam @ Elevation=80° (Scan=10°), 14.25 GHz

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90		-51.95	-48.03					-60.29	-49.06
-85	-45.26	-42.86	-40.1				-65.48	-47.38	-42.22
-80	-48.22	-34.21	-46.44				-61.97	-45.99	-50.14
-75	-36.5	-30.64	-37.05	-44.59	-43.25	-40.29	-56.26	-40.33	-41.61
-70	-33.15	-29.34	-34.98	-40.18	-42.27	-43.62	-59.96	-39.07	-40.65
-65	-38.23	-32.96	-38.29	-35.35	-47.42	-41.81	-60.77	-45.45	-51.19
-60	-32.23	-39.44	-45.55	-43.23	-38.04	-47.71	-48.89	-52.08	-54.07
-55	-43.58	-31.83	-44.56	-36.83	-45.24	-37.19	-52.38	-41.71	-57.68
-50	-34.88	-36.06	-40.01	-39.31	-37.2	-42.05	-56.69	-51.85	-49.57
-45	-40.89	-33.6	-43.51	-37.28	-33.55	-36.88	-56.65	-50.26	-47.34
-40	-54.84	-25.08	-37.57	-50.33	-42.67	-34.54	-56.34	-54.36	-60.27
-35	-35.03	-23.04	-31.76	-42.52	-47.73	-39.7	-50.16	-45.94	-51.83
-30	-31.78	-32.48	-36.74	-34.81	-46.09	-34.86	-59.83	-61.57	-52.34
-25	-35.09	-49.45	-32.77	-26.14	-30.57	-27.99	-57.23	-53.32	-48.49
-20	-36.95	-32.14	-29.6	-24.09	-28.28	-39.44	-59.37	-57.74	-48.29
-15	-25.91	-31.74	-20.23	-4.53	-32.95	-36.66	-51.59	-54.5	-55.82
-10	-10.61	-10.7	-25.96	-1.26	-18.78	-21.75	-51.12	-48.37	-52
-9.9	-10.61	-10.06	-26.95	-0.84	-19.24	-21.4	-51.53	-47.81	-51.01
-9.8	-10.73	-9.64	-27.87	-0.58	-19.81	-21.14	-52.05	-47.52	-49.87
-9.7	-11	-9.31	-28.64	-0.37	-20.68	-20.92	-52.54	-47.35	-48.83
-9.6	-11.45	-9.04	-29.46	-0.22	-21.83	-20.89	-52.87	-47.21	-47.89
-9.5	-12.06	-8.84	-30.62	-0.27	-23.15	-21.05	-52.95	-47.1	-47.08
-9.4	-12.85	-8.75	-32.24	-0.33	-24.99	-21.26	-52.85	-47.05	-46.51
-9.3	-13.92	-8.79	-33.44	-0.55	-27.36	-21.7	-52.41	-47.19	-46.26
-9.2	-15.21	-8.94	-34.85	-0.89	-30.53	-22.32	-51.93	-47.3	-46.16
-9.1	-16.96	-9.13	-38.76	-1.26	-33.4	-23.06	-51.49	-47.4	-46.37
-9	-18.99	-9.43	-43.61	-2.01	-35.3	-24.2	-51.07	-47.61	-46.78
-8.9	-21.19	-9.87	-45.24	-2.81	-36.61	-25.64	-50.76	-47.96	-47.51
-8.8	-23.55	-10.39	-41.86	-3.88	-34.81	-27.2	-50.64	-48.37	-48.64

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-8.7	-26.04	-10.94	-37.42	-5.39	-31.55	-29.64	-50.49	-48.8	-50.1
-8.6	-25.37	-11.57	-34.68	-6.99	-28.66	-32.24	-50.51	-49.41	-51.96
-8.5	-24.83	-12.4	-32.09	-10.28	-26.83	-34.39	-50.46	-50.56	-54.89
-8.4	-24	-13.3	-29.37	-14.27	-25.61	-34.35	-50.53	-51.98	-58.11
-8.3	-22.81	-14.21	-27.06	-17.26	-24.25	-32.63	-50.65	-53.57	-59.67
-8.2	-21.87	-15.17	-25.31	-15.68	-23.08	-30.83	-50.8	-55.6	-58.68
-8.1	-22.07	-16.22	-23.91	-13.58	-22.1	-29.05	-51.1	-58.39	-55.78
-8	-22.51	-17.37	-22.63	-10.78	-21.02	-27.42	-51.41	-61.4	-52.91
-7.9	-23.96	-18.44	-21.83	-7.87	-19.77	-26.03	-51.88	-63.35	-51.28
-7.8	-25.83	-19.57	-21.07	-5.15	-18.66	-25.32	-52.37	-65.35	-49.88
-7.7	-26.19	-20.72	-20.49	-3.78	-17.53	-24.84	-53.13	-64.77	-49.05
-7.6	-24.47	-21.81	-20.09	-2.46	-16.47	-24.41	-54.21	-62.43	-48.67
-7.5	-21.42	-22.77	-19.77	-1.44	-15.54	-24.2	-55.63	-59.89	-48.57
-7.4	-18.39	-23.55	-19.54	-0.74	-14.65	-24.19	-57.56	-57.35	-48.74
-7.3	-15.79	-23.75	-19.52	-0.05	-13.88	-24.21	-59.98	-54.65	-49.67
-7.2	-13.58	-23.08	-19.5	0.26	-13.23	-24.24	-60.92	-53.51	-50.91
-7.1	-11.81	-22.06	-19.59	0.53	-12.67	-24.2	-59.76	-52.38	-52.87
-7	-10.34	-20.8	-19.73	0.68	-12.33	-24.11	-57.49	-51.04	-55.41
-6.9	-9.15	-19.5	-19.82	0.62	-12.13	-23.91	-55.01	-49.68	-57.99
-6.8	-8.26	-18.35	-19.85	0.54	-12	-23.58	-52.66	-48.55	-59.73
-6.7	-7.47	-17.32	-19.91	0.2	-12.02	-23.18	-50.55	-47.62	-59.63
-6.6	-7	-16.57	-19.85	-0.21	-12.27	-22.76	-49.16	-46.75	-55.89
-6.5	-6.6	-15.87	-19.72	-0.74	-12.63	-22.44	-47.92	-45.99	-53
-6.4	-6.44	-15.54	-19.53	-1.54	-13.22	-22.12	-47.07	-45.56	-50.69
-6.3	-6.41	-15.47	-19.29	-2.37	-14.1	-21.98	-46.45	-45.35	-48.78
-6.2	-6.54	-15.52	-19.04	-3.44	-15.15	-21.97	-46.05	-45.27	-47.37
-6.1	-6.95	-15.73	-18.86	-4.64	-16.64	-22.07	-46.01	-45.34	-46.55
-6	-7.39	-16.43	-18.73	-5.87	-18.59	-22.45	-46.04	-45.74	-45.96
-5.9	-8.43	-17.35	-18.68	-7.17	-20.77	-22.95	-46.68	-46.33	-45.66
-5.8	-9.53	-18.67	-18.72	-8.48	-23.02	-23.49	-47.41	-47.15	-45.57
-5.7	-11.3	-20.29	-18.94	-9.12	-23.86	-24.07	-48.64	-48.09	-45.72
-5.6	-13.62	-21.93	-19.31	-9.32	-23.7	-24.42	-50.29	-49.05	-46.14
-5.5	-16.33	-22.88	-19.8	-9.38	-21.62	-24.5	-52.37	-49.85	-46.75
-5.4	-19.69	-22.31	-20.37	-8.78	-19.03	-23.85	-55.36	-50.22	-47.44
-5.3	-22.96	-21.21	-21.27	-8.15	-17.36	-22.83	-58.9	-50.24	-48.64
-5.2	-21.53	-19.44	-22.4	-7.7	-16.17	-21.7	-59.06	-49.39	-50.09
-5.1	-17.92	-17.57	-23.62	-7.41	-15.29	-20.51	-57.25	-48.39	-51.66
-5	-14.53	-15.93	-24.8	-7.14	-14.56	-19.33	-54.96	-47.36	-53.77

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-4.9	-12.22	-14.7	-25.87	-7.33	-14.19	-18.24	-52.91	-46.4	-56.3
-4.8	-10.64	-13.87	-26.67	-7.54	-14.08	-17.57	-51.24	-45.58	-58.67
-4.7	-9.54	-13.19	-26.95	-7.82	-14.04	-16.99	-50.1	-44.92	-60.33
-4.6	-8.92	-13.23	-26.71	-8.13	-13.97	-16.43	-49.53	-44.73	-62.08
-4.5	-8.61	-13.37	-25.36	-8.44	-13.82	-16.11	-49.26	-44.63	-64.06
-4.4	-8.63	-13.93	-23.88	-7.95	-13.5	-15.97	-49.32	-44.72	-64.58
-4.3	-8.94	-15.04	-22.39	-7.35	-12.78	-15.85	-49.58	-45.15	-64.99
-4.2	-9.58	-16.64	-20.92	-6.46	-11.8	-15.79	-49.95	-45.91	-65.12
-4.1	-10.62	-18.78	-19.58	-5.19	-10.71	-15.72	-50.4	-46.92	-63.47
-4	-11.89	-22.16	-18.38	-3.89	-9.57	-15.73	-50.55	-48.33	-60.53
-3.9	-13.67	-24.66	-17.25	-2.8	-8.47	-15.61	-50.08	-50.16	-58.42
-3.8	-15.07	-23.05	-16.19	-1.75	-7.38	-15.46	-49.4	-51.74	-56.54
-3.7	-15.03	-19.44	-15.37	-0.82	-6.56	-15.31	-48.29	-52.2	-54.4
-3.6	-14.03	-15.67	-14.77	-0.15	-5.9	-15.25	-46.99	-51.46	-52.23
-3.5	-12.66	-12.86	-14.34	0.5	-5.35	-15.36	-45.78	-49.85	-50.28
-3.4	-10.73	-11.21	-14.11	0.76	-5.19	-15.62	-44.68	-47.75	-48.6
-3.3	-8.84	-9.78	-14.19	0.95	-5.15	-16.38	-43.67	-45.59	-47.41
-3.2	-7.81	-9.09	-14.85	0.96	-5.18	-17.87	-42.97	-44.09	-46.5
-3.1	-6.89	-8.7	-15.89	0.63	-5.97	-20.23	-42.37	-42.83	-45.74
-3	-6.5	-8.75	-17.07	0.28	-6.93	-20.67	-42.04	-41.89	-45.2
-2.9	-6.52	-9.42	-17.55	-0.71	-8.03	-19.61	-41.94	-41.3	-44.94
-2.8	-6.77	-10.62	-16.54	-1.84	-9.3	-16.61	-41.99	-40.95	-44.96
-2.7	-7.66	-11.92	-14.18	-3.29	-10.19	-12.57	-42.37	-40.7	-45.17
-2.6	-8.7	-12.42	-9.85	-5.43	-10.46	-8.77	-42.89	-41	-45.8
-2.5	-8.6	-11.92	-6.83	-7.59	-7.32	-5.28	-43.99	-41.56	-47.33
-2.4	-7.9	-9.77	-4.17	-6.05	-4.11	-2.82	-45.37	-42.63	-50.44
-2.3	-6.24	-6.47	-1.72	-3.63	-1.08	-0.68	-47.1	-44.3	-56.62
-2.2	-3.63	-2.92	0.52	-1.06	1.12	1.39	-49.13	-46.62	-64.07
-2.1	-0.69	0.11	2.48	1.6	3.26	3.13	-50.66	-49.38	-66.94
-2	1.8	2.33	4.1	4.25	5.26	4.81	-49.2	-51.47	-56.39
-1.9	3.95	4.46	5.66	6.12	6.82	6.28	-45.69	-50.39	-48.12
-1.8	5.86	6.25	7.11	7.82	8.26	7.53	-42.5	-46.4	-42.75
-1.7	7.56	7.8	8.36	9.39	9.58	8.78	-39.67	-42.36	-39.56
-1.6	9.07	9.2	9.5	10.64	10.68	9.97	-37.23	-38.99	-37.3
-1.5	10.41	10.48	10.6	11.89	11.77	10.9	-35.16	-36.28	-35.27
-1.4	11.59	11.61	11.58	12.84	12.71	11.83	-33.46	-34.25	-33.57
-1.3	12.68	12.69	12.44	13.72	13.52	12.73	-31.92	-32.41	-32.17
-1.2	13.63	13.54	13.24	14.54	14.32	13.49	-30.62	-31.07	-30.93

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-1.1	14.5	14.33	13.98	15.23	15.05	14.16	-29.44	-29.86	-29.83
-1	15.25	15.07	14.66	15.91	15.62	14.81	-28.44	-28.76	-28.84
-0.9	15.9	15.73	15.26	16.43	16.17	15.36	-27.58	-27.8	-27.99
-0.8	16.49	16.3	15.75	16.92	16.65	15.91	-26.78	-26.99	-27.31
-0.7	16.99	16.83	16.21	17.37	17.07	16.34	-26.11	-26.24	-26.67
-0.6	17.45	17.21	16.66	17.72	17.48	16.67	-25.49	-25.69	-26.08
-0.5	17.79	17.6	16.95	18.07	17.74	17.01	-25.01	-25.17	-25.68
-0.4	18.11	17.88	17.22	18.27	17.97	17.31	-24.57	-24.76	-25.32
-0.3	18.35	18.09	17.45	18.45	18.2	17.47	-24.22	-24.45	-25.02
-0.2	18.52	18.26	17.61	18.58	18.35	17.62	-23.95	-24.18	-24.79
-0.1	18.66	18.4	17.71	18.63	18.39	17.73	-23.72	-23.97	-24.64
0	18.68	18.44	17.77	18.68	18.44	17.77	-23.62	-23.87	-24.54
0.1	18.67	18.41	17.73	18.62	18.39	17.74	-23.56	-23.82	-24.53
0.2	18.56	18.32	17.67	18.55	18.33	17.65	-23.61	-23.86	-24.53
0.3	18.41	18.17	17.52	18.42	18.22	17.49	-23.7	-23.94	-24.61
0.4	18.19	17.98	17.3	18.22	17.97	17.33	-23.86	-24.07	-24.76
0.5	17.91	17.71	17.06	18.02	17.71	17.05	-24.09	-24.26	-24.91
0.6	17.59	17.35	16.78	17.68	17.44	16.68	-24.36	-24.53	-25.08
0.7	17.16	16.98	16.34	17.31	17.03	16.31	-24.74	-24.8	-25.38
0.8	16.69	16.49	15.86	16.87	16.56	15.87	-25.16	-25.17	-25.68
0.9	16.13	15.93	15.34	16.34	16.07	15.29	-25.68	-25.58	-26
1	15.47	15.29	14.73	15.81	15.44	14.68	-26.28	-26.04	-26.36
1.1	14.71	14.55	14.05	15.12	14.8	13.98	-26.97	-26.55	-26.75
1.2	13.86	13.73	13.28	14.43	14	13.18	-27.74	-27.11	-27.19
1.3	12.92	12.88	12.38	13.62	13.06	12.28	-28.59	-27.67	-27.67
1.4	11.84	11.75	11.45	12.68	12.1	11.2	-29.56	-28.39	-28.15
1.5	10.6	10.6	10.32	11.72	11.01	10.01	-30.68	-29.09	-28.72
1.6	9.22	9.3	9.05	10.48	9.6	8.78	-31.92	-29.85	-29.34
1.7	7.65	7.82	7.72	9.19	8.06	7.2	-33.34	-30.68	-29.95
1.8	5.9	6.17	6.23	7.6	6.17	5.29	-34.95	-31.56	-30.62
1.9	3.93	4.34	4.46	5.74	3.93	3.27	-36.83	-32.49	-31.39
2	1.56	2.25	2.54	3.73	1.32	0.68	-39.23	-33.56	-32.21
2.1	-0.71	0.18	0.54	0.73	-3.06	-3.27	-42.16	-34.56	-33.04
2.2	-2.51	-1.41	-1.61	-2.43	-8.57	-9	-46.66	-35.74	-33.99
2.3	-3.86	-2.44	-3.45	-6.11	-14.59	-13.29	-50.69	-36.99	-35
2.4	-3.89	-2.87	-4.7	-9.87	-13.51	-13.56	-51.24	-38.23	-36.07
2.5	-2.73	-2.64	-5.26	-12.31	-7.32	-10.1	-48.78	-39.44	-37.22
2.6	-1.59	-1.83	-5.2	-8.73	-2.48	-6.86	-46.62	-40.64	-38.36

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
2.7	-0.7	-1.08	-4.78	-4.78	-0.49	-4.46	-44.37	-41.76	-39.44
2.8	0.15	-0.61	-4.29	-2.57	0.99	-2.61	-42.08	-42.52	-40.37
2.9	0.55	-0.27	-3.93	-1.2	2.02	-1.72	-40.74	-43.15	-41.14
3	0.81	-0.11	-3.79	-0.11	2.41	-1.25	-39.67	-43.55	-41.63
3.1	0.87	-0.21	-3.95	0.31	2.72	-0.91	-38.86	-43.74	-41.82
3.2	0.68	-0.54	-4.37	0.68	2.89	-0.92	-38.39	-43.86	-41.83
3.3	0.41	-0.97	-4.96	0.66	2.69	-1.15	-37.99	-44.06	-41.8
3.4	-0.11	-1.67	-5.89	0.49	2.34	-1.51	-37.85	-44.14	-41.57
3.5	-0.7	-2.51	-7.21	0.16	1.84	-2.14	-37.77	-44.42	-41.48
3.6	-1.44	-3.64	-8.84	-0.48	1.08	-2.88	-37.86	-44.83	-41.49
3.7	-2.26	-4.97	-11	-1.18	0.23	-3.76	-38.04	-45.41	-41.58
3.8	-3.14	-6.43	-13.95	-2.35	-0.98	-4.99	-38.3	-46.19	-41.8
3.9	-4.08	-7.98	-17.65	-3.65	-2.54	-6.3	-38.68	-47.18	-42.18
4	-5.05	-9.61	-21.36	-5.28	-4.2	-7.68	-39.11	-48.3	-42.78
4.1	-5.92	-11.21	-22.63	-7.43	-6.23	-9.48	-39.65	-50.11	-43.49
4.2	-6.75	-12.16	-21.62	-9.62	-8.47	-11.47	-40.26	-51.52	-44.32
4.3	-7.49	-12.6	-19.26	-12.65	-10.45	-13.52	-40.95	-52.42	-45.47
4.4	-8.12	-12.5	-16.85	-15.68	-10.9	-15.19	-41.71	-52.73	-46.79
4.5	-8.67	-12.09	-15.07	-16.46	-10.2	-16.4	-42.52	-52.3	-48.12
4.6	-9.19	-11.65	-14.06	-14.68	-8.86	-16.91	-43.36	-51.13	-49.45
4.7	-9.68	-11.28	-13.75	-12.72	-7.53	-16.87	-44.26	-49.72	-50.94
4.8	-10.28	-11.36	-13.74	-11.17	-6.35	-16.62	-45.17	-48.87	-52.27
4.9	-11.08	-11.64	-14.21	-9.71	-5.33	-16.04	-46.25	-47.91	-52.79
5	-12.03	-12.16	-14.98	-8.84	-4.91	-15.86	-47.39	-47.08	-52.72
5.1	-13.24	-13.06	-16.04	-8.42	-4.72	-15.59	-48.83	-46.53	-52.25
5.2	-14.73	-14.27	-17.27	-8.09	-4.71	-15.23	-50.64	-46.25	-51.68
5.3	-16.34	-15.77	-18.49	-8.36	-5.16	-15.24	-52.67	-46.09	-51.22
5.4	-18.2	-18.3	-19.72	-8.66	-5.7	-15.34	-55.2	-46.22	-50.59
5.5	-20.03	-21	-19.84	-9.33	-6.62	-15.37	-57.93	-46.43	-50.2
5.6	-19.85	-22.72	-19.08	-10.19	-8.08	-15.09	-56.9	-46.83	-49.9
5.7	-18.9	-22.65	-17.86	-11.11	-9.69	-15.16	-54.92	-47.44	-49.52
5.8	-17.68	-21.25	-16.66	-12.1	-11.25	-15.4	-52.95	-48.17	-49.23
5.9	-16.26	-19.34	-15.63	-13.04	-12.38	-15.3	-50.78	-49.06	-49.06
6	-14.86	-17.44	-14.72	-12.87	-12.92	-15.33	-48.5	-50.26	-48.84
6.1	-14.05	-15.78	-14.06	-12.28	-11.88	-15.66	-47.21	-51.47	-48.59
6.2	-13.37	-14.7	-13.86	-11.43	-9.91	-16.04	-46.06	-53.17	-48.42
6.3	-13.02	-14.02	-13.79	-10.13	-7.82	-16.48	-45.26	-55.01	-48.23
6.4	-12.9	-13.57	-14.05	-8.82	-6.32	-17.02	-44.67	-56.83	-48.08

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
6.5	-13.02	-13.39	-14.6	-7.84	-5.07	-18.08	-44.29	-58.63	-47.96
6.6	-13.4	-13.48	-15.38	-6.94	-3.91	-19.34	-44.15	-60.09	-47.82
6.7	-13.97	-13.69	-16.47	-6.2	-3.21	-20.79	-44.16	-60.43	-47.68
6.8	-14.88	-14.14	-18.4	-5.72	-2.7	-22.9	-44.41	-60.42	-47.75
6.9	-16.07	-14.68	-20.71	-5.26	-2.28	-25.59	-44.85	-60.2	-47.79
7	-17.49	-15.23	-23.67	-5.12	-2.24	-28.89	-45.39	-60.11	-47.92
7.1	-19.15	-15.67	-26.65	-5.02	-2.25	-31.69	-46.06	-60.15	-48.2
7.2	-20.76	-15.99	-28.53	-5.06	-2.42	-33.36	-46.75	-60.1	-48.57
7.3	-21.81	-16.11	-28.12	-5.26	-2.96	-31.22	-47.31	-59.65	-49.08
7.4	-21.82	-15.83	-24.98	-5.49	-3.57	-27.21	-47.75	-58.64	-49.93
7.5	-21.39	-15.34	-21.81	-5.95	-4.41	-24.24	-48.02	-57.11	-50.88
7.6	-20.09	-14.8	-19.25	-6.43	-5.67	-22.35	-47.65	-55.35	-51.88
7.7	-18.66	-14.25	-17.79	-7.07	-7.14	-21.33	-47.21	-53.45	-53.28
7.8	-17.53	-13.71	-16.77	-7.89	-9.34	-20.57	-46.6	-51.64	-54.59
7.9	-16.7	-13.26	-16.05	-8.77	-12.46	-20.09	-45.8	-50.01	-55.17
8	-15.99	-12.97	-15.72	-9.81	-15.96	-19.98	-45.08	-48.55	-54.64
8.1	-15.8	-12.79	-15.66	-10.9	-17.65	-19.99	-44.56	-47.37	-53.23
8.2	-15.64	-12.8	-15.67	-12.03	-16.91	-20.16	-44.03	-46.48	-51.79
8.3	-15.86	-12.98	-16.16	-13.21	-14.65	-20.6	-43.77	-45.75	-50.44
8.4	-16.22	-13.22	-16.86	-14.3	-11.91	-21.03	-43.6	-45.1	-49.2
8.5	-16.8	-13.67	-17.72	-15.07	-9.54	-21.49	-43.58	-44.69	-48.11
8.6	-17.65	-14.36	-18.89	-15.85	-7.43	-21.96	-43.77	-44.51	-47.3
8.7	-18.63	-15.15	-20.57	-16.11	-6.43	-22.36	-44.08	-44.45	-46.86
8.8	-19.93	-16.13	-22.73	-16.24	-5.49	-22.57	-44.69	-44.53	-46.57
8.9	-21.38	-17.31	-25.58	-16.22	-4.72	-22.63	-45.41	-44.76	-46.54
9	-22.54	-18.6	-29.42	-16.07	-4.44	-22.74	-46.34	-45.19	-46.8
9.1	-23.38	-20.01	-32.4	-15.94	-4.22	-22.75	-47.45	-45.89	-47.22
9.2	-23.74	-21.4	-32.69	-15.78	-4.13	-22.67	-48.74	-46.72	-47.95
9.3	-23.47	-22.51	-30.76	-15.66	-4.28	-22.81	-50.24	-47.6	-48.96
9.4	-22.63	-22.99	-28.24	-15.5	-4.6	-23.08	-51.97	-48.56	-50.07
9.5	-21.74	-22.81	-25.72	-15.27	-5.12	-23.53	-53.55	-49.72	-51.17
9.6	-20.93	-22.4	-24.49	-15.05	-5.83	-24.19	-54.84	-50.7	-52.14
9.7	-20.22	-21.64	-23.53	-14.67	-6.61	-25.2	-55.79	-51.02	-52.69
9.8	-19.74	-20.83	-22.93	-14.34	-7.74	-26.74	-55.82	-50.89	-52.55
9.9	-19.45	-20.16	-22.79	-14.12	-9.23	-28.57	-55.09	-50.36	-51.7
10	-19.27	-19.68	-22.98	-13.84	-10.87	-31.5	-54.19	-49.5	-50.5
15	-24.96	-34.52	-27.98	-21.53	-16.07	-24.82	-45.38	-52.88	-52.59
20	-33.38	-39.13	-32.05	-36.15	-5.16	-35.59	-54.66	-62.7	-55.52

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=10deg, f=14.25 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
25	-35.45	-44.63	-40.23	-31.32	-20.58	-30.92	-60.08	-49.47	-56.07
30	-34.26	-35.54	-39.79	-28.12	-34.78	-39.12	-44.63	-51.86	-54.54
35	-41.98	-27	-37.65	-24.85	-38.39	-29.88	-40.71	-44.94	-49.16
40	-41.18	-29.74	-47.35	-28.94	-51.92	-38.95	-40.36	-54.92	-54.83
45	-41.08	-34.98	-39.05	-34.74	-36.87	-31.71	-46.32	-46.25	-43.63
50	-30.09	-32.57	-51.5	-33.52	-43.41	-31.06	-48.74	-47.6	-50.03
55	-37	-34.63	-28.71	-35.23	-53.81	-23.07	-52.18	-48.4	-41.33
60	-35.24	-26.27	-34.55	-40.05	-31.08	-42.46	-58.78	-36.23	-48.92
65	-49.13	-27.13	-45.01	-37.14	-49.51	-35.24	-52.47	-37.11	-51.72
70	-39.86	-25.98	-52.63	-31.19	-36.54	-33.46	-56.91	-38.02	-55.2
75	-35.41	-33.64	-55.6	-38.57	-43	-40.95	-46.54	-43.31	-63.23
80	-42.38	-43.63		-36.79	-34.69	-53.34	-56.61	-60.62	
85	-58.03			-46.35	-53.31	-37.9	-67.23		
90				-37.88	-49.72	-46.29			
95				-43.67					
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.3.1 Tabular Data, Mainbeam @ Elevation=20° (Scan=70°), 14.50 GHz

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85		-61.26						-68.77	
-80		-53.31	-64.17					-71.2	-51.29
-75		-49.45	-46.83					-51.01	-44.96
-70		-45.33	-49.28					-45.79	-48.58
-65		-38.68	-44.26					-43.18	-41.47
-60		-42.44	-45.66					-45.81	-40.51
-55	-46.56	-48.4	-34.86				-39.14	-46.61	-41.84
-50	-41.37	-35.38	-35.42				-32.54	-40.75	-37.4
-45	-45.41	-41.32	-37.56				-34.94	-45.98	-39.45
-40	-43.03	-27.99	-47.86				-35.49	-29.26	-41.23
-35	-35.39	-33.46	-49.39				-29.41	-33.13	-37.51
-30	-31.93	-23.66	-38.41			-41.36	-29.04	-26.51	-47.71
-25	-30.28	-24.46	-29.51			-50.84	-29.29	-30	-34.17
-20	-34.32	-27.58	-24.39		-25.12	-38.27	-39.37	-31.4	-31.6
-15	-26.25	-27.5	-26.99	-14.96	-19.28	-45.37	-26.36	-37.25	-36.19
-10	-23.82	-18.24	-17.32	-1.99	-13.92	-19.9	-34.61	-26.73	-29.04
-9.9	-22.47	-18.15	-17.19	-1.93	-13.67	-19.56	-32.77	-26.74	-28.78

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-9.8	-21.47	-18.34	-17.1	-1.88	-13.39	-19.18	-31.51	-27.09	-28.58
-9.7	-20.62	-18.63	-17.24	-1.82	-13.13	-18.68	-30.52	-27.59	-28.59
-9.6	-20	-19.13	-17.51	-1.77	-12.77	-18.18	-29.94	-28.3	-28.75
-9.5	-19.55	-19.88	-17.93	-1.83	-12.37	-17.67	-29.67	-29.26	-29.05
-9.4	-19.24	-20.78	-18.6	-1.9	-11.97	-17.14	-29.65	-30.37	-29.55
-9.3	-19.12	-22.15	-19.55	-1.98	-11.58	-16.6	-29.98	-31.5	-30.24
-9.2	-19.06	-24.07	-20.66	-2.07	-11.18	-16.09	-30.44	-32.64	-31.02
-9.1	-19.16	-26	-22.08	-2.16	-10.86	-15.64	-31.27	-33.58	-31.92
-9	-19.29	-27.75	-24.25	-2.26	-10.54	-15.19	-32.17	-33.9	-33.03
-8.9	-19.45	-29.34	-27.19	-2.4	-10.23	-14.8	-32.99	-33.91	-34.33
-8.8	-19.62	-30.18	-30.19	-2.54	-9.92	-14.54	-33.82	-33.54	-35.62
-8.7	-19.65	-29.06	-32.64	-2.69	-9.69	-14.28	-33.98	-32.39	-36.62
-8.6	-19.59	-27.77	-32.42	-2.85	-9.55	-14.1	-33.65	-30.98	-36.68
-8.5	-19.43	-26.05	-31.08	-3.12	-9.42	-14.04	-33.13	-30.14	-36.46
-8.4	-19.13	-24.2	-28.82	-3.47	-9.3	-13.99	-32.36	-29.4	-35.88
-8.3	-18.76	-22.78	-26.37	-3.84	-9.18	-14.04	-31.53	-28.93	-34.97
-8.2	-18.33	-22.04	-24.15	-4.23	-9.21	-14.22	-30.73	-28.81	-33.96
-8.1	-17.86	-21.66	-22.23	-4.64	-9.27	-14.4	-29.95	-28.88	-32.94
-8	-17.45	-21.86	-20.91	-5.07	-9.33	-14.69	-29.31	-29.38	-32.15
-7.9	-17.13	-22.58	-20.15	-5.52	-9.41	-15.09	-28.86	-30.25	-31.65
-7.8	-16.87	-23.92	-19.53	-5.99	-9.54	-15.5	-28.48	-31.59	-31.24
-7.7	-16.82	-26.44	-19.06	-6.49	-9.81	-15.93	-28.37	-33.8	-30.95
-7.6	-16.79	-29.34	-18.89	-7.12	-10.08	-16.39	-28.27	-36.26	-30.9
-7.5	-17.04	-31.3	-18.86	-8.08	-10.37	-16.85	-28.4	-38.09	-30.97
-7.4	-17.33	-31.76	-18.8	-8.99	-10.66	-17.09	-28.54	-38.95	-31.05
-7.3	-17.89	-31.52	-18.81	-9.84	-11.06	-17.11	-28.81	-39.24	-31.19
-7.2	-18.55	-27.45	-18.87	-10.63	-11.48	-17.11	-29.11	-36.43	-31.36
-7.1	-19.48	-23.26	-18.88	-11.37	-11.89	-16.72	-29.49	-33.39	-31.51
-7	-20.63	-20.09	-18.81	-12.05	-12.28	-16.03	-29.93	-30.83	-31.58
-6.9	-22.12	-17.98	-18.52	-12.67	-12.61	-15.3	-30.34	-28.92	-31.41
-6.8	-24.05	-16.33	-18.09	-13.24	-12.7	-14.49	-30.68	-27.4	-31.1
-6.7	-26.14	-15.13	-17.59	-13.75	-12.75	-13.66	-30.99	-26.34	-30.74
-6.6	-28.16	-14.2	-16.94	-12.71	-12.76	-12.83	-31.28	-25.57	-30.25
-6.5	-30.01	-13.42	-16.12	-11.52	-12.73	-12.14	-31.59	-24.99	-29.64
-6.4	-31.12	-12.88	-15.32	-10.24	-12.4	-11.54	-32.02	-24.68	-29.04
-6.3	-31.07	-12.46	-14.58	-8.83	-11.92	-10.93	-32.67	-24.52	-28.48
-6.2	-31	-12.19	-13.94	-7.33	-11.43	-10.51	-33.51	-24.54	-28.05
-6.1	-30.05	-12.11	-13.33	-5.86	-11.01	-10.19	-35.13	-24.79	-27.66

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-6	-29.12	-12.09	-12.73	-4.41	-10.59	-9.86	-36.8	-25.12	-27.28
-5.9	-26.72	-12.26	-12.24	-3	-10.13	-9.72	-38.49	-25.76	-27.08
-5.8	-24.02	-12.46	-11.81	-1.88	-9.67	-9.66	-40.17	-26.46	-26.97
-5.7	-21.86	-12.68	-11.42	-1.02	-9.21	-9.6	-38.84	-27.27	-26.91
-5.6	-19.94	-12.9	-11.11	-0.17	-8.75	-9.75	-35.94	-28.19	-26.97
-5.5	-18.29	-13.08	-10.87	0.66	-8.38	-9.98	-33.08	-29.07	-27.17
-5.4	-16.88	-13.06	-10.66	1.48	-8.1	-10.22	-30.52	-29.59	-27.42
-5.3	-15.65	-13.01	-10.47	2.29	-7.82	-10.68	-28.35	-30	-27.73
-5.2	-14.62	-12.84	-10.35	3.08	-7.55	-11.22	-26.68	-30.13	-28.19
-5.1	-13.74	-12.45	-10.29	3.86	-7.36	-11.78	-25.37	-29.81	-28.78
-5	-13.03	-11.97	-10.2	4.54	-7.32	-12.54	-24.38	-29.3	-29.37
-4.9	-12.51	-11.42	-10.12	5.09	-7.28	-13.36	-23.7	-28.78	-30.03
-4.8	-12.14	-10.81	-10.13	5.63	-7.22	-14.2	-23.22	-28.27	-30.88
-4.7	-12.03	-10.19	-10.07	6.17	-7.15	-14.65	-23.09	-27.77	-31.67
-4.6	-11.99	-9.63	-9.94	6.71	-7.03	-15.02	-23.05	-27.55	-32.39
-4.5	-12.42	-9.07	-9.89	7.24	-6.83	-15.36	-23.52	-27.34	-33.25
-4.4	-12.85	-8.66	-9.82	7.78	-6.59	-14.91	-24	-27.32	-34.03
-4.3	-14.03	-8.29	-9.69	8.31	-6.29	-14.36	-25.22	-27.42	-34.68
-4.2	-15.33	-7.89	-9.46	8.74	-5.9	-13.77	-26.57	-27.52	-35.05
-4.1	-18.04	-7.56	-9.13	9.15	-5.16	-13.01	-29.25	-27.74	-35.13
-4	-21.53	-7.22	-8.71	9.57	-4.39	-12.24	-32.63	-27.95	-34.97
-3.9	-23.03	-6.9	-8.21	9.98	-3.59	-11.45	-34.44	-28.16	-34.53
-3.8	-22.31	-6.57	-7.65	10.39	-2.75	-10.88	-34.53	-28.36	-33.79
-3.7	-20.51	-6.24	-7.03	10.8	-1.84	-10.3	-33.5	-28.52	-32.87
-3.6	-17.86	-5.9	-6.34	11.2	-0.86	-9.74	-31.31	-28.6	-31.87
-3.5	-14.92	-5.56	-5.54	11.54	0.12	-9.26	-28.68	-28.59	-30.71
-3.4	-12.4	-5.17	-4.6	11.84	1.1	-8.76	-26.47	-28.51	-29.38
-3.3	-10.3	-4.72	-3.64	12.14	2.06	-8.2	-24.69	-28.33	-28.05
-3.2	-8.51	-4.24	-2.72	12.45	2.93	-7.49	-23.28	-28.1	-26.8
-3.1	-7.23	-3.66	-1.79	12.75	3.78	-6.74	-22.5	-27.66	-25.69
-3	-6.02	-3	-0.85	13.05	4.62	-5.9	-21.84	-27.07	-24.6
-2.9	-5.04	-2.28	0.1	13.36	5.46	-4.84	-21.6	-26.4	-23.52
-2.8	-4.06	-1.4	1.03	13.64	6.24	-3.76	-21.39	-25.39	-22.56
-2.7	-3.08	-0.5	1.96	13.88	6.96	-2.64	-21.36	-24.37	-21.65
-2.6	-2.1	0.45	2.87	14.13	7.67	-1.45	-21.36	-23.28	-20.79
-2.5	-1	1.44	3.7	14.38	8.34	-0.27	-21.22	-22.14	-20.05
-2.4	0.15	2.44	4.48	14.63	8.98	0.84	-20.99	-21.01	-19.43
-2.3	1.35	3.45	5.24	14.88	9.53	1.89	-20.53	-19.94	-18.84

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-2.2	2.6	4.47	5.99	15.11	10.06	2.94	-19.82	-18.9	-18.29
-2.1	3.86	5.46	6.7	15.3	10.59	3.93	-19.01	-17.94	-17.82
-2	5.09	6.42	7.37	15.48	11.11	4.84	-18.05	-17.11	-17.42
-1.9	6.31	7.37	8.03	15.65	11.6	5.74	-17.07	-16.31	-17.05
-1.8	7.47	8.26	8.61	15.82	12.04	6.57	-16.13	-15.64	-16.77
-1.7	8.58	9.1	9.11	16	12.44	7.33	-15.23	-15.07	-16.63
-1.6	9.62	9.89	9.61	16.17	12.82	8.08	-14.45	-14.58	-16.49
-1.5	10.6	10.6	10.12	16.35	13.2	8.76	-13.79	-14.27	-16.35
-1.4	11.52	11.3	10.55	16.47	13.52	9.36	-13.24	-13.96	-16.33
-1.3	12.35	11.92	10.97	16.6	13.82	9.93	-12.84	-13.8	-16.35
-1.2	13.13	12.5	11.37	16.72	14.12	10.44	-12.52	-13.71	-16.39
-1.1	13.82	13.05	11.71	16.85	14.42	10.89	-12.38	-13.68	-16.51
-1	14.47	13.53	11.99	16.98	14.7	11.34	-12.3	-13.76	-16.69
-0.9	15.03	14	12.26	17.09	14.88	11.72	-12.37	-13.89	-16.89
-0.8	15.54	14.4	12.52	17.16	15.06	12.06	-12.53	-14.1	-17.1
-0.7	16	14.75	12.74	17.22	15.24	12.39	-12.77	-14.39	-17.31
-0.6	16.38	15.06	12.93	17.27	15.42	12.66	-13.11	-14.7	-17.53
-0.5	16.72	15.3	13.12	17.33	15.54	12.89	-13.44	-15.03	-17.75
-0.4	16.98	15.5	13.26	17.39	15.65	13.12	-13.77	-15.35	-17.92
-0.3	17.21	15.68	13.32	17.45	15.76	13.25	-14.05	-15.6	-17.98
-0.2	17.35	15.77	13.39	17.48	15.84	13.34	-14.12	-15.65	-18.05
-0.1	17.47	15.86	13.45	17.49	15.88	13.44	-14.09	-15.67	-18.08
0	17.5	15.88	13.44	17.5	15.88	13.44	-13.78	-15.4	-17.83
0.1	17.48	15.86	13.43	17.51	15.88	13.43	-13.26	-14.98	-17.55
0.2	17.41	15.81	13.41	17.52	15.87	13.42	-12.67	-14.51	-17.25
0.3	17.26	15.69	13.35	17.53	15.86	13.31	-12	-13.93	-16.87
0.4	17.07	15.56	13.22	17.52	15.8	13.2	-11.34	-13.33	-16.46
0.5	16.8	15.34	13.08	17.45	15.69	13.08	-10.75	-12.79	-16.03
0.6	16.48	15.07	12.92	17.38	15.56	12.84	-10.22	-12.28	-15.62
0.7	16.08	14.76	12.71	17.31	15.43	12.57	-9.82	-11.84	-15.25
0.8	15.61	14.38	12.49	17.25	15.28	12.29	-9.51	-11.5	-14.89
0.9	15.07	13.96	12.26	17.18	15.08	11.89	-9.32	-11.21	-14.54
1	14.43	13.49	11.98	17.08	14.87	11.48	-9.26	-11.02	-14.26
1.1	13.73	12.93	11.65	16.95	14.66	11.06	-9.28	-10.96	-14.07
1.2	12.88	12.35	11.3	16.81	14.39	10.51	-9.5	-10.93	-13.89
1.3	11.99	11.66	10.92	16.67	14.05	9.96	-9.76	-11.03	-13.76
1.4	10.91	10.92	10.46	16.54	13.68	9.36	-10.27	-11.22	-13.75
1.5	9.8	10.13	9.99	16.4	13.32	8.6	-10.81	-11.46	-13.76

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
1.6	8.45	9.2	9.52	16.21	12.95	7.8	-11.63	-11.89	-13.77
1.7	7.03	8.27	8.97	16	12.55	6.96	-12.52	-12.33	-13.89
1.8	5.4	7.12	8.37	15.77	12.05	5.97	-13.65	-13.01	-14.07
1.9	3.65	5.9	7.78	15.53	11.51	4.98	-14.93	-13.77	-14.25
2	1.96	4.55	7.1	15.3	10.97	3.94	-16.27	-14.66	-14.53
2.1	0.38	2.99	6.34	15.05	10.42	2.82	-17.62	-15.78	-14.92
2.2	-0.77	1.37	5.55	14.72	9.79	1.71	-18.66	-16.96	-15.35
2.3	-1.28	-0.65	4.74	14.4	9.12	0.7	-19.15	-18.52	-15.79
2.4	-1.32	-2.96	3.82	14.07	8.45	-0.08	-19.21	-20.36	-16.37
2.5	-1.06	-5.46	2.83	13.73	7.72	-0.75	-18.86	-22.52	-17.02
2.6	-0.49	-8.39	1.84	13.4	6.98	-1.05	-18.11	-25.36	-17.67
2.7	0.01	-11.68	0.73	12.99	6.23	-0.96	-17.36	-28.69	-18.44
2.8	0.39	-14.14	-0.56	12.52	5.5	-0.8	-16.66	-31.33	-19.39
2.9	0.71	-14.11	-1.91	12.05	4.8	-0.47	-16.03	-32.01	-20.4
3	0.68	-13.96	-3.44	11.58	4.13	-0.03	-15.75	-32.56	-21.56
3.1	0.63	-13.12	-5.32	11.09	3.63	0.42	-15.49	-31.99	-23.01
3.2	0.22	-11.74	-7.49	10.55	3.24	0.76	-15.63	-30.56	-24.69
3.3	-0.24	-10.37	-9.76	9.85	2.93	1.01	-15.82	-29.07	-26.44
3.4	-1	-9.89	-12.56	9.14	2.7	1.25	-16.34	-28.14	-28.52
3.5	-1.89	-9.43	-16.32	8.42	2.59	1.36	-17	-27.22	-31.25
3.6	-3.01	-9.46	-19.72	7.7	2.71	1.37	-17.9	-27.01	-33.83
3.7	-4.31	-9.75	-22.79	6.97	2.86	1.37	-18.98	-27.18	-36.29
3.8	-5.64	-10.22	-22.71	5.9	3.04	1.22	-20.08	-27.57	-36.49
3.9	-6.94	-11.04	-21.74	4.73	3.24	0.99	-21.12	-28.38	-35.94
4	-8.05	-12.01	-20.57	3.56	3.46	0.69	-21.95	-29.33	-35.19
4.1	-8.7	-13.23	-18.88	2.37	3.66	0.22	-22.32	-30.12	-34.03
4.2	-8.92	-14.7	-16.85	1.16	3.86	-0.33	-22.24	-30.74	-32.56
4.3	-8.72	-16.1	-14.91	-0.23	3.98	-0.88	-21.79	-31.04	-31.07
4.4	-7.92	-17.3	-13.38	-1.68	4.06	-1.66	-20.78	-30.74	-29.78
4.5	-7.15	-18.32	-12.54	-3.1	4.05	-2.51	-19.81	-29.95	-28.91
4.6	-6.39	-18.97	-12.16	-4.46	4.02	-3.37	-18.91	-28.99	-28.33
4.7	-5.69	-18.48	-11.81	-5.76	3.98	-4.58	-18.07	-27.5	-27.81
4.8	-5.33	-18.05	-11.61	-5.69	3.9	-5.9	-17.59	-26.17	-27.42
4.9	-5.03	-17.44	-11.65	-4.53	3.64	-7.26	-17.17	-25.16	-27.25
5	-5.01	-16.67	-11.71	-3.36	3.32	-8.78	-17.06	-24.4	-27.1
5.1	-5.11	-16	-11.79	-2.19	2.98	-10.35	-17.07	-23.71	-26.95
5.2	-5.41	-15.71	-12	-1.01	2.62	-11.96	-17.3	-23.38	-26.85
5.3	-5.88	-15.5	-12.27	-0.04	2.23	-12.87	-17.72	-23.11	-26.77

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
5.4	-6.51	-15.57	-12.53	0.75	1.62	-13.73	-18.32	-23.06	-26.69
5.5	-7.37	-15.86	-12.82	1.54	0.91	-14.48	-19.18	-23.17	-26.58
5.6	-8.4	-16.29	-13.15	2.31	0.16	-13.82	-20.25	-23.39	-26.42
5.7	-9.76	-17.03	-13.48	3.06	-0.62	-13.06	-21.72	-23.84	-26.26
5.8	-11.33	-17.96	-13.8	3.54	-1.53	-12.23	-23.45	-24.42	-26.11
5.9	-13.37	-19.19	-14.11	3.85	-2.57	-11.6	-25.67	-25.2	-25.89
6	-15.78	-20.82	-14.42	4.16	-4.05	-10.98	-28.39	-26.24	-25.67
6.1	-19.66	-22.65	-14.74	4.46	-5.64	-10.43	-30.42	-27.46	-25.47
6.2	-25.47	-24.77	-15.03	4.76	-7.34	-10.27	-31.27	-29.01	-25.27
6.3	-29.21	-27.21	-15.32	4.86	-9.44	-10.14	-31.4	-30.98	-25.09
6.4	-27.74	-28.95	-15.6	4.91	-11.69	-10.11	-29.87	-33.06	-24.91
6.5	-25.01	-27.91	-15.89	4.96	-13.75	-10.32	-27.85	-35.68	-24.77
6.6	-22.75	-26.22	-16.18	5.01	-15.11	-10.55	-26.39	-38.09	-24.68
6.7	-20.77	-24.41	-16.48	5.04	-15.64	-10.85	-25.27	-38.66	-24.62
6.8	-19.46	-22.57	-16.78	4.88	-15.35	-11.32	-24.56	-36.22	-24.58
6.9	-18.87	-20.83	-17.11	4.72	-14.38	-11.8	-24.29	-33.91	-24.58
7	-18.57	-19.78	-17.46	4.55	-12.66	-12.3	-24.24	-32.12	-24.68
7.1	-18.9	-18.94	-17.83	4.39	-10.89	-12.83	-24.65	-30.55	-24.78
7.2	-19.39	-18.3	-18.19	4.13	-9.71	-13.32	-25.21	-29.26	-24.89
7.3	-20.43	-17.93	-18.61	3.74	-8.68	-13.77	-26.34	-28.4	-25.09
7.4	-21.63	-17.65	-19.05	3.34	-7.81	-14.13	-27.65	-27.68	-25.34
7.5	-23.33	-17.58	-19.5	2.94	-7.15	-14.45	-30.13	-27.21	-25.61
7.6	-25.26	-17.65	-19.99	2.53	-6.87	-14.69	-33.16	-26.93	-25.94
7.7	-26.74	-17.81	-20.54	1.96	-6.73	-14.85	-35.69	-26.75	-26.39
7.8	-27.88	-18.11	-21.11	1.35	-6.66	-14.97	-37.69	-26.73	-26.87
7.9	-28.44	-18.52	-21.69	0.73	-6.65	-15.1	-38.2	-26.83	-27.36
8	-28.23	-19	-22.33	0.11	-6.75	-15.29	-36.78	-27.03	-28.04
8.1	-27.72	-19.65	-22.99	-0.53	-7.2	-15.52	-34.57	-27.44	-28.78
8.2	-27.14	-20.32	-23.68	-1.22	-7.72	-15.85	-32.35	-27.88	-29.54
8.3	-26.61	-21.04	-24.37	-1.9	-8.31	-16.34	-30.29	-28.47	-30.44
8.4	-26.47	-21.83	-25.07	-2.57	-8.98	-16.86	-28.86	-29.21	-31.49
8.5	-26.82	-22.6	-25.82	-3.22	-9.88	-17.56	-28.21	-29.95	-32.6
8.6	-27.51	-23.21	-26.58	-3.55	-11.3	-18.49	-27.76	-31	-33.72
8.7	-29.09	-23.79	-27.24	-3.77	-12.9	-19.52	-27.87	-32.05	-34.88
8.8	-30.91	-24.18	-27.77	-3.95	-14.7	-20.89	-28.07	-33.14	-36.04
8.9	-33.37	-24.36	-28.27	-4.1	-16.69	-22.63	-28.9	-34.29	-37.18
9	-35.58	-24.51	-28.65	-4.07	-19.12	-24.47	-29.8	-35.43	-37.87
9.1	-35.44	-24.41	-28.79	-3.74	-20.52	-26.32	-31.24	-35.97	-37.63

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
9.2	-34.15	-24.24	-28.83	-3.41	-21.14	-27.99	-32.86	-36.32	-37.11
9.3	-31.91	-24.06	-28.82	-3.08	-20.99	-29.22	-34.38	-36.41	-36.5
9.4	-29.36	-23.87	-28.75	-2.75	-19.73	-29.03	-35.75	-36.11	-35.69
9.5	-27.32	-23.69	-28.62	-2.46	-17.74	-27.97	-36.4	-35.67	-34.67
9.6	-25.96	-23.58	-28.45	-2.18	-16.08	-26.84	-36.16	-35.16	-33.65
9.7	-25.05	-23.54	-28.25	-1.91	-14.6	-25.73	-35.35	-34.57	-32.64
9.8	-24.55	-23.54	-28.11	-1.64	-13.29	-24.72	-34.28	-34.01	-31.94
9.9	-24.43	-23.62	-27.95	-1.51	-12.28	-23.87	-33.1	-33.51	-31.27
10	-24.63	-23.75	-27.76	-1.45	-11.66	-23.48	-32.21	-33.05	-30.61
15	-24.71	-40.64	-31.18	-8.63	-18.01	-36.39	-26.02	-34.13	-28.1
20	-38.7	-32.04	-34.98	-1.65	-28.96	-29.56	-33.93	-26.37	-28.3
25	-48.07	-39.27		-2.97	-26.57	-33.58	-37.61	-28.42	
30	-32.84	-40.88		-12.29	-26.05	-37.38	-37.32	-30.01	
35	-37.26			-31.66	-30.28	-35.57	-30.7		
40	-32.94			-35.95	-28.69	-41.75	-34.92		
45	-45			-29.16	-42.49	-37.53	-35.59		
50	-43.91			-32.21	-29.64	-41.52	-36.84		
55	-42.84			-34.51	-29.5	-40.75	-33.69		
60	-45.14			-37.5	-40.59	-38.17	-45.24		
65	-44.63			-34.96	-31.4	-47.79	-36.97		
70	-42.84			-31.32	-27.93	-40.3	-36.25		
75	-42.87			-30.02	-41.13	-39.51	-37.06		
80	-52.44			-41.18	-46.21	-43.2	-48.68		
85	-62.67			-55.95	-48.2	-53.4	-53.85		
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									

FCC tabular data for target scan=70deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
160									
165									
170									
175									
180									

C.3.2 Tabular Data, Mainbeam @ Elevation=40° (Scan=50°), 14.50 GHz

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90									
-85		-58.19						-60.15	
-80		-48.48						-53.59	
-75		-42.88						-51.12	
-70	-50.44	-41.7					-51.03	-54.44	
-65	-42.03	-44.35					-40.16	-42.13	
-60	-38.16	-37.4					-33.31	-44.09	
-55	-37.09	-30.69					-34.53	-36.21	
-50	-32.42	-43.71					-32.27	-50.91	

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-45	-31.97	-42.1	-40.89			-40.98	-33.25	-45.62	-29.89
-40	-36.12	-29.84	-39.37		-39.08	-37	-36.15	-40.65	-33.8
-35	-27	-31.74	-29.36	-17.93	-32.57	-32.71	-27.79	-39.1	-25.86
-30	-30.27	-36.13	-30.16	-15.48	-28.06	-35.63	-36.55	-41.63	-31.14
-25	-30.39	-32.89	-32.48	-11.34	-27.49	-40.8	-37.02	-40.47	-41.7
-20	-26.9	-24.58	-25.97	-16.56	-25.66	-25.28	-35.32	-33.81	-33.14
-15	-40.44	-31.11	-25.44	-6.88	-31.02	-25.29	-46.12	-41.59	-35.05
-10	-20.78	-18.21	-20.28	-9.31	-22.28	-18.8	-34.2	-35.38	-34.93
-9.9	-20.06	-18.54	-20.47	-9.11	-23.79	-17.45	-33.76	-35.69	-35.01
-9.8	-19.65	-18.87	-20.73	-8.85	-25.37	-16.27	-33.53	-35.97	-35.13
-9.7	-19.33	-19.26	-21.1	-8.58	-27.01	-15.16	-33.37	-36.34	-35.31
-9.6	-19.3	-19.73	-21.46	-8.29	-28.7	-14.39	-33.44	-36.8	-35.52
-9.5	-19.32	-20.27	-21.84	-7.99	-29.65	-13.71	-33.55	-37.32	-35.77
-9.4	-19.53	-20.98	-22.14	-7.68	-29.63	-13.06	-33.77	-38.02	-36.04
-9.3	-19.8	-21.69	-22.2	-7.37	-28.82	-12.66	-34.03	-38.69	-36.27
-9.2	-20.16	-22.6	-22.08	-7.05	-27.67	-12.38	-34.26	-39.54	-36.42
-9.1	-20.59	-23.71	-21.84	-6.73	-26.1	-12.13	-34.48	-40.67	-36.46
-9	-21.05	-24.73	-21.47	-6.6	-24.36	-12.03	-34.65	-41.73	-36.35
-8.9	-21.58	-25.35	-20.94	-6.47	-22.85	-11.98	-34.69	-42.47	-36.1
-8.8	-22.1	-25.68	-20.25	-6.34	-21.68	-11.96	-34.74	-43.05	-35.68
-8.7	-22.76	-25.5	-19.45	-6.22	-20.65	-12.02	-34.81	-43.18	-35.05
-8.6	-23.41	-24.6	-18.68	-6.29	-19.98	-12.13	-34.89	-42.59	-34.4
-8.5	-24.38	-23.48	-17.93	-6.46	-19.46	-12.34	-35.21	-41.78	-33.74
-8.4	-25.45	-22.24	-17.26	-6.63	-19.03	-12.51	-35.62	-40.68	-33.14
-8.3	-26.6	-21.01	-16.72	-6.82	-18.79	-12.68	-36.34	-39.46	-32.68
-8.2	-27.8	-19.92	-16.28	-7.18	-18.66	-12.84	-37.3	-38.33	-32.27
-8.1	-28.35	-19.18	-16.04	-7.79	-18.76	-12.87	-38.22	-37.5	-32
-8	-27.65	-18.58	-15.96	-8.42	-18.95	-12.84	-38.95	-36.82	-31.9
-7.9	-26.39	-18.28	-15.99	-9.06	-19.21	-12.79	-39.44	-36.45	-31.88
-7.8	-24.51	-18.29	-16.1	-9.82	-19.68	-12.63	-39	-36.39	-31.9
-7.7	-22.2	-18.48	-16.35	-11.32	-20.47	-12.42	-37.93	-36.5	-32.01
-7.6	-20.05	-19.06	-16.84	-12.81	-21.41	-12.17	-36.45	-36.89	-32.29
-7.5	-18.01	-19.95	-17.6	-14.29	-22.42	-11.97	-34.66	-37.58	-32.71
-7.4	-16.23	-21.34	-18.55	-15.77	-23.52	-11.78	-32.98	-38.75	-33.21
-7.3	-14.74	-23.68	-19.79	-16.06	-24.74	-11.56	-31.51	-40.77	-33.9
-7.2	-13.49	-26.48	-21.27	-16.15	-25.83	-11.5	-30.26	-43.17	-34.67
-7.1	-12.43	-28.46	-22.95	-16.07	-26.45	-11.47	-29.26	-45.4	-35.49
-7	-11.58	-29.75	-24.29	-15.84	-26.59	-11.45	-28.49	-47.05	-36.63

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-6.9	-10.88	-29.48	-24.83	-13.75	-26.24	-11.66	-27.89	-47.18	-38.04
-6.8	-10.4	-26.73	-24.53	-11.48	-24.77	-11.93	-27.54	-45.25	-39.56
-6.7	-10.03	-22.84	-23.44	-9.28	-23.32	-12.21	-27.32	-42.34	-40.9
-6.6	-9.92	-19.51	-21.84	-7.17	-21.98	-12.8	-27.37	-39.57	-41.77
-6.5	-9.93	-17.78	-20.11	-5.78	-20.76	-13.5	-27.56	-37.66	-42.01
-6.4	-10.22	-16.19	-18.4	-4.56	-19.72	-14.22	-28.04	-35.98	-41.55
-6.3	-10.7	-15.23	-16.98	-3.38	-19	-15.38	-28.74	-34.95	-40.17
-6.2	-11.51	-14.48	-15.95	-2.24	-18.42	-16.63	-29.81	-34.16	-38.44
-6.1	-12.73	-13.97	-15.02	-1.43	-17.98	-17.91	-31.29	-33.67	-36.83
-6	-14.56	-13.72	-14.24	-0.71	-17.68	-19.68	-33.14	-33.49	-35.41
-5.9	-17.62	-13.63	-13.8	0	-17.55	-21.69	-35.76	-33.5	-34.35
-5.8	-20.67	-13.73	-13.57	0.71	-17.59	-23.82	-38.26	-33.73	-33.56
-5.7	-23.69	-14.03	-13.48	1.17	-17.69	-24.62	-39.82	-34.19	-32.96
-5.6	-26.25	-14.4	-13.64	1.57	-17.85	-25.11	-41.05	-34.71	-32.59
-5.5	-22.95	-14.95	-14.07	1.97	-17.95	-25.44	-38.07	-35.38	-32.43
-5.4	-18.12	-15.55	-14.62	2.36	-17.93	-24.48	-33.98	-36.1	-32.39
-5.3	-14.64	-15.83	-15.46	2.52	-17.77	-23.37	-31.1	-36.3	-32.52
-5.2	-12.22	-15.87	-17.17	2.65	-17.45	-22.03	-29.17	-36.13	-32.96
-5.1	-10.2	-15.6	-19.24	2.77	-16.97	-20.66	-27.57	-35.67	-33.52
-5	-9.01	-14.91	-21.68	2.88	-16.33	-19.28	-26.62	-34.85	-34.19
-4.9	-7.9	-13.89	-22.43	2.76	-15.25	-17.87	-25.75	-33.78	-34.98
-4.8	-7.35	-12.81	-22.23	2.6	-14.17	-16.65	-25.37	-32.74	-35.84
-4.7	-6.85	-11.69	-21.31	2.44	-13.08	-15.4	-25.04	-31.87	-36.69
-4.6	-6.76	-10.54	-19.64	2.21	-12.19	-14.14	-25.11	-31	-37.26
-4.5	-6.78	-9.59	-17.48	1.64	-11.47	-12.99	-25.28	-30.42	-37.45
-4.4	-7.16	-8.79	-15.17	1.05	-10.85	-11.85	-25.78	-30.02	-37.35
-4.3	-7.77	-8.1	-12.97	0.43	-10.3	-10.74	-26.51	-29.78	-37
-4.2	-8.75	-7.52	-11.39	-0.45	-9.89	-9.85	-27.59	-29.71	-36.32
-4.1	-10.27	-7.01	-10.25	-1.96	-9.83	-9	-29.18	-29.76	-35.46
-4	-12.24	-6.55	-9.2	-3.54	-10.05	-8.19	-31.26	-29.91	-34.54
-3.9	-15.42	-6.24	-8.5	-5.19	-10.4	-7.68	-34.74	-30.3	-33.75
-3.8	-19.18	-5.97	-8.1	-7	-10.89	-7.23	-38.87	-30.74	-33.1
-3.7	-19.03	-5.87	-7.87	-8.69	-12.28	-6.86	-39.48	-31.5	-32.57
-3.6	-16.94	-5.78	-7.91	-10.11	-13.96	-6.89	-38.34	-32.31	-32.22
-3.5	-14.54	-5.74	-8.32	-11.26	-15.04	-6.98	-36.43	-33.27	-32.11
-3.4	-12.19	-5.75	-9.01	-9.01	-15.47	-7.14	-34.14	-34.4	-32.15
-3.3	-10.18	-5.76	-9.89	-5.77	-14.89	-7.95	-32.06	-35.57	-32.29
-3.2	-8.66	-5.77	-11.03	-2.57	-13.39	-8.87	-30.48	-36.63	-32.66

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-3.1	-7.57	-5.73	-12.18	0.54	-11.65	-9.91	-29.34	-37.58	-33.33
-3	-6.94	-5.58	-12.75	2.23	-9.39	-10.99	-28.72	-38.3	-33.95
-2.9	-6.68	-5.11	-12.31	3.88	-6.63	-11.85	-28.51	-37.92	-34.39
-2.8	-6.72	-4.5	-10.58	5.52	-3.87	-12.36	-28.79	-37.29	-34.36
-2.7	-6.99	-3.61	-8.51	6.93	-1.75	-10.36	-29.48	-36.15	-34.05
-2.6	-6.93	-2.51	-6.28	7.97	0.18	-7.92	-30.44	-34.59	-33.46
-2.5	-6.43	-1.29	-3.92	9	2.01	-5.09	-31.64	-32.92	-32.42
-2.4	-5.44	0.05	-1.58	10.02	3.57	-2.66	-32.43	-31.29	-31.05
-2.3	-3.88	1.47	0.61	10.86	4.84	-0.41	-32.35	-29.66	-29.59
-2.2	-1.9	2.87	2.52	11.63	5.98	1.73	-31.47	-28.11	-28.15
-2.1	0.21	4.19	3.96	12.39	7.09	3.35	-29.99	-26.84	-26.95
-2	2.43	5.43	5.36	13.11	8.15	4.93	-27.87	-25.63	-25.78
-1.9	4.48	6.59	6.7	13.64	9.04	6.43	-25.82	-24.59	-24.65
-1.8	6.25	7.67	7.81	14.16	9.86	7.51	-23.95	-23.66	-23.78
-1.7	7.89	8.72	8.82	14.68	10.66	8.59	-22.31	-22.79	-23.03
-1.6	9.31	9.68	9.77	15.16	11.45	9.63	-21.01	-22.06	-22.34
-1.5	10.6	10.6	10.6	15.57	12.14	10.48	-19.91	-21.38	-21.82
-1.4	11.75	11.41	11.35	15.99	12.69	11.33	-19.03	-20.85	-21.4
-1.3	12.79	12.13	12.08	16.4	13.24	12.09	-18.33	-20.45	-20.99
-1.2	13.74	12.82	12.75	16.73	13.78	12.68	-17.77	-20.08	-20.67
-1.1	14.56	13.45	13.27	17.04	14.3	13.28	-17.38	-19.82	-20.54
-1	15.33	14.03	13.78	17.35	14.68	13.84	-17.08	-19.62	-20.44
-0.9	15.98	14.58	14.28	17.63	15.04	14.3	-16.98	-19.48	-20.34
-0.8	16.58	15	14.69	17.85	15.4	14.72	-16.94	-19.51	-20.35
-0.7	17.06	15.41	15.03	18.06	15.76	15.08	-17.06	-19.56	-20.46
-0.6	17.51	15.73	15.33	18.27	15.99	15.36	-17.24	-19.71	-20.62
-0.5	17.87	16.03	15.59	18.4	16.17	15.64	-17.52	-19.91	-20.79
-0.4	18.16	16.28	15.81	18.5	16.36	15.88	-17.86	-20.13	-20.98
-0.3	18.41	16.48	15.99	18.6	16.54	16.03	-18.22	-20.38	-21.18
-0.2	18.57	16.63	16.12	18.68	16.64	16.13	-18.6	-20.66	-21.39
-0.1	18.7	16.7	16.17	18.7	16.67	16.2	-18.93	-20.94	-21.53
0	18.71	16.7	16.2	18.71	16.7	16.2	-19.11	-21.13	-21.63
0.1	18.72	16.71	16.22	18.73	16.73	16.21	-19.26	-21.33	-21.7
0.2	18.6	16.61	16.16	18.67	16.69	16.16	-19.11	-21.27	-21.65
0.3	18.47	16.49	16.02	18.59	16.55	16	-18.92	-21.18	-21.54
0.4	18.23	16.31	15.86	18.51	16.4	15.83	-18.58	-20.99	-21.4
0.5	17.94	16.06	15.66	18.4	16.25	15.63	-18.16	-20.71	-21.22
0.6	17.58	15.74	15.39	18.23	16.05	15.37	-17.77	-20.41	-20.99

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
0.7	17.13	15.38	15.07	18.06	15.76	15.1	-17.41	-20.12	-20.77
0.8	16.64	14.95	14.71	17.89	15.43	14.73	-17.09	-19.84	-20.58
0.9	15.99	14.52	14.28	17.59	15.1	14.31	-16.93	-19.57	-20.44
1	15.34	13.94	13.8	17.27	14.7	13.89	-16.78	-19.45	-20.33
1.1	14.46	13.35	13.29	16.95	14.22	13.43	-16.89	-19.34	-20.26
1.2	13.57	12.61	12.65	16.58	13.67	12.88	-17.02	-19.39	-20.32
1.3	12.47	11.8	11.94	16.15	13.12	12.26	-17.36	-19.53	-20.45
1.4	11.29	10.92	11.2	15.71	12.49	11.59	-17.79	-19.76	-20.62
1.5	9.9	9.92	10.4	15.26	11.81	10.86	-18.38	-20.11	-20.85
1.6	8.3	8.85	9.48	14.65	11.04	10.14	-19.16	-20.55	-21.2
1.7	6.59	7.67	8.46	14.05	10.24	9.33	-20.02	-21.08	-21.65
1.8	4.57	6.2	7.43	13.44	9.3	8.38	-21.1	-21.88	-22.12
1.9	2.55	4.64	6.33	12.66	8.32	7.43	-22.19	-22.74	-22.63
2	0.99	2.71	5.16	11.83	7.28	6.42	-23.25	-23.88	-23.19
2.1	-0.44	0.57	3.96	10.99	6.18	5.33	-24.26	-25.18	-23.78
2.2	-0.56	-2.02	2.86	9.99	4.91	4.19	-24.62	-26.68	-24.27
2.3	-0.12	-5.44	1.95	8.74	3.64	2.93	-24.67	-28.57	-24.61
2.4	0.57	-9.13	1.21	7.49	2.4	1.6	-24.33	-30.56	-24.82
2.5	1.4	-11.26	0.69	6.13	1.32	0.3	-23.65	-32.47	-24.86
2.6	2.15	-11.7	0.48	3.99	0.27	-0.99	-22.92	-34.15	-24.71
2.7	2.62	-11.6	0.52	1.85	-0.59	-2.41	-22.25	-35.1	-24.42
2.8	2.99	-10.53	0.64	-0.29	-1.24	-3.84	-21.62	-34.74	-24.07
2.9	3.01	-9.06	0.8	-2.01	-1.49	-5.02	-21.26	-33.76	-23.69
3	2.92	-7.83	0.92	-3.6	-1.39	-5.89	-21.02	-32.7	-23.39
3.1	2.54	-7.05	1.01	-5.14	-1.25	-6.62	-21.04	-31.52	-23.1
3.2	2.03	-6.38	1.03	-4.72	-1.09	-7.15	-21.19	-30.5	-22.88
3.3	1.29	-6.21	0.89	-2.8	-0.94	-7.32	-21.58	-29.89	-22.81
3.4	0.34	-6.31	0.62	-0.92	-0.96	-7.31	-22.18	-29.49	-22.87
3.5	-0.84	-6.6	0.25	0.7	-1.05	-7.18	-22.99	-29.29	-23.01
3.6	-2.35	-7.15	-0.23	1.76	-1.22	-7.01	-24.13	-29.36	-23.27
3.7	-4.04	-7.87	-0.88	2.8	-1.56	-6.8	-25.47	-29.62	-23.68
3.8	-6.09	-8.74	-1.75	3.83	-2.13	-6.67	-27.19	-30.04	-24.27
3.9	-8.32	-9.92	-2.84	4.3	-2.84	-6.62	-29.14	-30.83	-25.04
4	-9.74	-11.09	-4.17	4.76	-3.67	-6.53	-30.5	-31.62	-26.03
4.1	-10.69	-12.61	-5.64	5.22	-4.9	-6.61	-31.52	-32.98	-27.14
4.2	-10.71	-14.16	-7.9	5.36	-6.43	-6.78	-31.59	-34.41	-28.66
4.3	-9.89	-15.71	-11.04	5.4	-8.36	-6.94	-30.72	-36.15	-30.63
4.4	-8.72	-17.29	-14.85	5.45	-10.51	-7.21	-29.4	-38.2	-32.93

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
4.5	-7.56	-18.85	-18.58	5.32	-12.56	-7.59	-27.94	-40.25	-35.21
4.6	-6.45	-20.35	-20.29	5.07	-14.52	-8.04	-26.47	-42.14	-36.69
4.7	-5.7	-21.87	-17.67	4.81	-15.51	-8.62	-25.4	-43.99	-36.26
4.8	-5.24	-23.56	-14.96	4.45	-14.54	-9.31	-24.66	-45.76	-35.17
4.9	-5.05	-25.26	-12.29	3.92	-12.7	-10	-24.2	-46.88	-33.41
5	-5.06	-26.79	-10.4	3.38	-10.68	-10.94	-23.96	-48.13	-31.59
5.1	-5.27	-27.38	-9.07	2.76	-8.59	-12.01	-23.92	-49.08	-30.04
5.2	-5.65	-26.79	-8.07	1.84	-7.62	-13.11	-24.06	-49.61	-28.75
5.3	-6.19	-25.6	-7.35	0.92	-6.76	-14.28	-24.37	-50.03	-27.69
5.4	-6.87	-23.26	-6.94	-0.05	-6	-15.53	-24.84	-47.81	-26.93
5.5	-7.7	-20.25	-6.82	-1.34	-5.52	-16.87	-25.46	-43.61	-26.46
5.6	-8.62	-17.56	-6.87	-2.63	-5.44	-17.68	-26.22	-39.64	-26.14
5.7	-9.66	-15.6	-7.15	-3.92	-5.43	-18.03	-27.12	-36.76	-26.02
5.8	-10.7	-14.02	-7.58	-4.87	-5.48	-18.16	-28.1	-34.51	-26.02
5.9	-11.73	-12.72	-8.3	-5.8	-5.9	-17.8	-29.18	-32.63	-26.26
6	-12.64	-11.81	-9.32	-6.71	-6.5	-17.22	-30.26	-31.28	-26.72
6.1	-13.38	-10.95	-10.51	-6.31	-7.21	-16.59	-31.33	-29.98	-27.27
6.2	-13.95	-10.45	-12.03	-5.73	-8.15	-16.11	-32.29	-29.14	-27.98
6.3	-14.34	-10.03	-14.23	-5.14	-9.55	-15.78	-33.03	-28.4	-28.96
6.4	-14.59	-9.79	-17.27	-4.42	-11.13	-15.48	-33.58	-27.86	-30.19
6.5	-14.88	-9.72	-20.68	-3.66	-12.96	-15.42	-34.04	-27.52	-31.48
6.6	-15.24	-9.79	-24.09	-2.91	-15.39	-15.53	-34.41	-27.33	-32.86
6.7	-15.74	-10.01	-24.26	-2.45	-17.83	-15.69	-34.84	-27.3	-34.16
6.8	-16.55	-10.41	-23.24	-2.11	-20.1	-16.09	-35.45	-27.45	-35.1
6.9	-17.54	-10.87	-21.09	-1.77	-20.61	-16.62	-36.14	-27.67	-35.57
7	-18.88	-11.68	-18.72	-1.7	-18.53	-17.15	-37	-28.2	-35.23
7.1	-20.37	-12.55	-16.8	-1.78	-16.35	-17.82	-37.84	-28.79	-34.37
7.2	-21.78	-13.65	-15.4	-1.87	-14.09	-18.47	-38.38	-29.55	-33.39
7.3	-22.96	-14.92	-14.43	-2.24	-12.61	-19.02	-38.56	-30.42	-32.42
7.4	-23.47	-16.14	-13.93	-2.8	-11.51	-19.41	-38.37	-31.22	-31.55
7.5	-22.59	-17.29	-13.76	-3.37	-10.53	-19.62	-37.46	-31.9	-30.97
7.6	-21.66	-18.28	-13.82	-4.27	-9.82	-19.72	-36.57	-32.45	-30.57
7.7	-20.49	-18.74	-14.17	-5.42	-9.48	-19.6	-35.56	-32.68	-30.39
7.8	-19.39	-18.43	-14.78	-6.58	-9.3	-19.39	-34.6	-32.45	-30.42
7.9	-18.63	-17.78	-15.65	-8.07	-9.2	-19.19	-33.84	-32	-30.65
8	-18.06	-16.93	-16.89	-9.82	-9.46	-19.08	-33.18	-31.39	-31.11
8.1	-17.79	-15.91	-18.51	-11.53	-9.82	-19.07	-32.71	-30.63	-31.77
8.2	-17.82	-14.96	-20.61	-12.04	-10.32	-19.14	-32.41	-29.9	-32.62

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
8.3	-18.01	-14.37	-23.77	-11.55	-11.12	-19.37	-32.18	-29.44	-33.8
8.4	-18.57	-13.91	-28.56	-11	-12.18	-19.82	-32.13	-29.06	-35.32
8.5	-19.16	-13.61	-34.33	-9.86	-13.35	-20.45	-32.08	-28.83	-36.97
8.6	-19.94	-13.5	-35.71	-8.31	-14.76	-21.34	-32.15	-28.76	-38.67
8.7	-20.7	-13.51	-32.15	-6.78	-16.84	-22.5	-32.2	-28.81	-40.01
8.8	-21.02	-13.68	-27.52	-5.6	-18.89	-23.96	-32.19	-29.02	-40.85
8.9	-21.17	-14.04	-24.06	-4.74	-20.93	-26.01	-32.14	-29.43	-41
9	-20.9	-14.48	-21.98	-3.9	-21.76	-28.53	-32	-29.93	-40.3
9.1	-20.24	-15.16	-21.03	-3.34	-21.15	-31.32	-31.78	-30.74	-38.98
9.2	-19.51	-15.96	-20.32	-3.02	-19.98	-33.01	-31.54	-31.69	-37.83
9.3	-18.7	-16.92	-19.94	-2.7	-18.37	-32.49	-31.27	-32.85	-36.93
9.4	-17.91	-18.04	-20.12	-2.65	-16.7	-31.05	-31	-34.28	-36.51
9.5	-17.43	-19.22	-20.49	-2.78	-15.25	-28.95	-30.85	-35.79	-36.29
9.6	-17.01	-20.25	-21.04	-2.93	-14.12	-27.01	-30.71	-36.97	-36.25
9.7	-16.94	-21.17	-21.89	-3.42	-13.55	-25.45	-30.8	-37.93	-36.4
9.8	-17.02	-21.88	-22.98	-4.11	-13.07	-24.23	-31.01	-38.48	-36.7
9.9	-17.38	-22.2	-24.13	-4.8	-12.67	-23.38	-31.45	-38.35	-37.04
10	-17.99	-22.25	-25.1	-6.03	-12.68	-22.73	-32.1	-37.78	-37.33
15	-19.92	-26.46	-24.8	-2.32	-21.44	-30.78	-29.99	-33.31	-34.53
20	-21.17	-37.04	-23.16	-15.81	-40.75	-51.09	-29.68	-35.61	-33.07
25	-29.28	-30.87	-28.76	-29.67	-40.25	-35.87	-38.81	-31.78	-35
30	-38.8	-35.56	-30.09	-31.03	-35.34	-35.17	-45.65	-32.21	-34.75
35	-31.55	-44.19	-34.44	-19.94	-33.4	-30.79	-38.09	-37.39	-35.2
40	-36.17	-52.14	-37.86	-25.55	-30.63	-37.05	-39.58	-50.28	-37.28
45	-38.51	-44.56	-38.81	-19.83	-36.11	-38.74	-45.16	-38.28	-34.04
50	-44.33	-39.92	-36.31	-22.46	-39.67	-28.94	-42.94	-35.83	-37.5
55	-51.72		-32.68	-34.06	-39.95	-39.19	-63.34		-37.08
60	-35.97		-43.79	-34.32	-36.27	-40.99	-40.32		-39.66
65	-45.98		-33.92	-30.5	-33.6	-41.29	-43.98		-40.71
70	-45.53		-45.72	-32.63	-33.24	-46.51	-46		-42.63
75	-40.66		-35.4	-36.8	-26.75	-45.27	-43.61		-38.06
80	-47.23		-37.36	-34.72	-30.48	-53.74	-43.57		-45.2
85	-56.72		-44.62	-42.44	-38.81	-56.16	-55.36		-55.72
90									
95									
100									
105									
110									

FCC tabular data for target scan=50deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.3.3 Tabular Data, Mainbeam @ Elevation=60° (Scan=30°), 14.50 GHz

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-90									
-85									
-80	-57.08						-61.12		
-75	-50.79						-59.46		
-70	-42.2	-47.15					-49.82	-55.65	
-65	-38.6	-57.3	-36.15			-42.21	-46.17	-53.08	-41.38
-60	-39.29	-39.46	-44.43			-42.27	-42.52	-39.6	-47.13
-55	-36.74	-49.92	-37.55	-34.93	-38.68	-36.02	-39.08	-52.57	-39.57
-50	-38.29	-33.66	-41.63	-28.65	-36.85	-41.37	-43.8	-41.2	-44.92
-45	-34.75	-43.76	-47.26	-31.54	-38.69	-35.72	-47.17	-41.75	-49.68
-40	-38.63	-31.55	-34.9	-27.91	-33	-47.2	-41.73	-42.94	-45.75
-35	-30.02	-44.56	-27.14	-24.46	-34.15	-32.8	-39.5	-46.77	-35.33
-30	-27.02	-44.09	-30.69	-26.31	-35.95	-31.4	-39.52	-52.91	-40.38
-25	-33.66	-32	-27.83	-24.01	-26.25	-36.85	-56.44	-44.62	-42.06
-20	-33.82	-29.36	-27.78	-17.53	-23.39	-33.98	-48.75	-46.12	-41.68
-15	-25.6	-27.77	-36.91	-8.5	-26.25	-26.27	-46.14	-47.19	-43.7
-10	-17.96	-17.44	-20.94	-4.55	-15.51	-17.92	-39.8	-34.99	-39.35
-9.9	-17.98	-17.33	-20.96	-5.42	-15.25	-18	-39.95	-35.03	-39.03
-9.8	-18	-17.44	-21.12	-6.53	-15.38	-18.21	-40.06	-35.35	-38.87
-9.7	-17.96	-17.64	-21.48	-7.67	-15.8	-19.1	-39.75	-35.78	-38.87
-9.6	-17.92	-18.06	-22.18	-9.5	-16.23	-20.35	-39.39	-36.49	-39.13
-9.5	-17.83	-18.66	-23.26	-11.79	-16.89	-21.87	-38.88	-37.47	-39.67
-9.4	-17.72	-19.4	-24.53	-14.13	-17.82	-24.73	-38.28	-38.68	-40.31
-9.3	-17.6	-20.47	-26.23	-17.44	-18.64	-28.28	-37.67	-40.47	-41.2
-9.2	-17.44	-21.73	-28.53	-20.86	-19.27	-31.29	-37.07	-42.58	-42.7
-9.1	-17.27	-23.44	-30.59	-23.94	-19.57	-31.67	-36.5	-45.21	-44.54
-9	-17.16	-25.38	-32.15	-20.82	-19.56	-30.13	-36.11	-47.74	-46.65
-8.9	-17.06	-27.53	-33.02	-16.57	-19.25	-27.34	-35.74	-49.35	-48.94
-8.8	-17.11	-29.84	-32.92	-12.5	-17.84	-23.93	-35.59	-49.5	-51.28
-8.7	-17.21	-31.92	-31.74	-10.8	-16.49	-21.21	-35.52	-48.59	-53.37
-8.6	-17.5	-33.07	-30	-9.28	-15.15	-18.87	-35.65	-47.27	-54.32
-8.5	-18.02	-32.88	-28.02	-7.85	-13.9	-17.11	-36	-45.4	-53.06
-8.4	-18.69	-32.93	-26.68	-7.15	-12.76	-16.08	-36.48	-43.78	-50.53
-8.3	-20	-31.81	-25.95	-6.47	-11.77	-15.25	-37.52	-42.94	-48.19
-8.2	-21.37	-30.81	-25.75	-5.91	-11.11	-14.62	-38.61	-42.43	-46.48
-8.1	-23.17	-29.97	-26.01	-5.73	-10.66	-14.19	-41.02	-42.33	-45.3
-8	-25.06	-29.07	-26.95	-5.56	-10.26	-13.95	-43.73	-42.65	-44.57
-7.9	-24.91	-28	-28.76	-5.55	-9.99	-13.99	-45.35	-43.32	-44.37

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-7.8	-23.11	-26.66	-30.44	-5.82	-10	-14.19	-46.02	-44.29	-44.47
-7.7	-21.01	-24.75	-31.79	-6.1	-10.11	-14.43	-45.7	-45.57	-44.71
-7.6	-18.45	-22.56	-32.42	-6.68	-10.32	-14.81	-43.02	-46.49	-45.29
-7.5	-15.86	-20.88	-31.86	-7.51	-10.85	-15.44	-40.21	-46.54	-45.99
-7.4	-14.06	-19.2	-30.05	-8.35	-11.45	-16.03	-37.83	-46.2	-46.7
-7.3	-12.31	-17.8	-27.33	-9.57	-12.19	-16.6	-35.49	-45.29	-47.19
-7.2	-10.93	-16.61	-24.41	-10.93	-13.54	-17.09	-33.81	-43.89	-47.16
-7.1	-9.75	-15.55	-21.99	-12.29	-15.1	-17.31	-32.5	-42.27	-46.43
-7	-8.74	-14.72	-19.86	-12.89	-16.84	-17.35	-31.44	-40.69	-45.41
-6.9	-8.02	-14.06	-18.28	-13.39	-18.28	-17.2	-30.76	-39.34	-44.19
-6.8	-7.34	-13.58	-17.2	-13.68	-19.45	-16.9	-30.12	-38.23	-42.93
-6.7	-7.01	-13.36	-16.33	-12.53	-20.13	-16.41	-29.91	-37.42	-41.73
-6.6	-6.68	-13.26	-15.68	-11.37	-19.18	-15.97	-29.71	-36.78	-40.77
-6.5	-6.64	-13.46	-15.24	-10.24	-17.37	-15.5	-29.82	-36.41	-40.04
-6.4	-6.69	-13.88	-14.97	-9.19	-15.33	-15.03	-30.05	-36.26	-39.49
-6.3	-6.94	-14.58	-14.89	-8.16	-13.6	-14.91	-30.49	-36.36	-39.15
-6.2	-7.42	-15.81	-15.03	-7.44	-12.33	-14.83	-31.21	-36.77	-39.06
-6.1	-8.01	-17.21	-15.27	-7.08	-11.13	-14.8	-32.04	-37.34	-39.08
-6	-9.1	-19.3	-15.73	-6.73	-10.25	-15.21	-33.44	-38.62	-39.3
-5.9	-10.24	-21.49	-16.52	-6.86	-9.73	-15.73	-34.9	-40.34	-39.81
-5.8	-12.04	-23.02	-17.48	-7.23	-9.36	-16.32	-36.88	-42.43	-40.48
-5.7	-13.92	-23.41	-18.59	-7.61	-9.25	-17.58	-38.87	-44.94	-41.28
-5.6	-15.44	-22.53	-19.99	-9.1	-9.48	-18.66	-40.2	-47.66	-42.41
-5.5	-16.54	-20.39	-21.71	-10.71	-9.8	-19.79	-40.86	-49.59	-44.02
-5.4	-16.86	-17.21	-23.37	-12.54	-10.35	-21.24	-40.7	-49.19	-45.77
-5.3	-15.35	-14.46	-24.88	-15.21	-11.49	-22.56	-38.65	-46.53	-47.84
-5.2	-13.79	-12.86	-24.65	-17.79	-12.81	-23.75	-36.65	-42.64	-52.11
-5.1	-11.91	-11.45	-23.78	-17.97	-14.12	-24.31	-35.09	-39.4	-56.87
-5	-10.14	-10.57	-22.51	-15.02	-14.78	-24.97	-33.7	-37.43	-61.24
-4.9	-8.88	-9.97	-21.27	-12.04	-15.14	-25.58	-32.76	-36.13	-61.8
-4.8	-7.99	-9.56	-20.34	-9.17	-14.33	-24.95	-32.14	-35.12	-57.89
-4.7	-7.33	-9.42	-19.49	-6.38	-12.02	-24.42	-31.75	-34.47	-54.34
-4.6	-7.05	-9.44	-18.74	-3.63	-9.67	-23.97	-31.72	-34.04	-51.91
-4.5	-6.9	-9.73	-18.45	-2.17	-7.37	-22.93	-31.82	-33.89	-50.8
-4.4	-7.17	-10.35	-18.21	-0.75	-5.64	-21.54	-32.34	-34.11	-50.28
-4.3	-7.57	-11.16	-17.91	0.51	-4.13	-19.79	-33.04	-34.55	-50.22
-4.2	-8.29	-12.23	-17.59	1.36	-2.74	-17.84	-34.12	-35.33	-50.48
-4.1	-9.21	-13.38	-17.11	2.21	-1.76	-15.93	-35.51	-36.32	-51.08

APPENDIX C: Antenna EIRP Tables

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-4	-10.31	-14.13	-16.41	2.84	-0.82	-14.01	-37.27	-37.69	-51.85
-3.9	-11.48	-14.1	-15.74	3.29	0.02	-12.36	-39.26	-39.7	-52.22
-3.8	-12.26	-13.88	-15.19	3.73	0.46	-10.98	-40.74	-41.85	-51.68
-3.7	-12.34	-12.57	-14.35	3.89	0.88	-9.74	-41.31	-43.94	-50.49
-3.6	-11.92	-11.1	-13.73	3.99	1.22	-8.82	-40.98	-45.42	-49.18
-3.5	-10.74	-9.8	-13.4	4.02	1.23	-8.16	-39.36	-45.35	-47.81
-3.4	-9.47	-8.68	-13.26	3.7	1.18	-7.65	-37.6	-44.22	-46.31
-3.3	-8.4	-7.79	-13.5	3.37	0.97	-7.46	-36.23	-42.78	-44.88
-3.2	-7.6	-7.24	-14.43	2.75	0.28	-7.61	-35.27	-41.58	-43.74
-3.1	-7.12	-7.1	-16.12	1.79	-0.48	-7.8	-34.67	-40.86	-42.75
-3	-7.06	-7.29	-18.9	0.82	-1.53	-8.19	-34.51	-40.5	-41.82
-2.9	-7.69	-8.34	-21.29	-1.23	-3.89	-8.85	-34.85	-40.92	-41.04
-2.8	-9	-9.65	-22	-3.58	-6.61	-9.58	-35.66	-41.49	-40.23
-2.7	-11.18	-11.64	-21.03	-5.74	-9.32	-9.52	-37.47	-41.66	-39.35
-2.6	-14.11	-13.7	-17.08	-6.31	-9.89	-8.45	-40.35	-41.63	-38.36
-2.5	-15.7	-13.89	-11.06	-6.71	-8.83	-6.64	-42.77	-41.01	-37.26
-2.4	-13.98	-11.17	-6.06	-5.15	-6.33	-3.95	-43.11	-39.28	-36.06
-2.3	-9.93	-8.03	-2.19	-1.58	-2.56	-1.52	-41.76	-37.29	-34.79
-2.2	-5.92	-4.54	-0.01	1.93	0.94	0.76	-39.42	-35.26	-33.63
-2.1	-1.88	-1.05	2.04	4.3	3.9	2.89	-36.41	-33.18	-32.45
-2	1.3	1.85	3.95	6.29	5.78	4.76	-33.72	-31.34	-31.28
-1.9	3.84	4.14	5.57	8.2	7.53	6.28	-31.3	-29.81	-30.25
-1.8	5.93	6.05	6.99	9.5	9.05	7.71	-29.3	-28.49	-29.33
-1.7	7.69	7.75	8.32	10.78	10.25	8.98	-27.75	-27.35	-28.46
-1.6	9.26	9.21	9.55	11.89	11.42	10.19	-26.47	-26.42	-27.66
-1.5	10.6	10.6	10.6	12.82	12.48	11.22	-25.5	-25.54	-27
-1.4	11.83	11.72	11.58	13.75	13.33	12.13	-24.65	-24.92	-26.42
-1.3	12.88	12.78	12.48	14.48	14.14	13.04	-24.03	-24.35	-25.89
-1.2	13.86	13.67	13.29	15.17	14.86	13.85	-23.51	-23.95	-25.44
-1.1	14.71	14.48	14.02	15.82	15.49	14.47	-23.11	-23.62	-25.07
-1	15.47	15.23	14.68	16.35	16.12	15.09	-22.81	-23.33	-24.75
-0.9	16.16	15.88	15.27	16.87	16.61	15.69	-22.57	-23.12	-24.47
-0.8	16.73	16.49	15.81	17.3	17.02	16.12	-22.44	-22.94	-24.22
-0.7	17.27	16.98	16.27	17.67	17.43	16.52	-22.33	-22.83	-24.04
-0.6	17.67	17.39	16.65	18.04	17.76	16.91	-22.29	-22.76	-23.87
-0.5	18.05	17.75	17	18.27	18.04	17.2	-22.26	-22.68	-23.69
-0.4	18.34	18.05	17.29	18.51	18.28	17.41	-22.22	-22.6	-23.55
-0.3	18.58	18.3	17.5	18.69	18.41	17.61	-22.18	-22.51	-23.42

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-0.2	18.76	18.49	17.65	18.81	18.52	17.71	-22.12	-22.4	-23.26
-0.1	18.84	18.59	17.77	18.92	18.64	17.8	-22.02	-22.29	-23.11
0	18.93	18.65	17.82	18.93	18.65	17.82	-21.91	-22.18	-23.01
0.1	18.87	18.6	17.77	18.9	18.6	17.75	-21.74	-22.02	-22.87
0.2	18.81	18.53	17.71	18.84	18.54	17.68	-21.56	-21.85	-22.73
0.3	18.65	18.4	17.58	18.68	18.38	17.57	-21.38	-21.67	-22.65
0.4	18.44	18.19	17.36	18.53	18.22	17.33	-21.19	-21.51	-22.59
0.5	18.17	17.92	17.1	18.29	18.04	17.08	-21.03	-21.39	-22.55
0.6	17.82	17.55	16.8	18	17.72	16.84	-20.9	-21.32	-22.53
0.7	17.43	17.14	16.4	17.71	17.39	16.46	-20.79	-21.27	-22.6
0.8	16.91	16.66	15.91	17.28	17.03	16.04	-20.78	-21.28	-22.72
0.9	16.34	16.09	15.41	16.86	16.58	15.62	-20.81	-21.35	-22.86
1	15.65	15.44	14.78	16.34	16.14	15.13	-20.96	-21.51	-23.13
1.1	14.87	14.65	14.04	15.74	15.57	14.53	-21.17	-21.81	-23.51
1.2	14	13.77	13.25	15.15	14.94	13.94	-21.49	-22.19	-23.93
1.3	13	12.79	12.38	14.33	14.31	13.27	-21.93	-22.67	-24.45
1.4	11.9	11.68	11.3	13.5	13.55	12.54	-22.47	-23.29	-25.19
1.5	10.6	10.54	10.11	12.55	12.74	11.75	-23.19	-23.95	-26.05
1.6	9.07	8.97	8.87	11.41	11.88	10.9	-24.11	-25.02	-26.96
1.7	7.23	7.31	7.25	10.27	10.81	10.01	-25.3	-26.18	-28.25
1.8	4.96	5.18	5.39	8.71	9.72	9.03	-26.81	-27.73	-29.78
1.9	2.12	2.68	3.38	7.08	8.64	7.96	-28.72	-29.55	-31.41
2	-1.5	-0.87	0.68	5.11	7.22	6.86	-31.49	-31.72	-33.19
2.1	-6.02	-6.36	-3.42	2.07	5.79	5.76	-35.77	-34.33	-35.04
2.2	-11.09	-12.8	-8.8	-0.93	4.25	4.49	-41.48	-36.92	-36.53
2.3	-11.28	-14.68	-14.97	-5.1	2.12	3.21	-43.2	-37.81	-37.49
2.4	-7.4	-11.47	-15.19	-10.03	0.07	1.98	-40.86	-37	-36.94
2.5	-4	-7.59	-13.1	-13.42	-2.66	0.68	-37.68	-35.53	-35.89
2.6	-1.52	-4.67	-10.06	-8.32	-6.41	-0.64	-34.41	-33.73	-34.71
2.7	0.18	-2.7	-7.3	-3.02	-9.72	-1.84	-31.68	-32.04	-33.64
2.8	1.26	-1.39	-5.47	-0.09	-10.46	-2.91	-29.85	-30.82	-32.81
2.9	1.92	-0.91	-4.4	1.56	-9.95	-3.93	-28.61	-30.12	-32.21
3	2.23	-0.55	-3.88	3.09	-9.93	-4.77	-27.82	-29.55	-31.87
3.1	2.35	-0.71	-3.98	3.74	-8.72	-5.4	-27.27	-29.45	-31.92
3.2	2.24	-1	-4.37	4.39	-7.4	-5.87	-27	-29.52	-32.17
3.3	2.01	-1.59	-5.14	4.72	-6.36	-6.21	-26.88	-29.91	-32.69
3.4	1.62	-2.4	-6.34	4.86	-5.94	-6.45	-26.93	-30.59	-33.51
3.5	1.08	-3.35	-7.95	4.95	-5.54	-6.65	-27.14	-31.5	-34.61

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
3.6	0.43	-4.42	-10.15	4.67	-5.34	-6.84	-27.47	-32.71	-36.01
3.7	-0.38	-5.56	-13.73	4.39	-5.58	-7.03	-27.96	-34.19	-37.99
3.8	-1.23	-6.63	-17.64	3.84	-5.87	-7.28	-28.5	-36.17	-40.07
3.9	-2.2	-7.38	-20.91	3.14	-6.42	-7.54	-29.1	-38.25	-41.94
4	-3.2	-7.81	-20.36	2.38	-7.19	-7.86	-29.72	-39.92	-42.42
4.1	-4.19	-7.86	-17.82	1.14	-8.03	-8.3	-30.29	-40.53	-41.81
4.2	-5.16	-7.58	-14.98	-0.11	-9.28	-8.71	-30.81	-40.08	-40.61
4.3	-6.08	-7.13	-12.54	-2.02	-10.75	-9.21	-31.27	-38.94	-39.19
4.4	-6.85	-6.59	-10.99	-4.33	-12.32	-9.86	-31.58	-37.2	-37.68
4.5	-7.6	-6.05	-10.07	-6.81	-14.72	-10.48	-31.89	-35.53	-36.63
4.6	-8.1	-5.81	-9.59	-10.31	-17.38	-11.11	-32.11	-34.52	-35.86
4.7	-8.59	-5.65	-9.55	-13.84	-20.35	-11.94	-32.34	-33.72	-35.38
4.8	-8.99	-5.69	-9.98	-14.69	-23.53	-12.72	-32.65	-33.23	-35.19
4.9	-9.33	-5.95	-10.81	-14.14	-26.79	-13.45	-33.03	-33.04	-35.25
5	-9.65	-6.41	-12.07	-13.1	-26.97	-14.17	-33.51	-33.11	-35.52
5.1	-9.92	-7.07	-14	-9.96	-24.11	-14.84	-34.2	-33.39	-35.98
5.2	-10.17	-7.92	-17.48	-6.81	-20.9	-15.42	-34.93	-33.87	-36.63
5.3	-10.28	-8.98	-21.72	-5.25	-19.31	-15.79	-35.91	-34.51	-37.34
5.4	-10.36	-10.42	-25.18	-4.33	-18.22	-16.1	-36.85	-35.47	-37.97
5.5	-10.28	-12.16	-24.81	-3.61	-17.29	-16.31	-37.6	-36.67	-38.26
5.6	-10.12	-14.22	-21.28	-3.49	-17.23	-16.39	-38.12	-38.05	-38.15
5.7	-9.9	-16.51	-16.85	-3.37	-17.15	-16.45	-38.2	-39.55	-37.67
5.8	-9.6	-18.71	-13.47	-3.71	-17.3	-16.46	-37.72	-41.04	-36.91
5.9	-9.32	-20.22	-11.55	-4.19	-17.84	-16.48	-37.08	-42.07	-35.96
6	-9.07	-20.71	-10.28	-4.82	-18.36	-16.52	-36.08	-43.25	-35.06
6.1	-8.87	-19.63	-9.36	-5.91	-19.19	-16.53	-35.16	-43.19	-34.29
6.2	-8.78	-18.23	-8.79	-7	-20.09	-16.57	-34.37	-42.53	-33.7
6.3	-8.77	-17.09	-8.5	-8.36	-20.85	-16.65	-33.71	-41.92	-33.29
6.4	-8.88	-16.3	-8.45	-9.78	-21.43	-16.67	-33.22	-41.48	-33.07
6.5	-9.13	-15.79	-8.65	-10.67	-22	-16.72	-32.89	-41.06	-33.06
6.6	-9.5	-15.62	-9.1	-10.66	-22.4	-16.82	-32.69	-40.97	-33.26
6.7	-10.04	-15.73	-9.78	-10.61	-22.21	-16.88	-32.67	-41.26	-33.68
6.8	-10.75	-16.04	-10.83	-9.43	-22.1	-16.97	-32.78	-41.84	-34.36
6.9	-11.64	-16.52	-12.23	-8.15	-21.78	-17.14	-33.06	-42.65	-35.3
7	-12.7	-17.12	-13.97	-6.99	-21.46	-17.28	-33.44	-43.41	-36.45
7.1	-13.97	-17.68	-16.17	-5.98	-21.27	-17.53	-33.92	-44.01	-37.8
7.2	-15.39	-18.14	-18.79	-5	-21.14	-17.9	-34.49	-44.48	-39.28
7.3	-16.87	-18.5	-21.19	-4.55	-21.05	-18.26	-35.1	-44.72	-40.68

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
7.4	-18.38	-18.23	-22.51	-4.1	-21.06	-18.75	-35.77	-43.76	-41.72
7.5	-19.29	-17.99	-21.4	-3.96	-21.44	-19.44	-36.4	-43.13	-41.65
7.6	-19.71	-17.62	-19.49	-4	-21.91	-20.12	-37.01	-42.32	-40.94
7.7	-19.65	-17.19	-17.49	-4.13	-22.54	-20.86	-37.54	-41.45	-39.93
7.8	-19.21	-16.84	-15.84	-4.66	-23.34	-21.76	-37.98	-40.69	-38.86
7.9	-18.64	-16.61	-14.68	-5.19	-24.17	-22.57	-38.35	-40.11	-37.89
8	-18.14	-16.53	-13.9	-6.23	-25.53	-23.29	-38.66	-39.66	-37.09
8.1	-17.73	-16.66	-13.44	-7.41	-26.99	-23.59	-38.92	-39.39	-36.5
8.2	-17.61	-17	-13.37	-9.06	-28.48	-23.65	-39.21	-39.25	-36.19
8.3	-17.67	-17.47	-13.54	-11.56	-30.02	-23.47	-39.5	-39.15	-36.04
8.4	-18.05	-18.13	-13.96	-14.03	-31.45	-22.9	-39.9	-39.11	-36.04
8.5	-18.64	-18.99	-14.64	-17.45	-32	-22.2	-40.39	-39.05	-36.18
8.6	-19.52	-19.99	-15.52	-20.93	-31.79	-21.45	-41.05	-38.94	-36.42
8.7	-20.68	-21.04	-16.55	-20.42	-31.21	-20.85	-41.88	-38.78	-36.71
8.8	-22.02	-22.05	-17.72	-16.48	-30.27	-20.34	-42.84	-38.52	-37
8.9	-23.54	-22.67	-18.69	-12.87	-29.22	-19.86	-44.04	-38.22	-37.26
9	-25.14	-23.07	-19.32	-10.99	-28.12	-19.56	-45.34	-37.9	-37.47
9.1	-25.85	-23.14	-19.32	-9.11	-27.16	-19.4	-46.35	-37.65	-37.46
9.2	-26.21	-22.99	-18.86	-7.99	-26.26	-19.27	-47.24	-37.45	-37.33
9.3	-25.84	-22.81	-18.16	-7.17	-25.43	-19.26	-47.36	-37.34	-37.13
9.4	-24.88	-22.72	-17.33	-6.56	-24.66	-19.34	-46.76	-37.37	-36.83
9.5	-23.84	-22.75	-16.5	-6.35	-23.97	-19.47	-45.87	-37.6	-36.42
9.6	-23.03	-23.1	-15.93	-6.14	-23.32	-19.66	-44.76	-38.14	-36.08
9.7	-22.23	-23.89	-15.56	-6.41	-22.71	-19.9	-43.55	-38.96	-35.78
9.8	-21.83	-25.11	-15.41	-6.72	-22.12	-20.21	-42.7	-40.04	-35.55
9.9	-21.51	-27.13	-15.49	-7.27	-21.57	-20.53	-41.93	-41.6	-35.41
10	-21.34	-29.74	-15.81	-8.1	-21.09	-20.88	-41.37	-43.72	-35.42
15	-22.1	-25.85	-22.93	-14.72	-30.16	-28.83	-39.07	-39.84	-41.04
20	-30.48	-34.48	-29.07	-35.12	-42.05	-26.44	-43.99	-55.2	-40.95
25	-32.81	-34.35	-39.31	-28.01	-33.25	-29.63	-49.6	-48.49	-49.46
30	-34.6	-37.02	-30.95	-18.25	-21.11	-39.36	-43.61	-41.79	-51.98
35	-33.55	-35.1	-29.21	-29.61	-33.44	-31.32	-41.19	-45.25	-47.14
40	-45.79	-38.18	-31.53	-25.62	-38.86	-47.74	-46.85	-39.39	-52.6
45	-44.18	-38.57	-33.1	-31.32	-37.26	-34.21	-54.1	-63.27	-47.33
50	-43.29	-40.14	-35.2	-30.89	-44.43	-35.7	-56.65	-40.5	-50.77
55	-38.92	-39.66	-31	-41.84	-41.5	-42.92	-45.44	-49.6	-40.11
60	-40.51	-37.26	-44.71	-31.9	-37.12	-39.72	-51.91	-49.69	-48.47
65	-47.49	-44.87	-42.43	-37.45	-38.5	-34.95	-54.41	-50.04	-55.05

FCC tabular data for target scan=30deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
70	-48.6	-40.81	-40.26	-45.63	-39.81	-41.29	-50.47	-51.69	-52.48
75	-46.26	-41.03	-33.03	-36.54	-43.85	-59.2	-51.42	-48.99	-48.65
80	-46.16	-48.65	-38.43	-47.38	-41.48	-56.8	-51.79	-59.5	-47.74
85	-43.6	-57.23	-48.1	-44.33	-48.58	-64.45	-51.31	-63.09	-55.19
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									

C.3.4 Tabular Data, Mainbeam @ Elevation=80° (Scan=10°), 14.50 GHz

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-180									
-175									
-170									
-165									
-160									
-155									
-150									
-145									
-140									

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-135									
-130									
-125									
-120									
-115									
-110									
-105									
-100									
-95									
-90		-51.94	-55.35					-53.26	-50.32
-85	-37.95	-38.51	-48.09				-48.91	-54.16	-47.82
-80	-31.37	-29.85	-42.98				-45.07	-38.04	-40.16
-75	-30.47	-40.94	-35.88	-44.58	-38.09	-46.77	-41.7	-42.82	-43.21
-70	-31.12	-40.52	-32.36	-39.55	-29.53	-37.24	-45.34	-46.12	-36.51
-65	-30.83	-43.44	-47.06	-35.49	-32.75	-41.94	-44.99	-53.19	-38.87
-60	-29.47	-34.02	-36.66	-39.13	-46.33	-33.7	-45.32	-42.26	-44.82
-55	-34.75	-31.65	-40.91	-35.84	-45.91	-38.17	-52.3	-41.6	-56.62
-50	-33.99	-25.58	-39.24	-39.2	-34.28	-28.88	-48.65	-43.66	-60.23
-45	-39.9	-32.59	-35.19	-36.33	-39.61	-28.98	-46.83	-46.17	-46.5
-40	-32.65	-32.42	-39.77	-39.32	-39.25	-23.24	-55.7	-46.91	-63.63
-35	-41.78	-34.69	-36.06	-36.82	-43.86	-23.64	-52.6	-55.18	-58.99
-30	-30.42	-42.65	-27.33	-33.12	-32.55	-19.71	-48.91	-43.73	-46.49
-25	-35.33	-23.7	-29.39	-43.2	-33.17	-23.21	-58.68	-46.28	-50.78
-20	-27.88	-26.84	-31.27	-24.06	-30.96	-28.45	-50.11	-54.6	-62.26
-15	-22.74	-27.67	-25.05	-16.78	-41.36	-22.22	-51.92	-50.95	-64.55
-10	-13.18	-25.3	-21.93	-13.97	-17.69	-23.86	-45.33	-59.5	-48.21
-9.9	-13.08	-24.2	-21.3	-13.36	-17.45	-22.79	-45.81	-55.98	-47.39
-9.8	-13.22	-23.06	-20.74	-12.37	-17.23	-21.77	-46.46	-53.03	-47.02
-9.7	-13.49	-22.01	-20.2	-11.13	-17.04	-20.81	-47.16	-50.71	-46.75
-9.6	-13.91	-21.08	-19.71	-9.84	-17.12	-20.01	-47.95	-48.88	-46.63
-9.5	-14.57	-20.29	-19.27	-8.89	-17.32	-19.28	-48.89	-47.46	-46.69
-9.4	-15.39	-19.73	-18.87	-8.04	-17.55	-18.59	-49.84	-46.54	-46.85
-9.3	-16.61	-19.42	-18.56	-7.28	-17.94	-18.11	-50.8	-46	-47.24
-9.2	-18.05	-19.23	-18.39	-6.9	-18.57	-17.68	-51.87	-45.61	-47.91
-9.1	-19.62	-19.33	-18.27	-6.55	-19.26	-17.36	-53.02	-45.65	-48.65
-9	-21.18	-19.71	-18.27	-6.49	-20.07	-17.24	-54.12	-46	-49.72
-8.9	-22.49	-20.28	-18.37	-6.67	-21.1	-17.14	-54.86	-46.56	-50.94
-8.8	-23.05	-21.14	-18.59	-6.9	-22.25	-17.22	-54.79	-47.47	-52.38

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-8.7	-21.93	-22.67	-19.03	-7.64	-23.38	-17.42	-53.53	-49.18	-54.53
-8.6	-20.66	-24.76	-19.54	-8.51	-24.52	-17.67	-52.43	-51.42	-56.56
-8.5	-19.34	-27.34	-20.25	-9.68	-25.38	-18.2	-51.26	-54.21	-57.87
-8.4	-18.1	-31.52	-21.08	-11.91	-25.87	-18.79	-50.26	-58.2	-59.21
-8.3	-17.2	-34.07	-22.06	-14.39	-25.76	-19.43	-49.65	-60.63	-59.78
-8.2	-16.73	-32.98	-23.11	-18.53	-25.37	-20.44	-49.49	-59.97	-58.96
-8.1	-16.51	-29.1	-24.08	-22.84	-24.79	-21.43	-49.61	-57.1	-57
-8	-16.82	-25.52	-24.82	-25.72	-24.21	-22.61	-50.39	-54.13	-55.31
-7.9	-17.4	-22.54	-24.43	-19.64	-23.73	-24.04	-51.47	-51.85	-54.09
-7.8	-18.43	-20.35	-23.92	-14.04	-23.3	-25.38	-53.28	-50.41	-52.79
-7.7	-19.89	-18.87	-23.01	-10.16	-22.81	-27.16	-55.61	-49.95	-52.05
-7.6	-21.54	-17.73	-21.8	-8.35	-22.56	-28.96	-57.2	-50.08	-51.6
-7.5	-22.76	-16.75	-20.57	-6.63	-22.41	-30.21	-56.82	-50.6	-51.29
-7.4	-22.66	-16.05	-19.49	-5.48	-21.95	-31.26	-54.37	-51.74	-51.31
-7.3	-21.22	-15.58	-18.54	-4.62	-21.45	-31.5	-52	-53.76	-51.47
-7.2	-18.8	-15.18	-17.73	-3.82	-20.92	-30.5	-49.66	-55.61	-51.74
-7.1	-16.25	-14.94	-17.06	-3.51	-20.34	-28.46	-47.62	-55.68	-52.12
-7	-14.22	-14.8	-16.47	-3.27	-19.72	-27.55	-46.16	-54.17	-52.37
-6.9	-12.67	-14.75	-15.98	-3.22	-19.08	-26.34	-45.15	-51.89	-52.23
-6.8	-11.3	-14.79	-15.62	-3.46	-18.43	-25.02	-44.36	-49.63	-51.65
-6.7	-10.44	-14.9	-15.28	-3.73	-17.96	-23.8	-43.99	-47.75	-50.93
-6.6	-9.68	-15.02	-15.1	-4.42	-17.66	-22.62	-43.72	-46.28	-49.71
-6.5	-9.26	-15.28	-14.91	-5.25	-17.42	-21.71	-43.77	-45.34	-48.49
-6.4	-9.02	-15.58	-14.79	-6.3	-17.28	-20.95	-44	-44.69	-47.43
-6.3	-9.01	-15.89	-14.75	-8.05	-17.58	-20.35	-44.51	-44.36	-46.56
-6.2	-9.26	-16.23	-14.75	-9.91	-17.97	-19.85	-45.36	-44.37	-45.86
-6.1	-9.74	-16.62	-14.82	-12.11	-18.48	-19.53	-46.52	-44.7	-45.36
-6	-10.54	-17.02	-14.98	-14.35	-19.31	-19.44	-48.21	-45.3	-45.08
-5.9	-11.83	-17.25	-15.19	-16.38	-20.46	-19.52	-50.78	-46.55	-44.97
-5.8	-13.52	-17.32	-15.6	-14.49	-21.65	-19.84	-54.26	-48.31	-45.29
-5.7	-15.95	-17.25	-16.1	-12.03	-23.04	-20.29	-58.34	-50.89	-45.77
-5.6	-18.65	-16.88	-16.72	-9.8	-23.55	-20.82	-60.91	-54.13	-46.6
-5.5	-20.15	-16.2	-17.47	-8.18	-23.39	-21.35	-59.55	-57.13	-47.85
-5.4	-18.69	-15.41	-18.31	-6.67	-22.83	-22.02	-53.63	-58.44	-49.41
-5.3	-16.53	-14.51	-19.28	-5.84	-22.05	-22.23	-48.96	-57.02	-52.2
-5.2	-14.11	-13.63	-20.22	-5.28	-21.07	-21.67	-46.81	-53.09	-56.17
-5.1	-11.72	-12.77	-20.83	-4.92	-20.05	-20.78	-45.14	-49.75	-59.48
-5	-9.92	-12.02	-20.81	-5.19	-19.08	-19.64	-43.97	-47.41	-60.17

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-4.9	-8.67	-11.43	-20.21	-5.54	-18.81	-18.39	-43.21	-45.99	-58.26
-4.8	-7.67	-10.97	-19.21	-6.46	-19	-17.1	-42.68	-45.14	-55.11
-4.7	-7.06	-10.59	-17.93	-7.97	-19.1	-16.23	-42.49	-44.48	-52.22
-4.6	-6.7	-10.51	-16.57	-9.63	-19.45	-15.36	-42.55	-44.32	-49.83
-4.5	-6.67	-10.63	-15.57	-15.97	-20.35	-14.65	-42.97	-44.54	-48.69
-4.4	-6.95	-10.9	-14.61	-21.77	-20.51	-14.3	-43.73	-44.98	-47.93
-4.3	-7.55	-11.46	-13.76	-22.79	-19.3	-13.97	-44.84	-45.86	-47.57
-4.2	-8.55	-12.4	-13.06	-15.92	-17.1	-13.87	-46.34	-47.34	-47.58
-4.1	-10.09	-13.64	-12.45	-9.35	-14.5	-13.87	-48.14	-49.49	-47.87
-4	-12.32	-15.15	-11.9	-5.84	-12.52	-13.89	-49.72	-52.5	-48.5
-3.9	-16.97	-17.01	-11.5	-3.3	-10.64	-14.17	-49.84	-56.18	-49.62
-3.8	-21.24	-18.83	-11.12	-1.17	-8.83	-14.49	-49.27	-57.03	-50.53
-3.7	-20.89	-19.28	-10.82	0.14	-7.57	-14.79	-47.53	-54.97	-51.07
-3.6	-17.37	-18.25	-10.55	1.4	-6.43	-15.04	-45.25	-51.53	-51.22
-3.5	-13.52	-16.25	-10.31	2.33	-5.44	-15.32	-43.25	-48.2	-50.64
-3.4	-10.42	-13.98	-10.16	3.03	-4.86	-15.74	-41.81	-45.56	-48.88
-3.3	-7.74	-12.55	-10.1	3.7	-4.44	-16.37	-40.53	-43.77	-47.34
-3.2	-6.33	-11.44	-10.14	3.93	-4.11	-17.21	-39.79	-42.38	-46.01
-3.1	-5.28	-10.92	-10.22	4.1	-4.23	-19.67	-39.27	-41.44	-44.83
-3	-4.67	-11.01	-10.28	4.05	-4.71	-22.91	-39.02	-40.8	-43.87
-2.9	-4.45	-11.58	-10.21	3.72	-5.33	-24.73	-39.04	-40.38	-43.24
-2.8	-4.55	-12.94	-9.93	3.35	-6.52	-22.4	-39.29	-40.23	-42.95
-2.7	-5.11	-16.13	-9.33	2.35	-8.64	-18.27	-39.9	-40.54	-42.83
-2.6	-6.16	-18.62	-7.68	1.23	-10.77	-13.29	-40.94	-41.09	-43.44
-2.5	-7.06	-18.09	-5.79	-0.31	-12.46	-8.88	-42.89	-42.21	-44.24
-2.4	-7.4	-13.45	-3.81	-2.65	-9.27	-5.21	-46.38	-44.53	-46.49
-2.3	-6.95	-7.82	-1.79	-4.99	-5.8	-2.74	-50.44	-47.94	-50.48
-2.2	-5.21	-3.37	0.19	-4.29	-2.21	-0.34	-52.47	-51.06	-54.71
-2.1	-2.03	-0.25	2.1	-2.14	0.56	1.83	-50.17	-51.82	-56.16
-2	1.03	2.14	3.91	0.31	2.91	3.67	-45.22	-48.97	-51.54
-1.9	3.31	4.39	5.51	3	5.17	5.39	-41.37	-44.35	-44.9
-1.8	5.51	6.18	6.9	5.57	6.95	6.82	-37.96	-40.41	-40.98
-1.7	7.34	7.75	8.24	7.65	8.45	8.16	-35.48	-37.39	-37.88
-1.6	8.93	9.22	9.48	9.33	9.88	9.49	-33.54	-34.97	-35.37
-1.5	10.42	10.56	10.6	10.98	11.14	10.59	-31.79	-32.91	-33.47
-1.4	11.67	11.71	11.64	12.14	12.23	11.65	-30.38	-31.29	-31.78
-1.3	12.83	12.78	12.54	13.3	13.2	12.59	-29.14	-29.91	-30.45
-1.2	13.8	13.71	13.38	14.26	14.1	13.42	-28.13	-28.73	-29.28

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
-1.1	14.69	14.55	14.17	15.06	14.88	14.26	-27.21	-27.71	-28.23
-1	15.49	15.32	14.88	15.86	15.58	14.97	-26.4	-26.82	-27.34
-0.9	16.2	15.99	15.51	16.46	16.23	15.58	-25.68	-26.05	-26.58
-0.8	16.82	16.57	16.07	17.05	16.75	16.15	-25.05	-25.4	-25.91
-0.7	17.38	17.1	16.53	17.58	17.27	16.58	-24.49	-24.82	-25.39
-0.6	17.8	17.54	17	17.98	17.69	17.01	-24.08	-24.37	-24.88
-0.5	18.18	17.89	17.36	18.34	17.99	17.4	-23.71	-23.99	-24.51
-0.4	18.47	18.21	17.63	18.58	18.28	17.66	-23.41	-23.66	-24.22
-0.3	18.72	18.45	17.85	18.79	18.53	17.89	-23.15	-23.42	-24
-0.2	18.92	18.6	18.01	18.96	18.64	18.03	-22.95	-23.25	-23.83
-0.1	19.03	18.73	18.13	19.04	18.73	18.13	-22.82	-23.12	-23.71
0	19.11	18.82	18.23	19.11	18.82	18.23	-22.72	-23.01	-23.61
0.1	19.04	18.74	18.15	19.04	18.75	18.16	-22.76	-23.06	-23.65
0.2	18.96	18.66	18.08	18.93	18.63	18.06	-22.8	-23.1	-23.69
0.3	18.79	18.53	17.92	18.79	18.51	17.9	-22.92	-23.18	-23.78
0.4	18.57	18.3	17.71	18.54	18.29	17.66	-23.09	-23.33	-23.91
0.5	18.31	18	17.46	18.29	17.96	17.42	-23.3	-23.54	-24.06
0.6	17.96	17.68	17.07	17.94	17.62	17.04	-23.59	-23.76	-24.3
0.7	17.52	17.25	16.63	17.49	17.24	16.57	-23.94	-24.06	-24.57
0.8	16.98	16.71	16.13	16.99	16.64	16.09	-24.39	-24.43	-24.86
0.9	16.38	16.15	15.56	16.35	16.03	15.45	-24.89	-24.8	-25.18
1	15.71	15.48	14.91	15.7	15.39	14.8	-25.46	-25.26	-25.54
1.1	14.95	14.7	14.14	14.93	14.54	14.03	-26.11	-25.79	-25.97
1.2	14.09	13.84	13.25	14.05	13.6	13.06	-26.85	-26.35	-26.46
1.3	13.1	12.9	12.35	13.13	12.62	12.07	-27.69	-26.96	-26.94
1.4	11.89	11.82	11.24	11.84	11.37	10.87	-28.72	-27.67	-27.5
1.5	10.6	10.6	10.02	10.5	9.89	9.56	-29.81	-28.41	-28.11
1.6	9.07	9.19	8.59	8.9	8.3	8.08	-31.1	-29.28	-28.81
1.7	7.41	7.64	6.96	6.95	6.18	6.12	-32.49	-30.22	-29.59
1.8	5.47	5.93	5.15	4.89	3.59	4.05	-34.06	-31.21	-30.4
1.9	3.06	4	3.11	1.54	0.17	1.51	-35.94	-32.28	-31.26
2	0.55	1.83	0.58	-2.55	-4.12	-1.8	-37.85	-33.53	-32.28
2.1	-2.29	-0.31	-1.98	-5.85	-8.4	-6.71	-39.98	-34.75	-33.3
2.2	-4.83	-2.03	-4.91	-6.25	-10.13	-11.53	-42.13	-36.1	-34.55
2.3	-5.26	-3.09	-7.31	-5.05	-6.52	-12.6	-42.98	-37.55	-35.8
2.4	-4.14	-3.53	-8.15	-2.2	-2.3	-10.14	-42.89	-38.94	-37.1
2.5	-2.56	-3.4	-7.42	0.45	0.66	-7.1	-42.38	-40.28	-38.48
2.6	-1.13	-2.8	-6.09	2.37	2.28	-4.66	-41.55	-41.62	-39.77

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
2.7	0.06	-2.22	-5.04	3.33	3.24	-3.05	-40.41	-42.51	-40.74
2.8	0.82	-1.8	-4.37	4.2	4.04	-2.3	-39.51	-42.79	-41.24
2.9	1.28	-1.79	-3.98	4.61	4.48	-1.73	-38.81	-43.02	-41.59
3	1.55	-2	-4	4.85	4.58	-1.68	-38.24	-42.94	-41.35
3.1	1.62	-2.38	-4.33	4.95	4.6	-1.86	-37.81	-42.5	-40.86
3.2	1.49	-3.05	-4.92	4.72	4.5	-2.15	-37.56	-41.97	-40.43
3.3	1.21	-4.12	-5.81	4.39	4	-2.88	-37.42	-41.75	-39.98
3.4	0.72	-5.41	-6.98	3.74	3.44	-3.62	-37.43	-41.4	-39.63
3.5	0.19	-7.16	-8.61	2.96	2.83	-4.55	-37.4	-41.08	-39.37
3.6	-0.48	-9.64	-10.69	2.04	1.74	-5.79	-37.47	-40.96	-39.21
3.7	-1.2	-12.88	-13.18	0.68	0.47	-7.02	-37.53	-40.92	-39.17
3.8	-2	-17.3	-15.31	-0.75	-0.91	-8.39	-37.62	-40.91	-39.25
3.9	-2.94	-22.06	-16.53	-2.91	-2.98	-9.74	-37.83	-40.98	-39.4
4	-3.92	-23.64	-17.15	-5.58	-5.82	-10.99	-38.02	-41.15	-39.6
4.1	-4.9	-19.68	-16.12	-8.37	-9.1	-11.91	-38.29	-41.49	-39.92
4.2	-5.84	-15.16	-15	-10.47	-14.18	-12.89	-38.51	-41.73	-40.26
4.3	-6.76	-12.41	-13.97	-12.06	-18.62	-13.58	-38.76	-42.02	-40.61
4.4	-7.66	-11.05	-13.28	-11.09	-18.81	-13.97	-39.01	-42.44	-40.99
4.5	-8.59	-10.34	-12.89	-8.46	-14.15	-14.5	-39.32	-42.85	-41.36
4.6	-9.63	-9.89	-12.73	-5.99	-9.58	-15.5	-39.75	-43.09	-41.71
4.7	-10.72	-9.88	-13.04	-4.8	-7.28	-16.71	-40.22	-43.36	-42.09
4.8	-12.03	-10.44	-13.44	-3.71	-5.75	-18.13	-40.72	-43.68	-42.32
4.9	-13.66	-11.12	-14.04	-3.13	-4.89	-19.83	-41.3	-43.83	-42.62
5	-15.7	-12.26	-14.65	-2.89	-4.32	-21.96	-41.88	-43.93	-42.93
5.1	-18.71	-14	-15.12	-2.74	-4.11	-24.55	-42.53	-44.08	-43.21
5.2	-22.61	-16.23	-15.31	-3.2	-4.29	-23.43	-43.28	-44.26	-43.5
5.3	-25.94	-18.74	-15.15	-3.72	-4.58	-20.33	-44.03	-44.37	-43.82
5.4	-25.22	-21.53	-14.72	-4.59	-5.24	-17.95	-44.69	-44.57	-44.04
5.5	-23.28	-22.58	-14.13	-5.77	-6.48	-16.18	-45.37	-44.91	-44.53
5.6	-20.53	-21.57	-13.49	-7.01	-7.9	-14.47	-45.6	-45.23	-44.92
5.7	-17.72	-19.53	-12.96	-8.43	-9.83	-13.76	-45.79	-45.63	-45.32
5.8	-15.59	-17.28	-12.56	-9.81	-13.56	-13.13	-45.86	-46.13	-45.74
5.9	-14.34	-15.33	-12.35	-10.05	-18.15	-12.81	-45.64	-46.71	-46.17
6	-13.38	-13.94	-12.41	-9.22	-23.59	-12.85	-45.4	-47.38	-46.59
6.1	-12.88	-13.03	-12.76	-8.2	-19.61	-12.97	-45.14	-48.14	-47
6.2	-12.62	-12.55	-13.18	-6.82	-15.38	-13.57	-44.84	-48.89	-47.32
6.3	-12.63	-12.38	-14.08	-5.48	-11.24	-14.39	-44.65	-49.94	-47.68
6.4	-12.87	-12.39	-15.31	-4.43	-8.96	-15.36	-44.57	-51.07	-48.04

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
6.5	-13.34	-12.64	-17.05	-3.74	-7.36	-17.15	-44.6	-52.05	-48.39
6.6	-14.06	-13.2	-19.5	-3.1	-5.93	-18.99	-44.79	-52.8	-48.75
6.7	-15.06	-13.94	-22.5	-2.97	-5.04	-21.45	-45.16	-53.4	-49.12
6.8	-16.22	-14.79	-25.33	-2.92	-4.53	-24.25	-45.65	-53.38	-49.47
6.9	-17.67	-15.98	-25.63	-3.16	-4.12	-26.56	-46.47	-52.79	-50.16
7	-19.11	-17.24	-24.65	-3.71	-3.98	-25.5	-47.39	-51.96	-50.87
7.1	-20.14	-18.51	-22.55	-4.38	-4.09	-23.63	-48.69	-51.09	-51.95
7.2	-20.61	-19.49	-20	-5.82	-4.36	-21.92	-50.37	-50.28	-53.3
7.3	-20.54	-19.88	-17.84	-7.46	-4.9	-20.56	-52.09	-49.59	-54.95
7.4	-19.4	-19.86	-16.46	-10.25	-5.69	-19.48	-54.21	-49.09	-57.43
7.5	-18.25	-19.39	-15.72	-14.88	-6.66	-19.05	-56.57	-48.72	-60.46
7.6	-17.3	-18.75	-15.15	-20.22	-8.01	-19.19	-56.27	-48.57	-62.56
7.7	-16.51	-18.07	-15.03	-19.01	-9.89	-19.5	-54.94	-48.61	-62.13
7.8	-15.95	-17.58	-15.12	-15.66	-11.99	-20.54	-53.37	-48.76	-61.04
7.9	-15.67	-17.33	-15.5	-11.97	-14.87	-22.12	-51.78	-49	-59.89
8	-15.58	-17.31	-16.27	-8.89	-18.37	-24.55	-50.2	-49.37	-58.37
8.1	-15.75	-17.46	-17.2	-6.15	-20.98	-28.53	-49.04	-49.87	-56.9
8.2	-16.19	-17.98	-18.4	-4.7	-21.38	-32.54	-48.35	-50.34	-55.99
8.3	-16.85	-18.7	-19.98	-3.46	-17.84	-34	-47.85	-50.77	-55.67
8.4	-17.83	-19.77	-21.62	-2.61	-14.91	-29.43	-47.68	-51.22	-55.63
8.5	-19.1	-21.2	-22.48	-2.13	-12.72	-23.88	-47.78	-51.65	-56.09
8.6	-20.76	-22.89	-22.56	-1.69	-11.76	-20.85	-48.16	-52.03	-56.96
8.7	-23.16	-24.83	-22.24	-1.63	-11.02	-18.83	-49.07	-52.31	-58.04
8.8	-25.68	-27.29	-21.16	-1.64	-10.5	-17.09	-50.12	-52.59	-59.53
8.9	-28.12	-29.03	-19.82	-1.82	-10.64	-16.27	-52.27	-52.95	-61.29
9	-30.25	-30.06	-18.65	-2.31	-11	-15.64	-54.76	-53.32	-62.91
9.1	-29.76	-29.4	-17.85	-2.86	-11.51	-15.21	-57.63	-53.81	-63.93
9.2	-27.12	-27.78	-17.26	-3.87	-12.49	-15.14	-60.55	-54.46	-64.11
9.3	-24.38	-26.15	-16.9	-4.98	-13.97	-15.14	-61.97	-55.24	-63.36
9.4	-22.45	-24.84	-16.93	-6.38	-15.62	-15.6	-59.08	-56.16	-61.86
9.5	-20.94	-24.22	-17.13	-8.25	-17.32	-16.31	-54.9	-57.3	-60.41
9.6	-19.76	-24	-17.64	-10.12	-18.6	-17.08	-51.98	-58.85	-59.27
9.7	-18.84	-24.09	-18.55	-12.07	-18.87	-18.51	-49.98	-59.94	-58.44
9.8	-18.05	-24.61	-19.66	-13.76	-17.88	-20.06	-48.49	-60.38	-57.8
9.9	-17.36	-25.54	-21.49	-14.2	-16.31	-22.1	-47.33	-59.91	-57.53
10	-16.76	-26.93	-24.06	-12.42	-14.63	-24.6	-46.5	-58.56	-57.57
15	-20.45	-24.82	-37.99	-17.38	-12.52	-26.85	-53.34	-55.19	-58.62
20	-21.7	-32.81	-27.41	-17.66	-23.63	-29.69	-49.15	-56.71	-51.46

FCC tabular data for target scan=10deg, f=14.5 GHz:									
angle	GSO (co) skew=10°	GSO (co) skew=30°	GSO (co) skew=50°	elev (co) skew=10°	elev (co) skew=30°	elev (co) skew=50°	GSO (x) skew=10°	GSO (x) skew=30°	GSO (x) skew=50°
25	-21.88	-41.49	-31.73	-28.08	-23.65	-28.95	-46.64	-55.81	-55
30	-21.65	-35.94	-36.52	-25.48	-13.33	-28.16	-58.94	-52.7	-56.71
35	-23.25	-47.63	-32.76	-30.63	-13.6	-42.9	-43.17	-55.61	-45.4
40	-25.49	-37.28	-32.21	-39.31	-40.73	-30.54	-46.13	-46.69	-47.08
45	-27.58	-41.55	-42.28	-43.56	-37.72	-31.91	-45.52	-41.34	-42.9
50	-26.7	-36.24	-38.65	-34.08	-37.3	-31.53	-47	-55.72	-48.11
55	-33.74	-38.58	-34.23	-40.37	-43.79	-36.66	-40.53	-46.05	-47.93
60	-37.86	-25.55	-45.58	-36.83	-40.64	-34.82	-53.25	-48.28	-60.65
65	-33.98	-40.83	-43.45	-31.59	-38.08	-36.65	-43.83	-47.33	-49.79
70	-34.13	-43.12	-44.48	-49.34	-29.54	-32.96	-59.16	-51.36	-44.5
75	-44.7	-39.37	-42.6	-50.71	-45.3	-28.74	-58.46	-52.76	-53.82
80	-44.68		-52.6	-33.67	-30.87	-29.1	-55.93		-60.76
85	-54.85			-34.07	-35.02	-35.79	-64.28		
90				-45.75	-47.68	-52.74			
95				-48.36					
100									
105									
110									
115									
120									
125									
130									
135									
140									
145									
150									
155									
160									
165									
170									
175									
180									