



City of Chicago
Richard M. Daley, Mayor

Office of Emergency Management
and Communications

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19 April 2007

Scott Kotler
Chief, Systems Analysis Branch
Satellite Division
International Bureau
Federal Communications Commission

Mr. Kotler:

Please include the attached spreadsheet with FCC file number SES-LIC-20070404-00445 in reference to the 2-degree compliance demonstration spreadsheet.

Thank you for your prompt consideration,

James G. Argiropoulos
Acting Executive Director
Office of Emergency Management and Communications
City of Chicago

NEIGHBORHOODS



Two Degree Demonstration for Antenna Input of 8.67W, Bandwidth 4 MHz

Routinely Licensed Input power density (dBW/4 kHz) -14 Digital
 Maximum antenna Gain (dBi) @ 14.25 GHz 41.2
 Max EIRP density (dBW/4 kHz) for proposed Earth Station 20.58
 Non-routinely sized antenna input Power density (dBW/4 kHz) -20.62

Value of Theta (degrees)	25.209(a)(1) Co-Pol Gain	Off-Axis EIRP Density under Routine Licensing	Non-Routinely sized Antenna Off-Axis Gain (dBi)	Max off-axis EIRP Density of non-routinely sized antenna (dBW/4kHz)	Margin
1.25	26.6	12.6	32.7	12.08	0.50
1.3	26.2	12.2	32.2	11.58	0.57
1.4	25.3	11.3	29.7	9.08	2.27
1.5	24.6	10.6	28.7	8.08	2.52
1.6	23.9	9.9	25.2	4.58	5.32
1.7	23.2	9.2	23.7	3.08	6.16
1.8	22.6	8.6	22.6	1.98	6.64
1.9	22.0	8.0	22	1.38	6.65
2	21.5	7.5	21.4	0.78	6.69
2.1	20.9	6.9	20.9	0.28	6.66
2.2	20.4	6.4	20.4	-0.22	6.66
2.3	20.0	6.0	19.9	-0.72	6.68
2.4	19.5	5.5	19.5	-1.12	6.61
2.5	19.1	5.1	19.1	-1.52	6.57
2.6	18.6	4.6	18.6	-2.02	6.65
2.7	18.2	4.2	18.2	-2.42	6.64
2.8	17.8	3.8	17.8	-2.82	6.64
2.9	17.4	3.4	17.4	-3.22	6.66
3	17.1	3.1	17.1	-3.52	6.59
3.5	15.4	1.4	15.4	-5.22	6.62
4	13.9	0.1	13.9	-6.72	6.67
4.5	12.7	-1.3	12.7	-7.92	6.59
5	11.5	-2.5	11.5	-9.12	6.65
5.5	10.5	-3.5	10.5	-10.12	6.61
6	9.5	-4.5	9.5	-11.12	6.67
6.5	8.7	-5.3	8.7	-11.92	6.60
7	7.9	-6.1	7.8	-12.82	6.69
7.1	8.0	-6.0	7.7	-12.92	6.92
8	6.0	-6.0	6.4	-14.22	8.22
9.2	8.0	-6.0	4.9	-15.72	9.72
10	7.0	-7.0	4	-16.62	9.62
11	6.0	-8.0	3	-17.62	9.59
12	5.0	-9.0	2	-18.62	9.64
15	2.6	-11.4	-0.4	-21.02	9.62
20	0.5	-14.5	-3.5	-24.12	9.59
25	2.9	-16.9	-3.5	-24.12	7.17
30	4.9	-18.9	-4.9	-25.52	6.59
35	6.6	-20.6	-6.6	-27.22	6.62
40	8.1	-22.1	-8	-28.62	6.57
48	10.0	-24.0	-10	-30.62	6.59

Two Degree Demonstration for Antenna Input of 8.67W, Bandwidth 4 MHz

50	-10.0	-24.0	-10	-30.62	6.62
60	-10.0	-24.0	-10	-30.62	6.62
70	-10.0	-24.0	-10	-30.62	6.62
80	-10.0	-24.0	-10	-30.62	6.62
90	-10.0	-24.0	-10	-30.62	6.62
100	-10.0	-24.0	-10	-30.62	6.62
120	-10.0	-24.0	-10	-30.62	6.62
140	-10.0	-24.0	-10	-30.62	6.62
160	-10.0	-24.0	-10	-30.62	6.62
180	-10.0	-24.0	-10	-30.62	6.62

Minimum Margin 0.50

-----Original Message-----

From: aroush@cityofchicago.org [mailto:aroush@cityofchicago.org]

Sent: Wednesday, April 18, 2007 10:31 AM

To: Scott Kotler

Subject: Fwd: FCC file number SES-LIC-20070404-00445

Scott-

Here is some supplemental information for our license submission that you requested.

Thanks,

Aric

Aric Roush

Assistant Director of Information Services Office of Emergency Management & Communications

(312) 746-9268

>>> "Larry Augsburger" <Larry.Augsburger@morganfranklin.com> 4/18/2007

>>> 9:26 AM >>>

Aric,

The following information should be included in a letter from the OEMC to the FCC (Scott Kotler) along with the attached files. This should resolve Scott Kotler's issues with the license submittal and allow it to proceed.

Please modify the license application file number SES-LIC-20070404-00445 with the following changes:

*

3.7 meter hub antenna: for emission 4M80G1D, the EIRP density per carrier (Item E49 of Schedule B) should be 38.8 dBW/4 kHz and the Maximum EIRP per carrier (Item E48 of Schedule B) should be 69.59 dBW. The Total EIRP for all Carriers (Item E40) should be 69.59 dBW.

*

UCV-1 (1.5 meter antenna), for emission 4M00G1D, the EIRP density per carrier (Item E49 of Schedule B) should be 31.5 dBW/4 kHz and the Maximum EIRP per carrier (Item E48 of Schedule B) should be 61.5 dBW.

Total EIRP for all Carriers (Item E40) should be 61.5 dBW.

*

UCV-2 (0.96 meter antenna) is NOT compliant with 25.209(a) and (b), see attached files for radiation patterns. Also, for emission 4M00G1D, the EIRP density per carrier (Item E49 of

Schedule B) should be 20.58 dBW/4 kHz and the Maximum EIRP per carrier (Item E48 of Schedule B) should be 50.58 dBW. Total EIRP for all Carriers (Item E40) should be 50.58 dBW. Total Input Power at Antenna Flange (Item E38) should be 8.67 Watts.

Regards,

Larry Augsburger
Sr. Systems Analyst

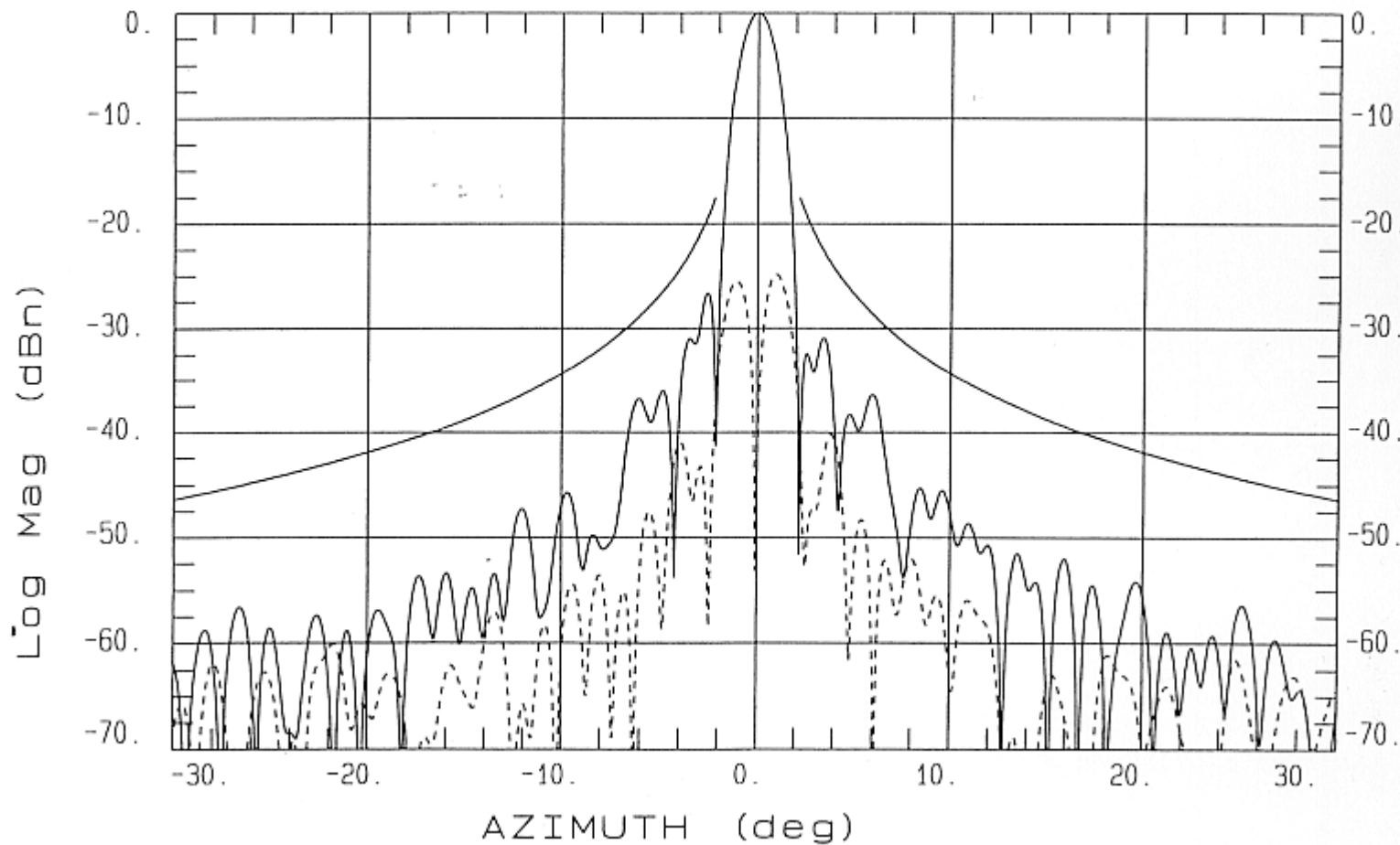
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SURPASSING EXPECTATIONS(tm)

Type 960 96cm Ku-Band Antenna Patterns



14.25 GHz, Vertical

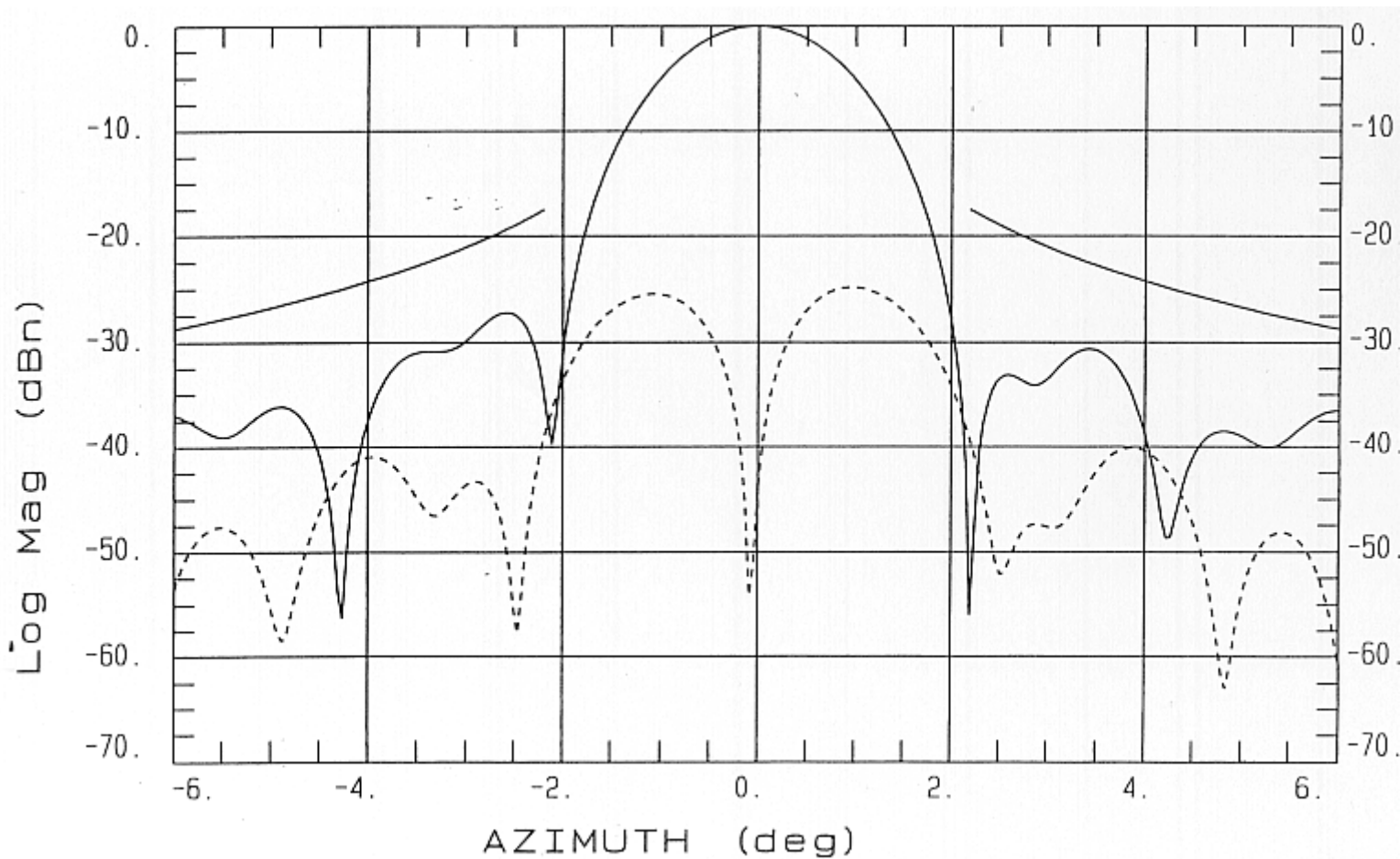


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Type 960 96cm Ku-Band Antenna Patterns



14.25 GHz, Vertical

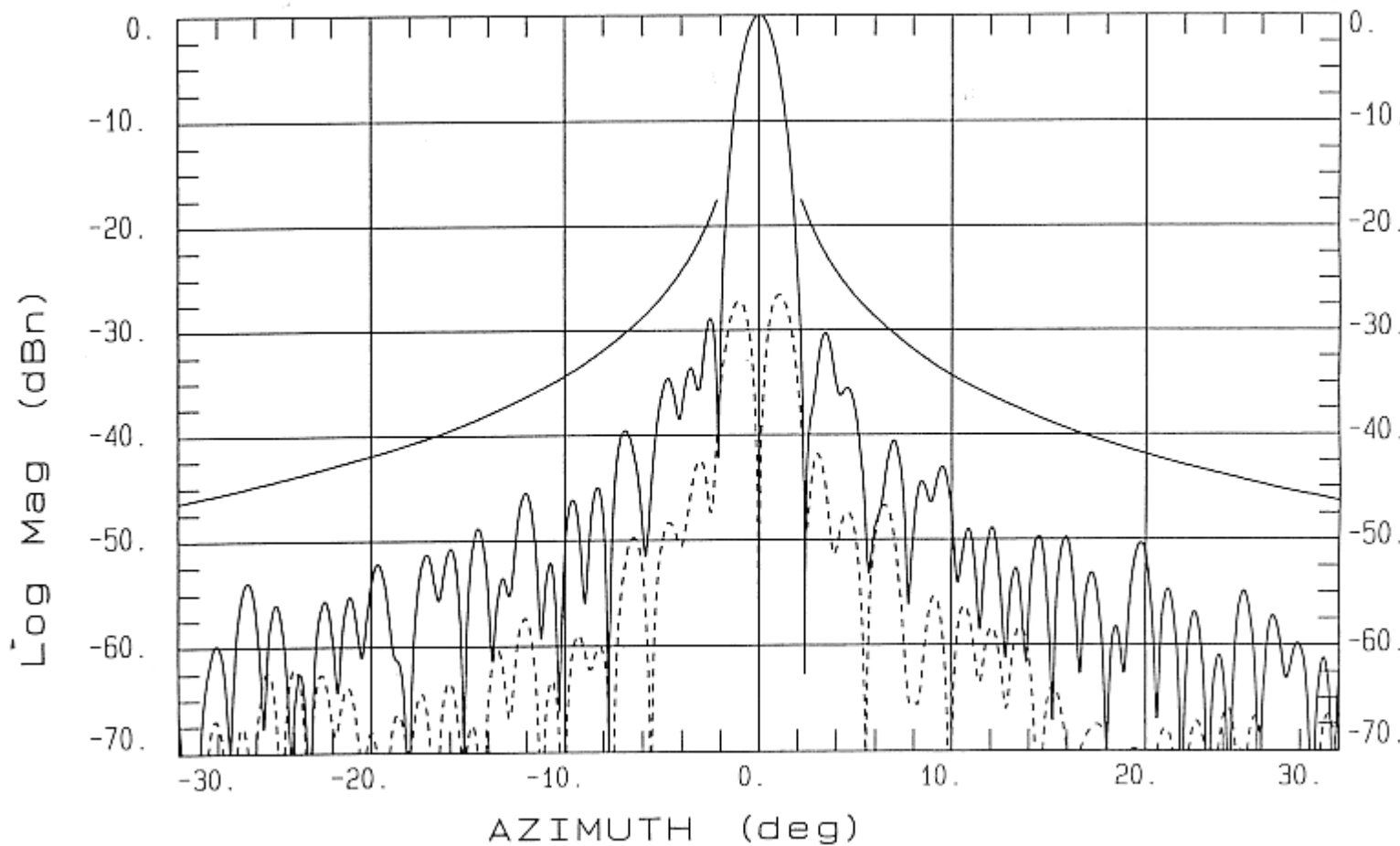


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Type 960 96cm Ku-Band Antenna Patterns



14.25 GHz, Horizontal

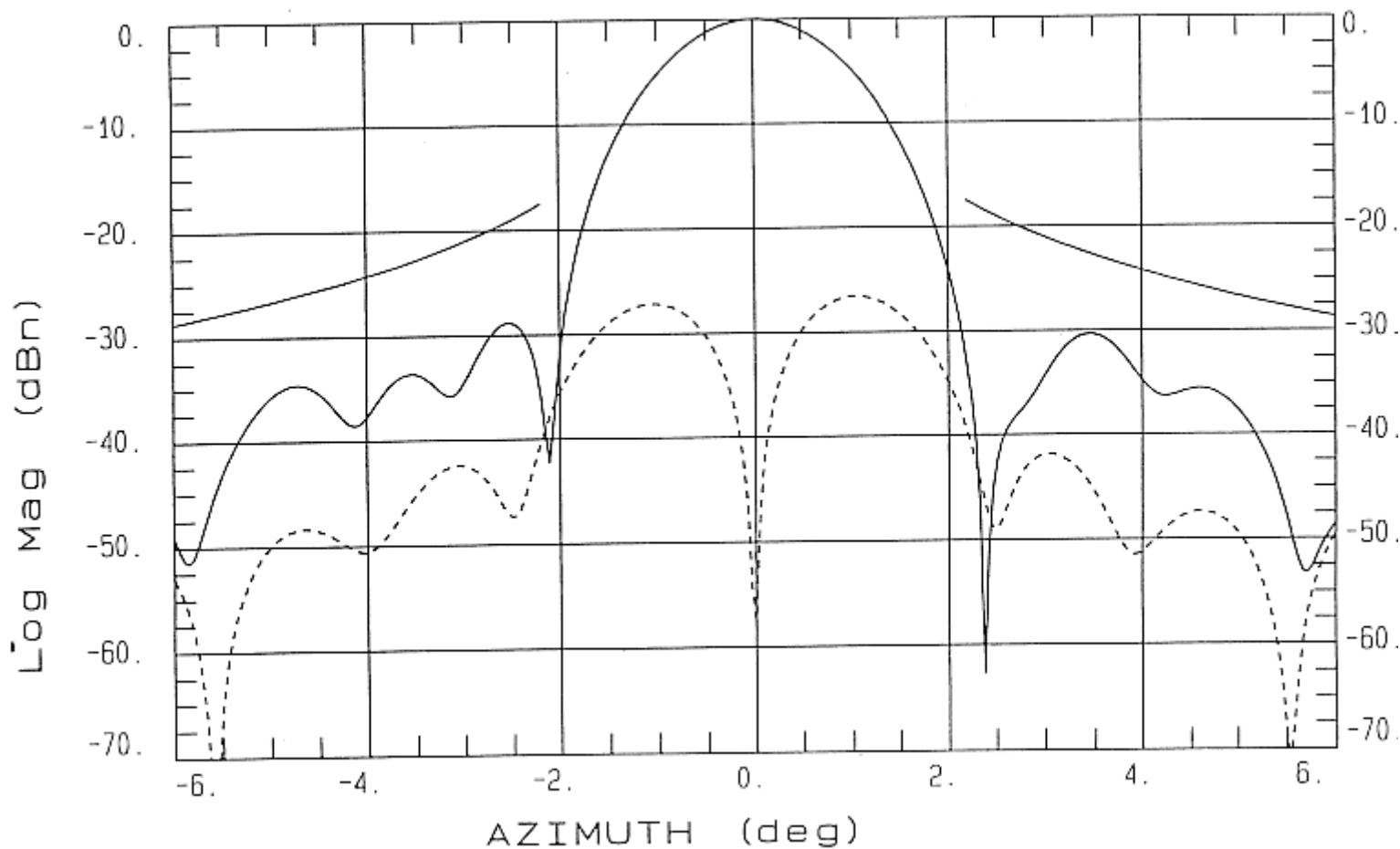


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Type 960 96cm Ku-Band Antenna Patterns



14.25 GHz, Horizontal

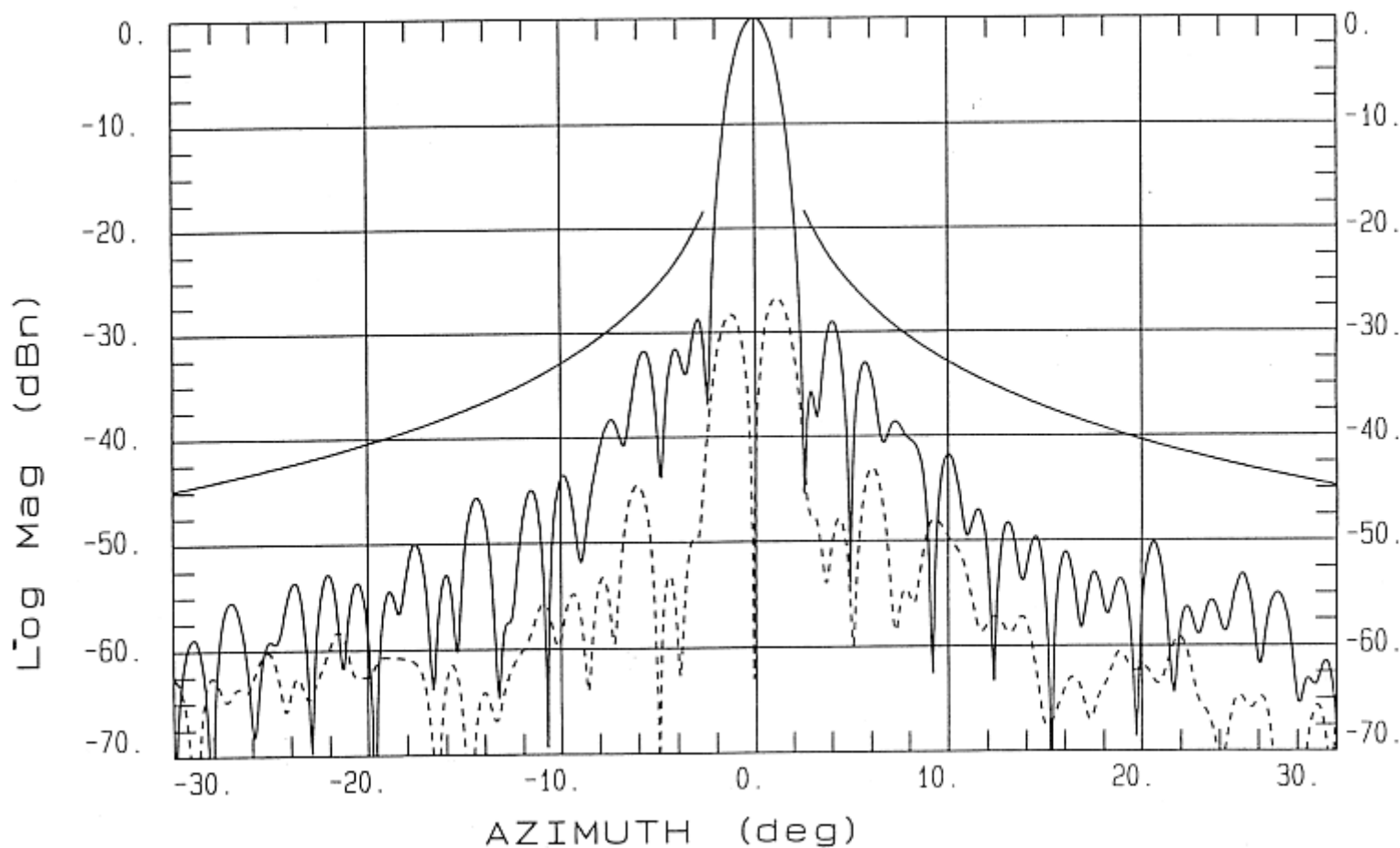


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Type 960 96cm Ku-Band Antenna Patterns



11.95 GHz, Vertical

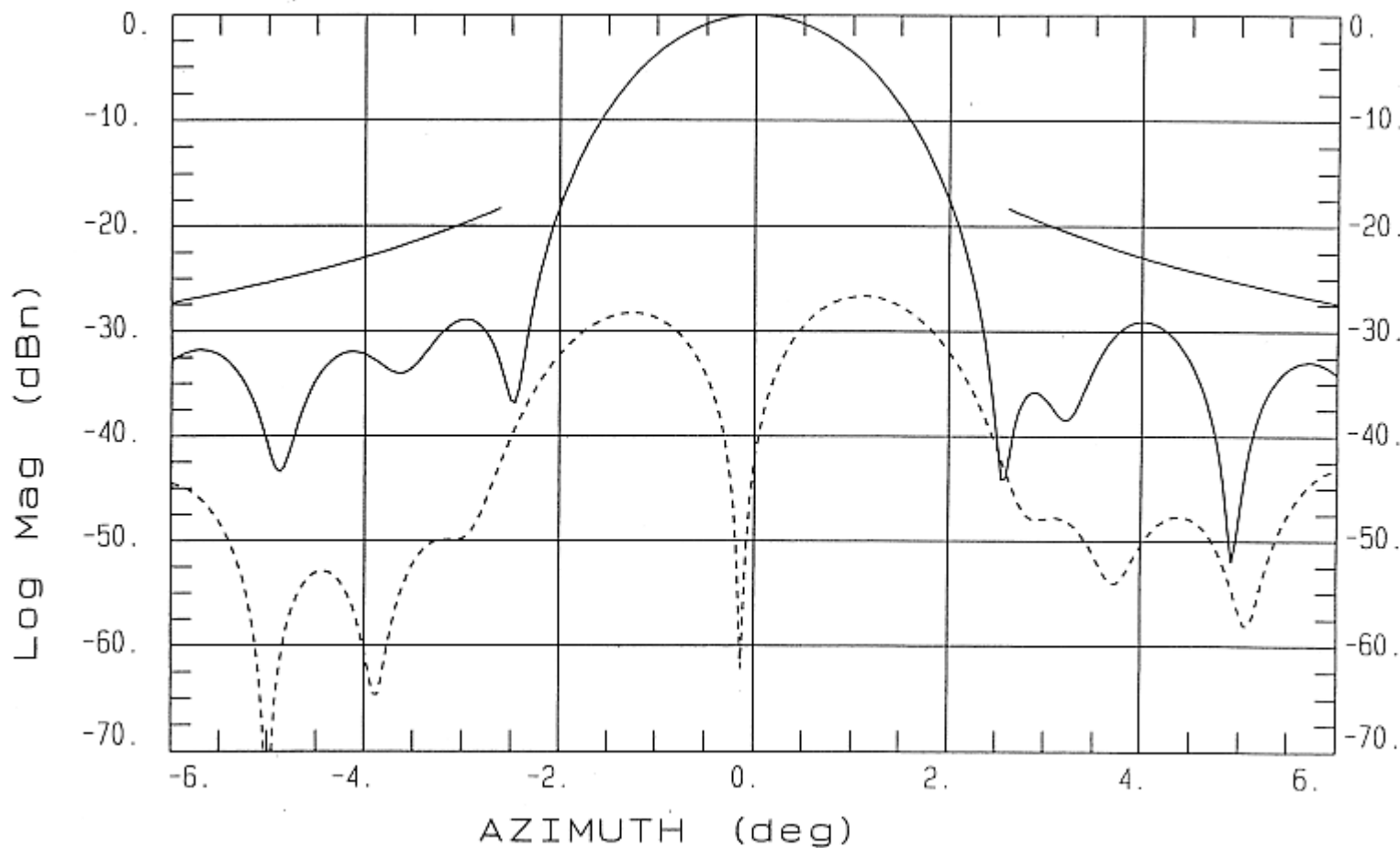


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Type 960 96cm Ku-Band Antenna Patterns



11.95 GHz, Vertical

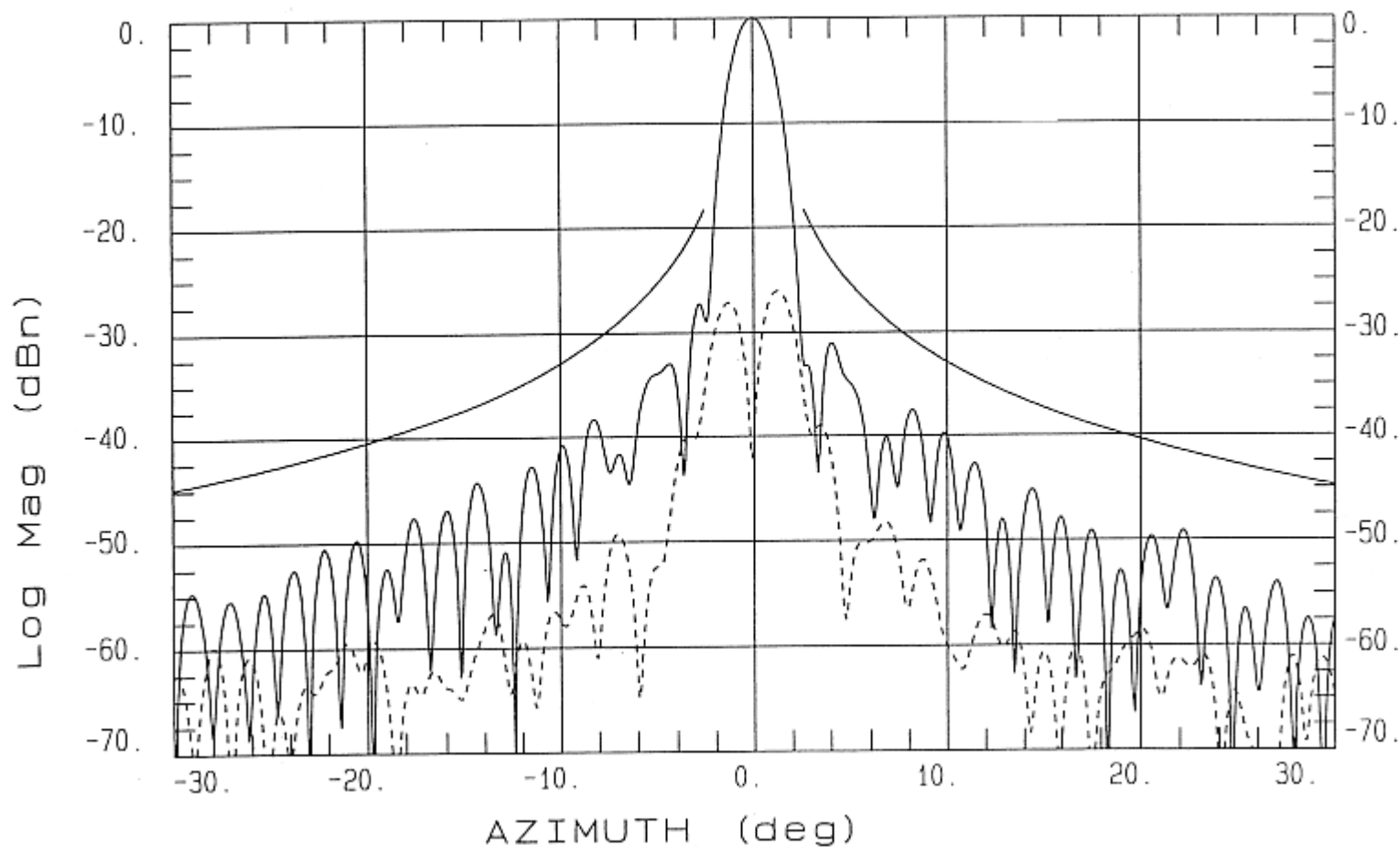


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Type 960 96cm Ku-Band Antenna Patterns



11.95 GHz, Horizontal

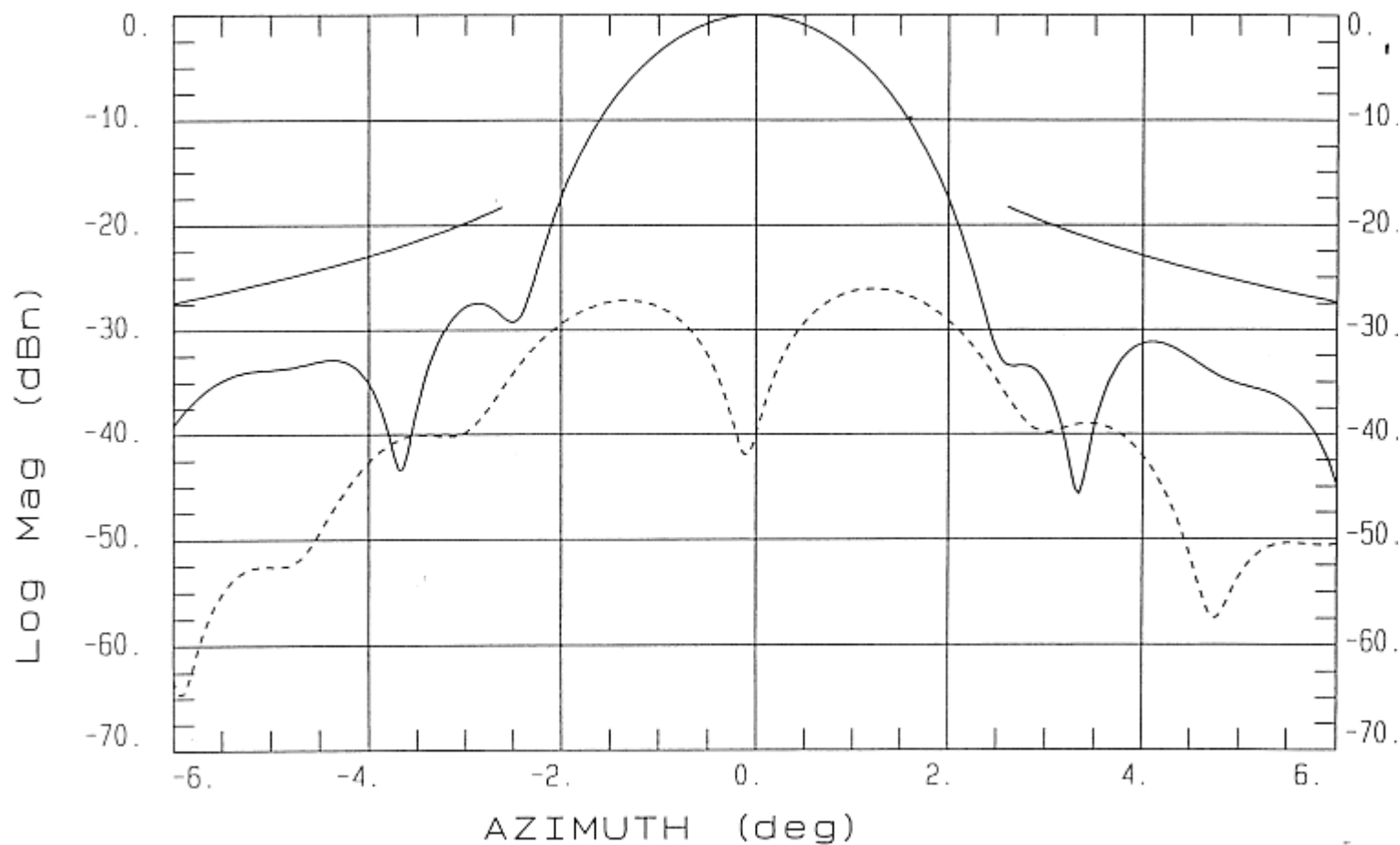


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Type 960 96cm Ku-Band Antenna Patterns



11.95 GHz, Horizontal



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