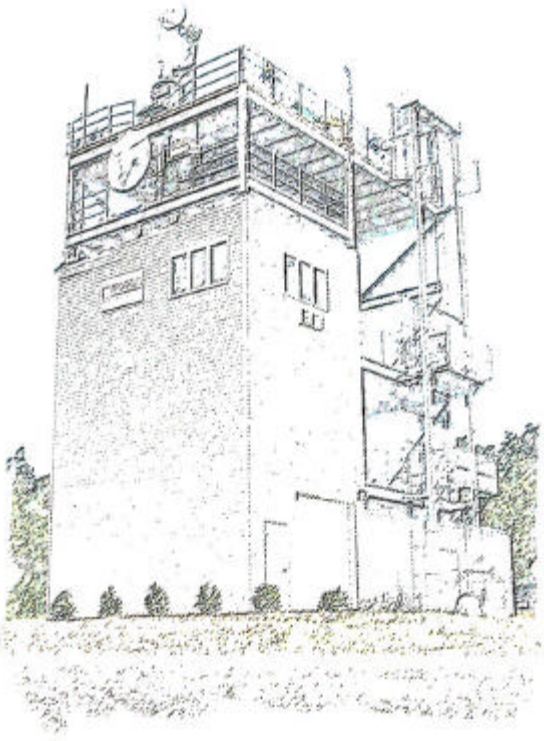
GENERAL DYNAMICS
SATCOM Technologies

Antenna Test Report
Test No. 1776

Project: 3.8M Series 1385 C-Band 800Mhz Linear Polarization Antenna System.



General Dynamics SATCOM Technologies
East Maiden Antenna Test Facility
4488 Lawing Chapel Church Road
Maiden, North Carolina 28650
828-428-1485 / 828-428-1488 fax

Test report prepared by Dwight B. Lutz

General Dynamics SATCOM Technologies

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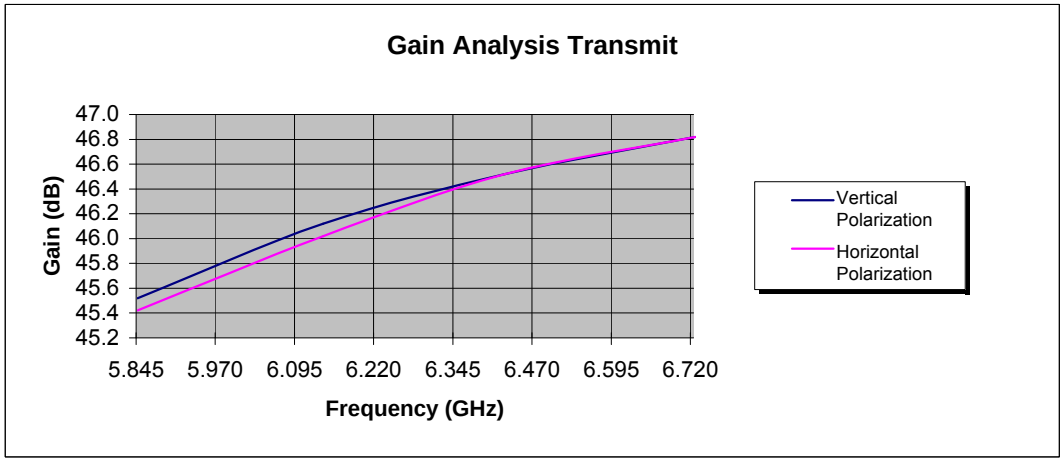
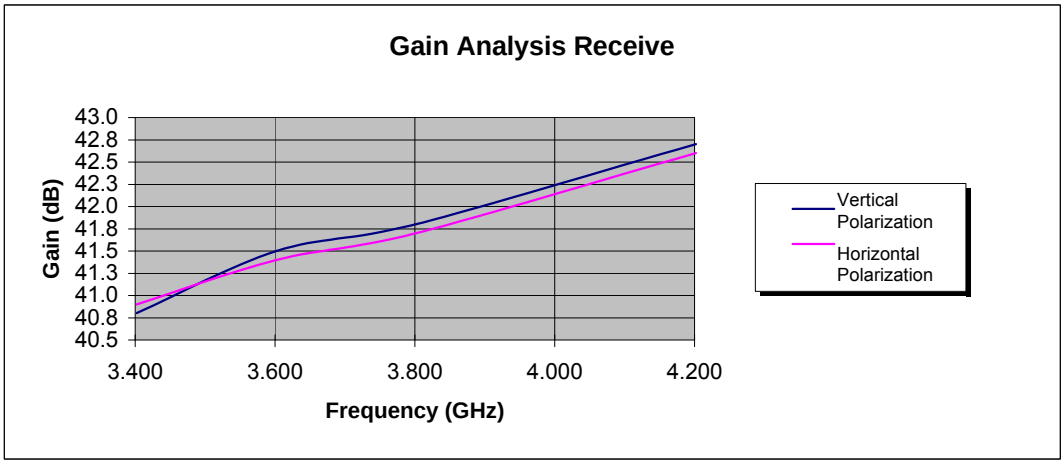
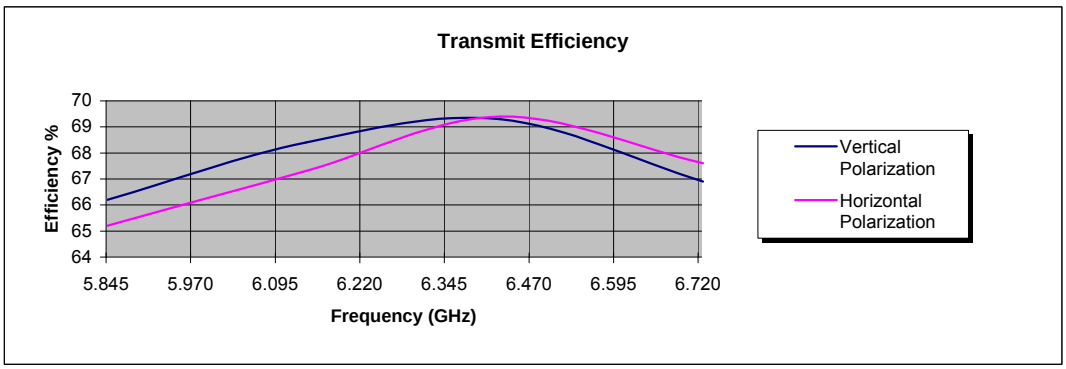
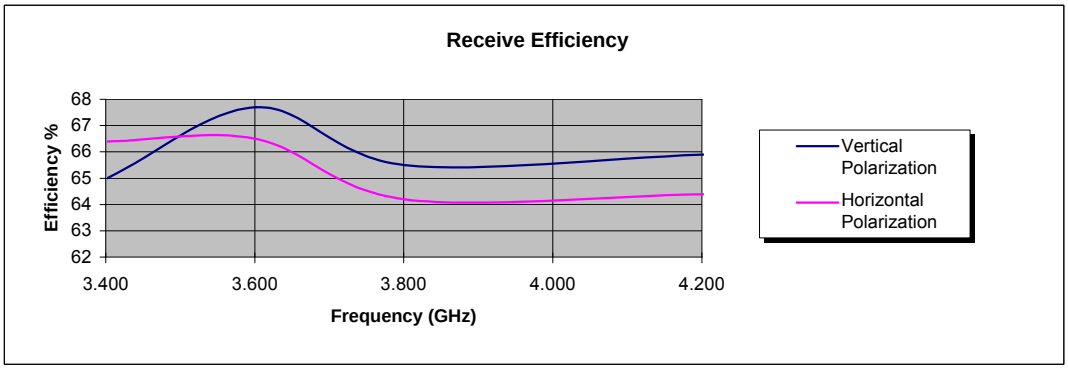
1.0 Antenna Gain and Efficiency

1.1 Vertical Polarization Transmit









2.1 Vertical Polarization Transmit

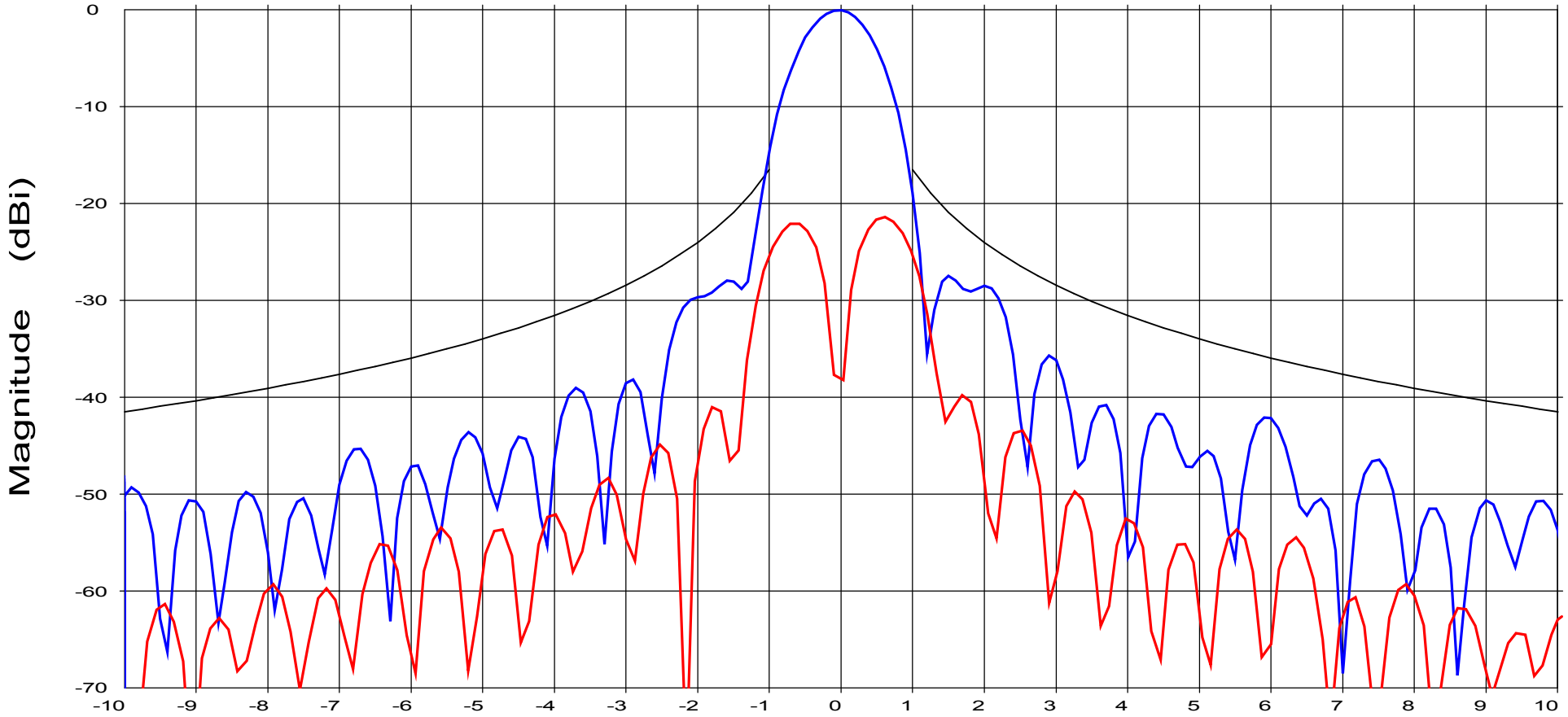
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi	0.94	1.64
1776 15.dat-ant_under_test	1776 15.dat	SGA-70.	ch1	dBi		

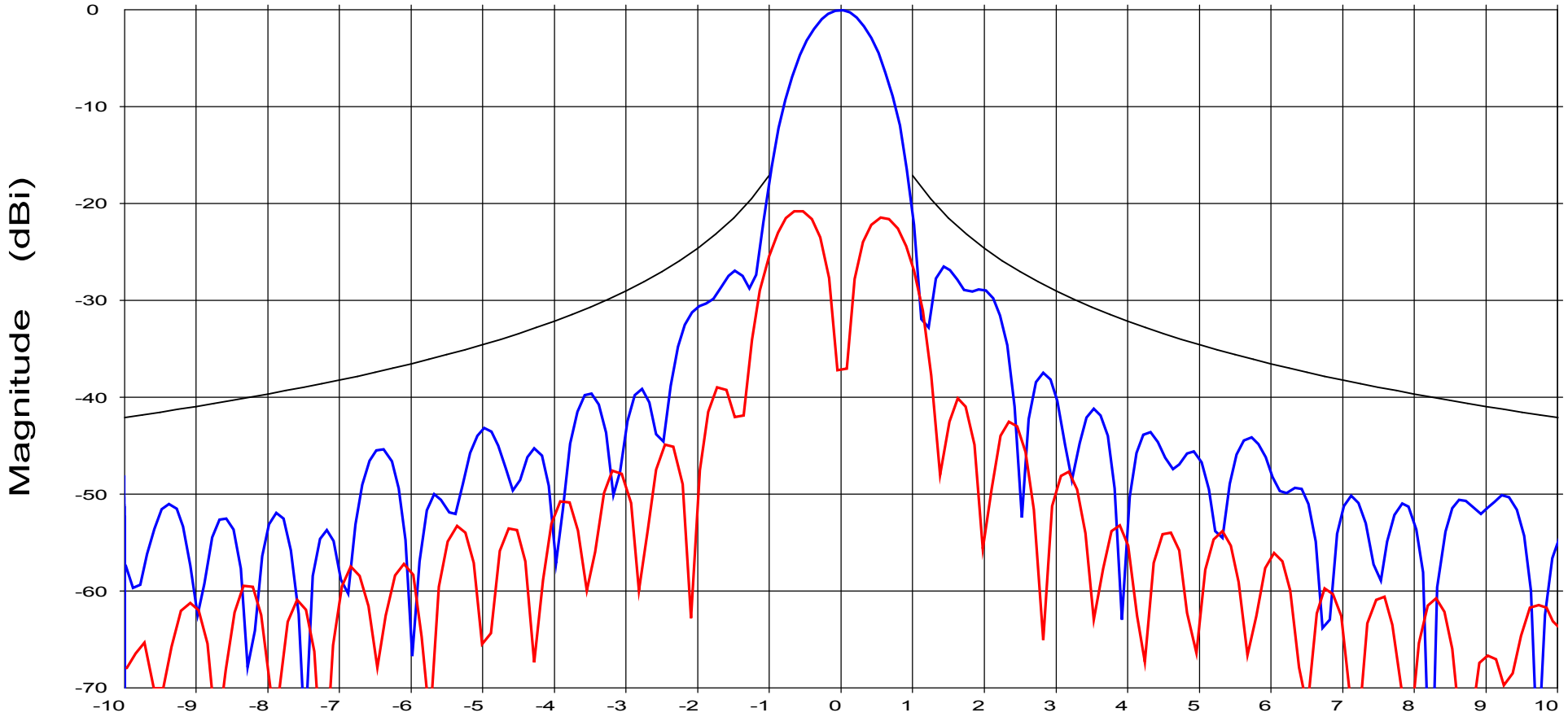
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi	0.90	1.56
1776 14.dat-ant_under_test	1776 14.dat	SGA-70.	ch1	dBi		

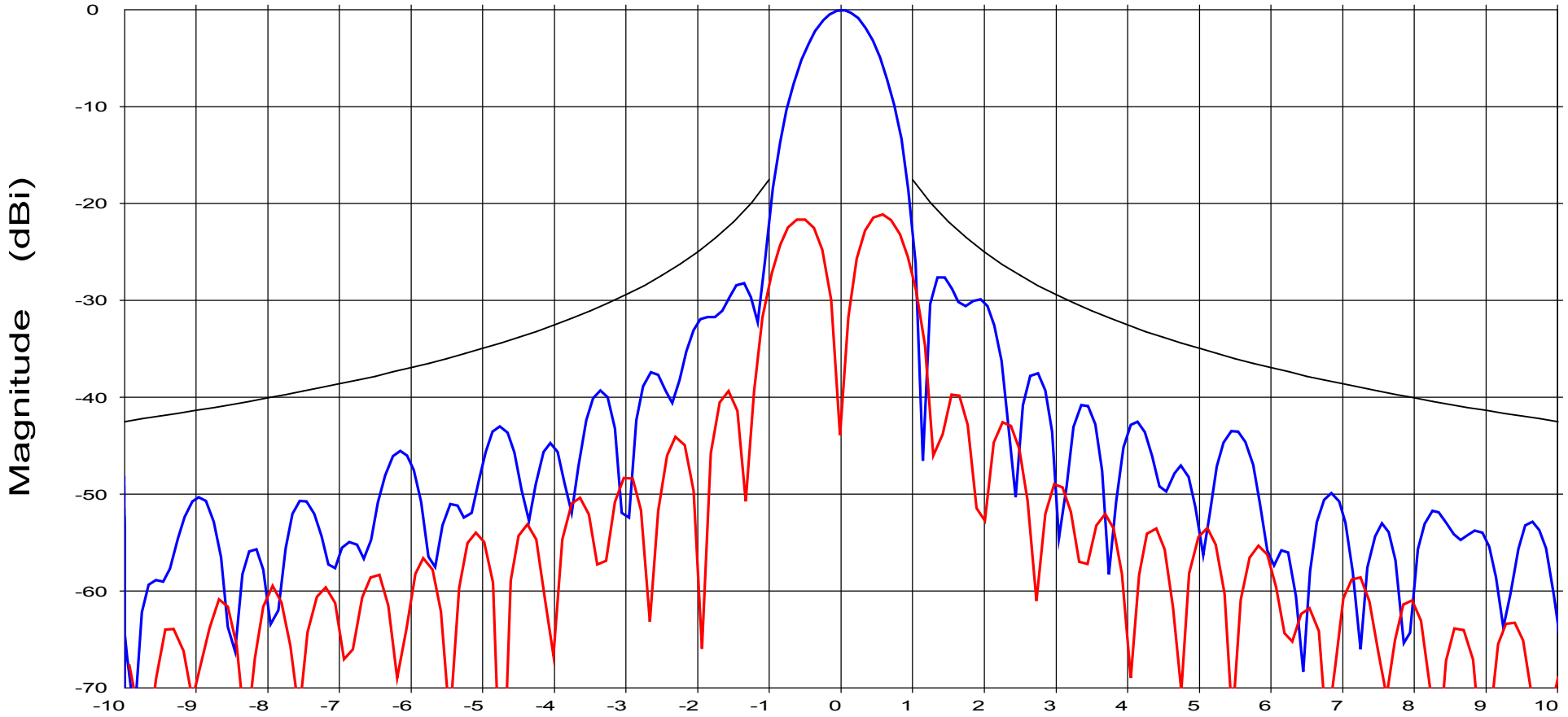
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi	0.86	1.50
1776 14.dat-ant_under_test	1776 14.dat	SGA-70.	ch1	dBi		

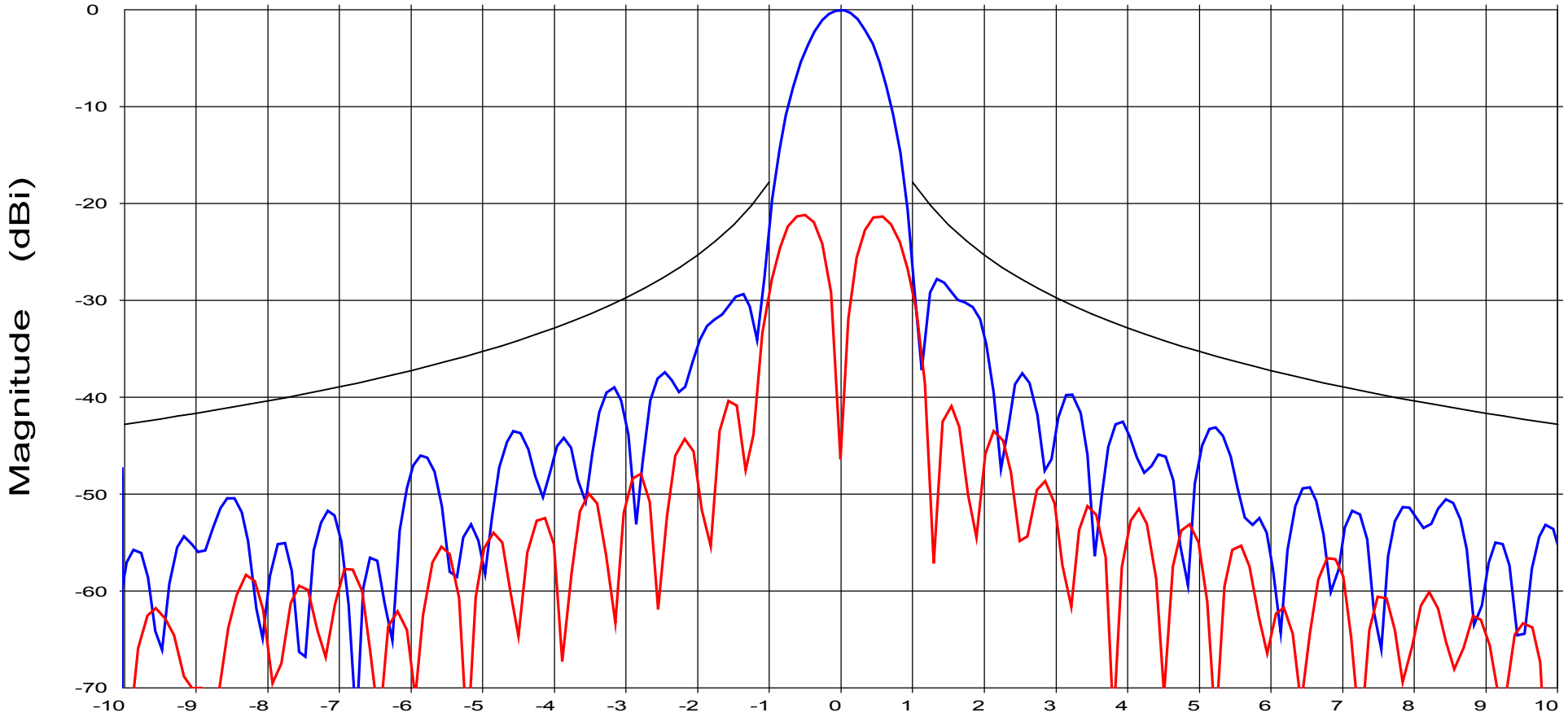
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi	0.83	1.44
1776 14.dat-ant_under_test	1776 14.dat	SGA-70.	ch1	dBi		

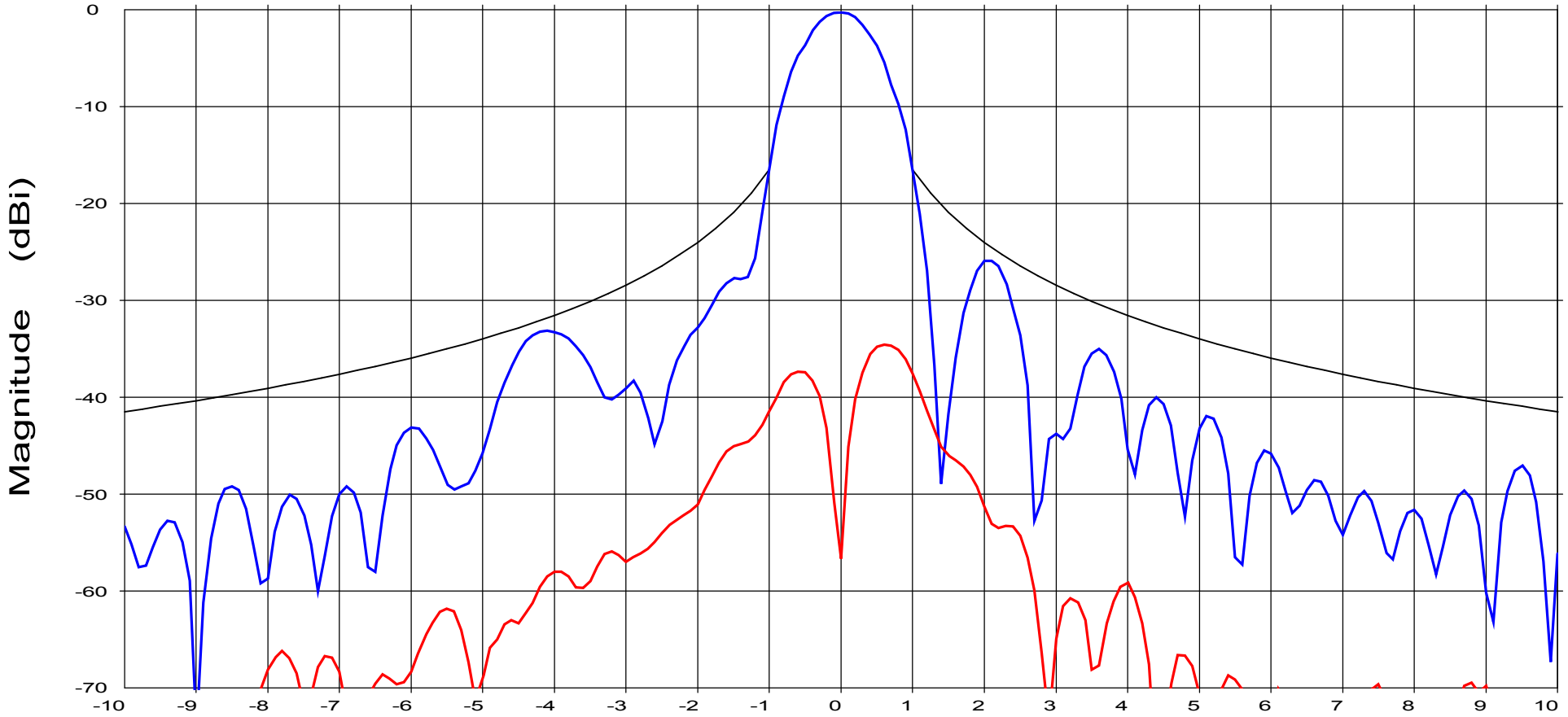
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 16.dat-ant_under_test	1776 16.dat	SGA-70.	ch1	dBi	0.93	1.66
1776 17.dat-ant_under_test	1776 17.dat	SGA-70.	ch1	dBi		

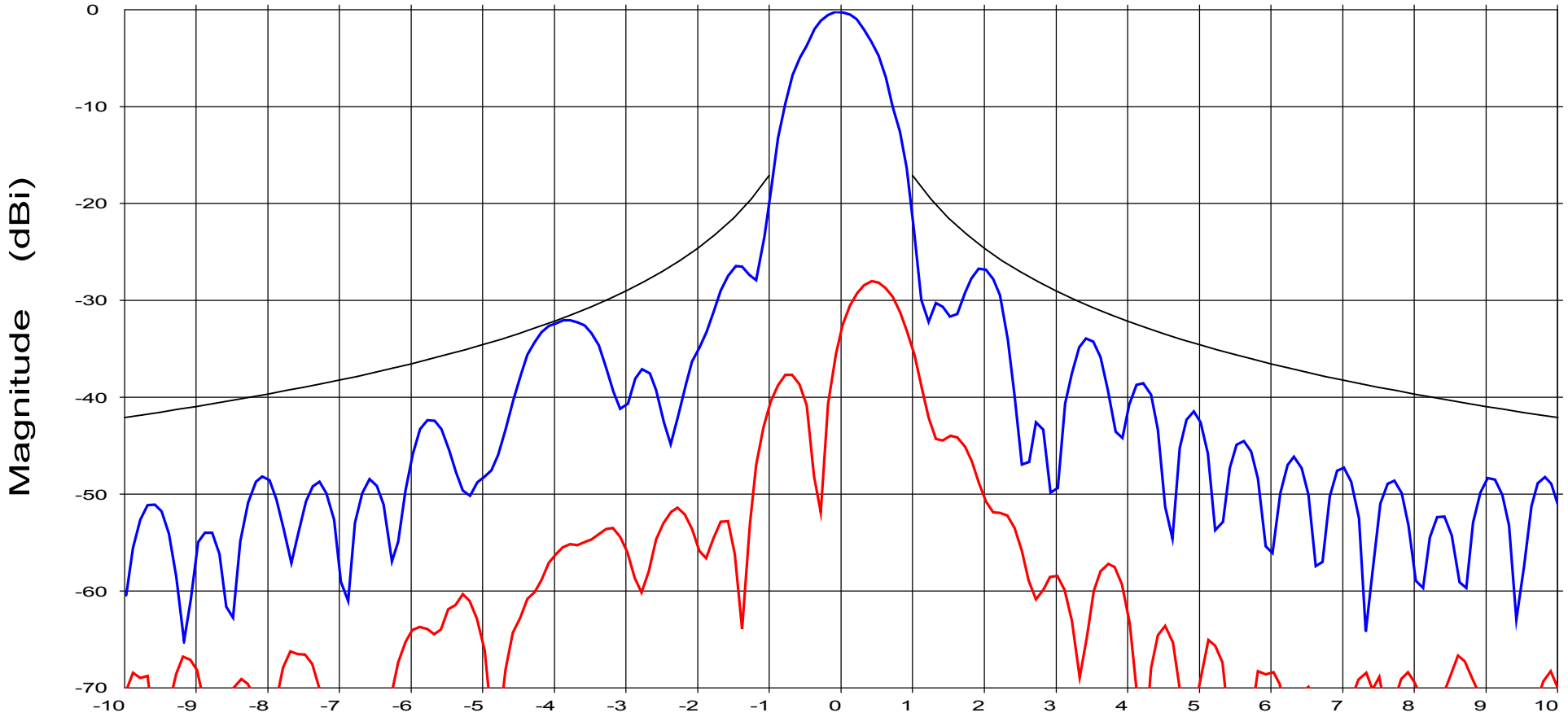
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 16.dat-ant_under_test	1776 16.dat	SGA-70.	ch1	dBi	0.86	1.53
1776 17.dat-ant_under_test	1776 17.dat	SGA-70.	ch1	dBi		

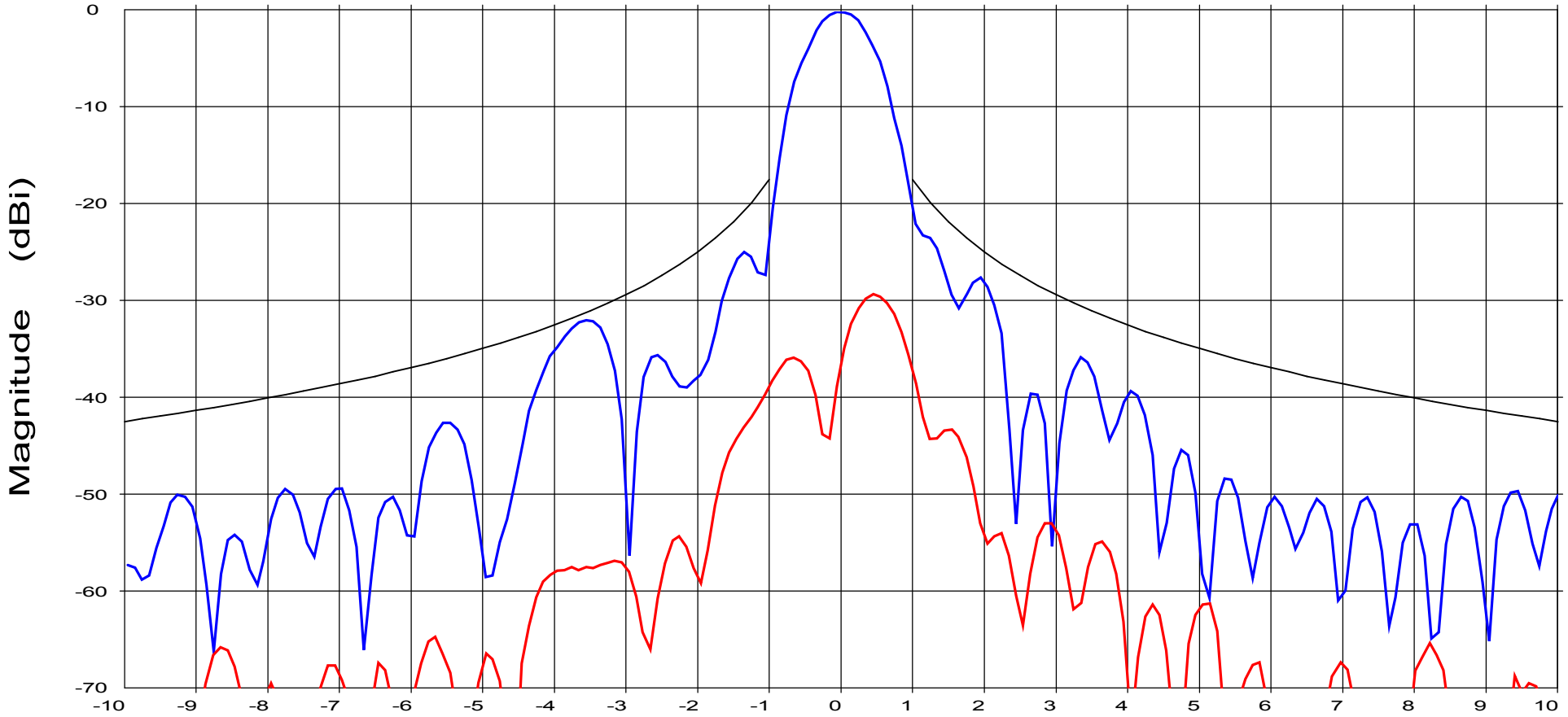
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 16.dat-ant_under_test	1776 16.dat	SGA-70.	ch1	dBi	0.82	1.45
1776 17.dat-ant_under_test	1776 17.dat	SGA-70.	ch1	dBi		

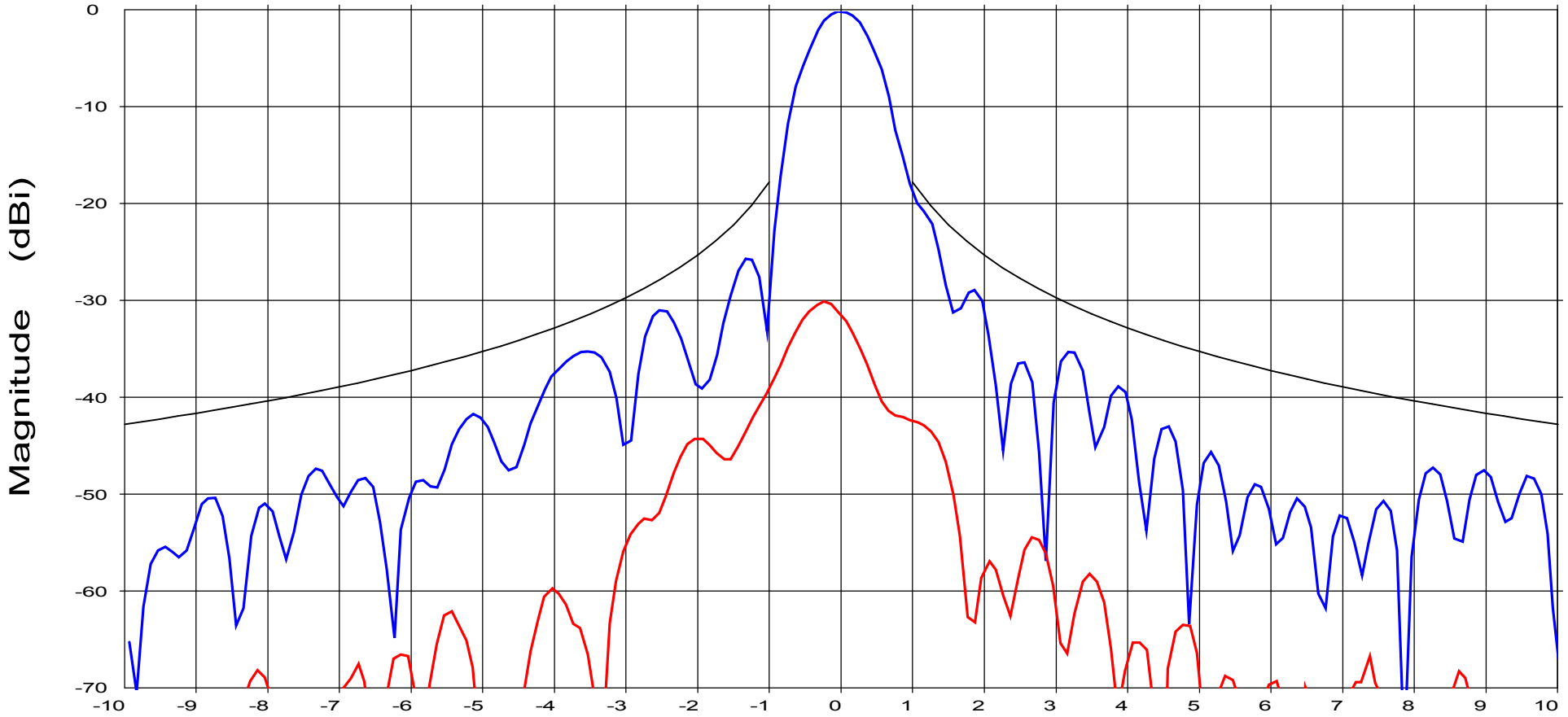
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 16.dat-ant_under_test	1776 16.dat	SGA-70.	ch1	dBi	0.78	1.40
1776 17.dat-ant_under_test	1776 17.dat	SGA-70.	ch1	dBi		

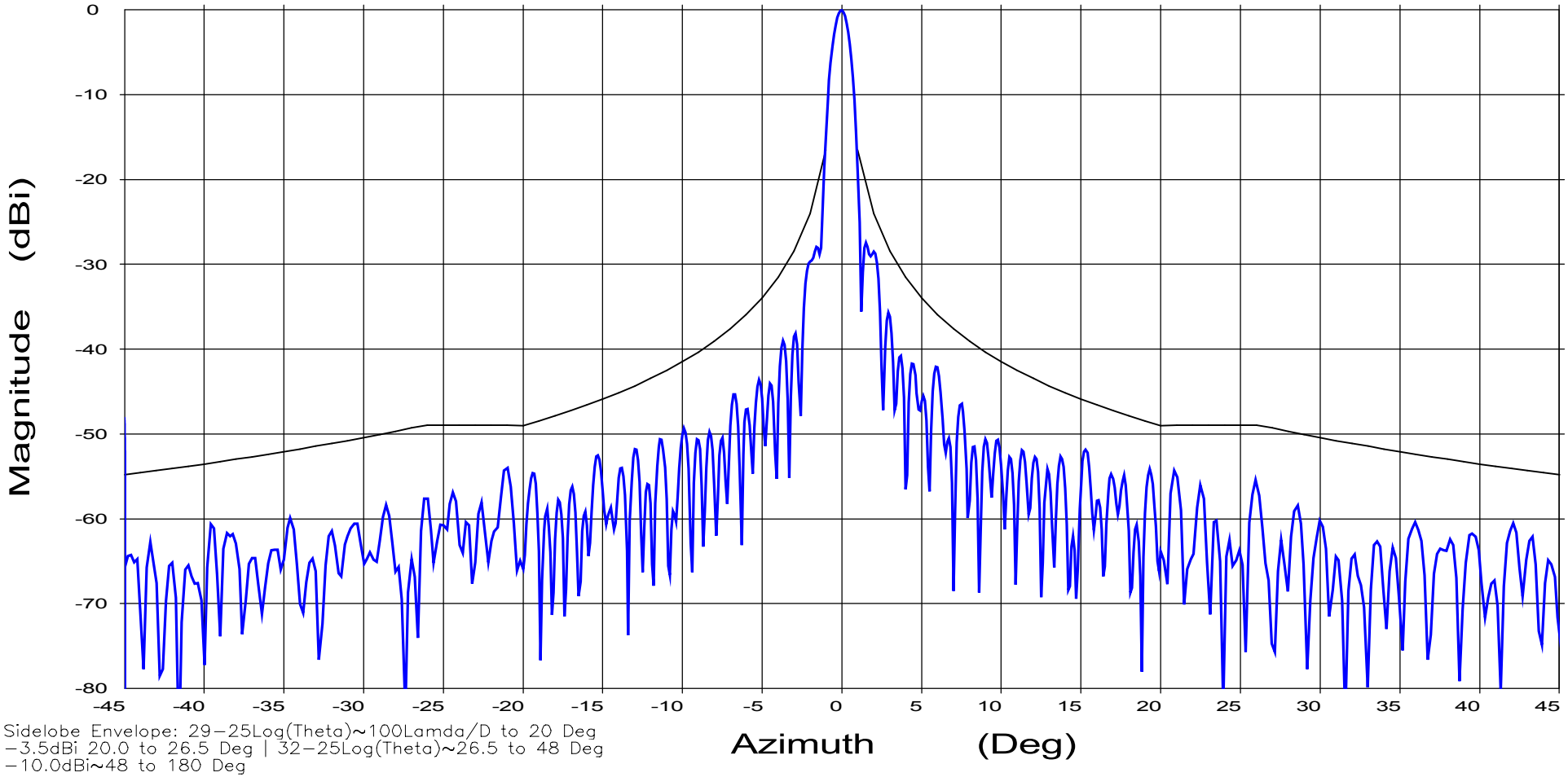
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

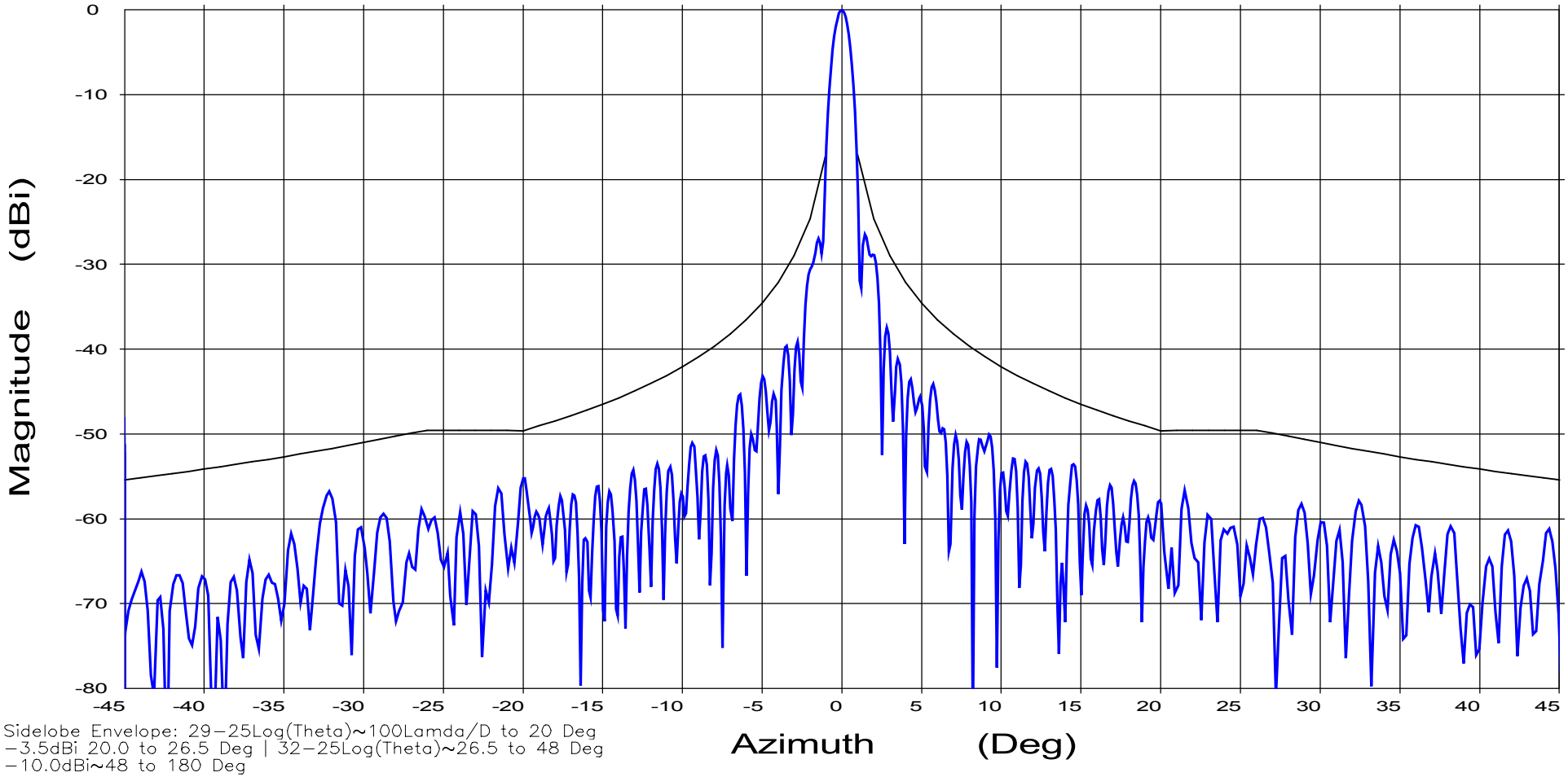
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

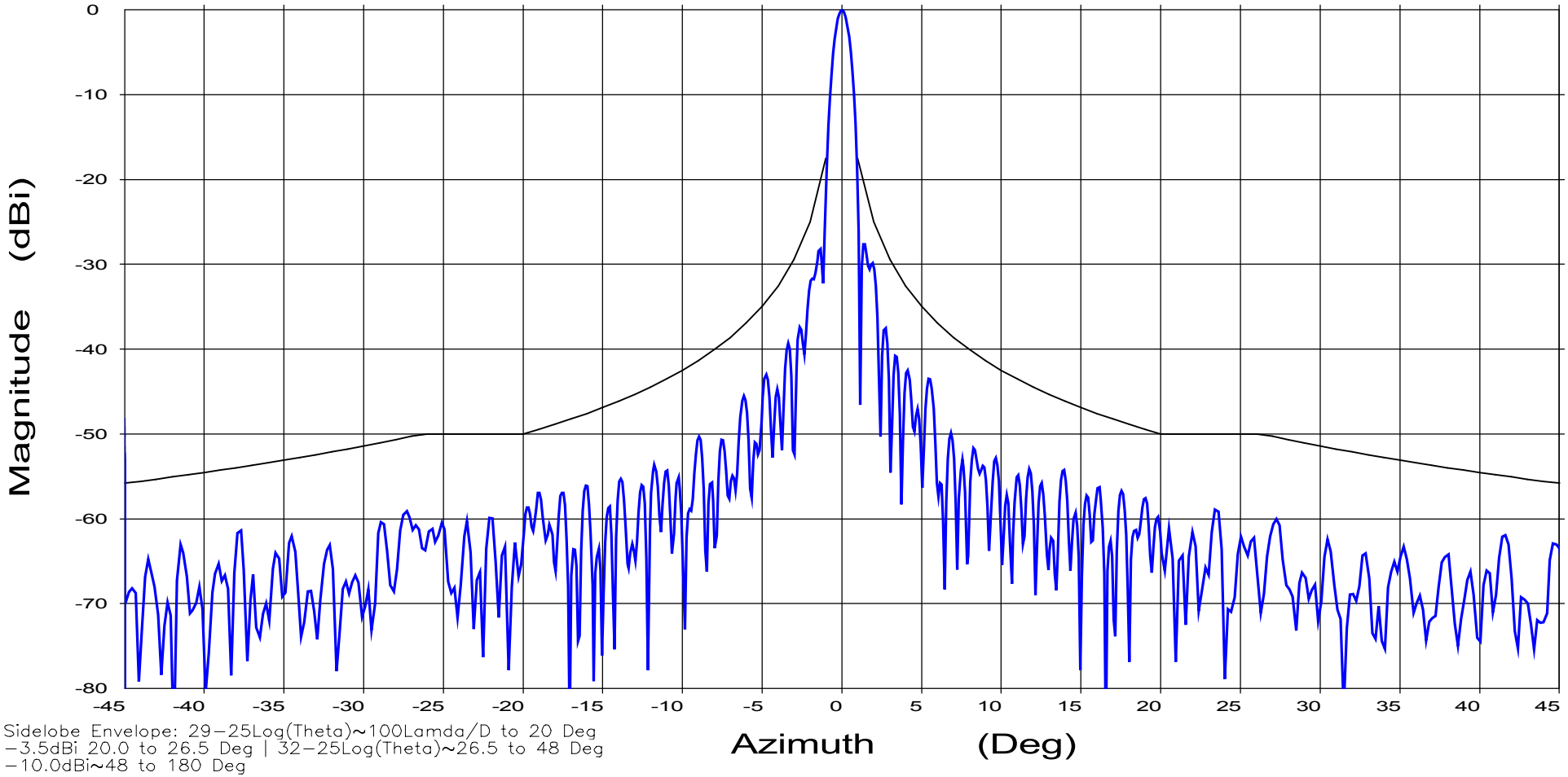
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

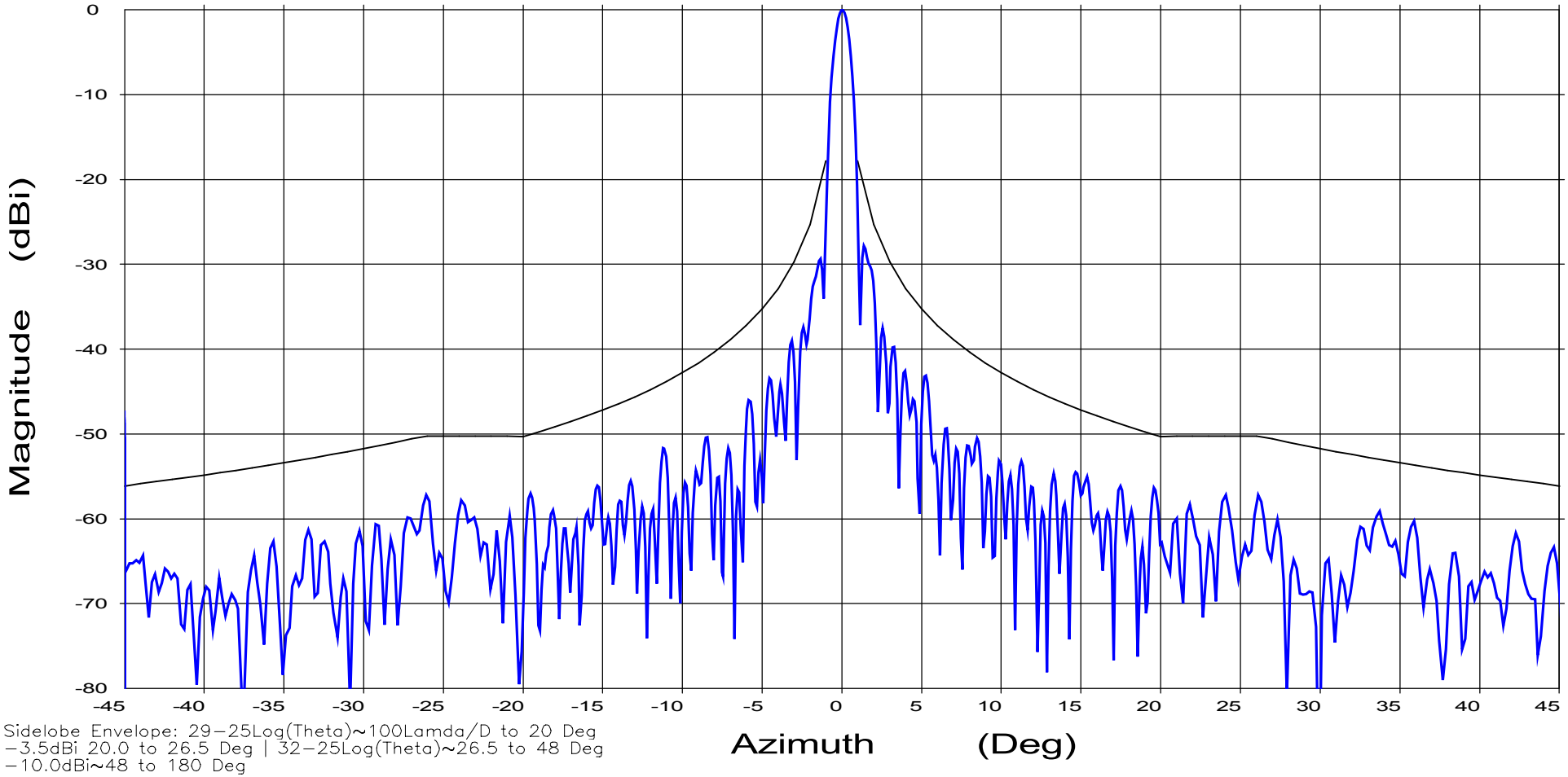
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

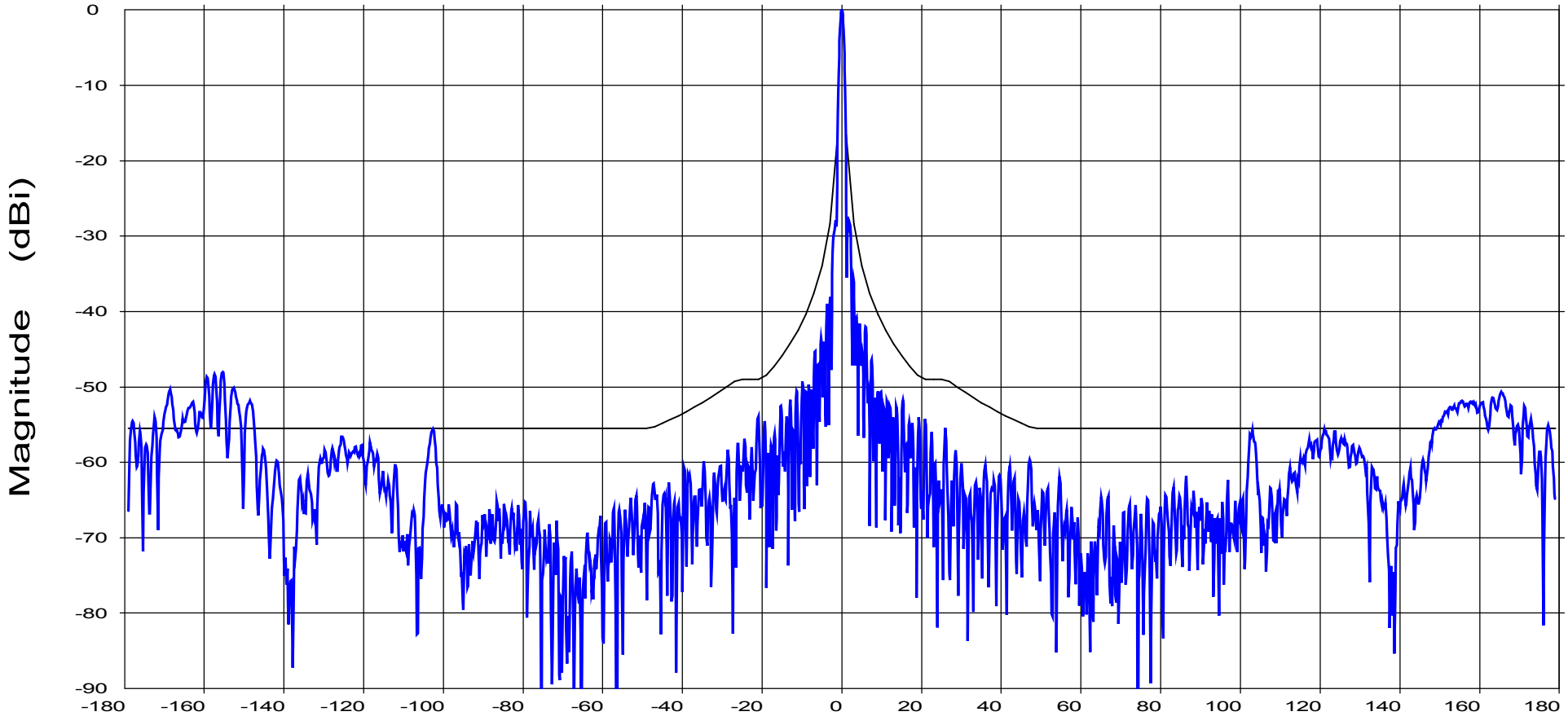
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

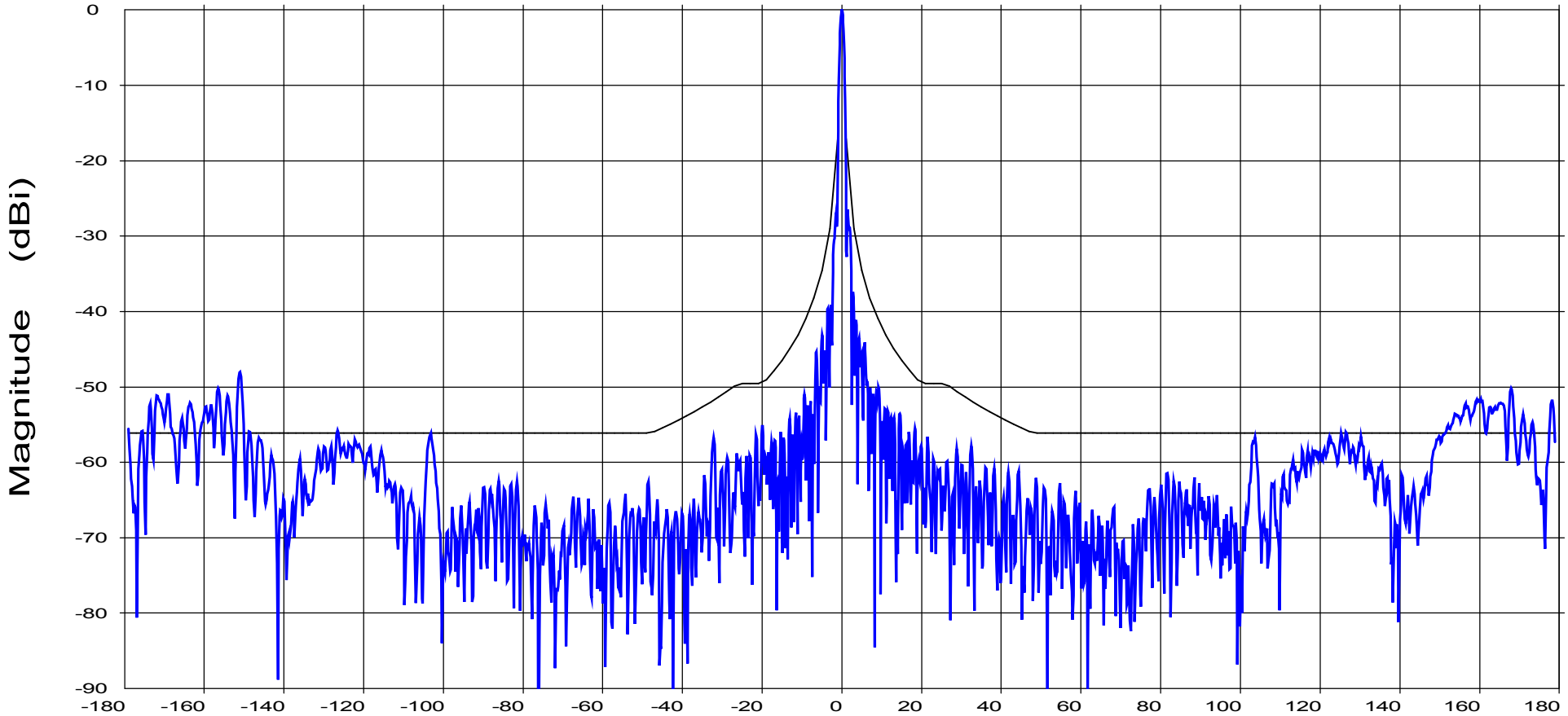
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

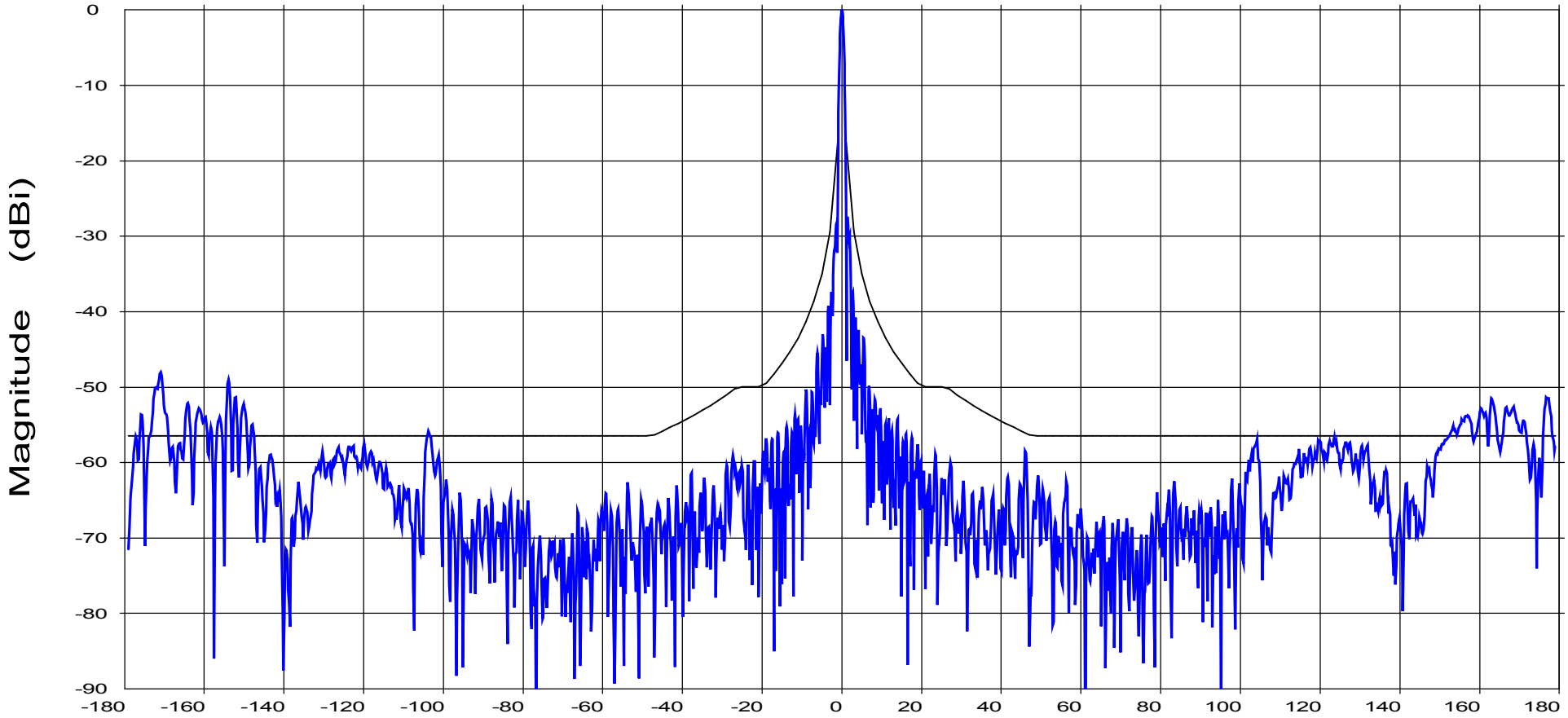
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

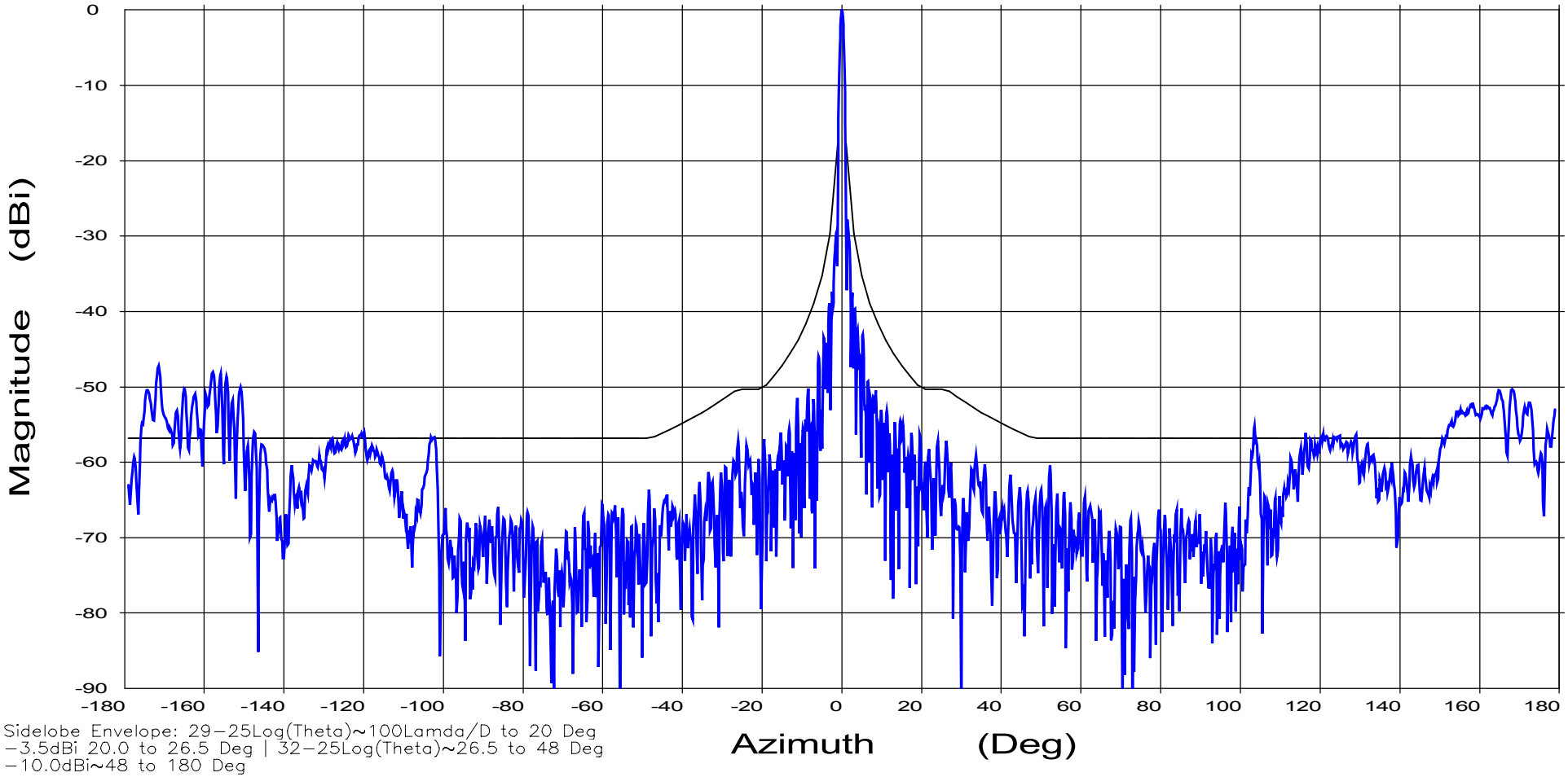
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 13.dat-ant_under_test	1776 13.dat	SGA-70.	ch1	dBi

2.2 Horizontal Polarization Transmit

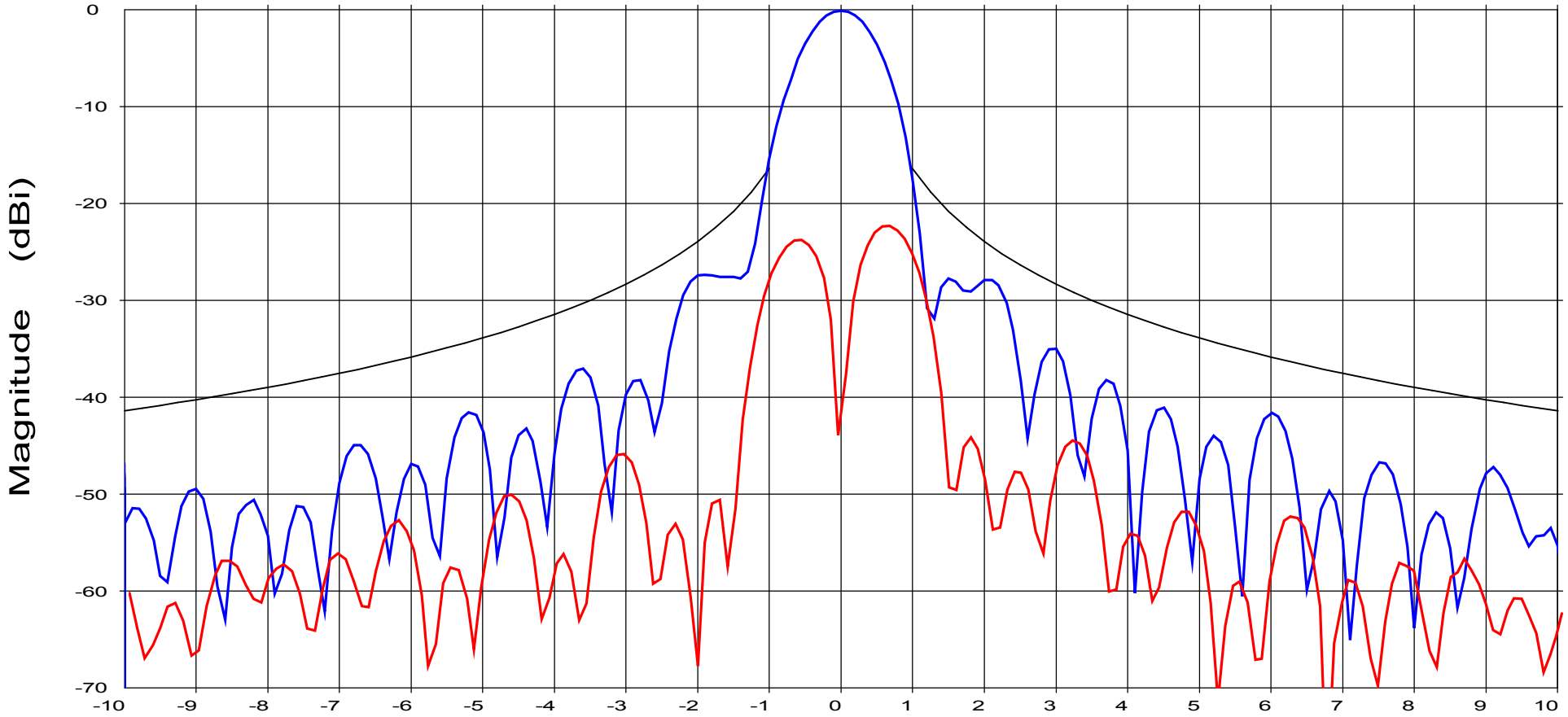
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi	0.93	1.64
1776 22.dat-ant_under_test	1776 22.dat	SGA-70.	ch1	dBi		

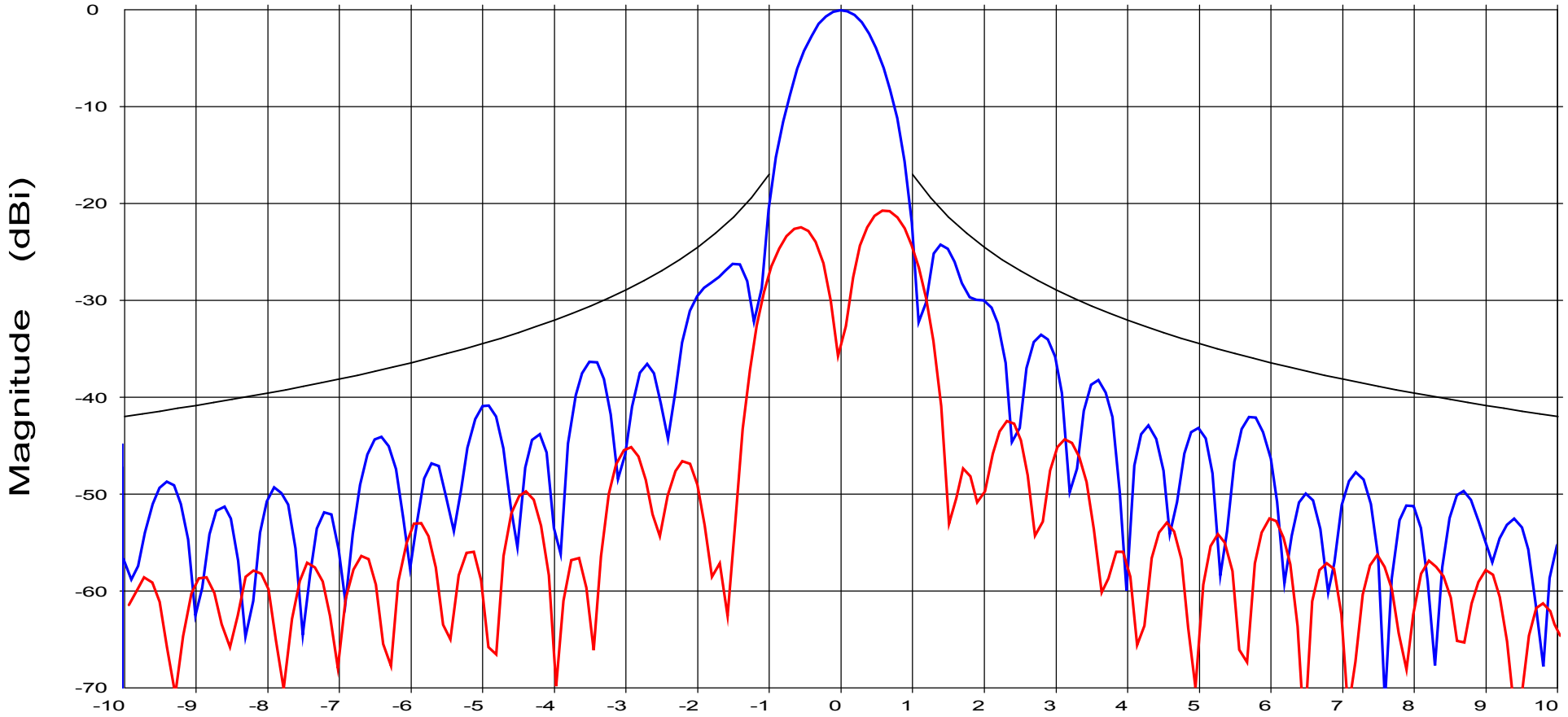
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi	0.86	1.51
1776 22.dat-ant_under_test	1776 22.dat	SGA-70.	ch1	dBi		

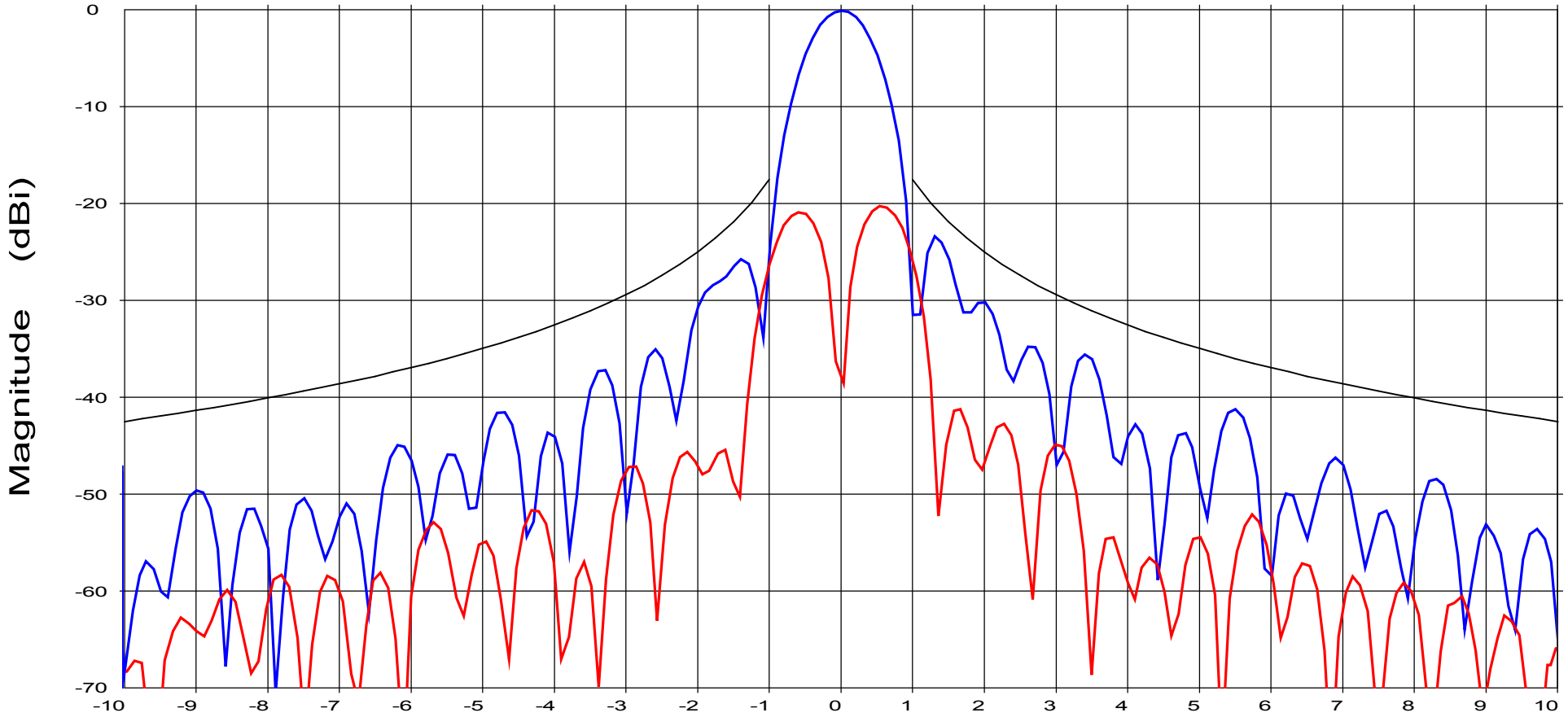
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi	0.82	1.42
1776 22.dat-ant_under_test	1776 22.dat	SGA-70.	ch1	dBi		

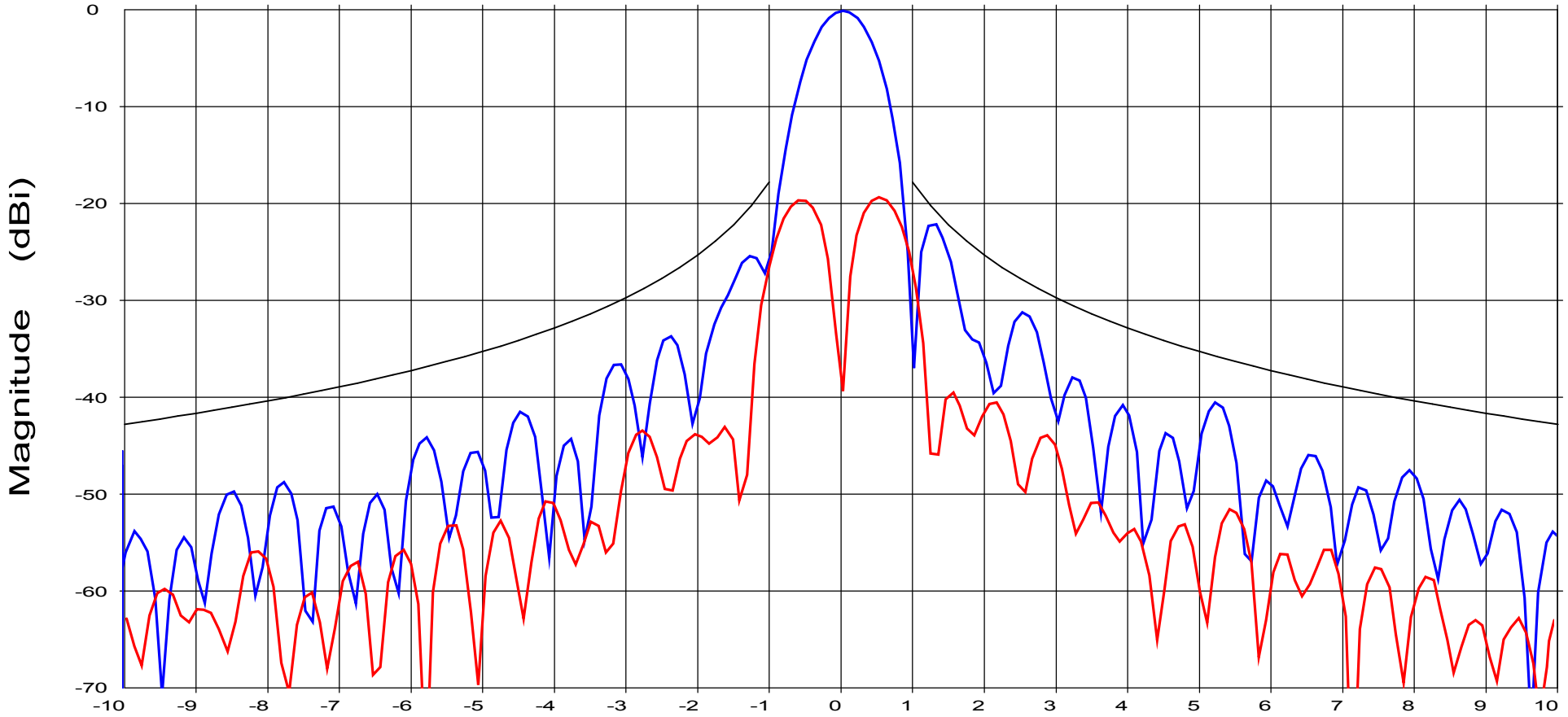
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi	0.77	1.35
1776 22.dat-ant_under_test	1776 22.dat	SGA-70.	ch1	dBi		

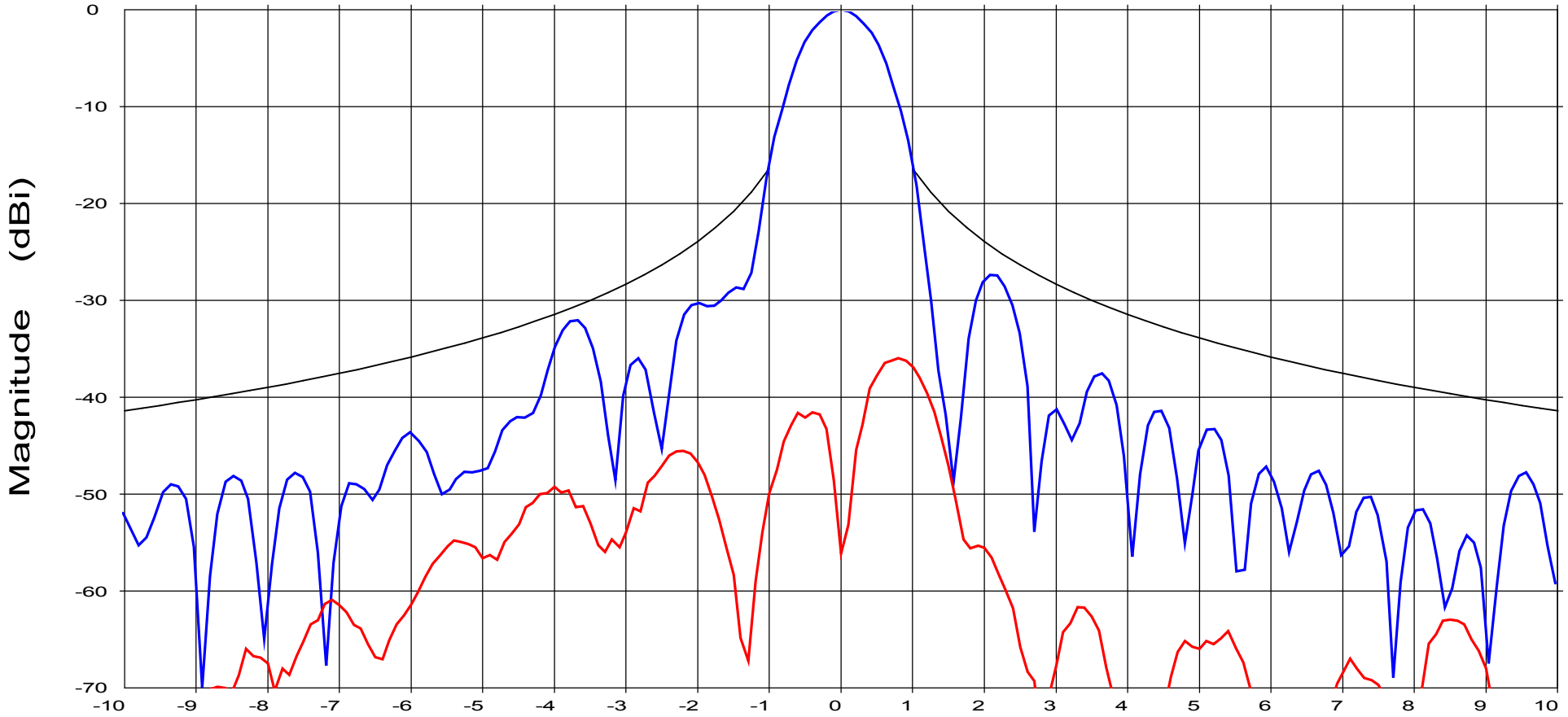
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 23.dat-ant_under_test	1776 23.dat	SGA-70.	ch1	dBi	0.96	1.63
1776 24.dat-ant_under_test	1776 24.dat	SGA-70.	ch1	dBi		

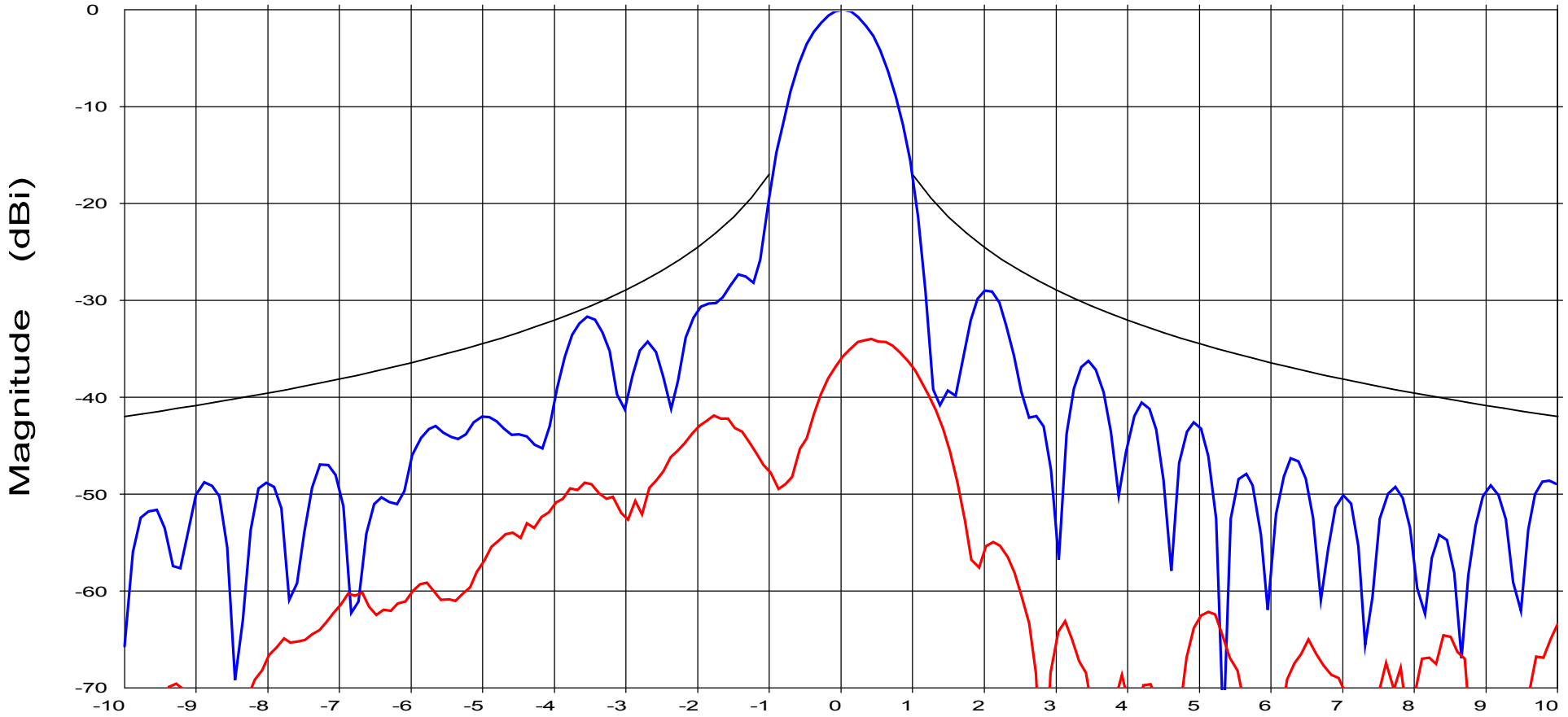
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 23.dat-ant_under_test	1776 23.dat	SGA-70.	ch1	dBi	0.91	1.55
1776 24.dat-ant_under_test	1776 24.dat	SGA-70.	ch1	dBi		

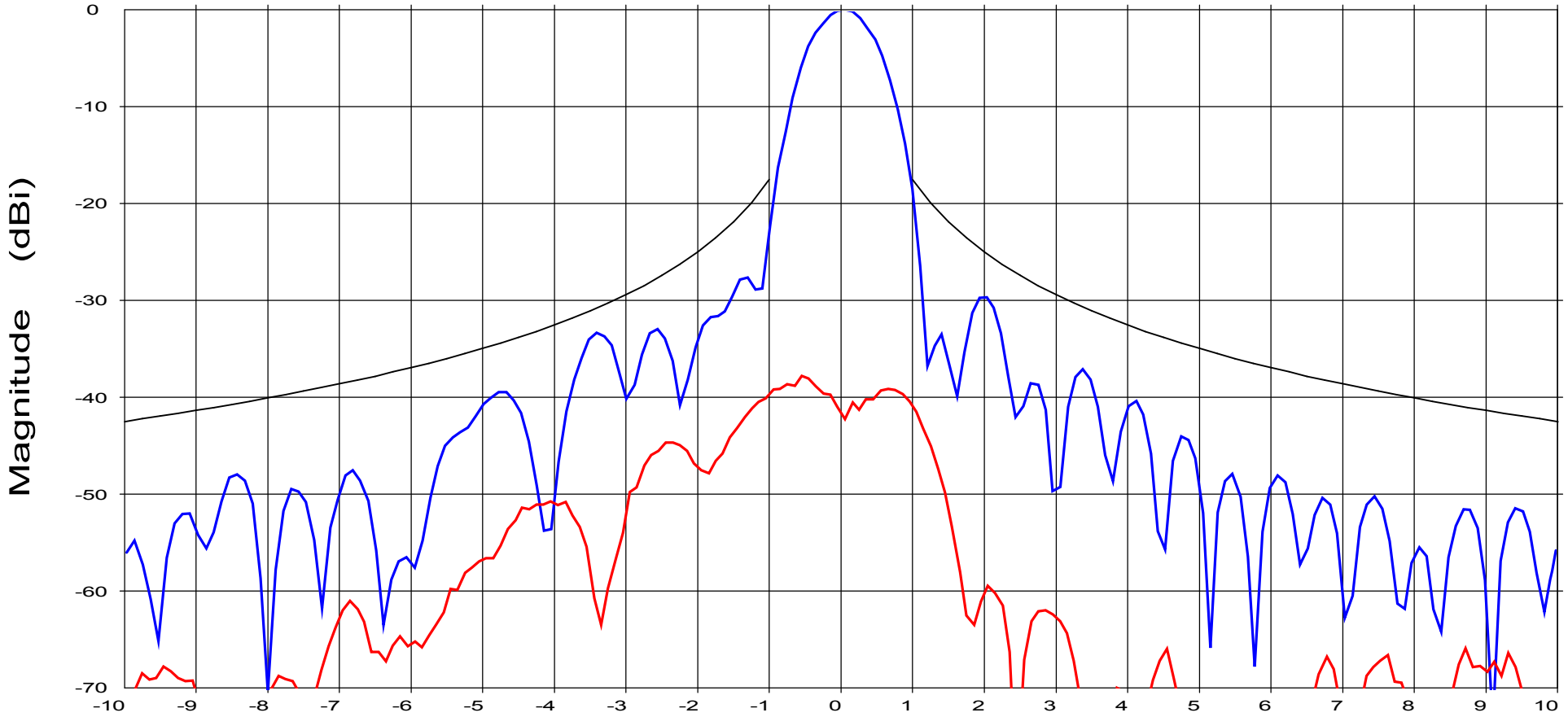
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 23.dat-ant_under_test	1776 23.dat	SGA-70.	ch1	dBi	0.87	1.48
1776 24.dat-ant_under_test	1776 24.dat	SGA-70.	ch1	dBi		

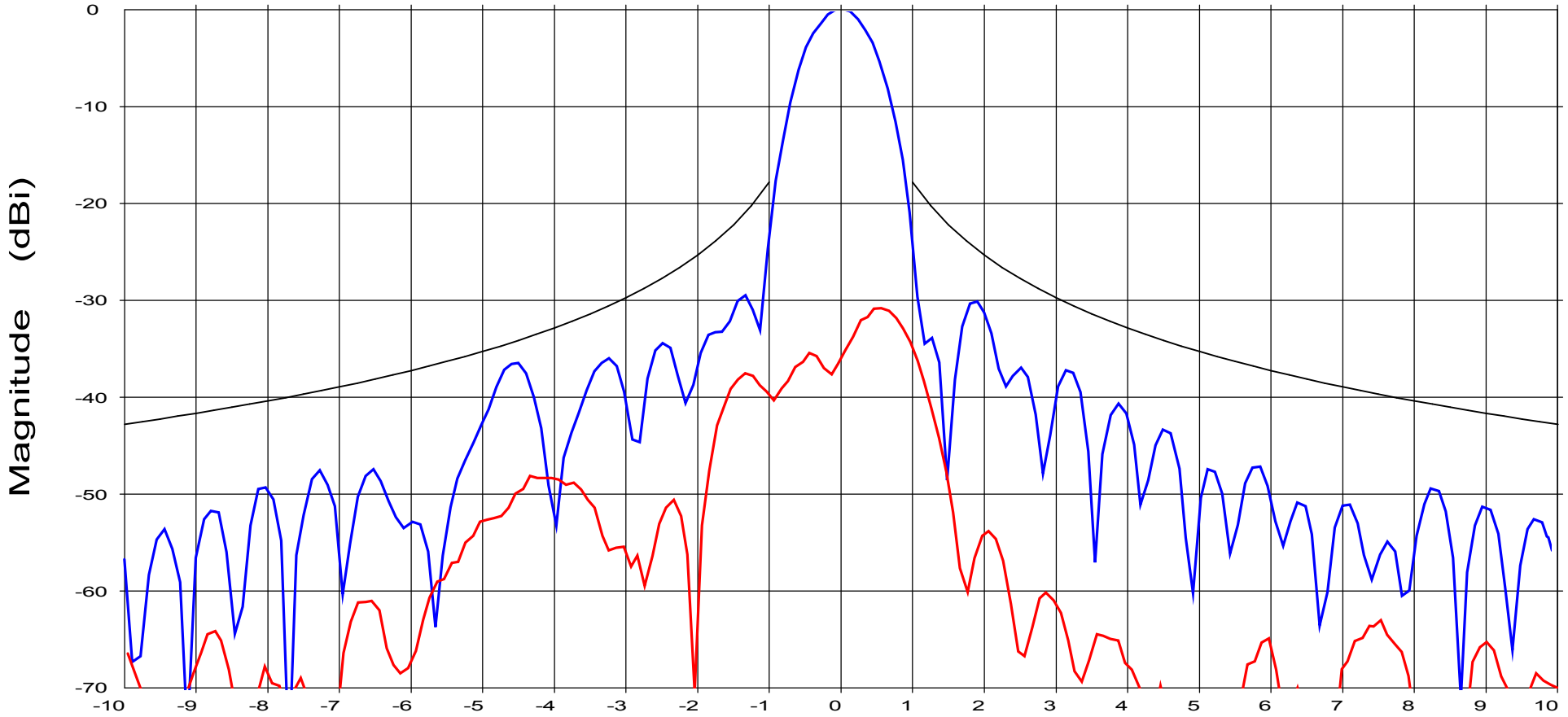
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 23.dat-ant_under_test	1776 23.dat	SGA-70.	ch1	dBi	0.83	1.43
1776 24.dat-ant_under_test	1776 24.dat	SGA-70.	ch1	dBi		

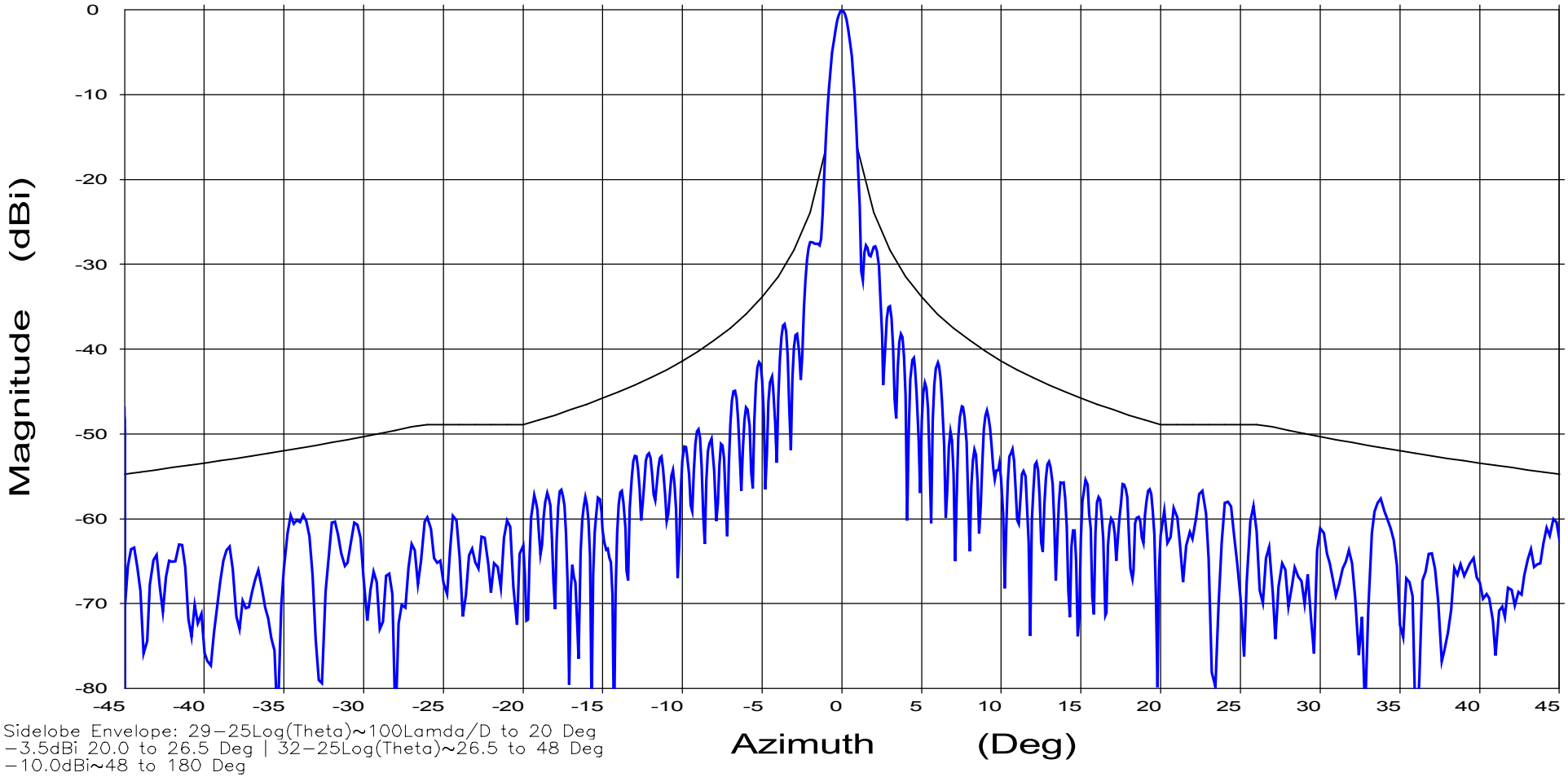
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

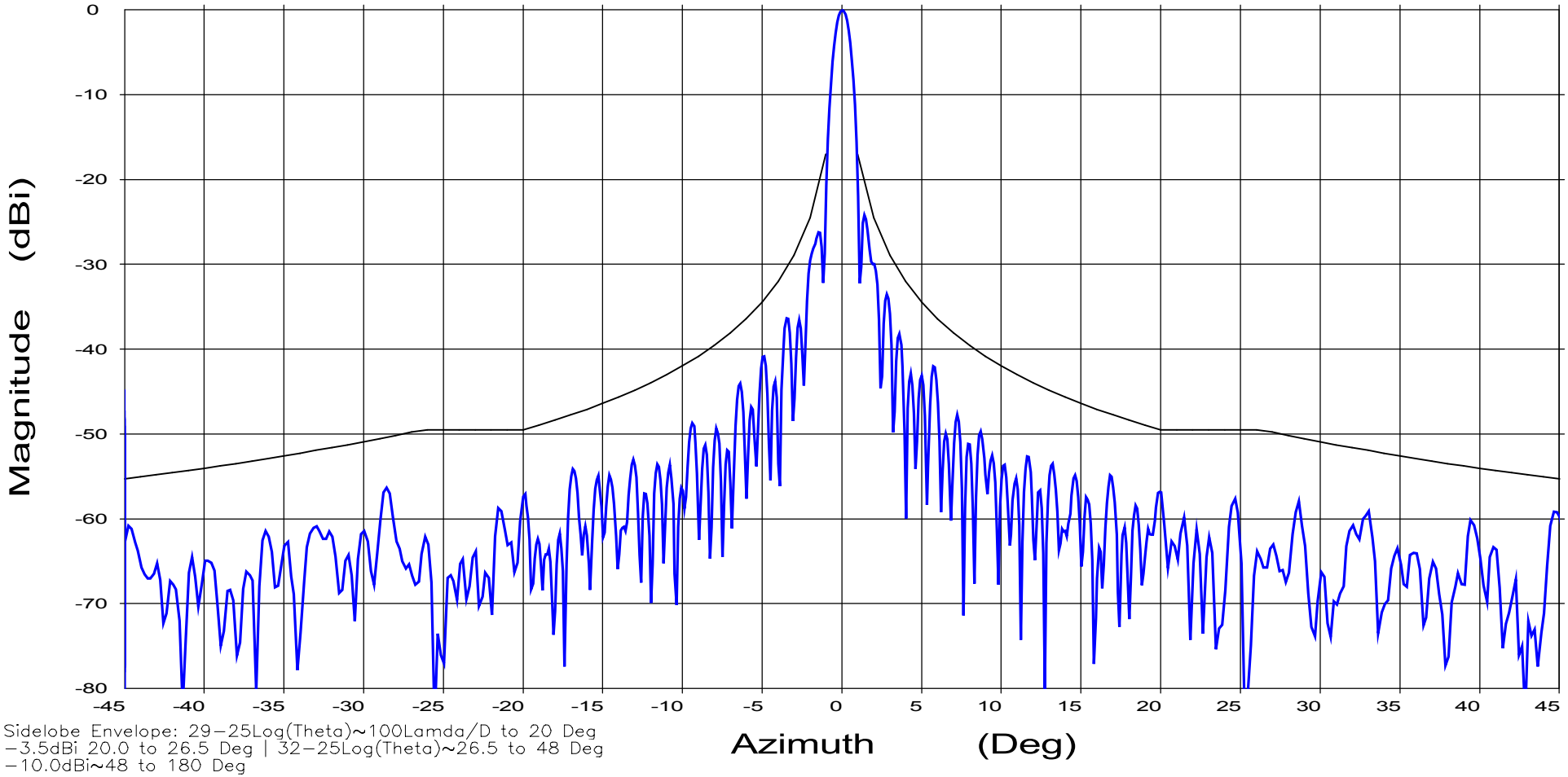
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

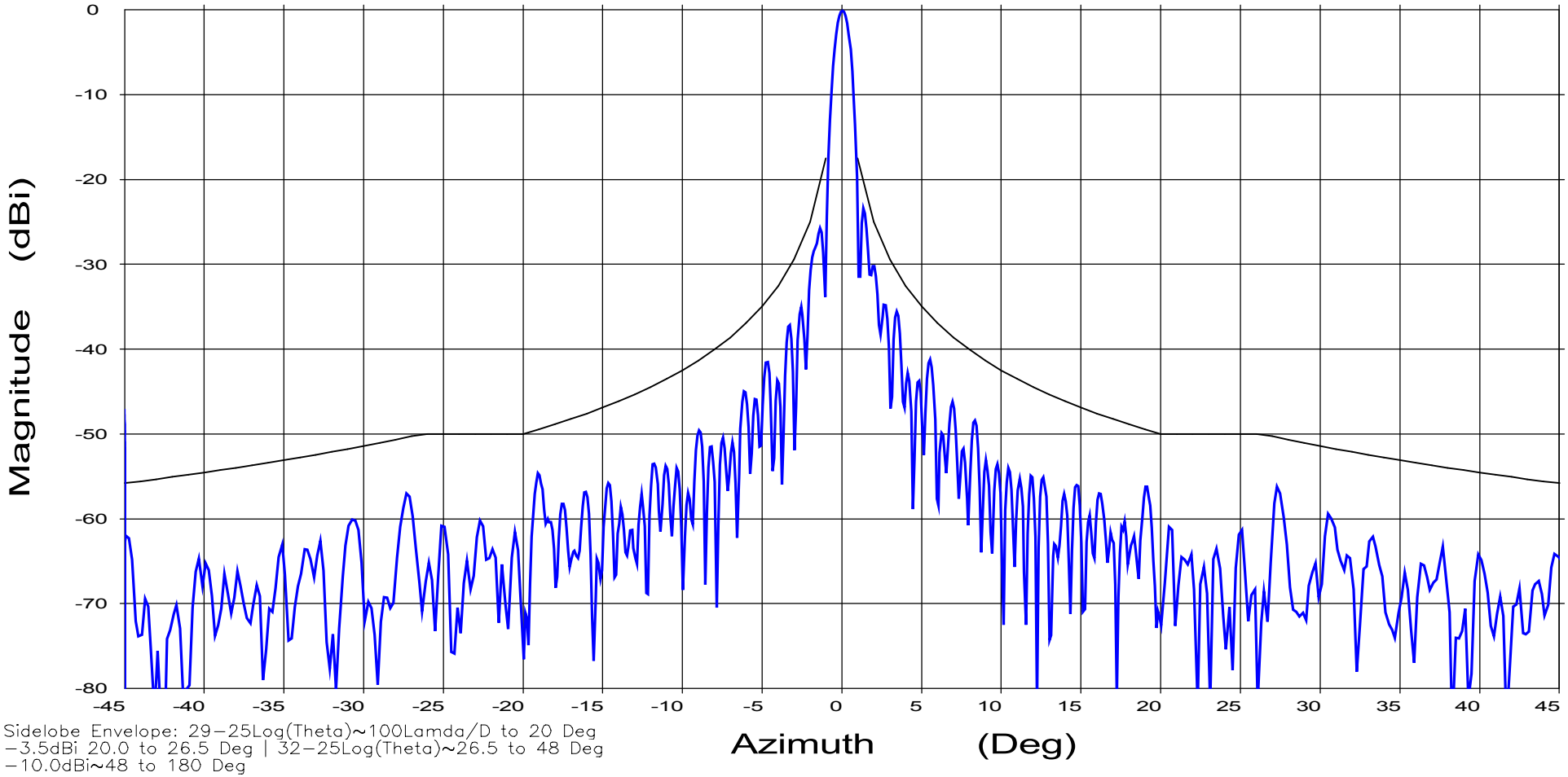
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

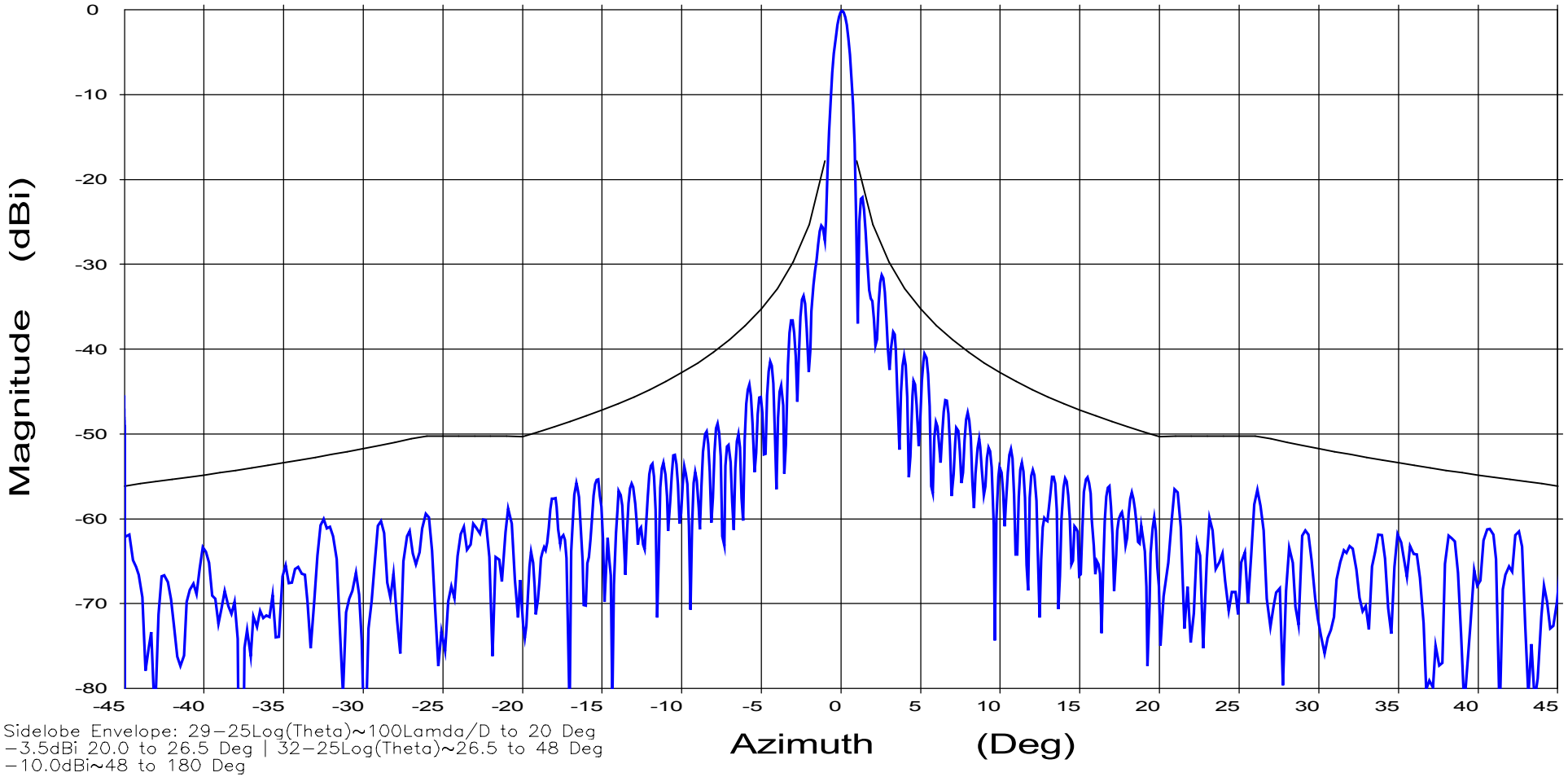
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

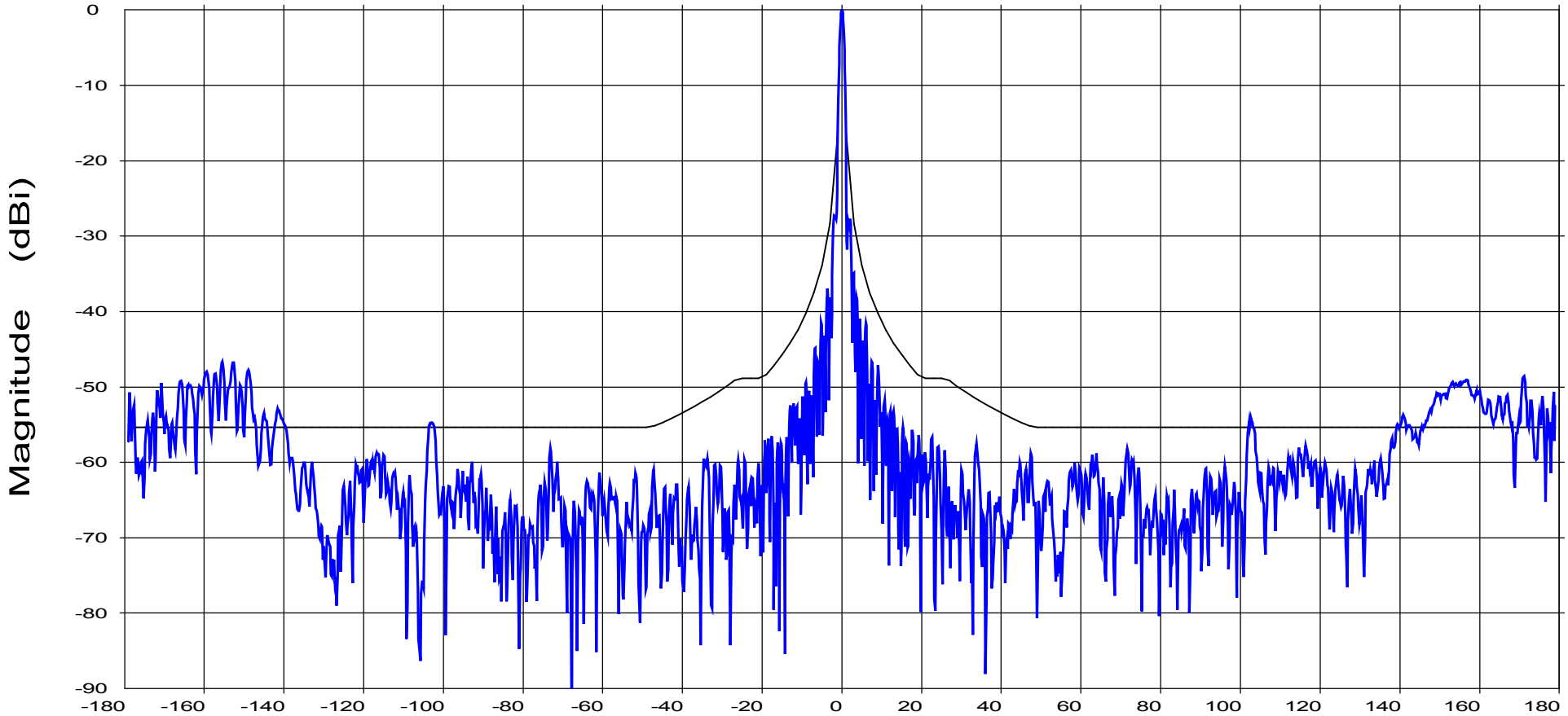
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 5.845 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

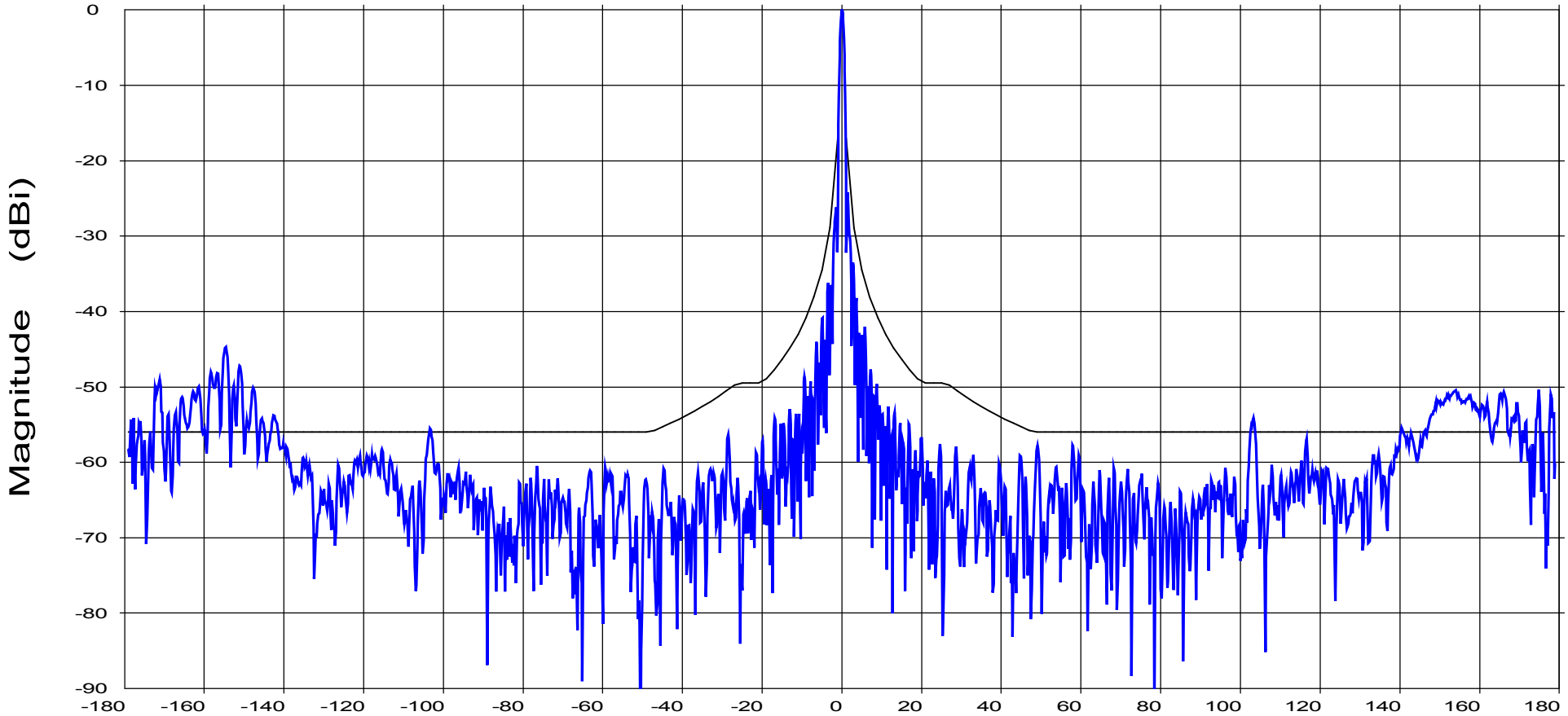
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.138 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

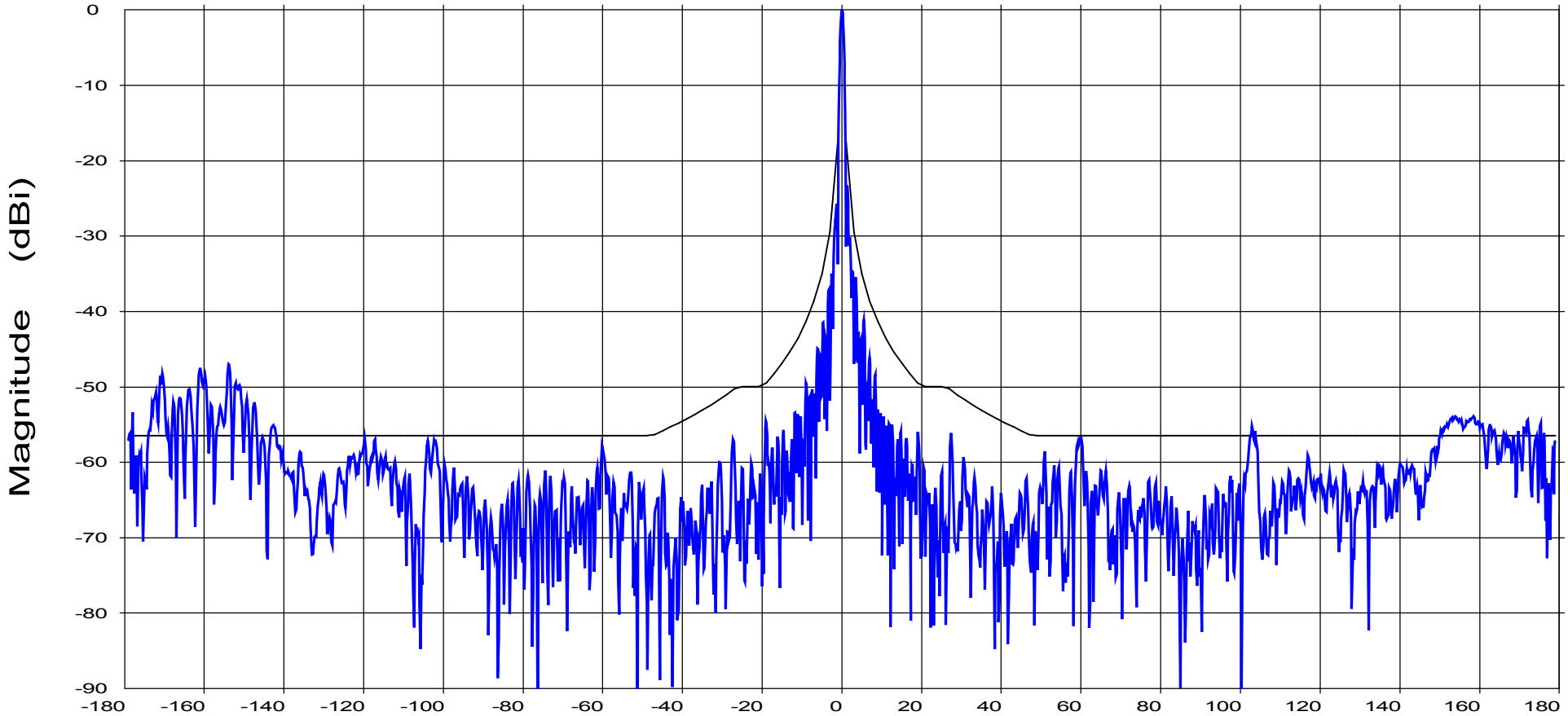
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.425 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

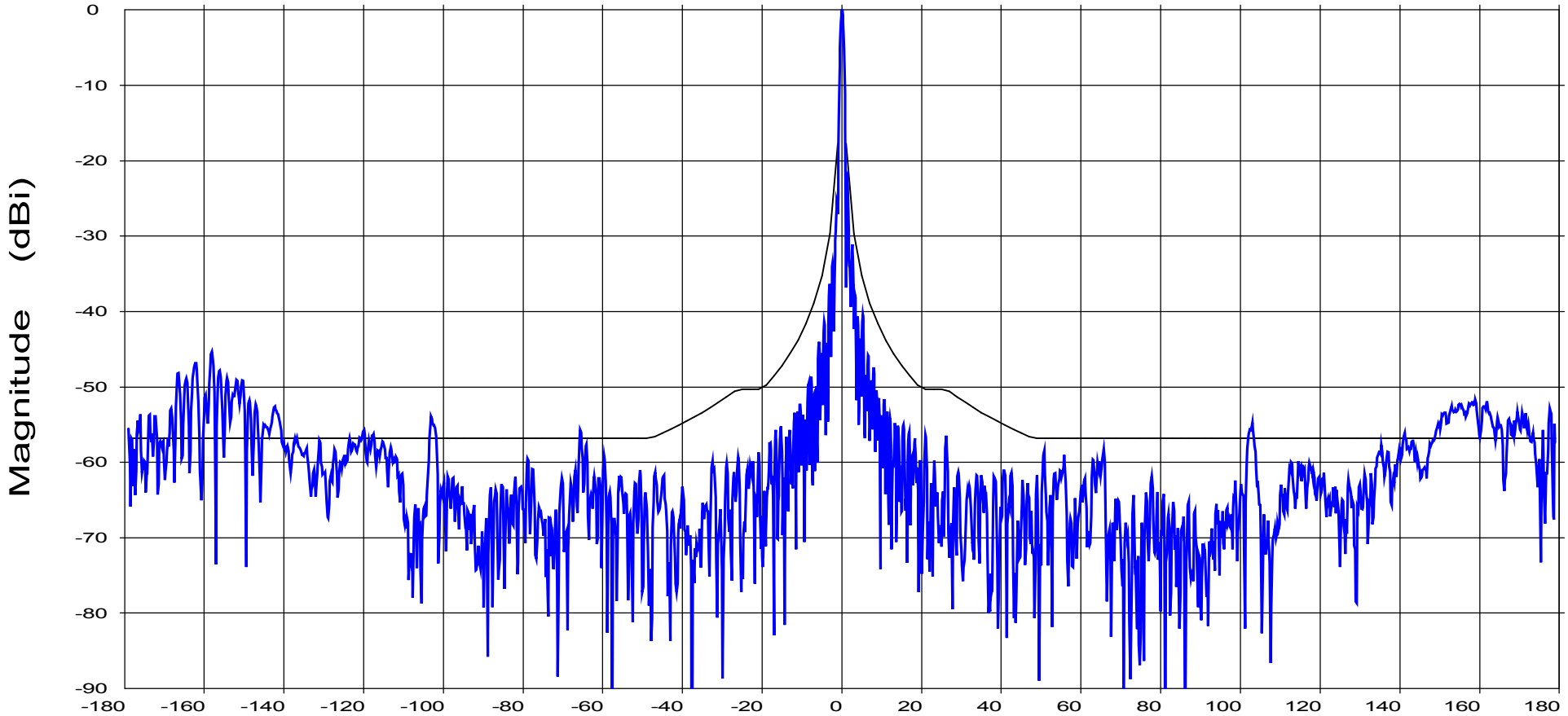
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 6.725 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 21.dat-ant_under_test	1776 21.dat	SGA-70.	ch1	dBi

2.3 Vertical Polarization Receive

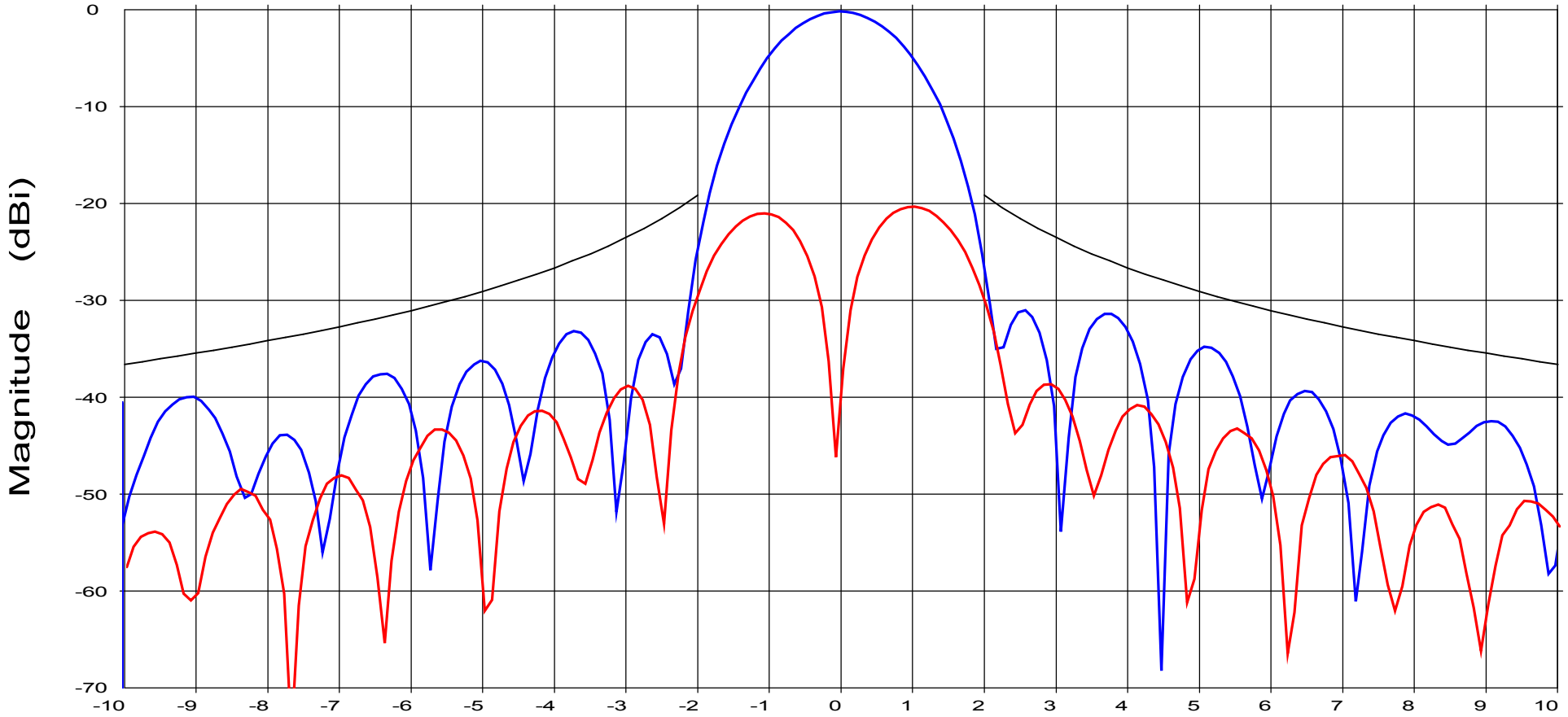
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi	1.63	2.83
1776 36.dat-ant_under_test	1776 36.dat	SGA 40	ch1	dBi		

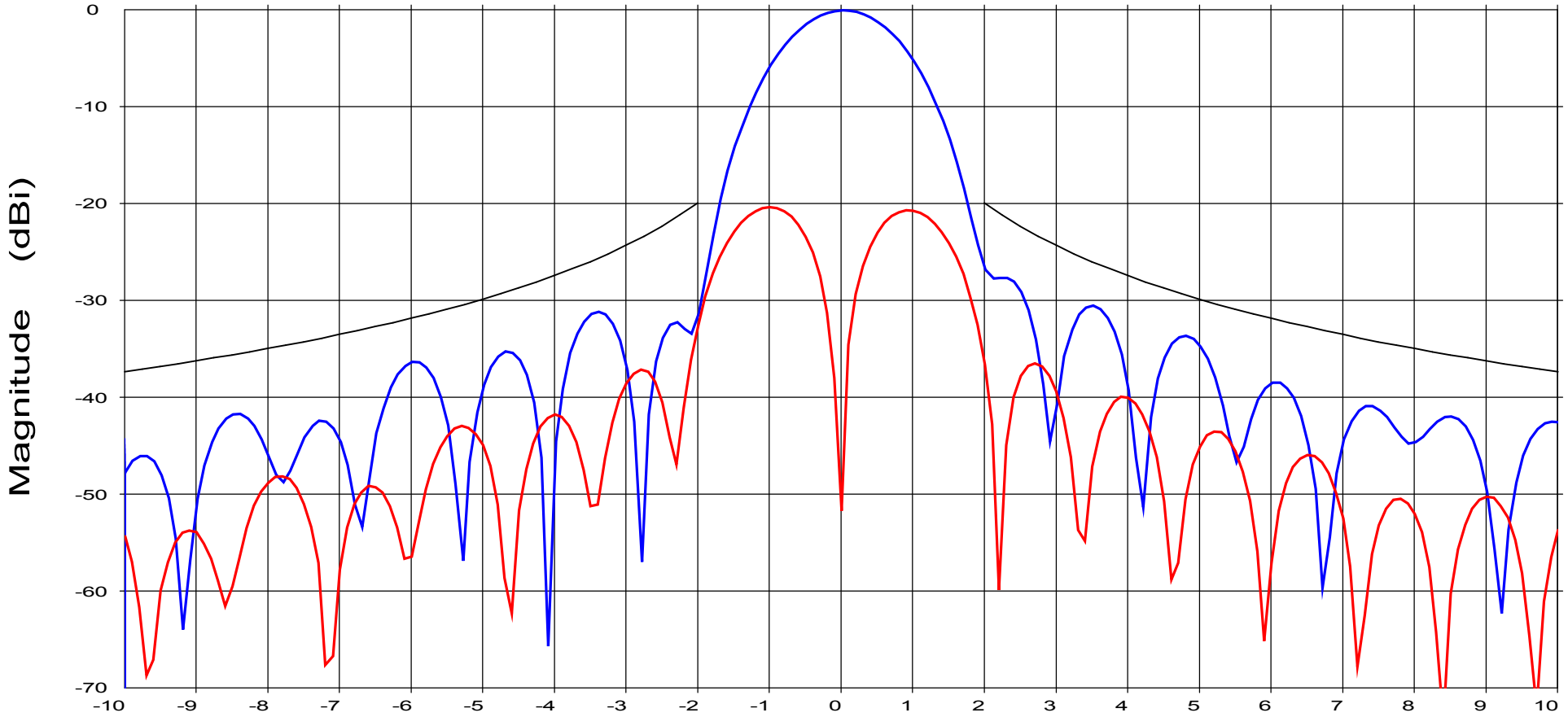
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi	1.51	2.62
1776 36.dat-ant_under_test	1776 36.dat	SGA 40	ch1	dBi		

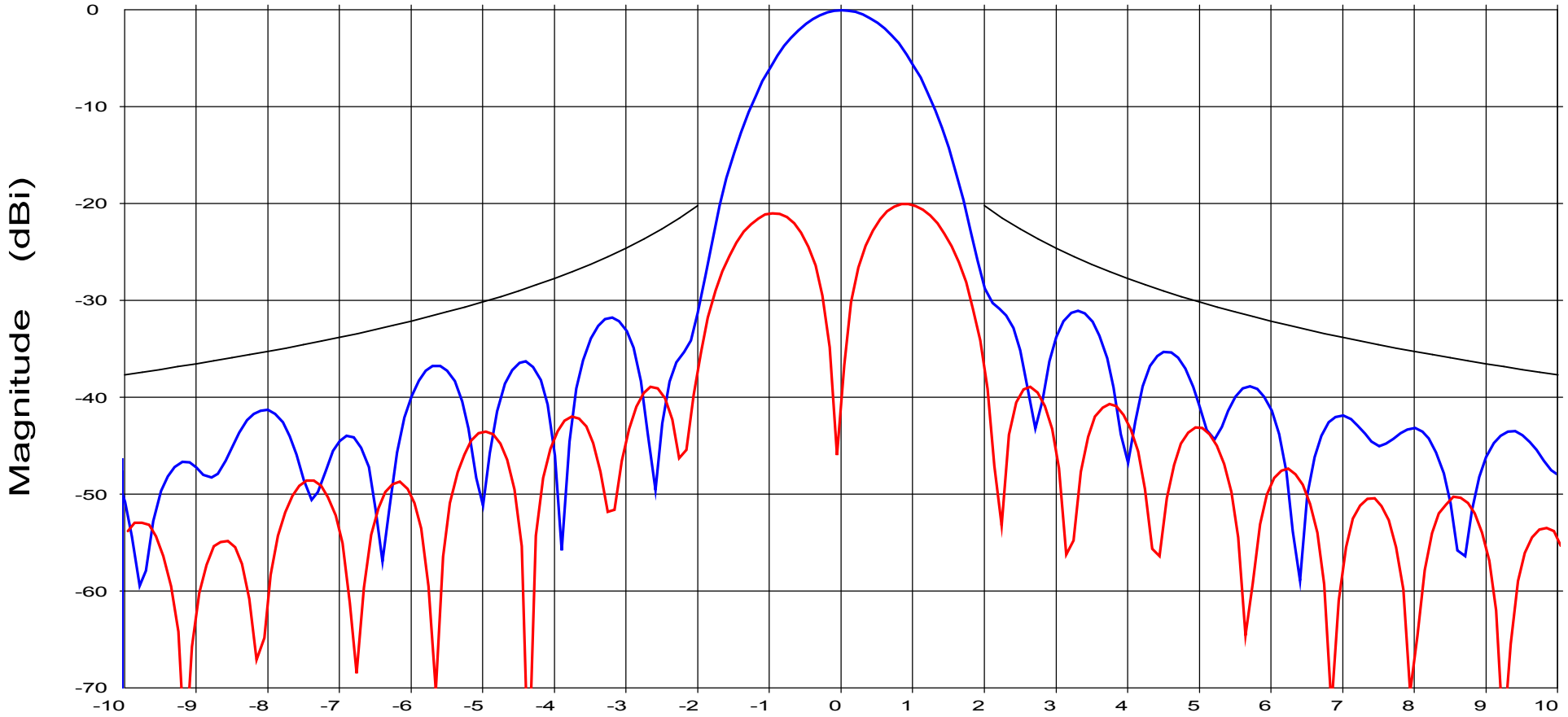
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi	1.46	2.55
1776 36.dat-ant_under_test	1776 36.dat	SGA 40	ch1	dBi		

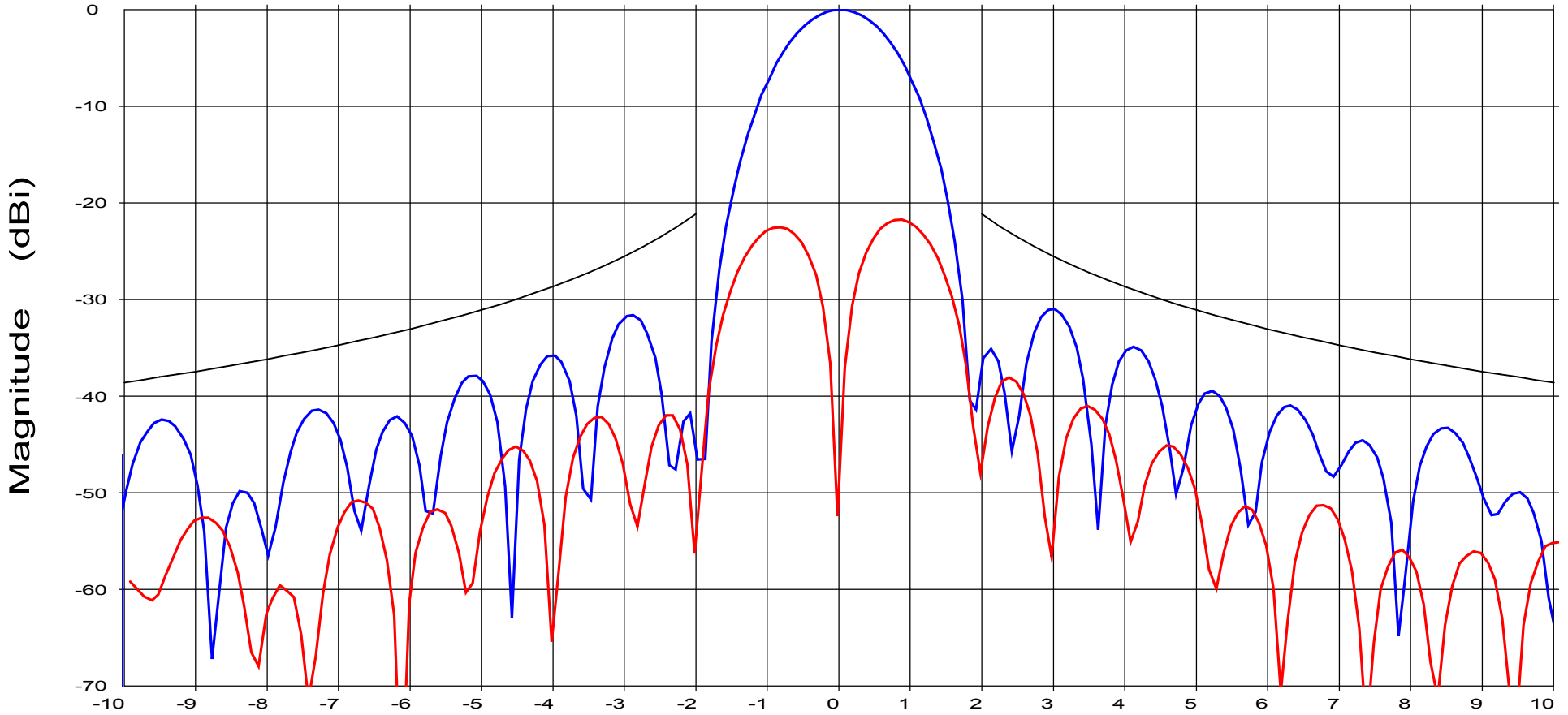
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi	1.32	2.31
1776 36.dat-ant_under_test	1776 36.dat	SGA 40	ch1	dBi		

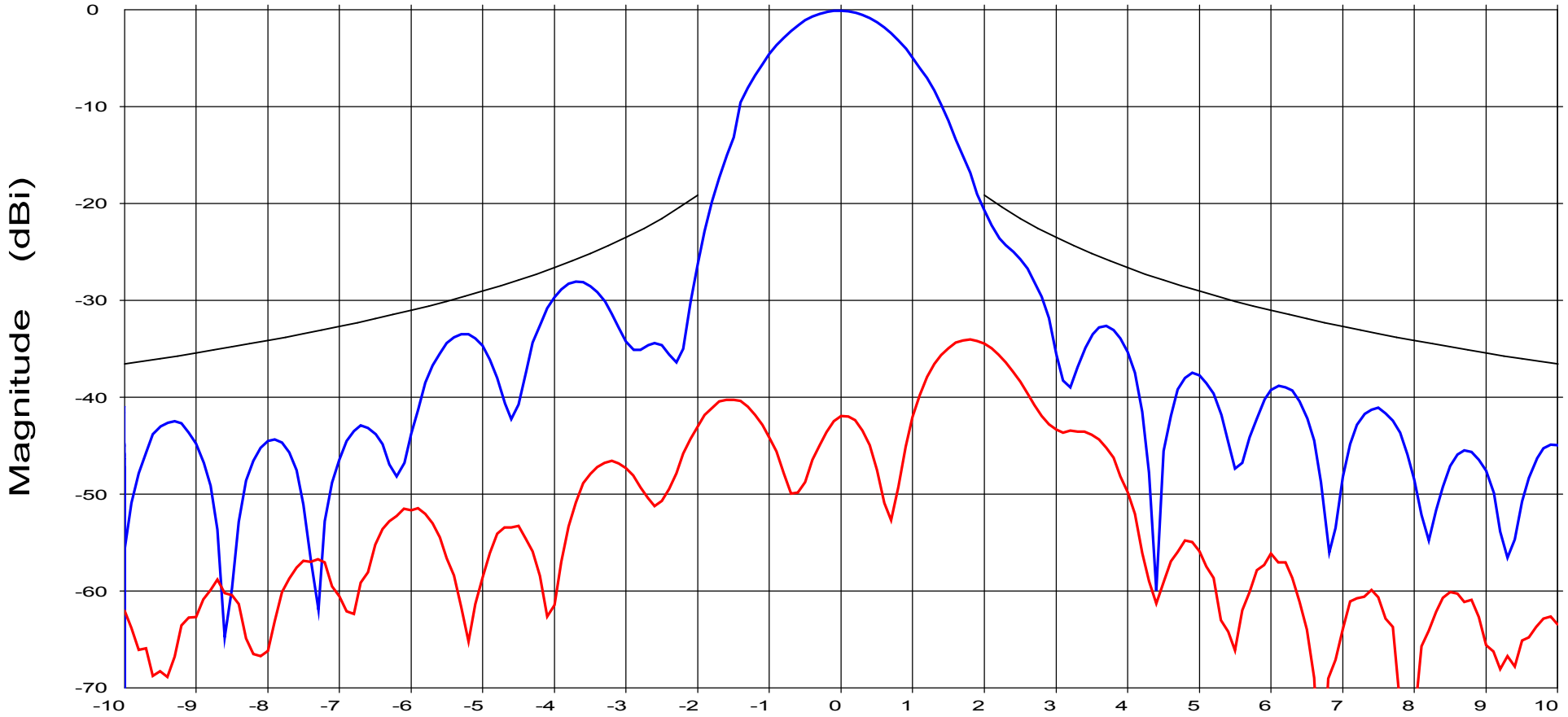
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi	1.62	2.83
1776 38.dat-ant_under_test	1776 38.dat	SGA 40	ch1	dBi		

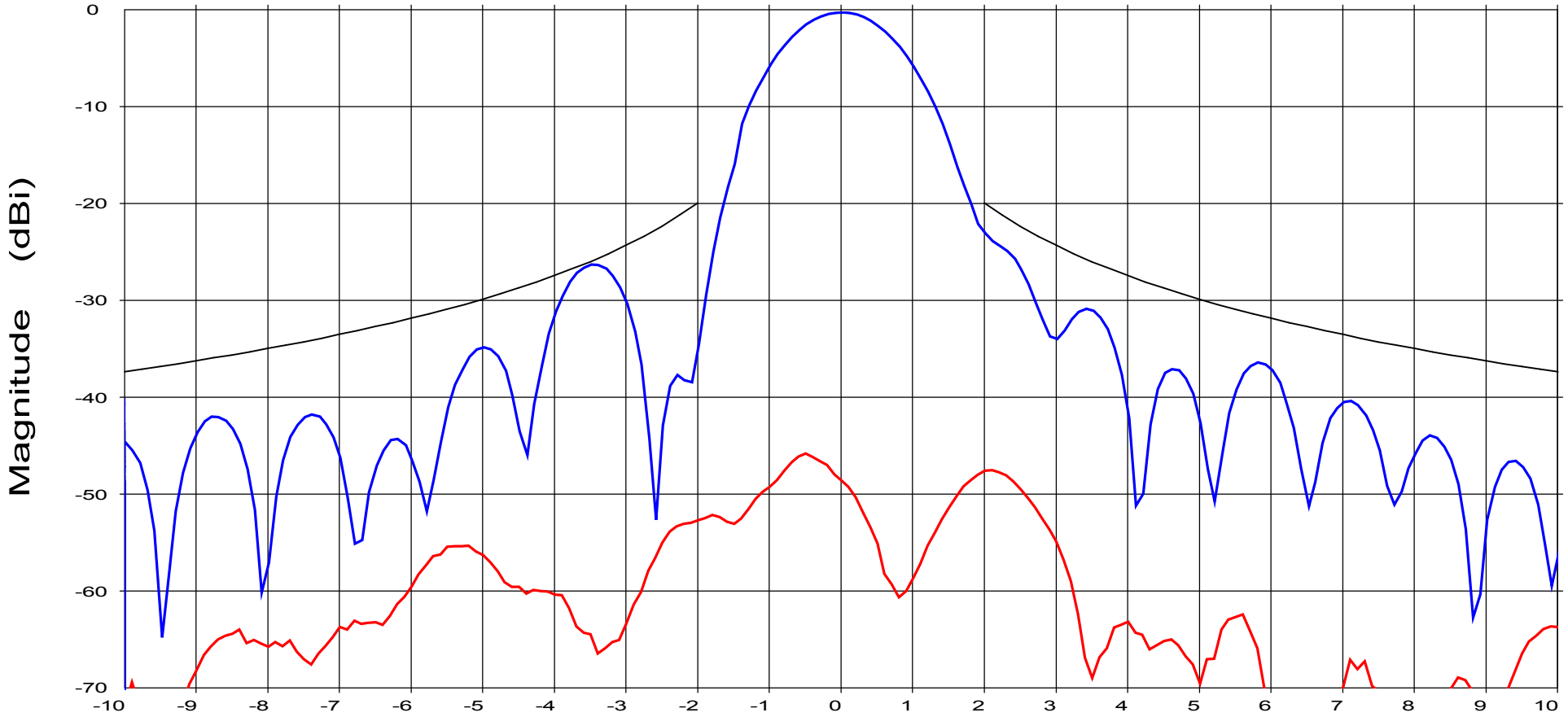
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi	1.49	2.63
1776 38.dat-ant_under_test	1776 38.dat	SGA 40	ch1	dBi		

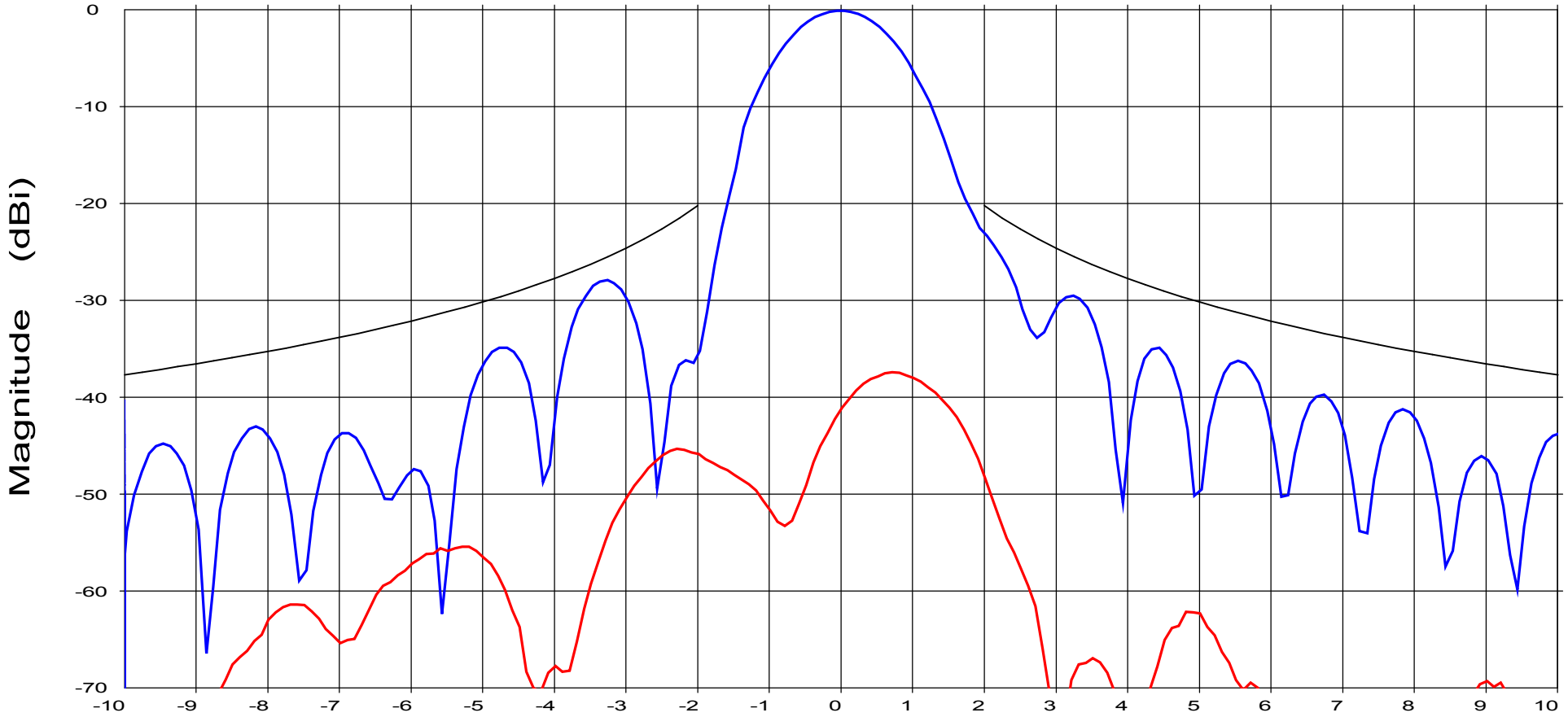
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi	1.43	2.53
1776 38.dat-ant_under_test	1776 38.dat	SGA 40	ch1	dBi		

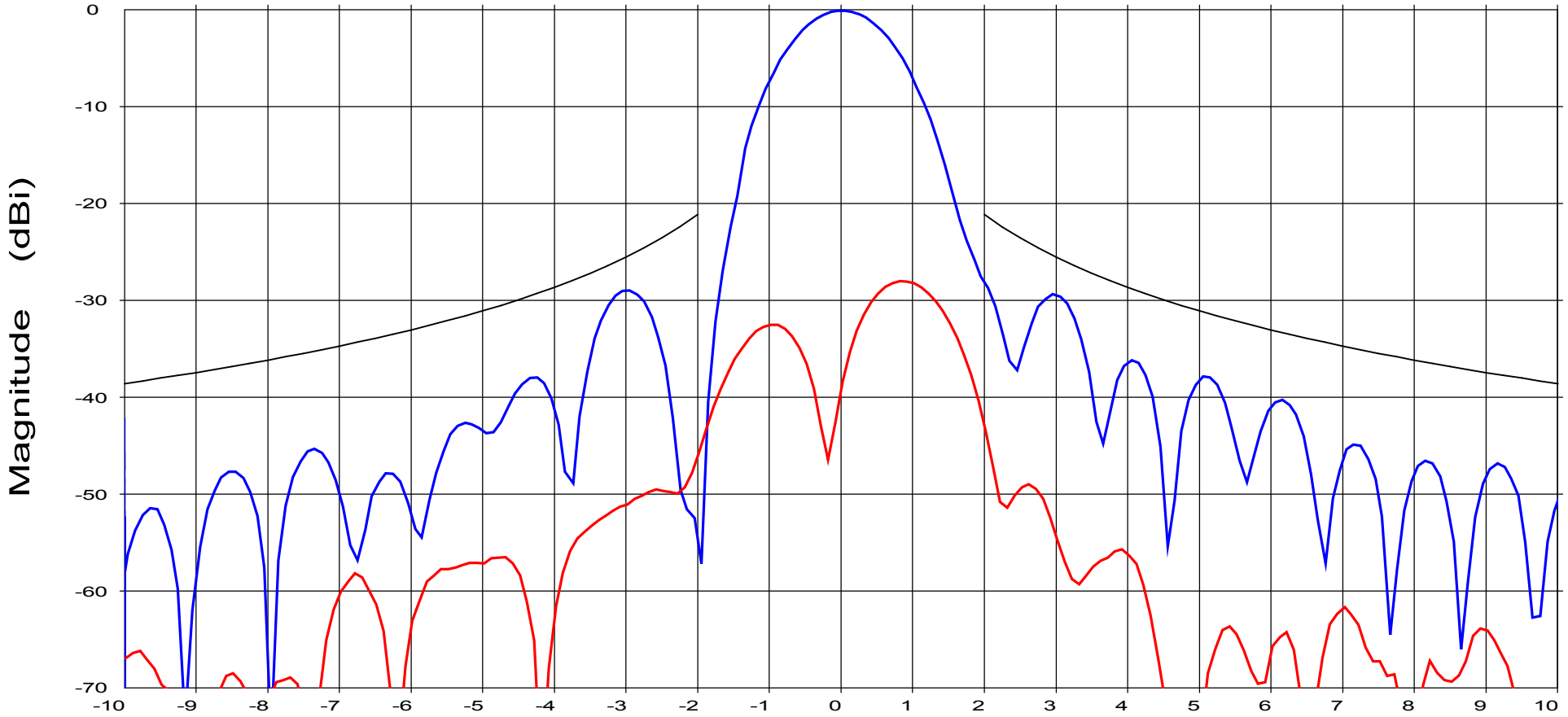
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi	1.33	2.34
1776 38.dat-ant_under_test	1776 38.dat	SGA 40	ch1	dBi		

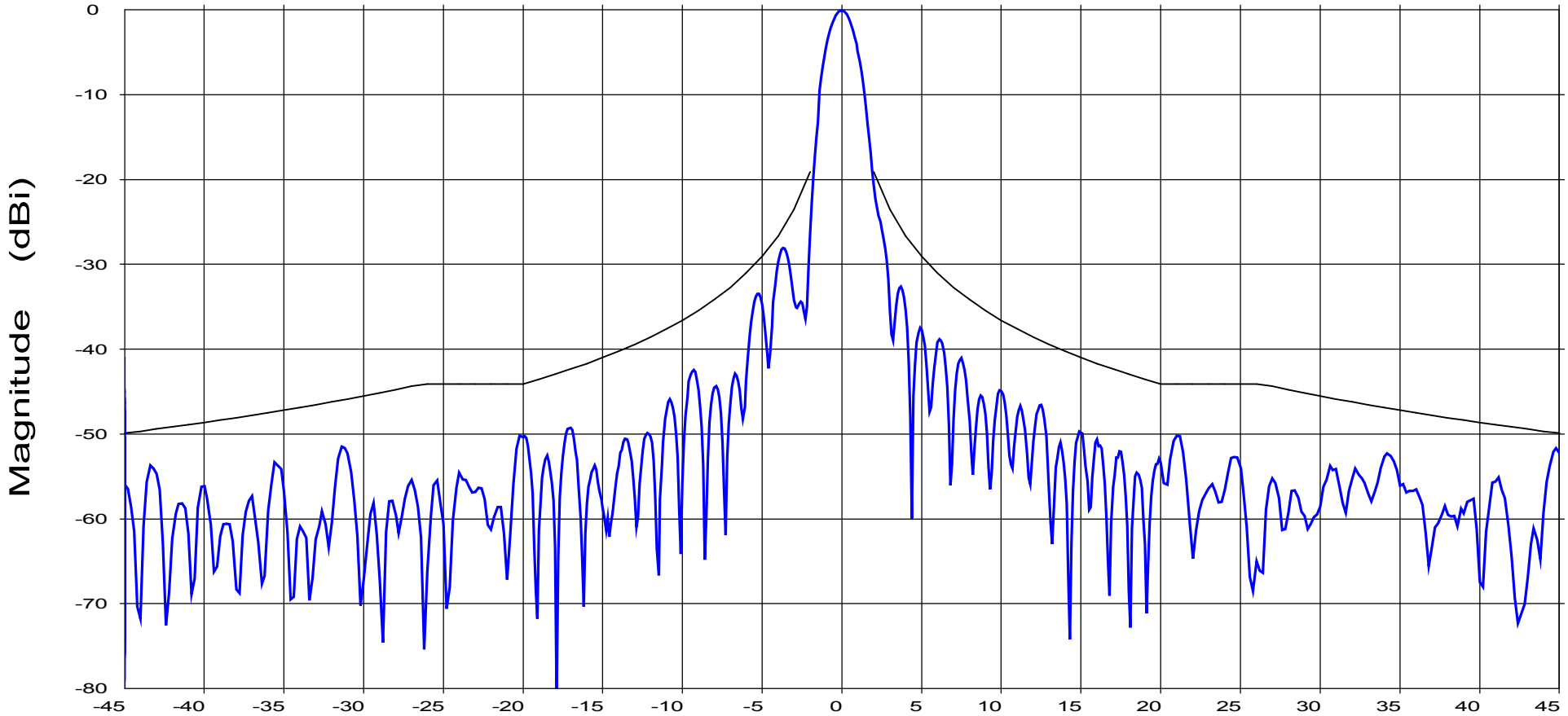
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi

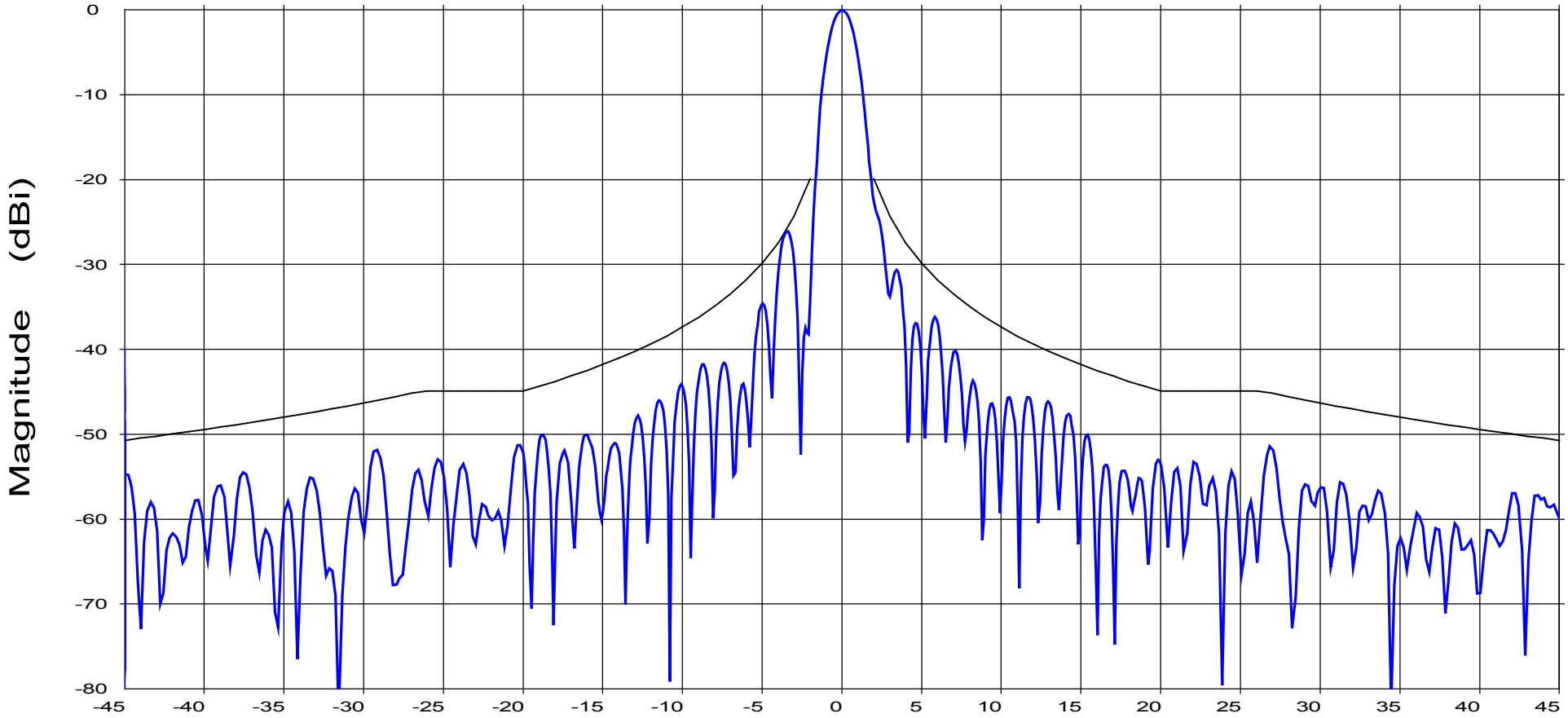
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi

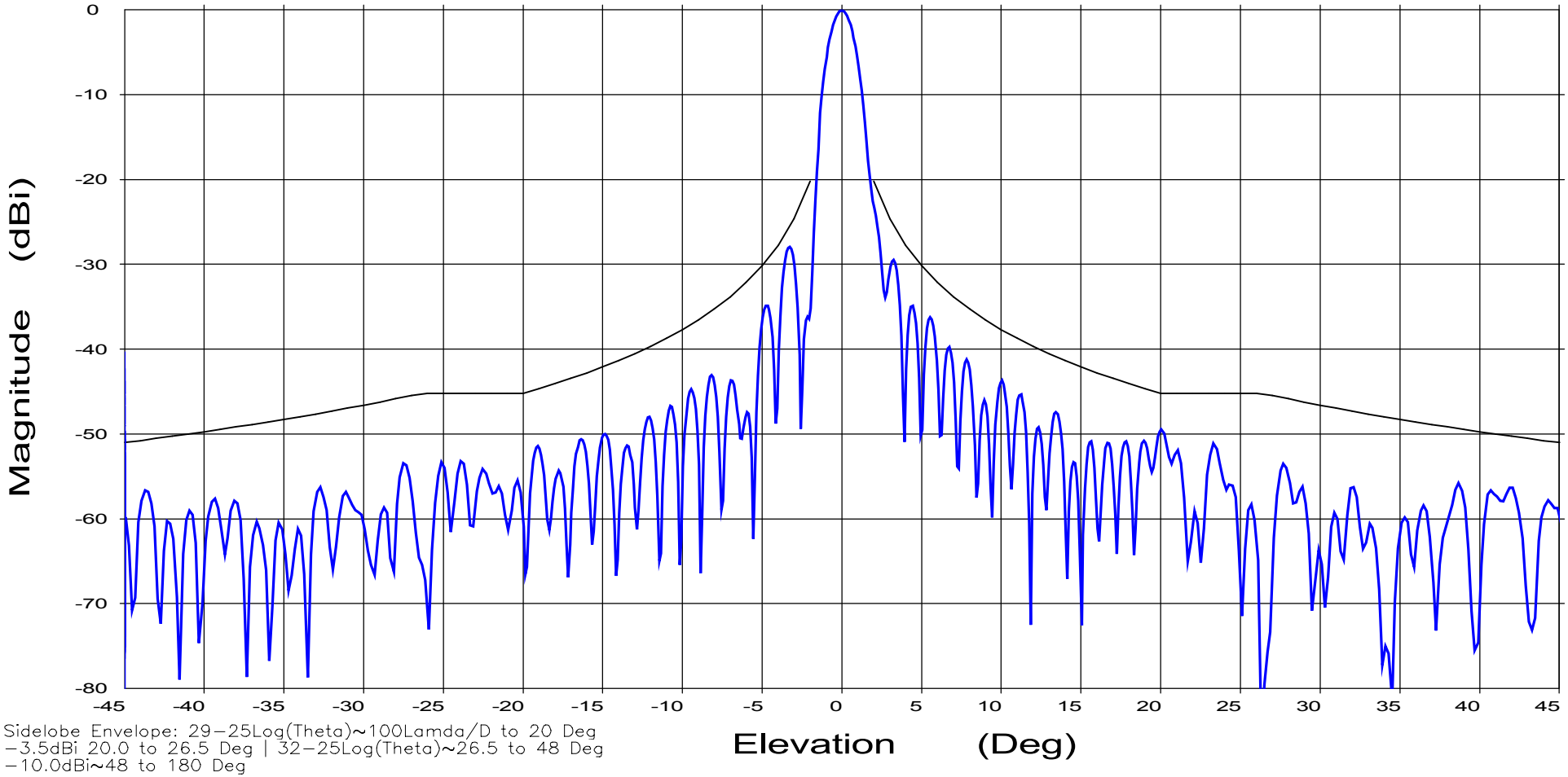
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi

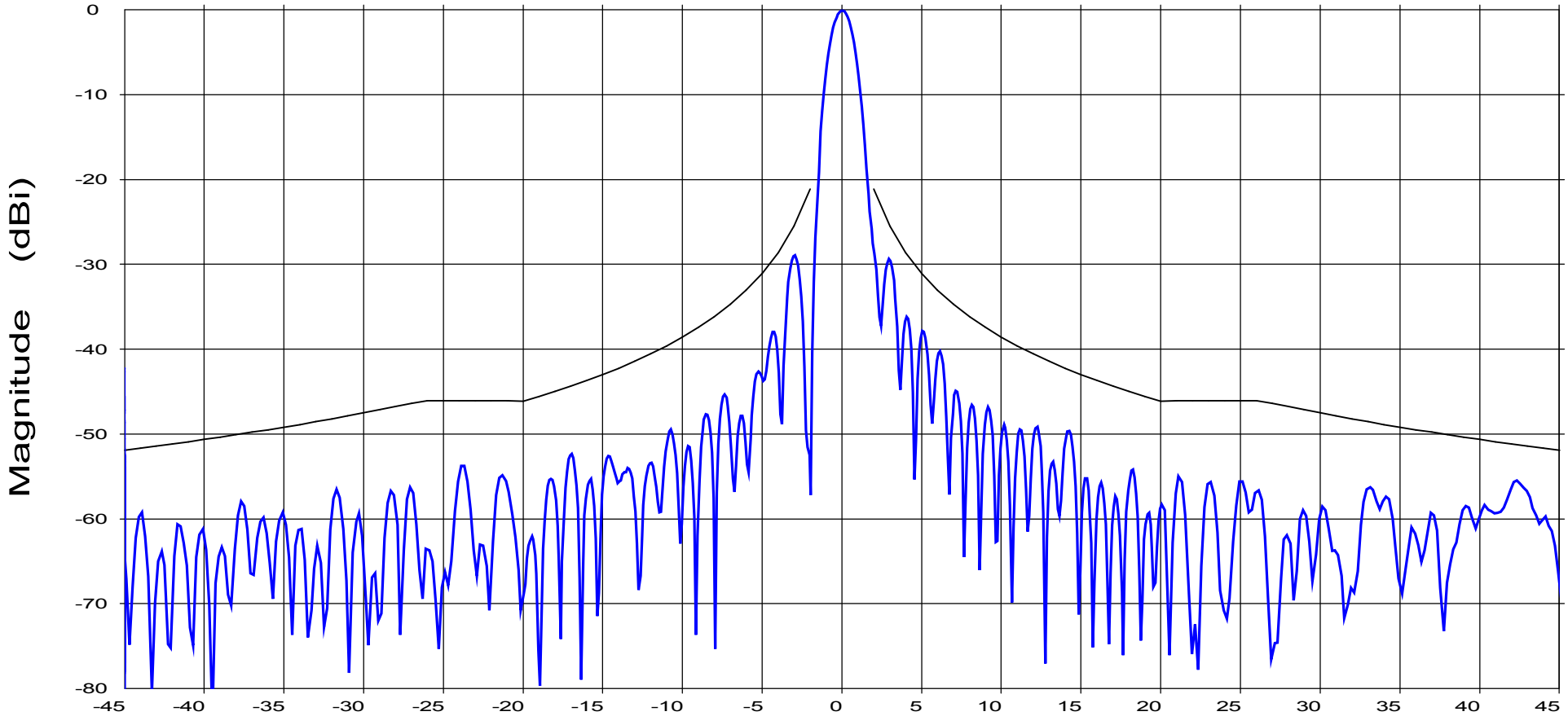
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 32.dat-ant_under_test	1776 32.dat	SGA 40	ch1	dBi

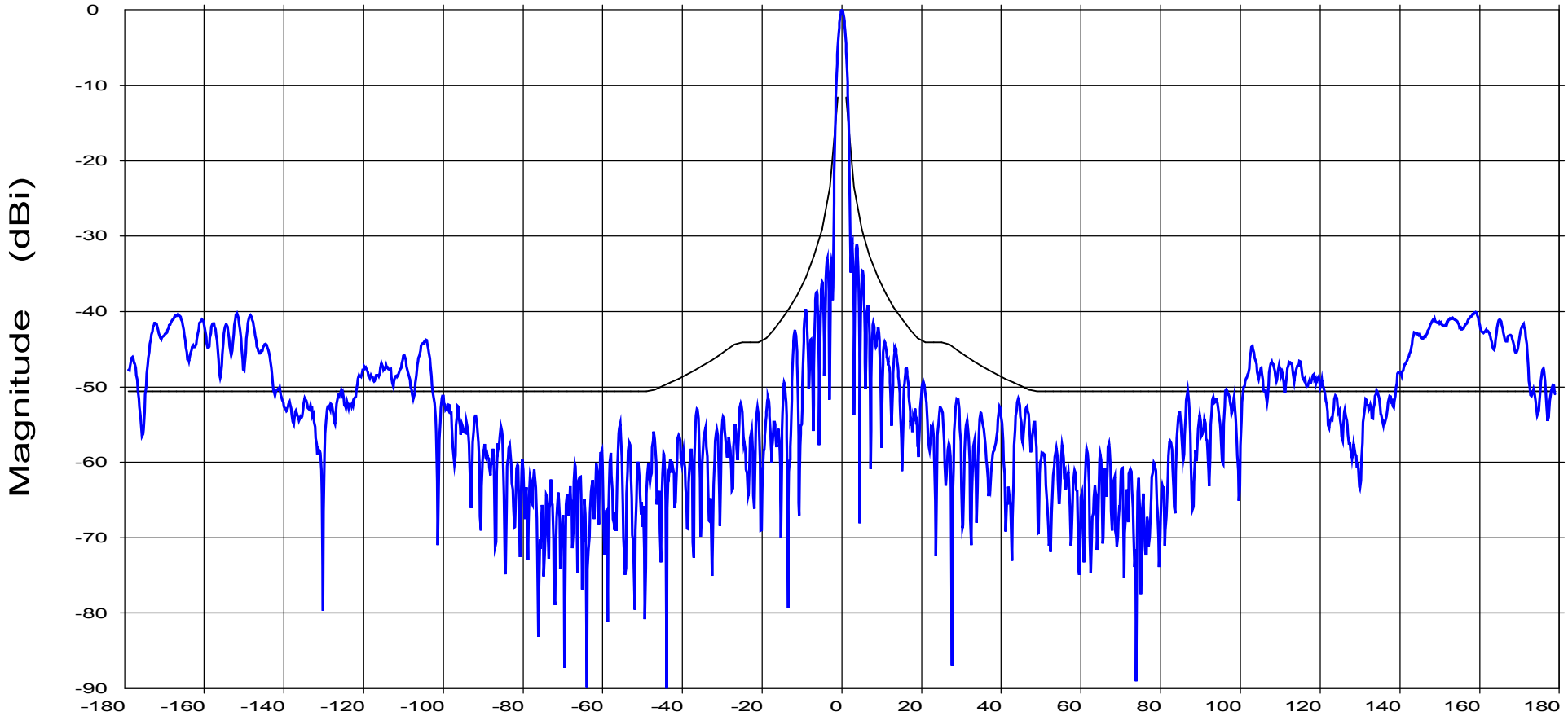
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi

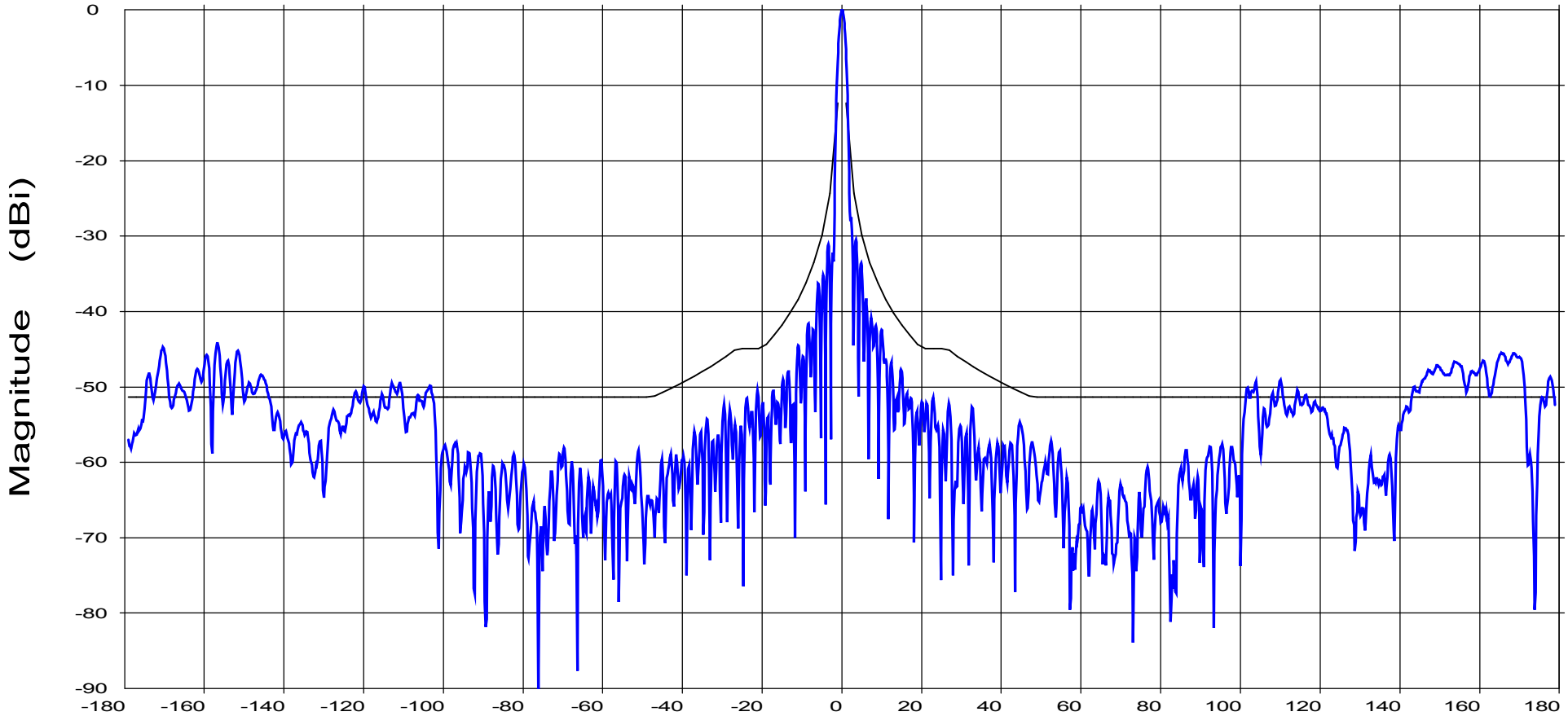
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi

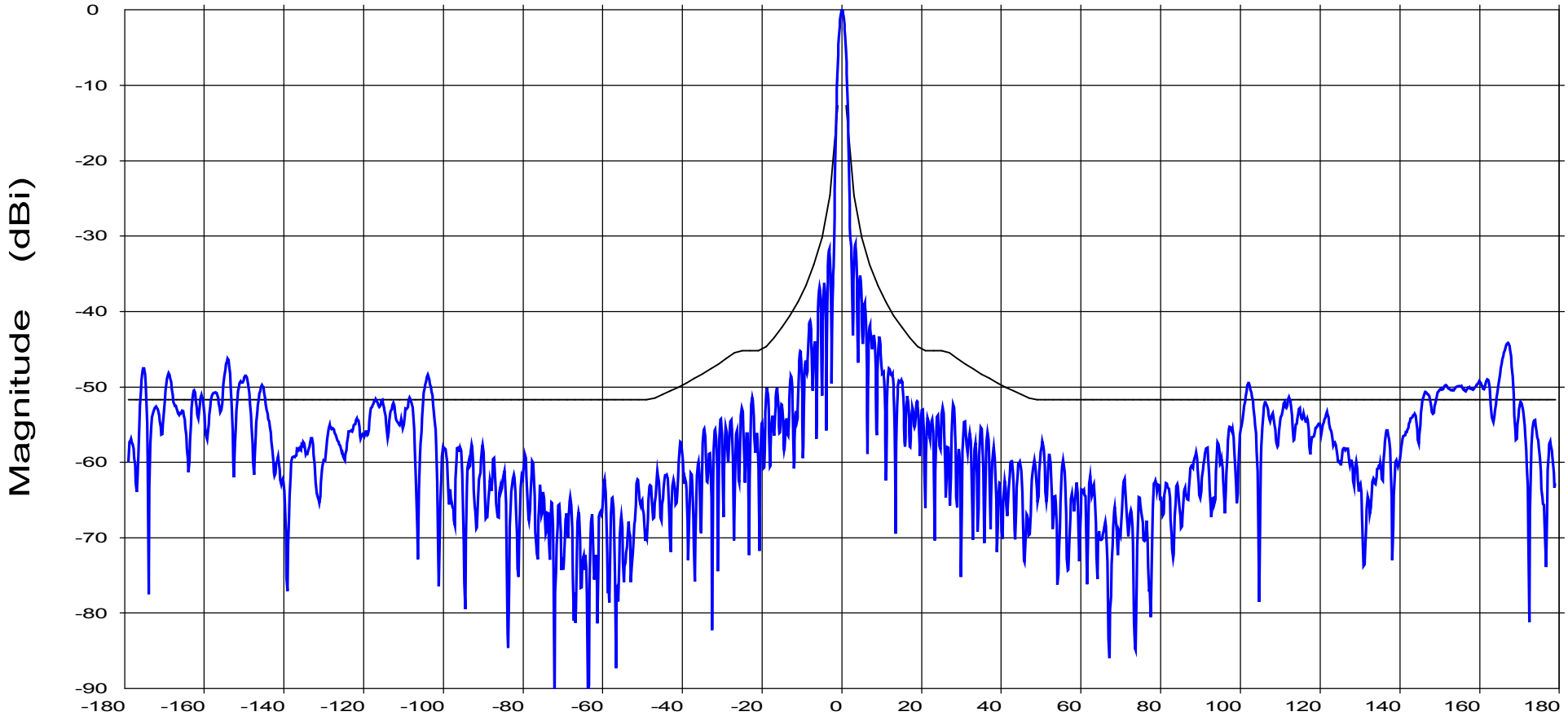
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi

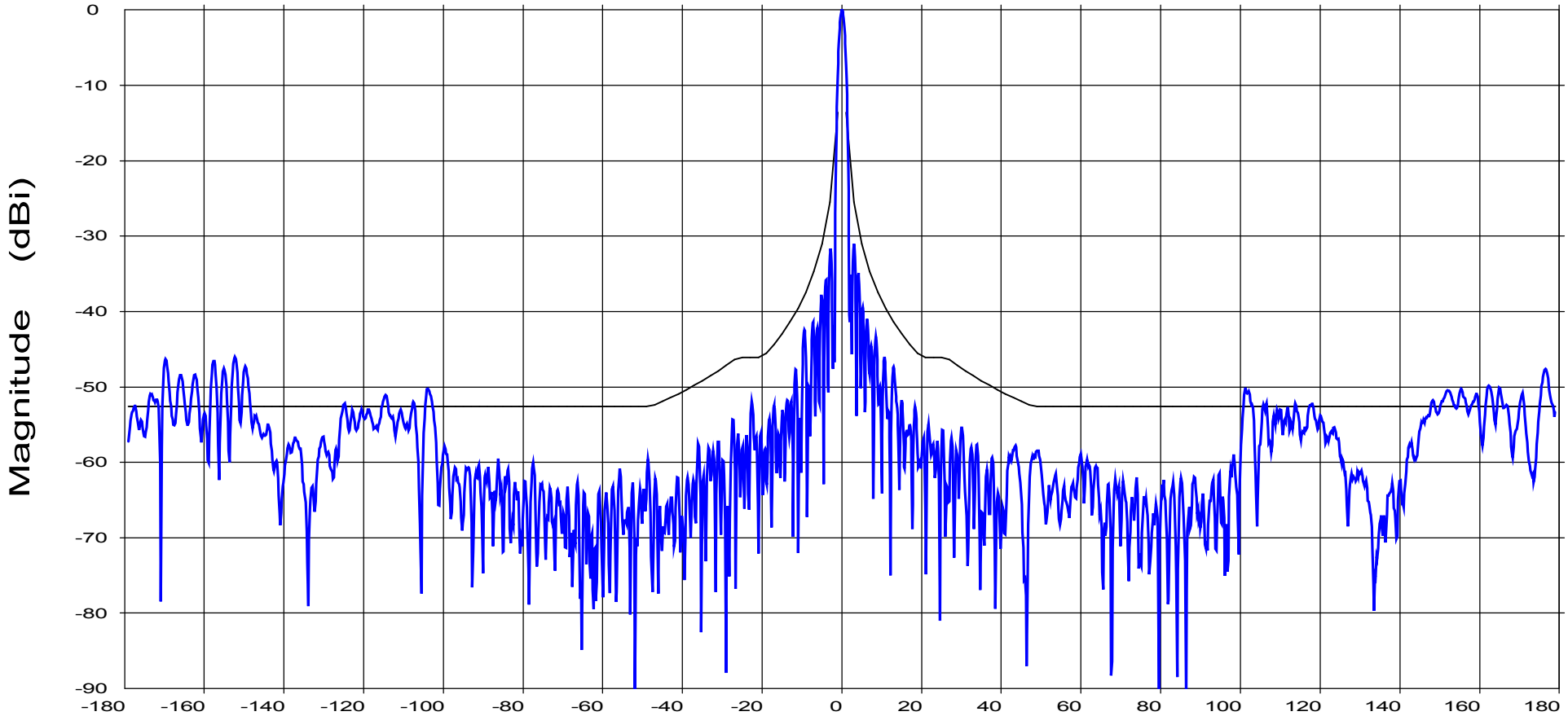
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Vert. Rx pol: Vert.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 35.dat-ant_under_test	1776 35.dat	SGA 40	ch1	dBi

2.4 Horizontal Polarization Receive

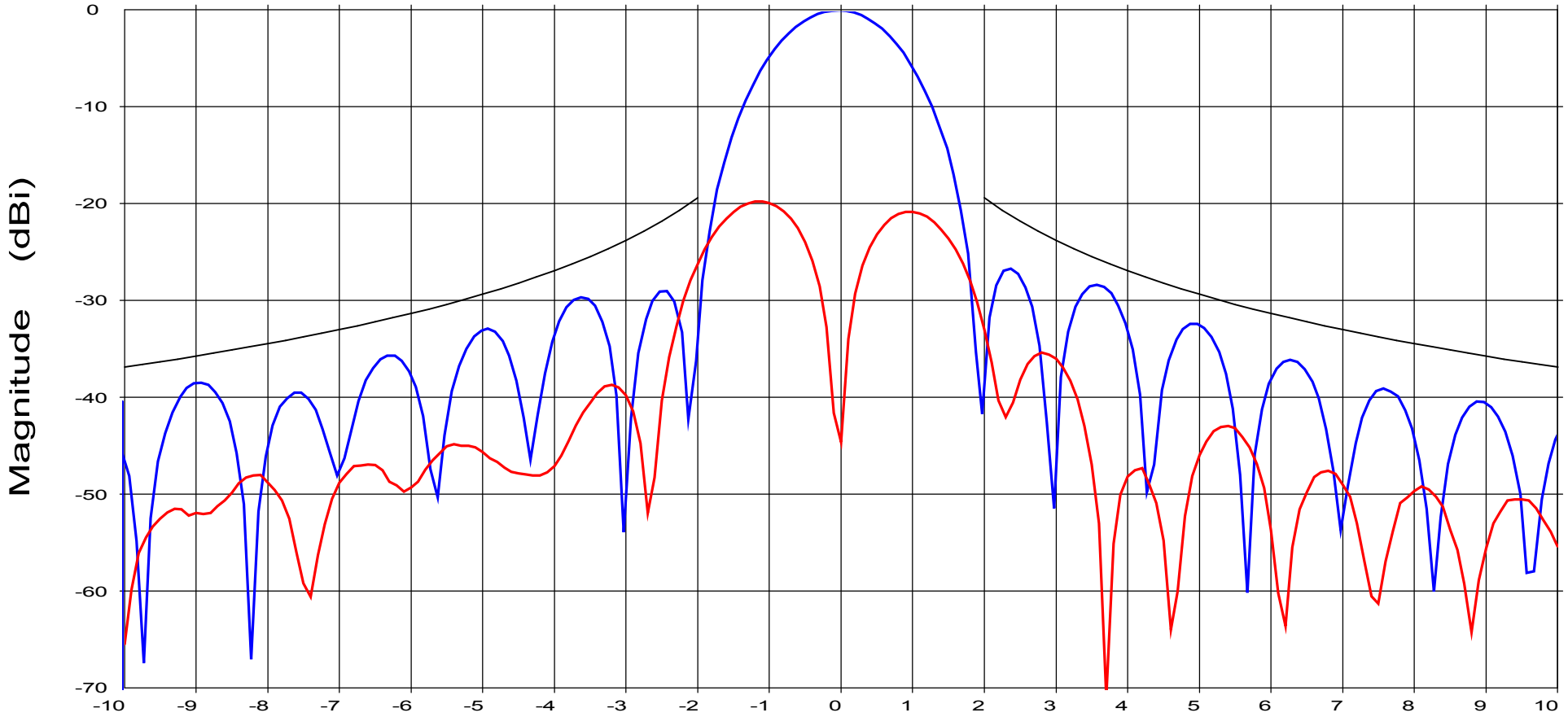
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi	1.53	2.64
1776 43.dat-ant_under_test	1776 43.dat	SGA 40	ch1	dBi		

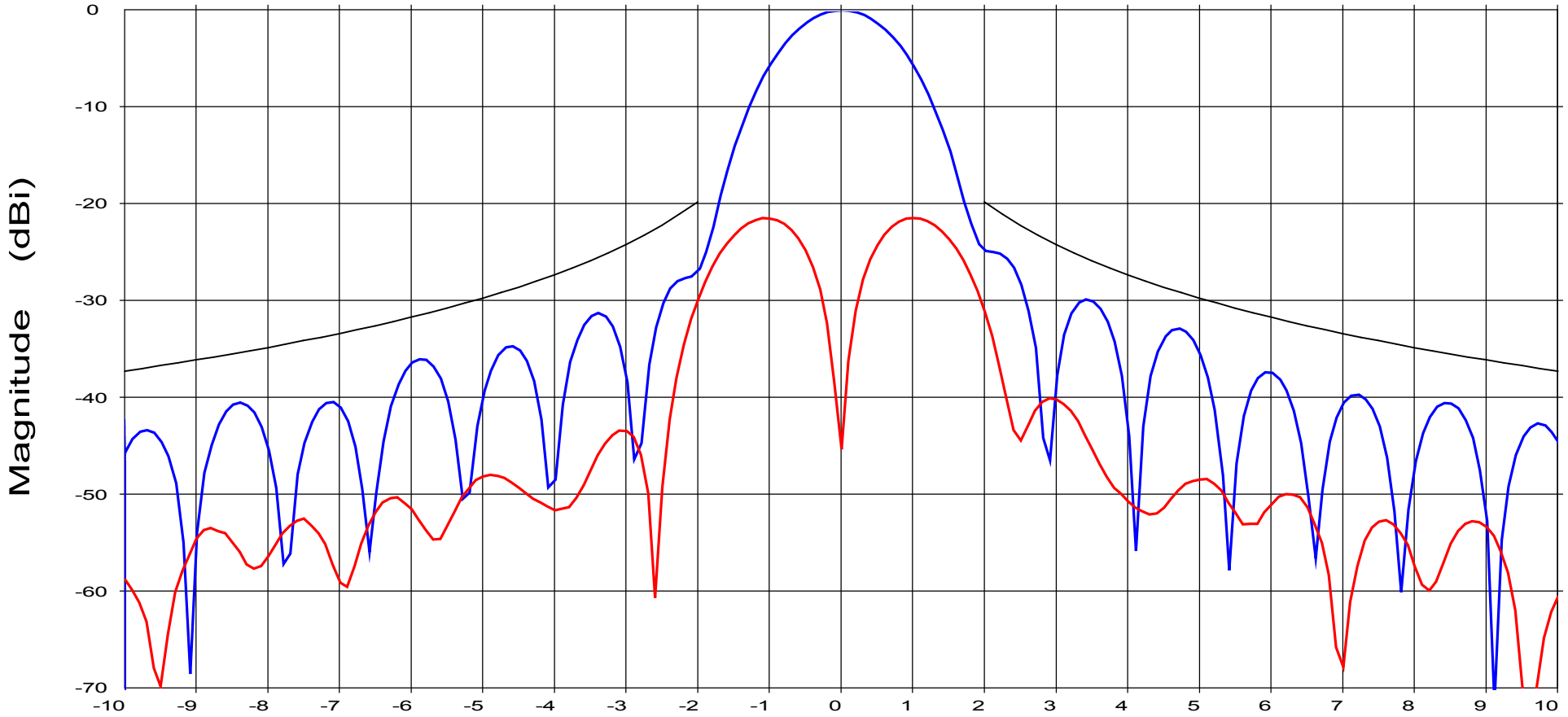
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi	1.48	2.57
1776 43.dat-ant_under_test	1776 43.dat	SGA 40	ch1	dBi		

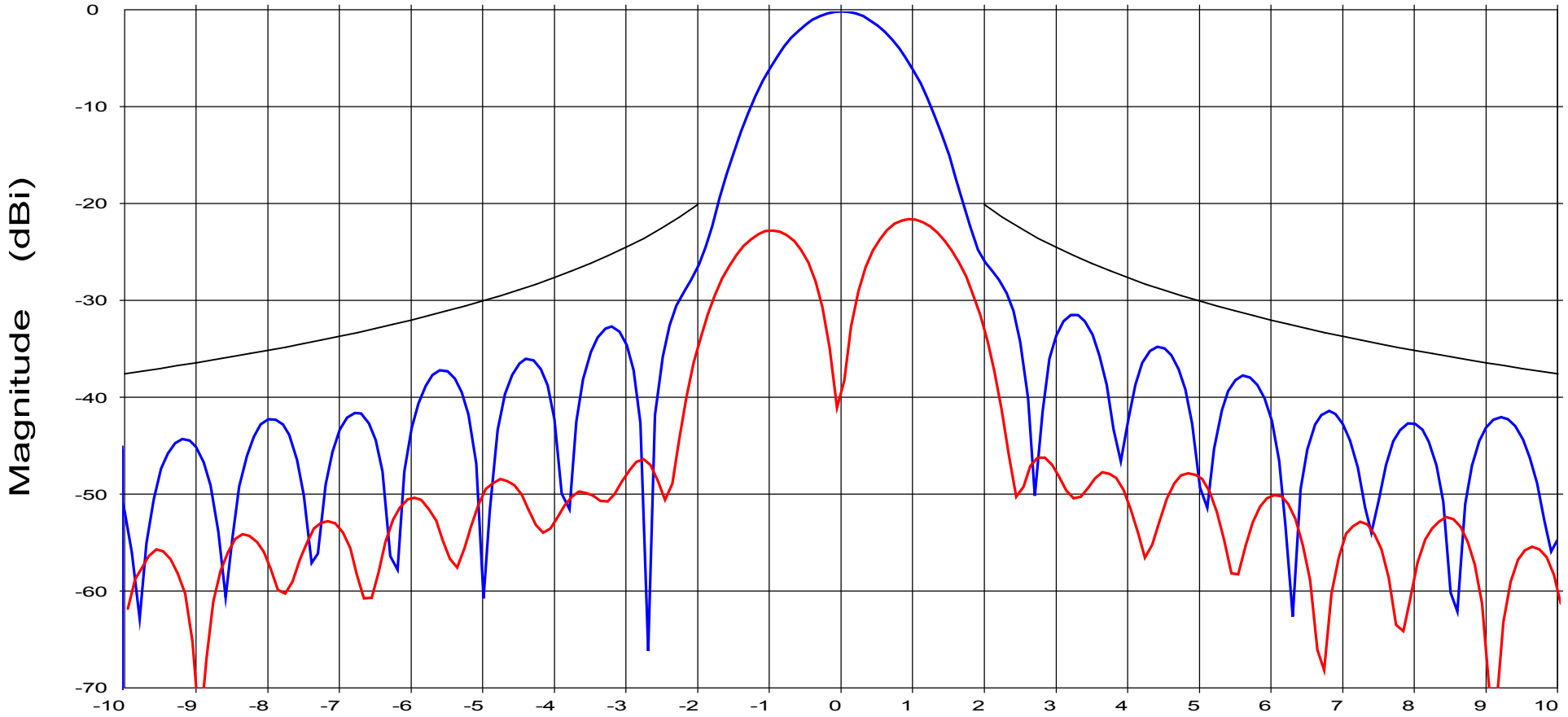
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi	1.45	2.53
1776 43.dat-ant_under_test	1776 43.dat	SGA 40	ch1	dBi		

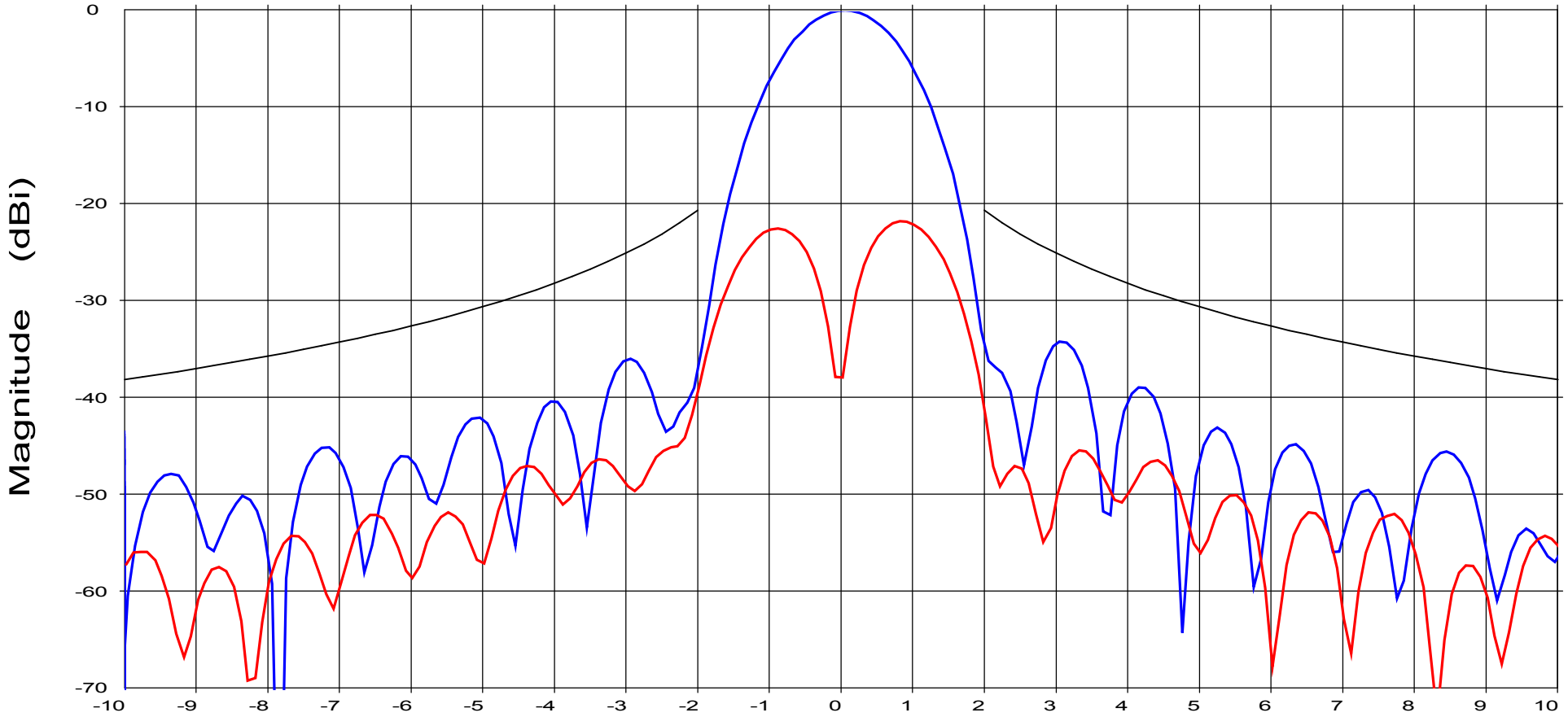
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi	1.39	2.42
1776 43.dat-ant_under_test	1776 43.dat	SGA 40	ch1	dBi		

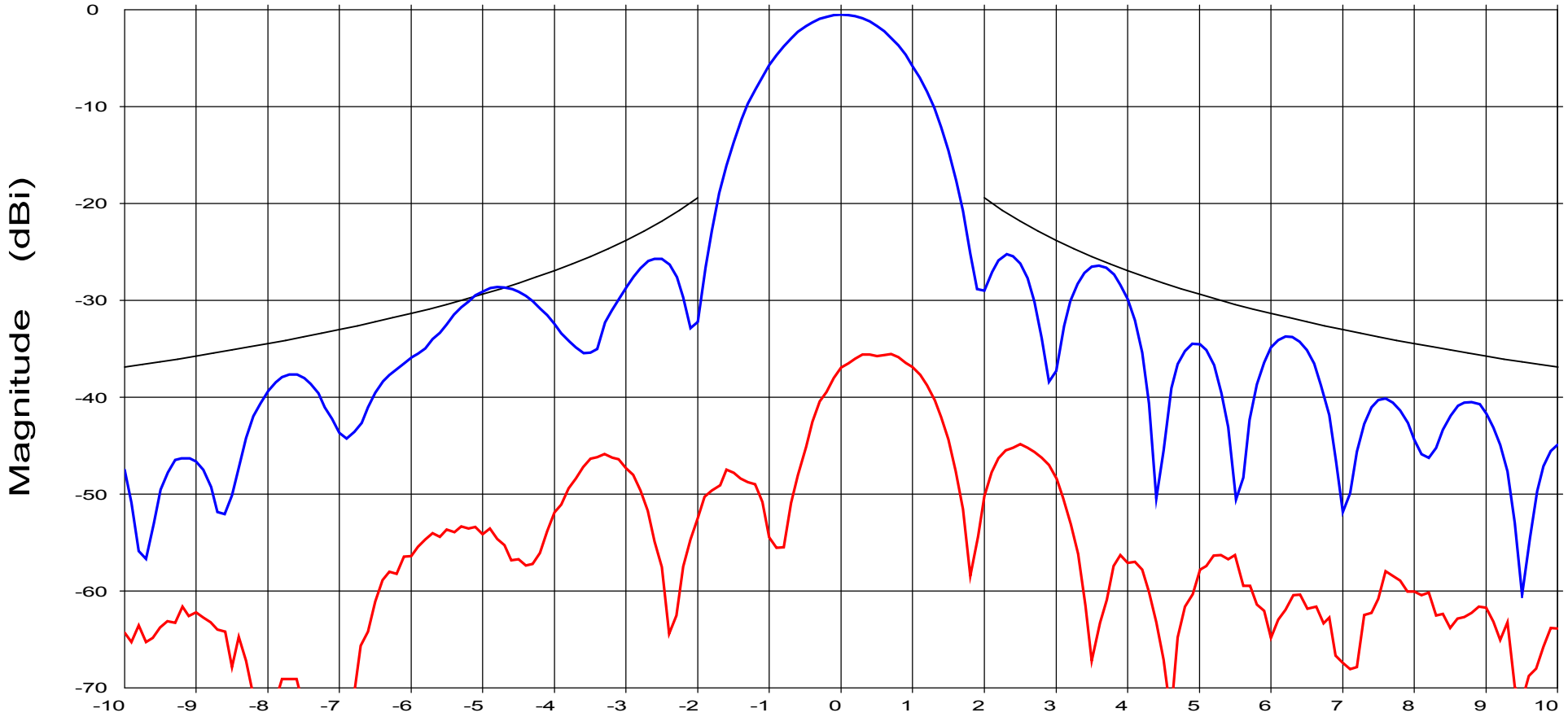
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 33.dat-ant_under_test	1776 33.dat	SGA 40	ch1	dBi	1.54	2.66
1776 45.dat-ant_under_test	1776 45.dat	SGA 40	ch1	dBi		

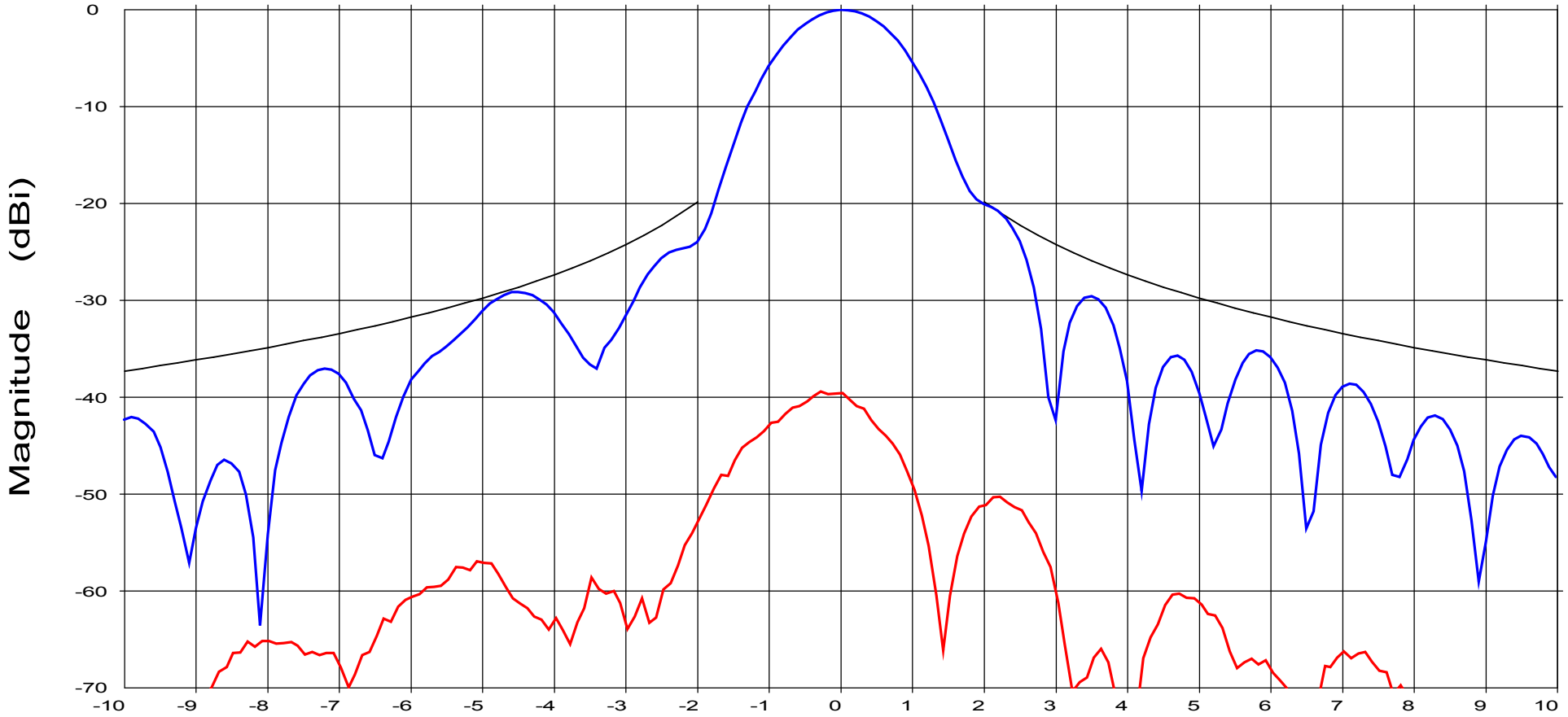
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 33.dat-ant_under_test	1776 33.dat	SGA 40	ch1	dBi	1.49	2.62
1776 45.dat-ant_under_test	1776 45.dat	SGA 40	ch1	dBi		

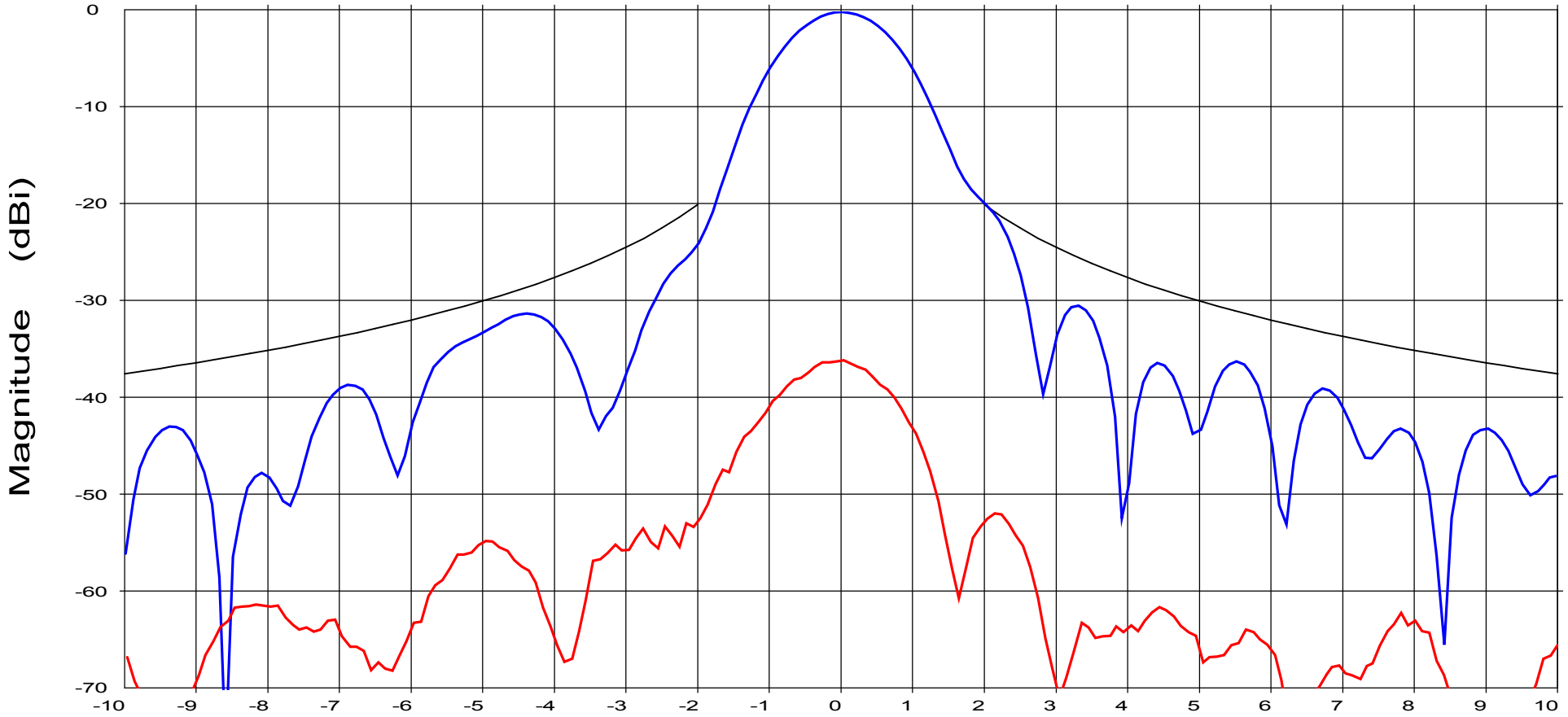
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 33.dat-ant_under_test	1776 33.dat	SGA 40	ch1	dBi	1.45	2.56
1776 45.dat-ant_under_test	1776 45.dat	SGA 40	ch1	dBi		

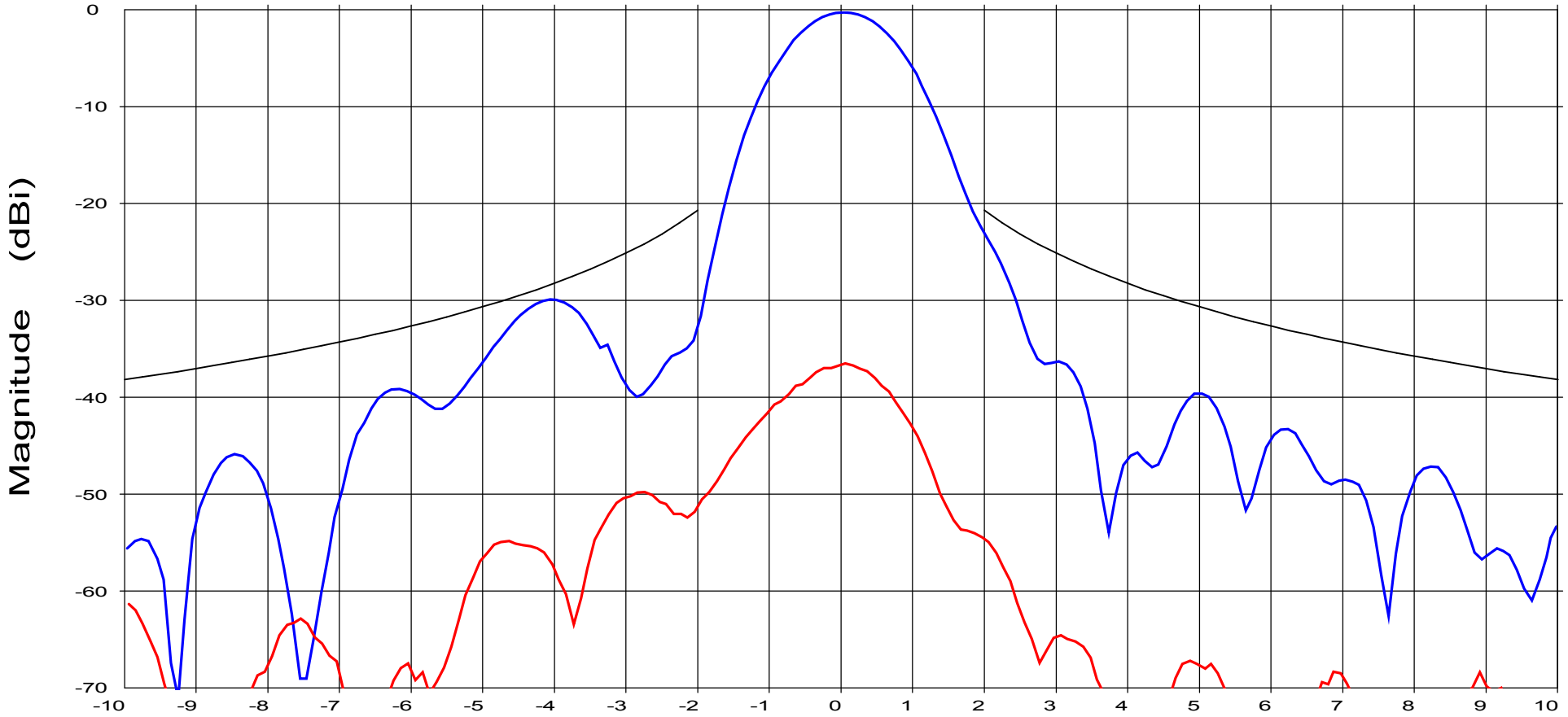
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units	Beam Width (Deg)	Supp Beam Width @ 10 dB (Deg)
1776 33.dat-ant_under_test	1776 33.dat	SGA 40	ch1	dBi	1.41	2.49
1776 45.dat-ant_under_test	1776 45.dat	SGA 40	ch1	dBi		

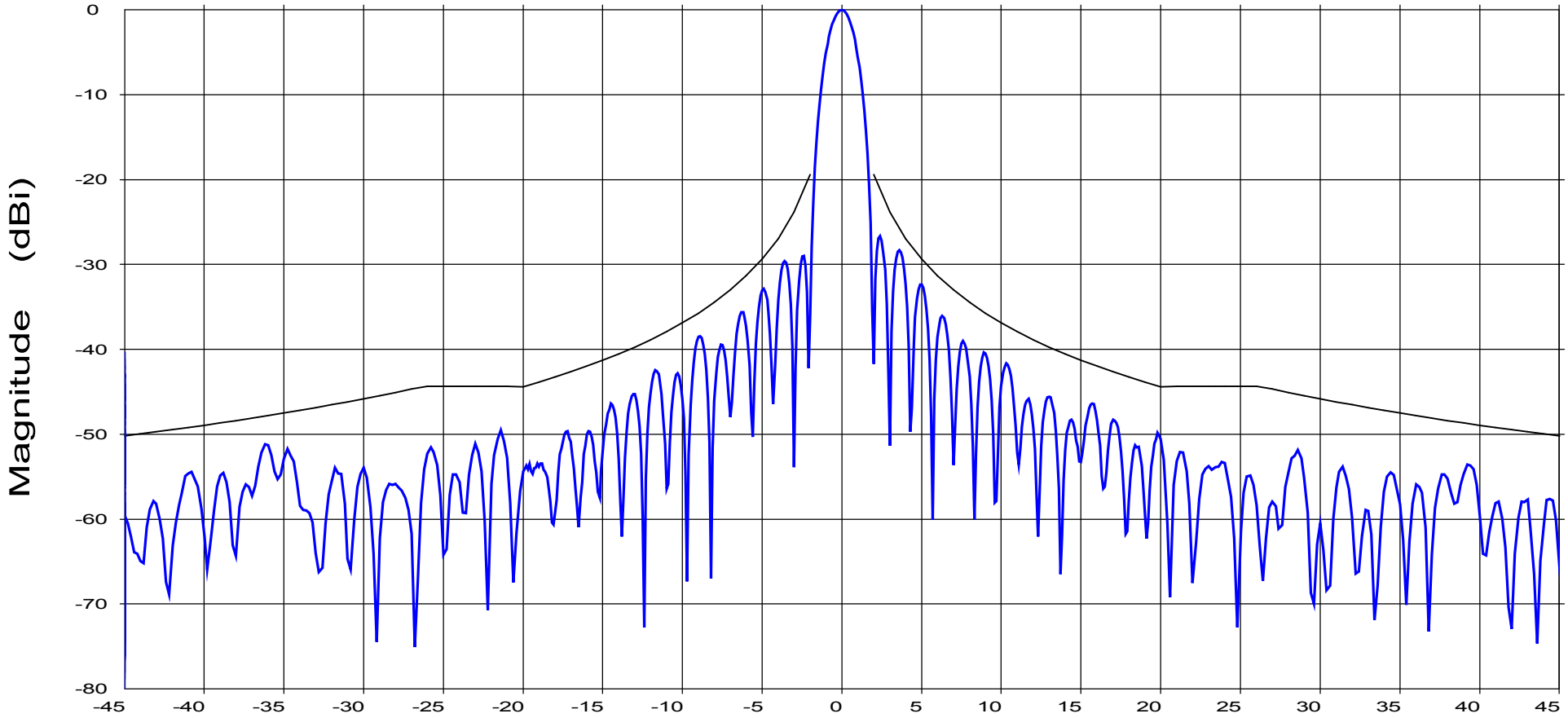
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

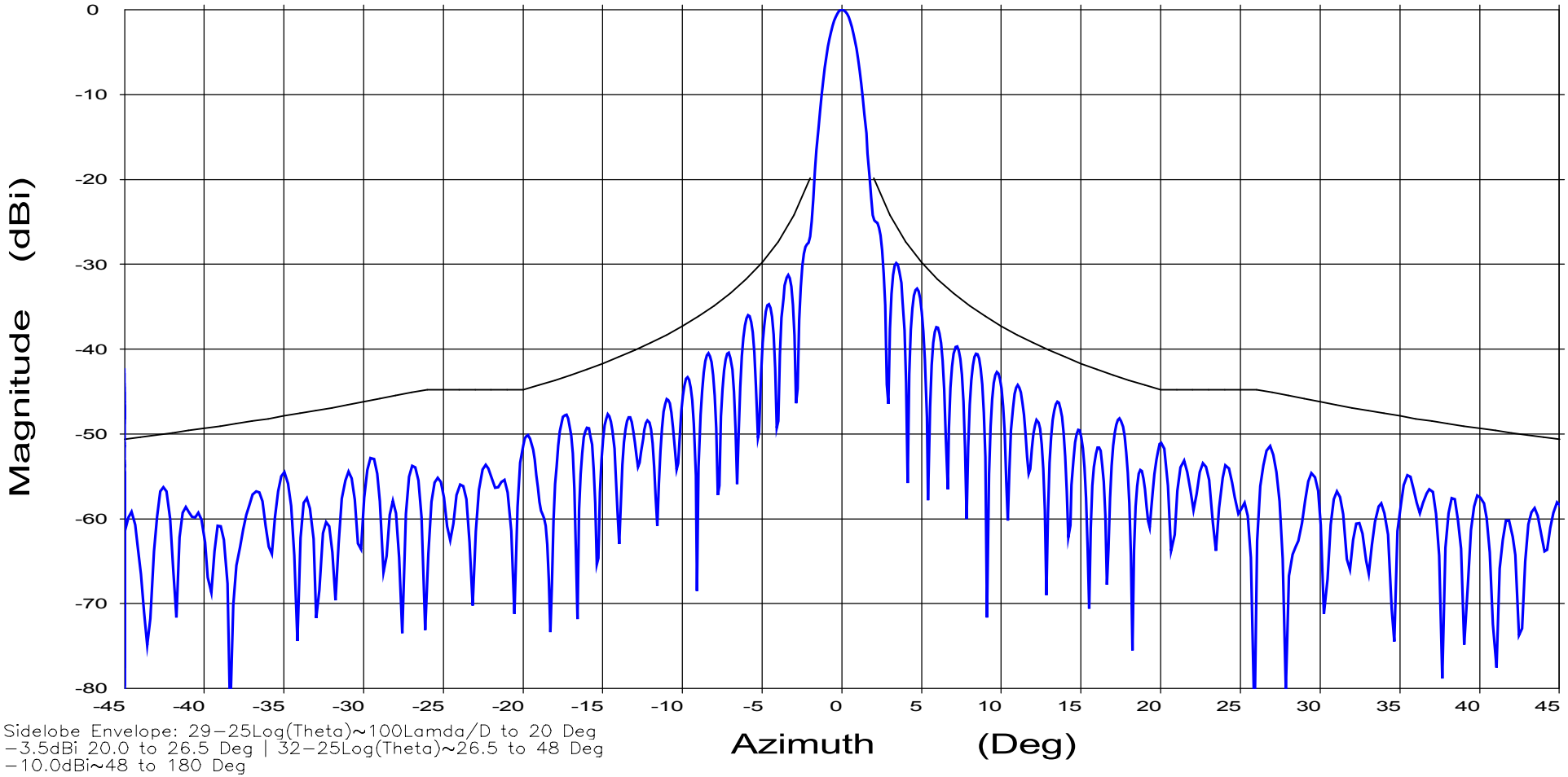
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

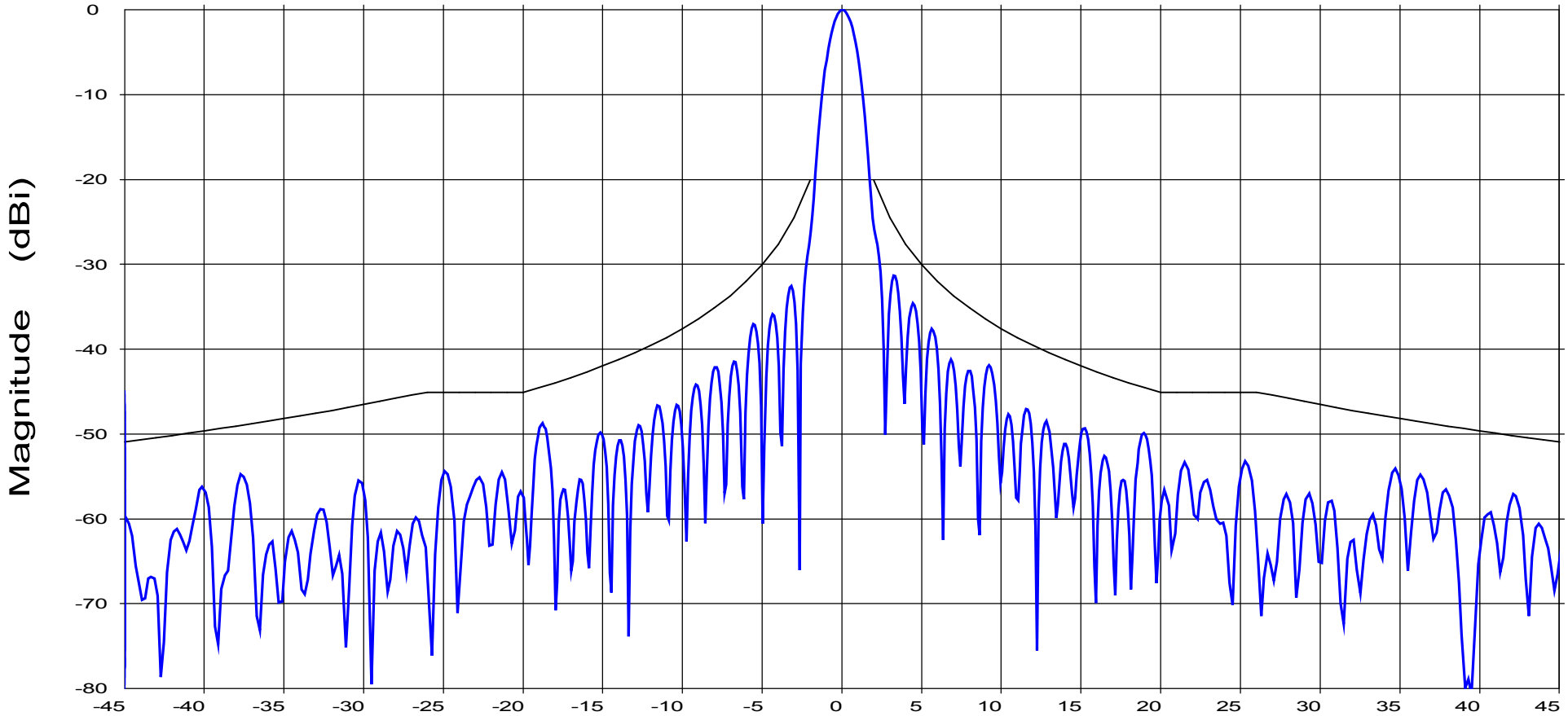
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

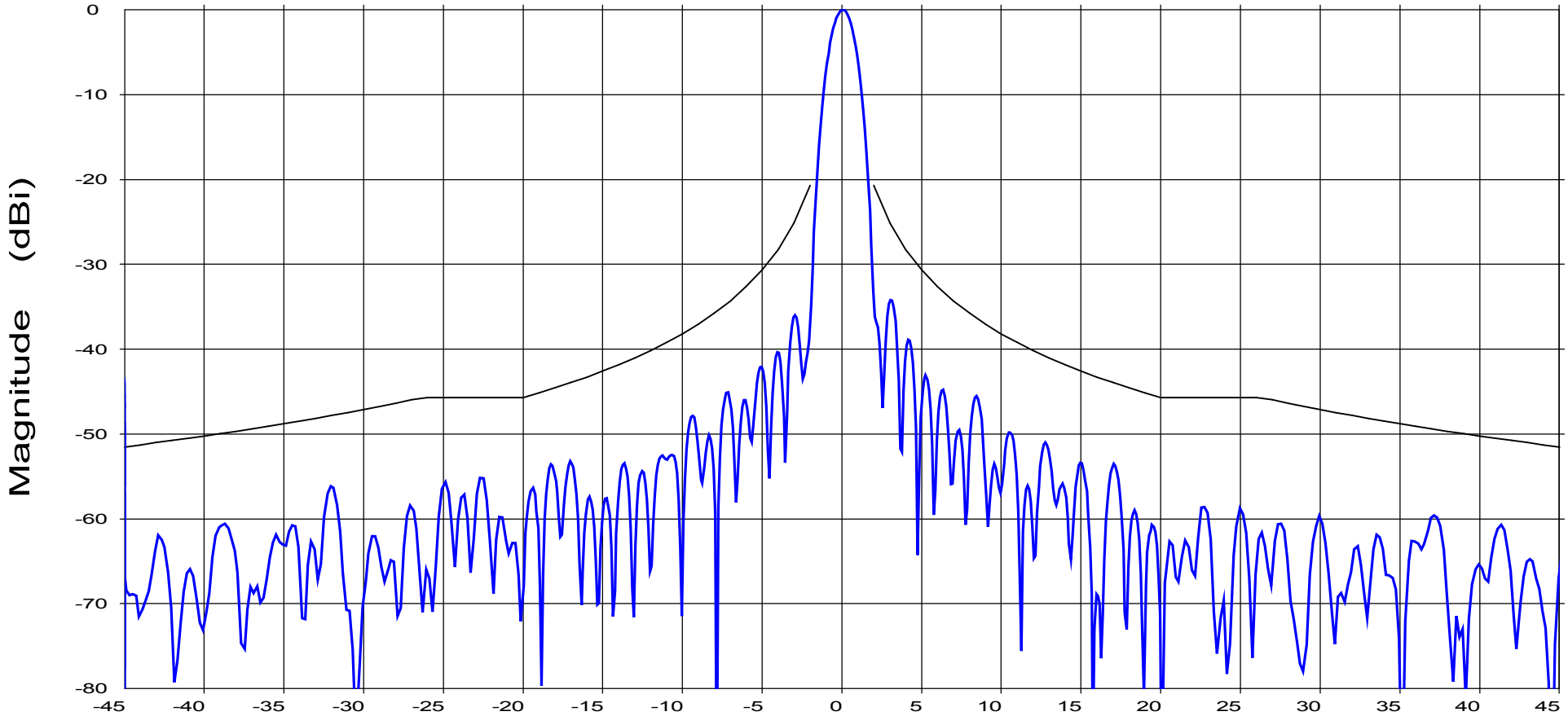
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

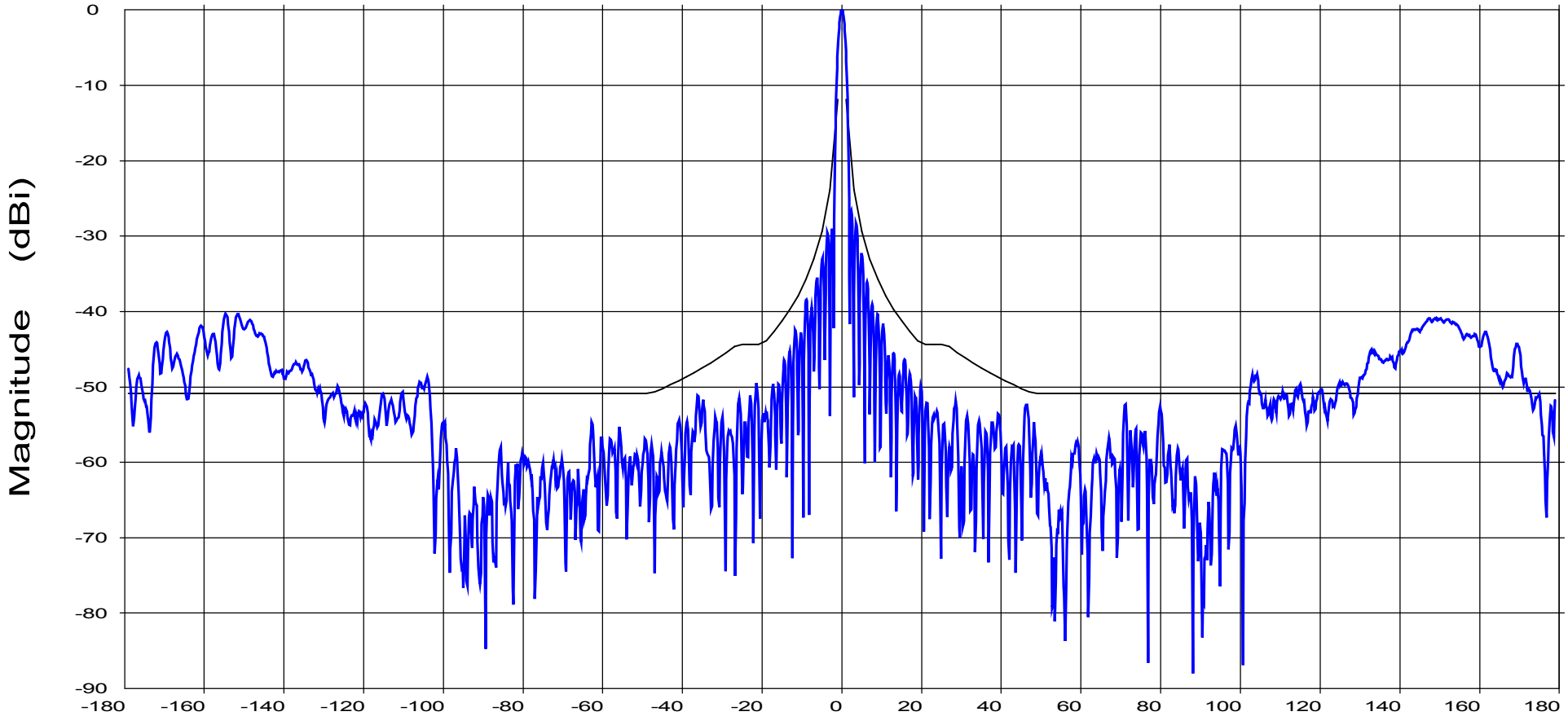
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.400 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

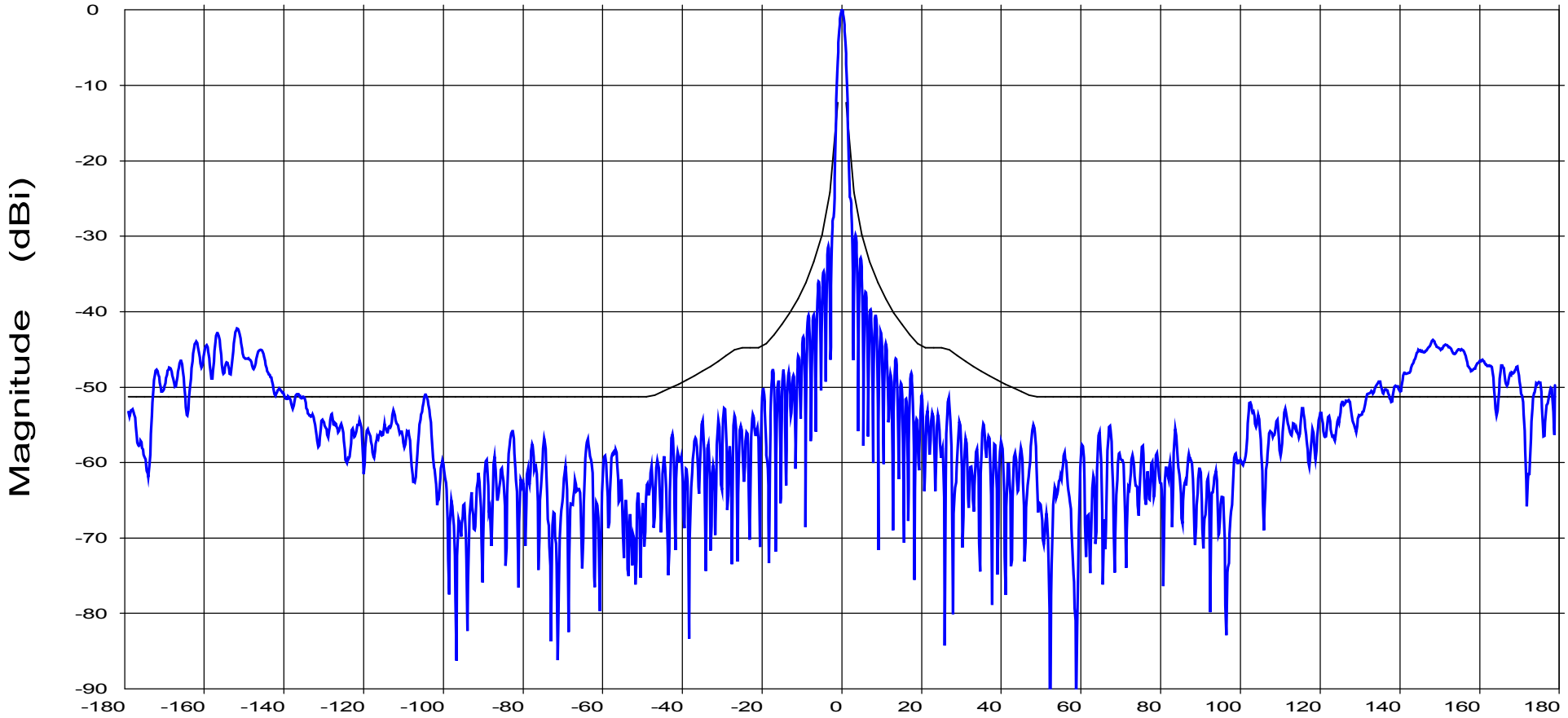
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.600 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

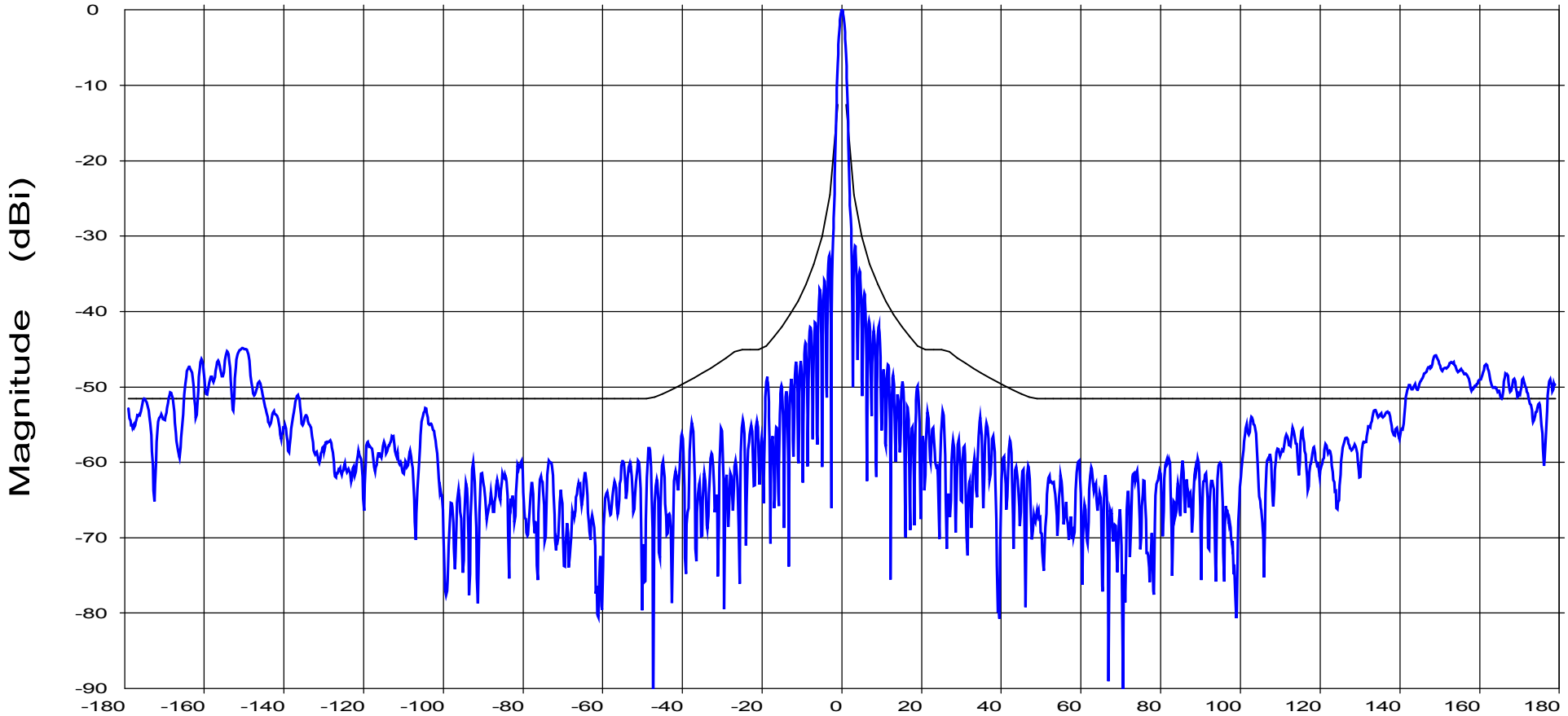
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 3.800 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

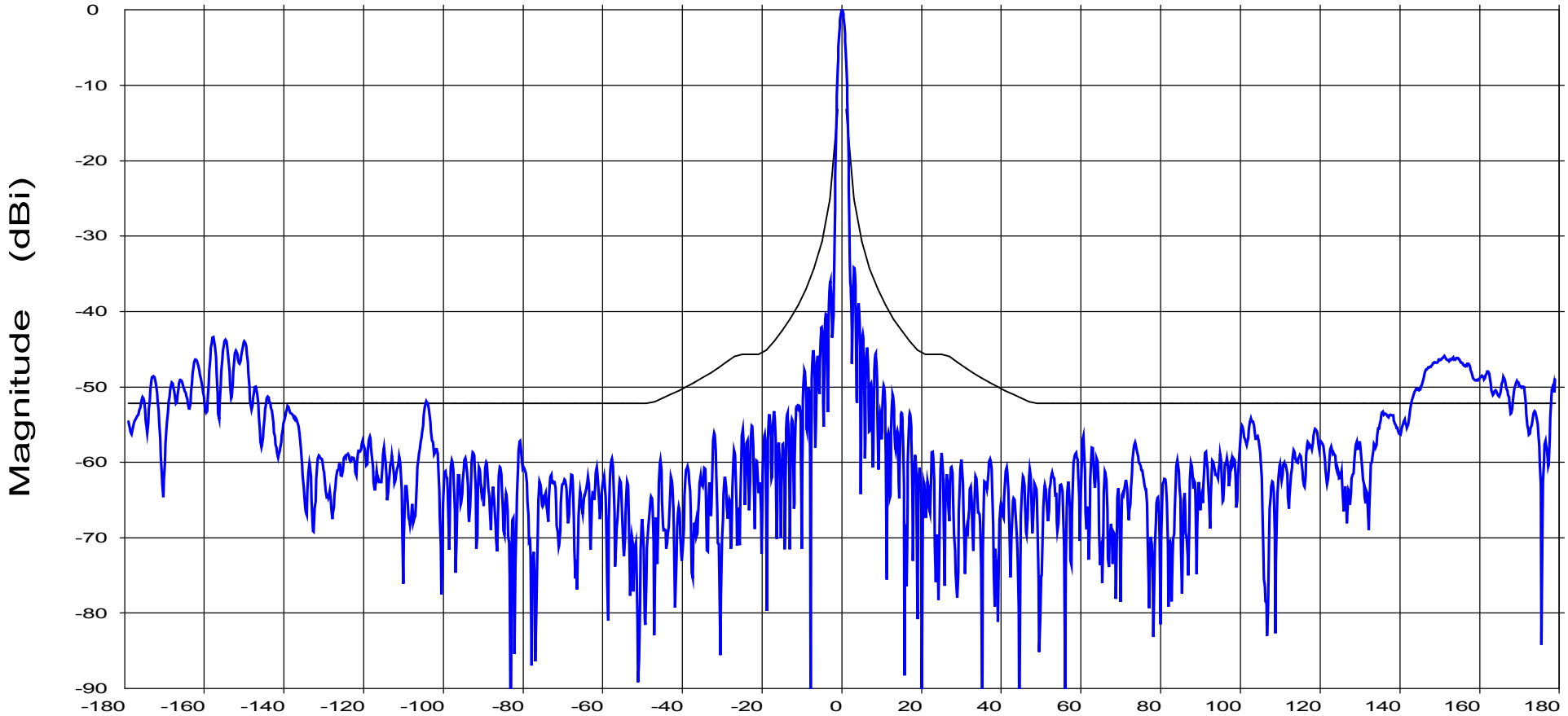
File: See Legend

General Dynamics
3.8 Meter Series 1385 Antenna System
C-Band Linear - 800MHz Feed

Frequency : 4.200 GHz

Operator: Dwight B. Lutz

Channel: ch1 Tx pol: Horiz. Rx pol: Horiz.



Sidelobe Envelope: 29−25Log(Theta)~100Lamda/D to 20 Deg
−3.5dBi 20.0 to 26.5 Deg | 32−25Log(Theta)~26.5 to 48 Deg
−10.0dBi~48 to 180 Deg

Overlays	Cal. file	table	channel	units
1776 42.dat-ant_under_test	1776 42.dat	SGA 40	ch1	dBi

3.0 G/T Measurement

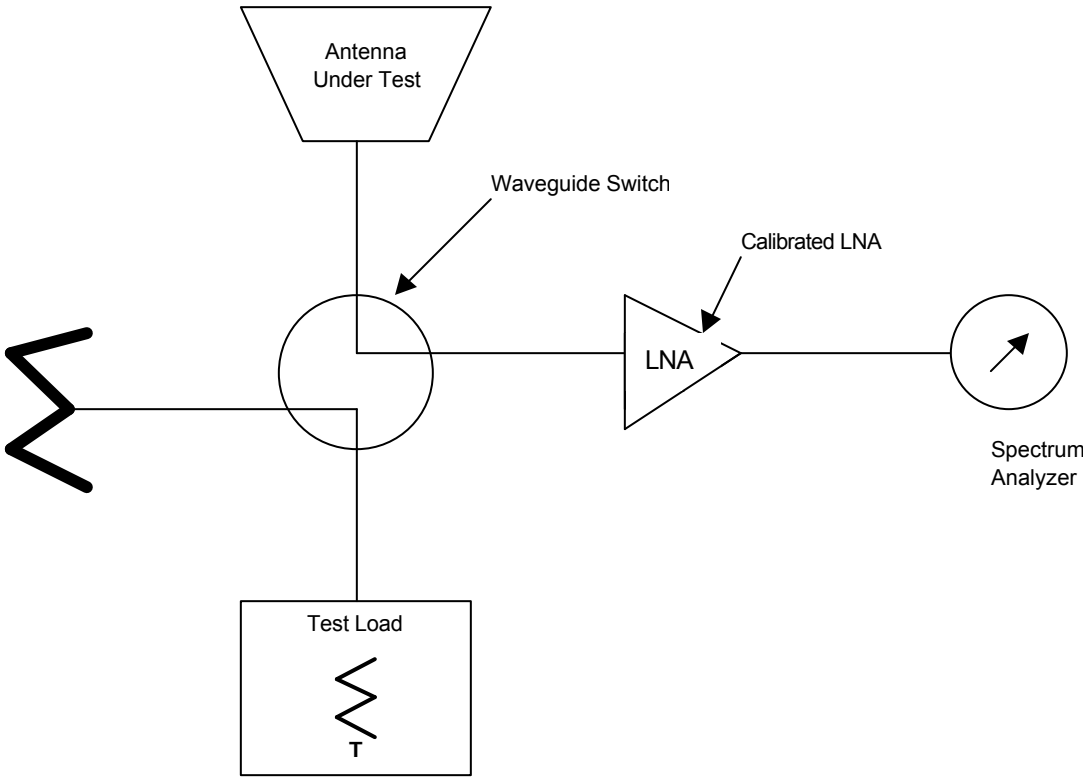
3.1 Test Method / Set-up

Antenna noise temperature was measured based on System Power Test Method *(Y-Factor Method)* recommended by Intelsat document SSOG 210 Section 5.

The noise temperature formula is defined as:

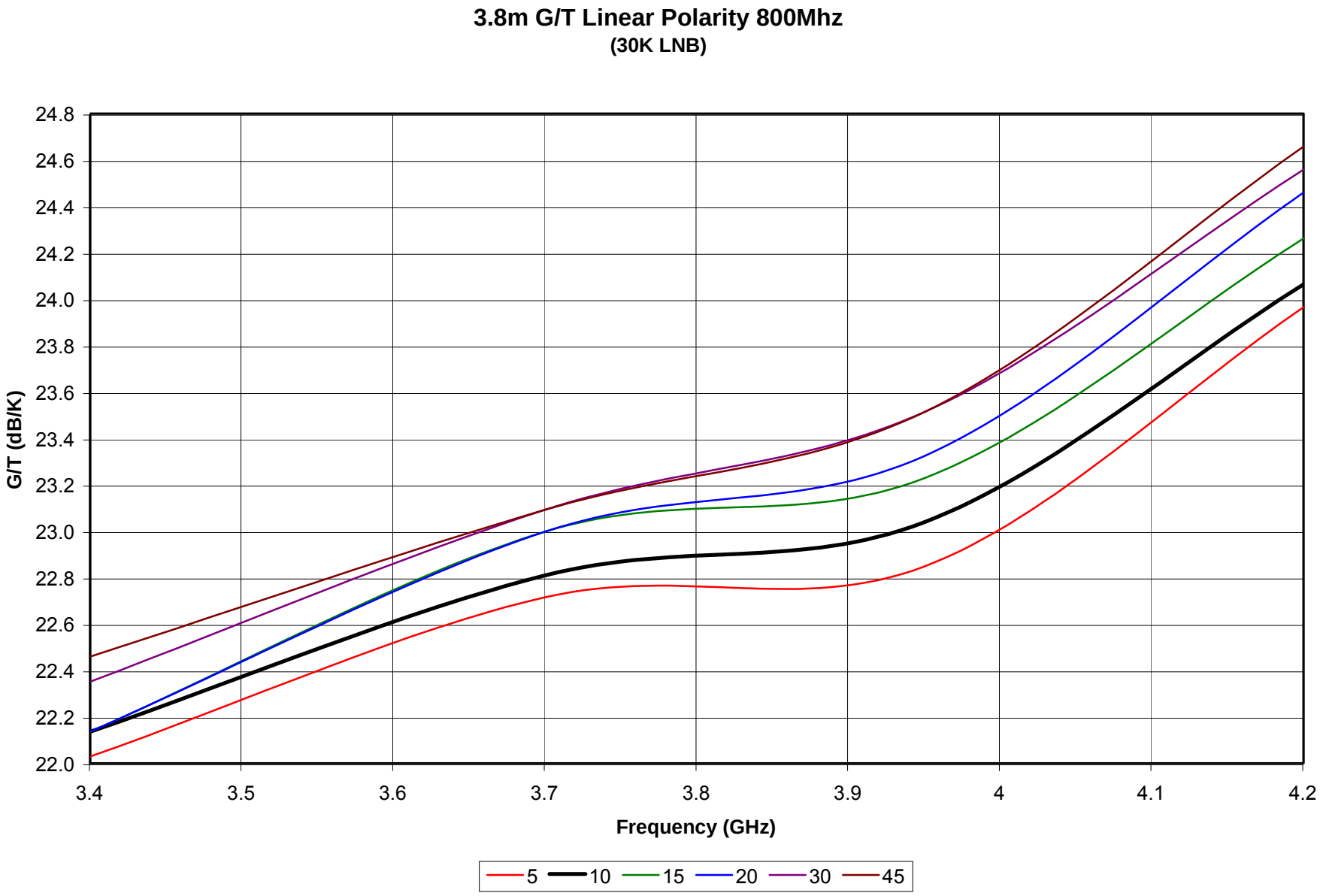
T (system) dB = 10log [T(test load) (K) + T (LNA) (K)] - Y(dB)

Where,
T(system) is the system noise temperature in dB
T(Test Load) is given noise temperature of the matched load used in the measurement
T(LNA) = is the calibrated LNA noise temperature

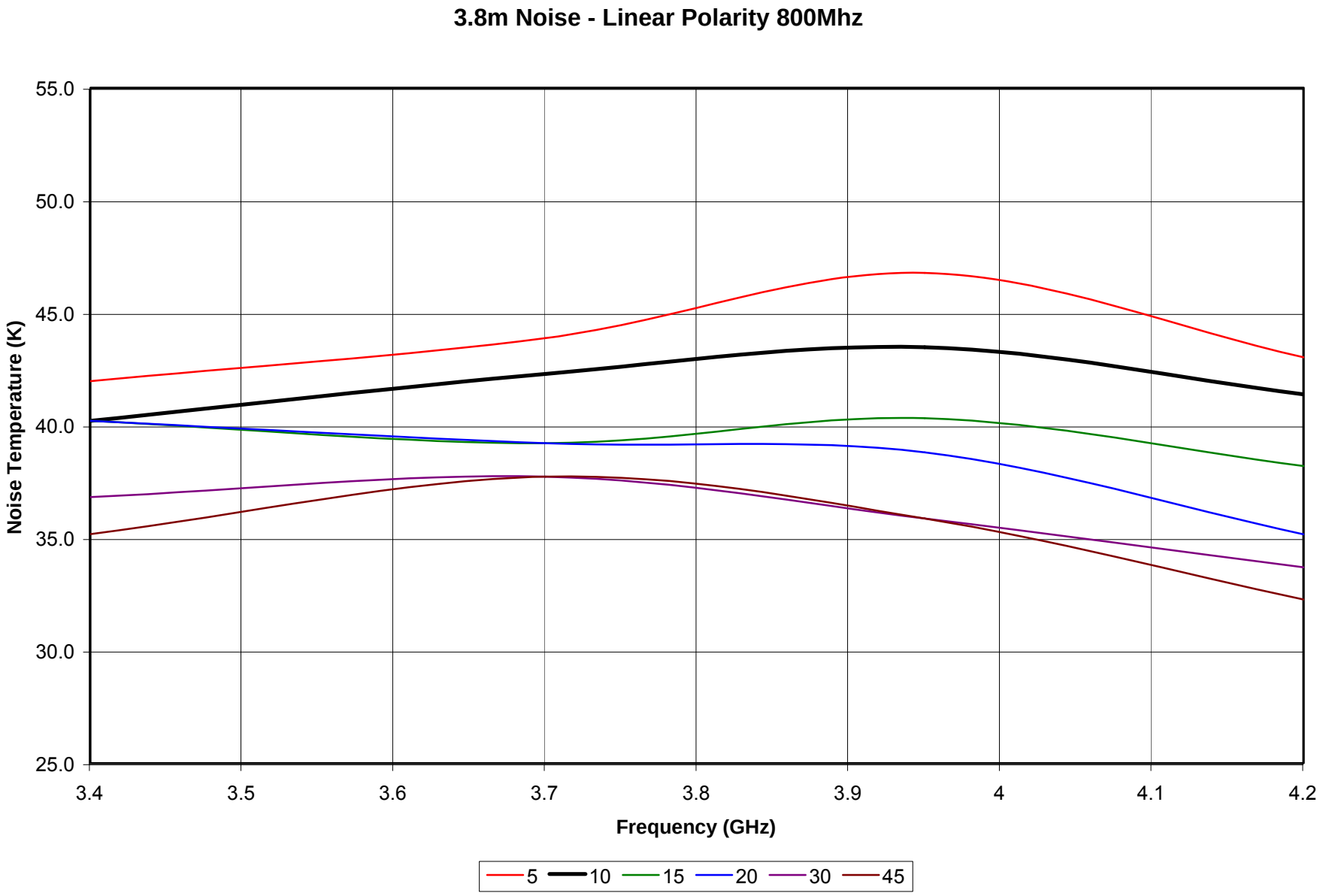


- Test Equipment Arrangement for Receive System Noise Power Measurement *(Y-Factor Method)*

3.1 G/T Measurement



3.1 Noise Temp Measurement



4.0 Test Photos

4.1 General Test Photos

General Dynamics SATCOM Technologies
East Maiden Test Facility
4488 Lawing Chapel Church Road
Maiden, North Carolina 28650

General Dynamics SATCOM Technologies
East Maiden Test Facility
4488 Lawing Chapel Church Road
Maiden, North Carolina 28650

General Dynamics SATCOM Technologies
East Maiden Test Facility
4488 Lawing Chapel Church Road
Maiden, North Carolina 28650

General Dynamics SATCOM Technologies
East Maiden Test Facility
4488 Lawing Chapel Church Road
Maiden, North Carolina 28650

5.0 Test Equipment Details

5.1 General Information

General Dynamics SATCOM Technologies / Prodelin Antenna Test Facility is located 5km (3 miles) East of Maiden, NC and approximately 16km (10 Miles) South-southeast of Prodelin main office in Newton, NC. We are located 61km (38 Miles) from Charlotte International Airport and 149km (90 miles) from Piedmont Triad International Airport in Greensboro, NC.

The antenna range can test a multitude of frequencies between 800 MHz and 30.00GHz, and antennas up to 4.5 meters in diameter.

Testing is accomplished over a test path between a fixed transmit tower location and a fixed receive tower location, separated by a distance of 1193.06 Meters (3914.44 feet). Transmit and receive tower heights are 17.41 meters (57.11 feet) above ground level. Using directional antennas, an unmodulated carrier wave (CW) test signal(s) are transmitted from the source tower location toward the receive tower location.

The signal is then received and interpreted by the sophisticated Orbit F/R959 Antenna Measurement System. Data is digitally recorded and many options of data analysis and presentation are possible using the Orbit F/R DataPro and GD specific software.

5.2 Test range specifics:

Range Length	1193.06 Meters (3914.44 Feet)
C/L Tx Source Antenna AGL	17.41 Meters (57.11 Feet)
C/L AUT Mounting Positioner AGL	17.49 Meters (57.88 Feet)

Test zone:

Frequency range	0.8 - 30.00 GHz
Dynamic range	80 dB (in most frequency bands)
Gain	+/- 0.5 dB*
Amplitude ripple	< +/- 0.3 dB* @ +/-20º-boresight
Amplitude ripple	< +/-0.5 dB* @ greater than 20º boresight
Phase ripple	< +/-5º*
Cross-polar purity:	-40 dB*

* For the majority of practical applications.

Positioner:

Axis 1 Azimuth	
Accuracy	< 0.12º
Axis 2 Elevation	
Accuracy	< 0.1º
Max load:	800 Lbs.

5.3 Test Equipment:

Manufacturer:	Model	Options	S/N
HP Microwave Receiver (Top Section)	8530A	010-011-8Ze	3031A08077
HP Microwave Receiver (Btm Section)	8530A	011-8ZE	3409A00301
HP Synthesized Sweeper Source #1 (Tx Source) 10Mhz – 50GHz	83651B		3844A00444
HP Amplifier 2-50GHz	83050A	8ZE	3331A00520
HP Power Supply (For 83050A Amplifier)	87421A		3611A00932
HP Synthesized Sweeper Source #2 (Reference Source) 10Mhz – 20GHz	83621B		3614A00156
HP LO/IF Distribution Unit	85309A		3224A00188
HP Extender (Up-Range)	37204A	03	3212U24550
HP Extender (Down-Range)	37204A	03	3212U23735
HP Mixer Module (Reference) 2 - 26.5GHz -71Mv	85320B		860A00143
HP Mixer Module (Test) 2 - 26.5GHz	85320A		3031A08077
HP Spectrum Analyzer 9kHz - 40 GHz	8564E		3745A01006

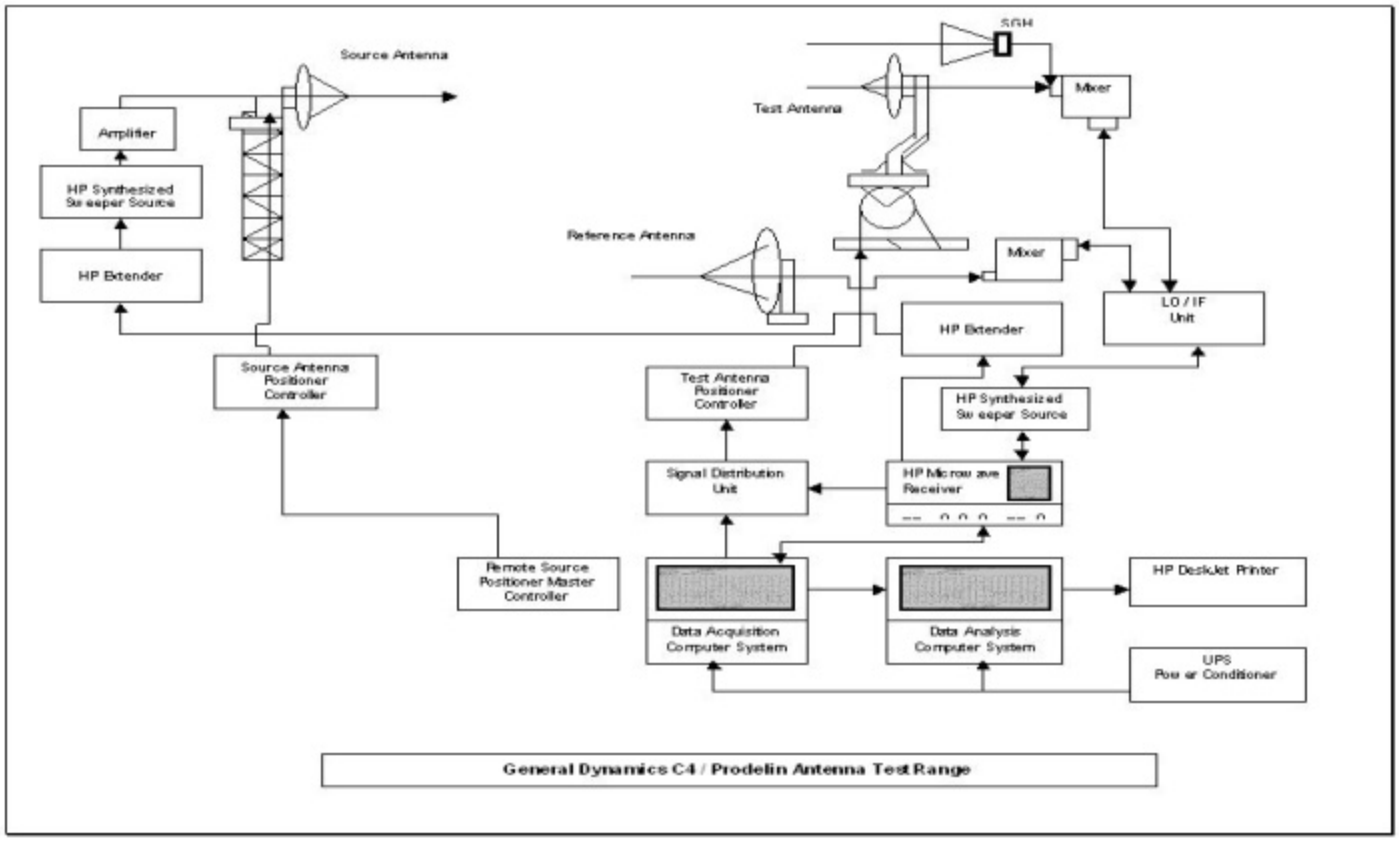
5.4 Positioner Equipment:

Orbit Positioner Programmer (To control Tx positioner)	AL-4706-3B		208
Orbit Positioner Controller & PCU (Up Range – Power Control Unit)	AL-4806-3A		182
Orbit Positioner Controller & PCU (Down Range – Power Control Unit)	AL-4806-3A	1 & 5	266

5.5 Software

F/R Signal Distribution Unit	959		K1036
Orbit F/R 959 Data Acquisition Software Automated Antenna Measurement Workstation	Spectrum Version 2.6.1	Rev-A	
Orbit F/R DataPro Plus Software Antenna Data Presentation and Analysis	Spectrum Version 2.6.1	Rev-A	

5.6 Bock Diagram



5.7 Staff / Contact Information:

Two full time operators with a combined total of 35+ Years experience in antenna testing.

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