

Data Summary**1.0m Offset Ku Band Antenna**

Unit #1

October 2001 Data taken at Vertex RSI Kilgore, TX

Feed #1

G/T Summary

T _o :	290	K
LNBF NF:	0.9	66.78

Elevation: 10°

frequency (GHz)	Gain		Noise Temperature		G/T	
	V	H	V	H	V	H
10.7	39.7	39.7	59.9	65.7	18.6	18.5
10.95	39.9	39.8	64.8	70.0	18.7	18.4
11.7	40.5	40.5	72.0	70.6	19.1	19.1
11.95	40.5	40.6	75.5	78.1	19.0	19.0
12.25	40.7	40.7	71.5	71.1	19.3	19.3
12.75	41.0	41.1	73.5	74.2	19.6	19.6

Elevation: 20°

frequency (GHz)	Gain		Noise Temperature		G/T	
	V	H	V	H	V	H
10.7	39.7	39.7	54.1	52.8	18.8	18.9
10.95	39.9	39.8	62.2	57.6	18.8	18.9
11.7	40.5	40.5	60.1	59.2	19.5	19.5
11.95	40.5	40.6	61.4	66.9	19.5	19.3
12.25	40.7	40.7	60.0	61.0	19.7	19.6
12.75	41.0	41.1	65.5	64.9	19.8	19.9

Elevation: 30°

frequency (GHz)	Gain		Noise Temperature		G/T	
	V	H	V	H	V	H
10.7	39.7	39.7	50.1	52.4	19.0	18.9
10.95	39.9	39.8	59.5	54.3	18.9	19.0
11.7	40.5	40.5	56.4	57.4	19.6	19.6
11.95	40.5	40.6	60.3	64.2	19.5	19.4
12.25	40.7	40.7	58.1	59.2	19.7	19.7
12.75	41.0	41.1	62.1	60.6	19.9	20.1

Patriot Antenna Systems
PROPRIETARY

Data Summary**1.0m Offset Ku Band Antenna**

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3 dB Beamwidth Summary

frequency (GHz)	Azimuth		Elevation	
	V	H	V	H
10.7	1.95	1.92	1.94	1.90
10.95	1.84	1.90	1.91	1.88
11.7	1.74	1.74	1.77	1.77
11.95	1.73	1.68	1.77	1.72
12.25	1.67	1.70	1.76	1.69
12.75	1.57	1.66	1.73	1.56
13.75	1.46	1.44	1.44	1.44
14.0	1.43	1.43	1.43	1.45
14.25	1.44	1.42	1.45	1.44
14.5	1.40	1.40	1.44	1.42

10 dB Beamwidth Summary

frequency (GHz)	Azimuth		Elevation	
	V	H	V	H
10.7	3.26	3.29	3.38	3.33
10.95	3.21	3.24	3.32	3.30
11.7	3.02	3.00	3.08	3.06
11.95	2.95	3.00	3.03	3.01
12.25	2.84	3.00	3.06	2.88
12.75	2.72	2.88	2.99	2.66
13.75	2.53	2.52	2.54	2.54
14.0	2.48	2.50	2.50	2.54
14.25	2.53	2.49	2.51	2.52
14.5	2.43	2.46	2.47	2.50

Patriot Antenna Systems PROPRIETARY

Data Summary

1.0m Offset Ku Band Antenna

Unit #1

October 2001 Data taken at Vertex RSI Kilgore, TX

Feed #1

Gain Summary

frequency (GHz)	Gain		Efficiency	
	V	H	V	H
10.7	39.7	39.7	74	74
10.95	39.9	39.8	74	73
11.7	40.5	40.5	75	75
11.95	40.5	40.6	72	73
12.25	40.7	40.7	71	71
12.75	41.0	41.1	71	72
13.75	42.3	42.3	82	82
14.0	42.4	42.3	81	79
14.25	42.3	42.4	76	78
14.5	42.5	42.5	77	77

Patriot Antenna Systems
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Data Summary**1.0m Offset Ku Band Antenna**

Unit #1

October 2001 Data taken at Vertex RSI Kilgore, TX

Feed #1

Xpol Summary

frequency (GHz)	Xpol on Boresight		Worst Case 1dB box	
	V	H	V	H
10.95	47.0	43.8	28.2	28.7
11.95	38.5	40.8	25.7	27.0
12.75	38.0	43.8	27.3	27.5
13.75	46.8	49.3	26.7	27.8
14.0	42.5	48.8	27.3	27.5
14.25	45.8	47.7	28.7	27.0
14.5	44.0	47.3	26.2	26.3

Patriot Antenna Systems
PROPRIETARY

COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

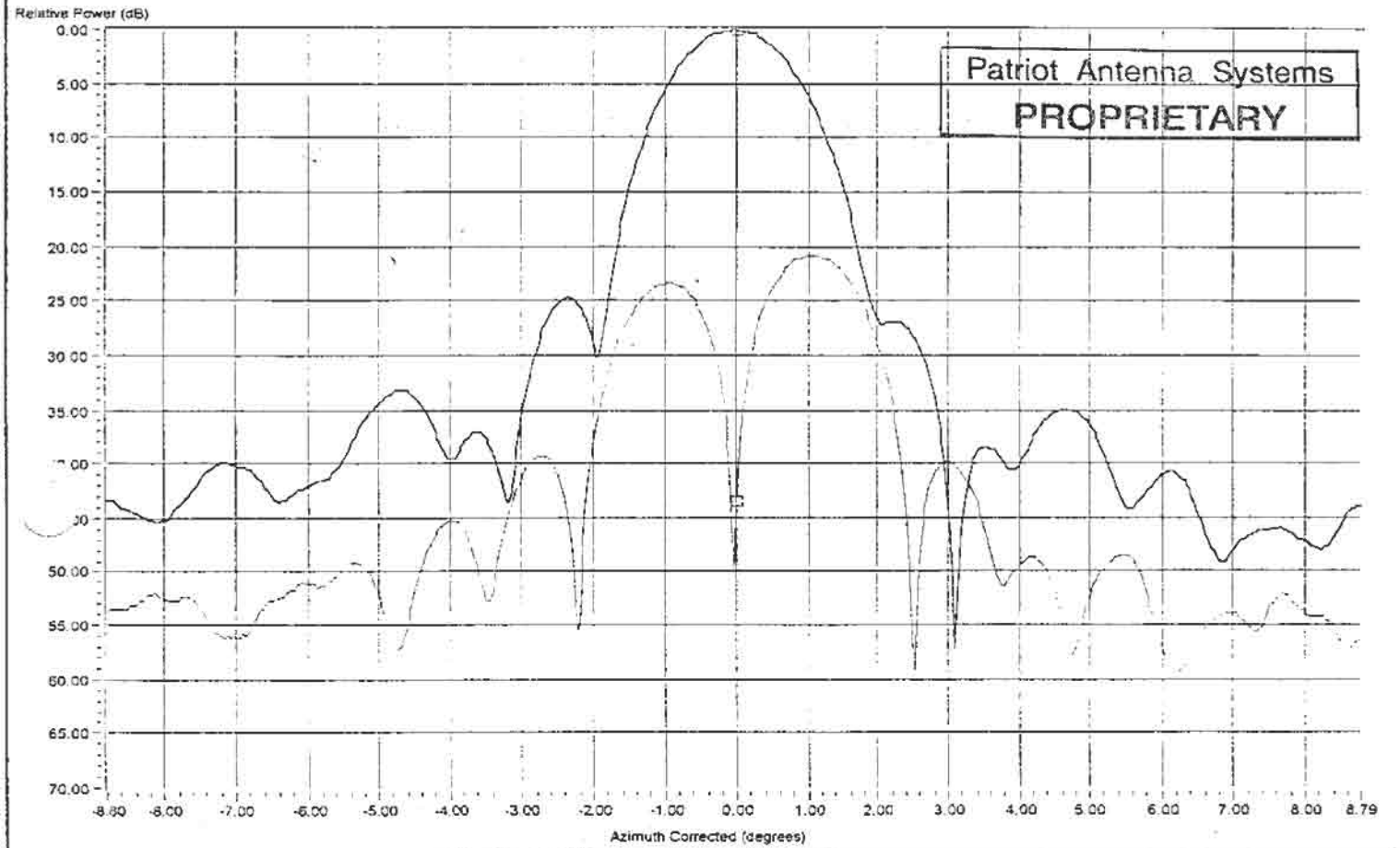
Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve:

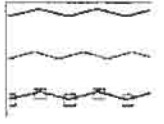

Print



Pattern Information

Frequency Band: Transmit
Polarization: HORIZONTAL
Beginning Angle: -8.80 degrees
Ending Angle: 8.82 degrees
Test Frequency: 13.7500 GHz

Copol Pattern

Cross Pol Pattern: 
Measured Cross Pol: 
Cross Polarization Isolation:

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
Specified Gain: 42.28 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 130.0 sec
Reference Level: -33.30 dB
Center Frequency: 13.7500 GHz
Span: 0.0000 Hz

VertexRSI Representative

Representative

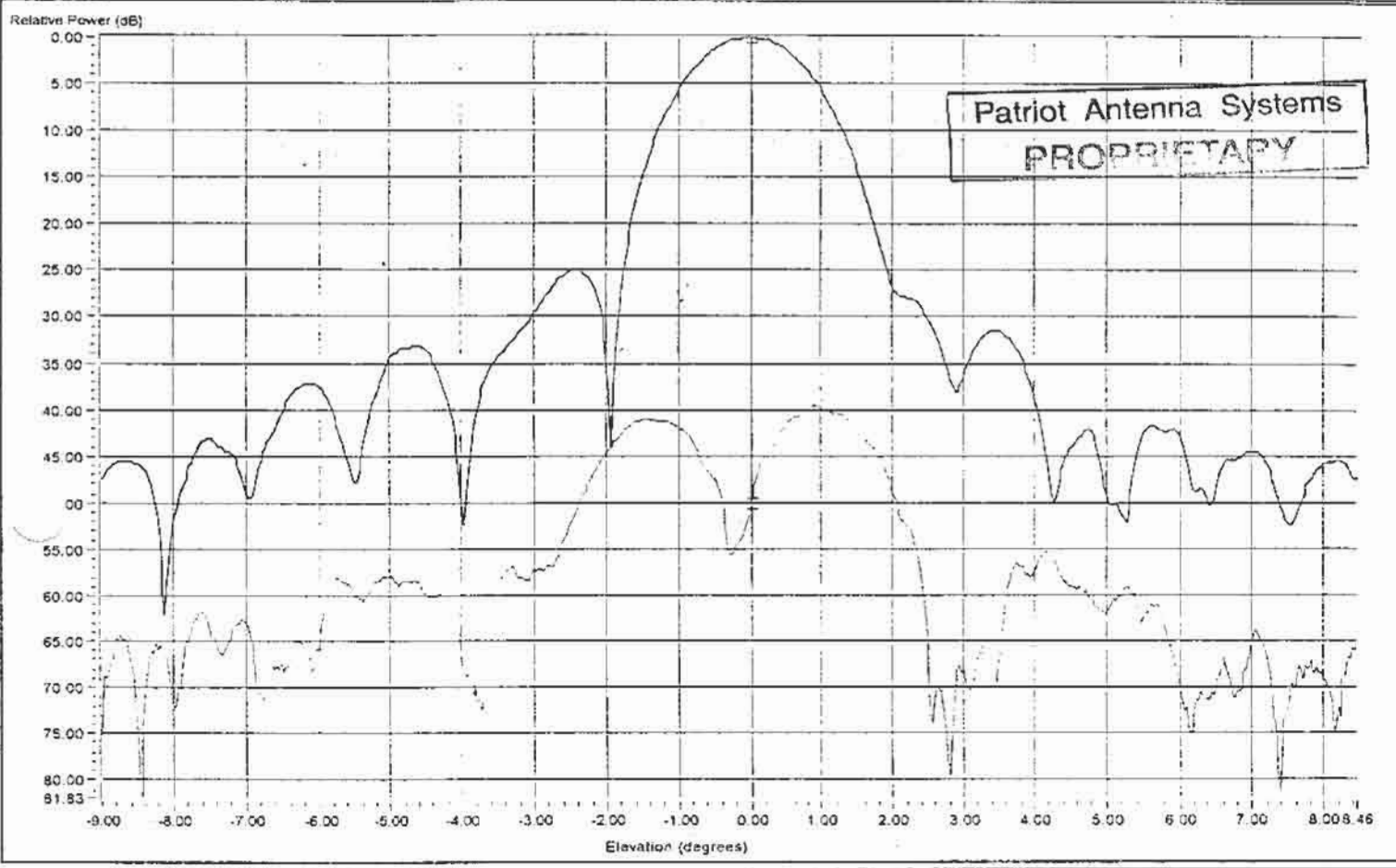
COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve: No Curve

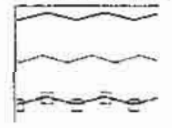


Pattern Information

Frequency Band: Transmit
Polarization: HORIZONTAL
Beginning Angle: -9.00 degrees
Ending Angle: 8.49 degrees
Test Frequency: 13.7500 GHz

Copol Pattern

Cross Pol Pattern
 Measured Cross Pol



Cross Polarization Isolation: 50.16 dB

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
Specified Gain: 42.28 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 135.0 sec
Reference Level: -33.30 dB
Center Frequency: 13.7500 GHz
Span: 0.0000 Hz

VertexRSI Representative

Representative

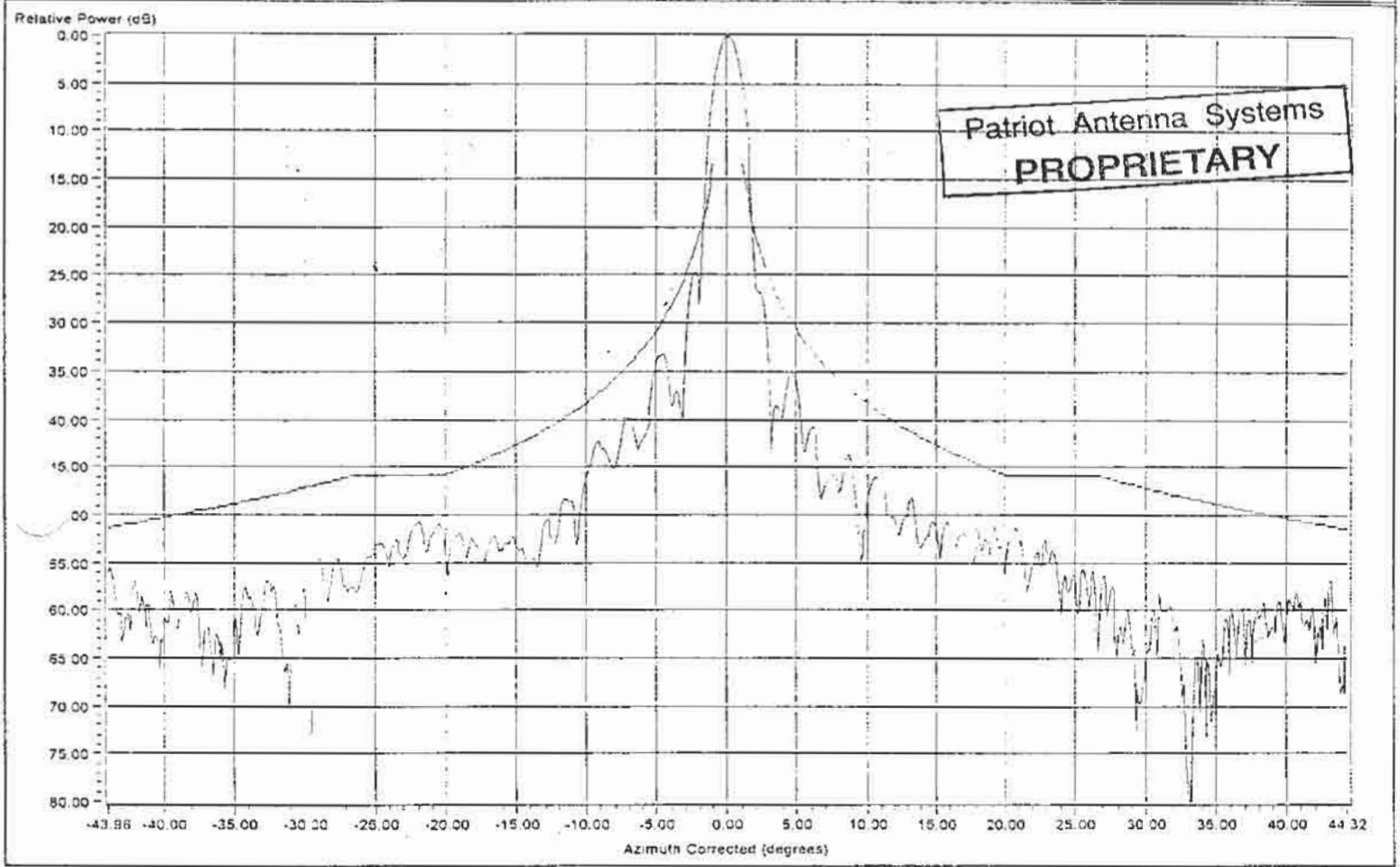
TOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:



Pattern Information	
Frequency Band:	Transmit
Polarization:	HORIZONTAL
Beginning Angle:	-45.00 degrees
Ending Angle:	45.42 degrees
Test Frequency:	13.7500 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.28 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	95.0 sec
Reference Level:	-33.63 dB
Center Frequency:	13.7500 GHz
Span:	0.0000 Hz

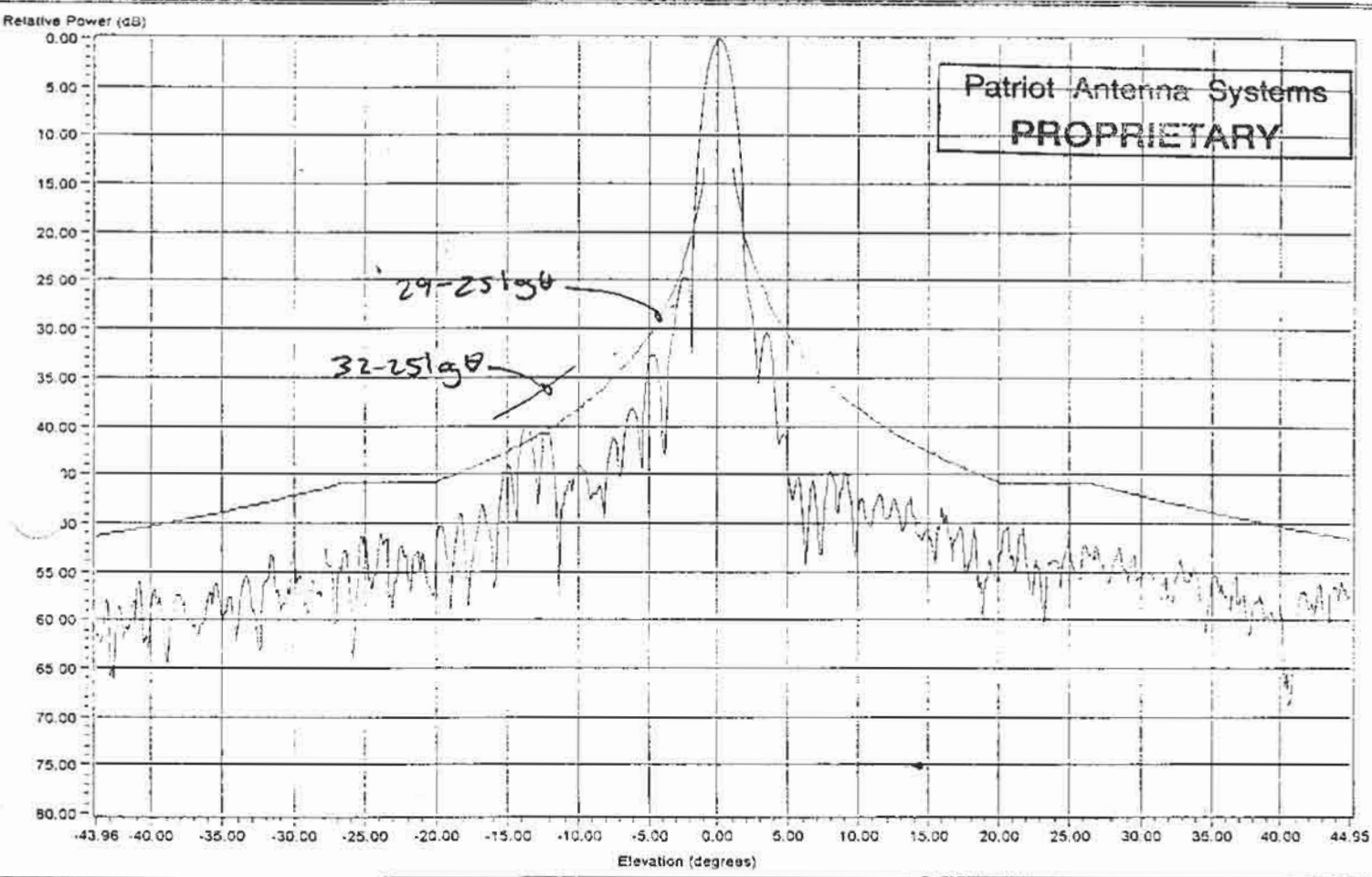
C OMER: PATRIOT SATELLITE: Short Range
 S VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Cupolarization Pattern and Applied Curve

Save pattern

Applied Curve:



Pattern Information	
Frequency Band:	Transmit
Polarization:	HORIZONTAL
Beginning Angle:	-45.00 degrees
Ending Angle:	46.10 degrees
Test Frequency:	13.7500 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.28 dB

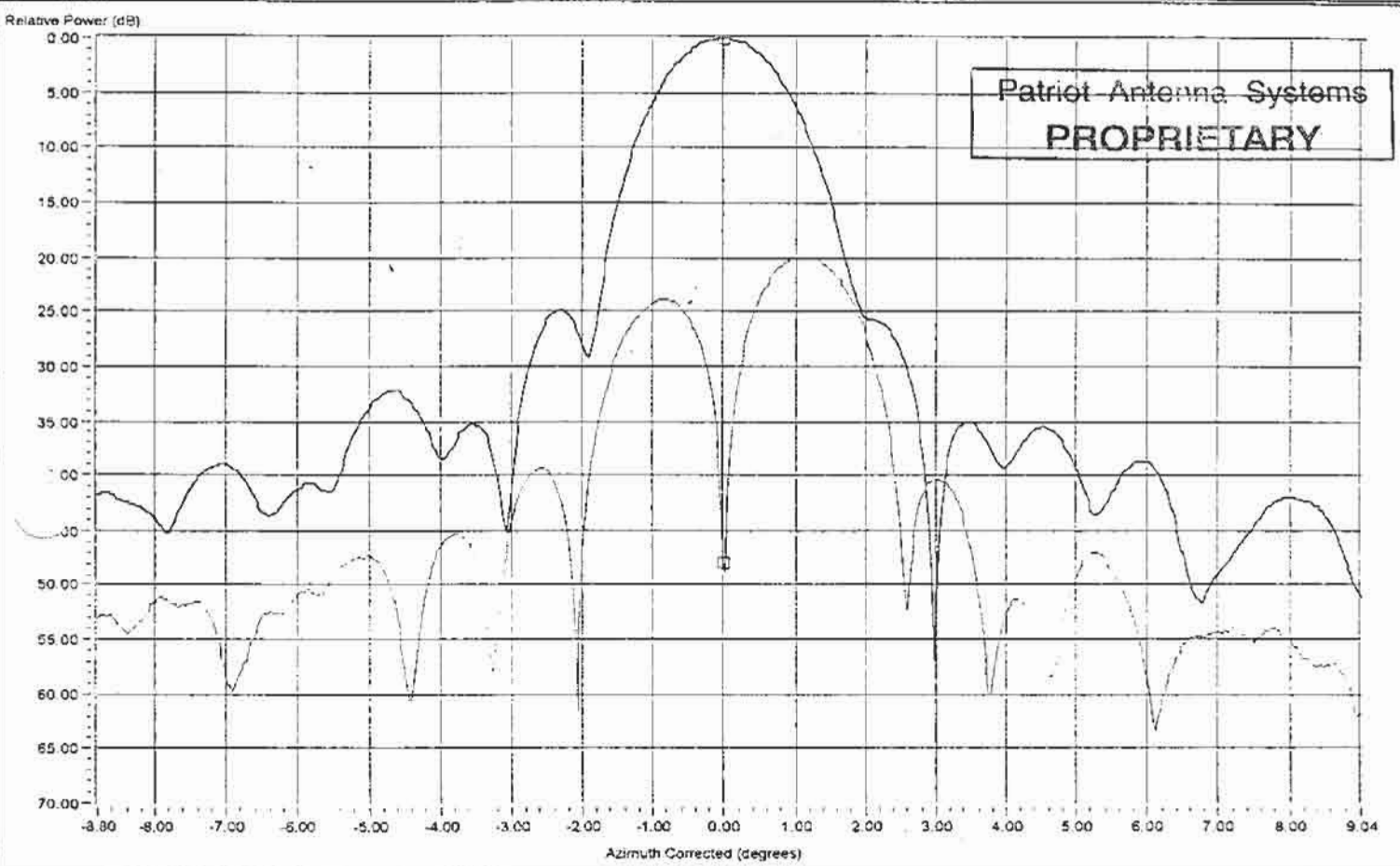
Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	95.0 sec
Reference Level:	-33.30 dB
Center Frequency:	13.7500 GHz
Span:	0.0000 Hz

V RSI Representative

Representative

NAME: PATRIOT SATELLITE: Short Range Comments:
 Station: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Cross Polarization Isolation and Applied Curve
 Applied Curve:



Pattern Information Frequency Band: Transmit: Polarization: HORIZONTAL Beginning Angle: -8.80 degrees Ending Angle: 9.07 degrees Test Frequency: 14.0000 GHz		Copol Pattern Cross Pol Pattern Measured Cross Pol Cross Polarization Isolation: <input type="text" value="47.82 dB"/>	Spectrum Analyzer Information Resolution Bandwidth: 30.0000 Hz Video Bandwidth: 30.0000 Hz Sweep Time: 130.0 sec Reference Level: -38.44 dB Center Frequency: 14.0000 GHz Span: 0.0000 Hz
		Antenna Information Beam Center: Azimuth: 0.00 deg Elevation: 12.00 deg Specified Gain: 42.29 dBS	

VertexRSI Representative Representative

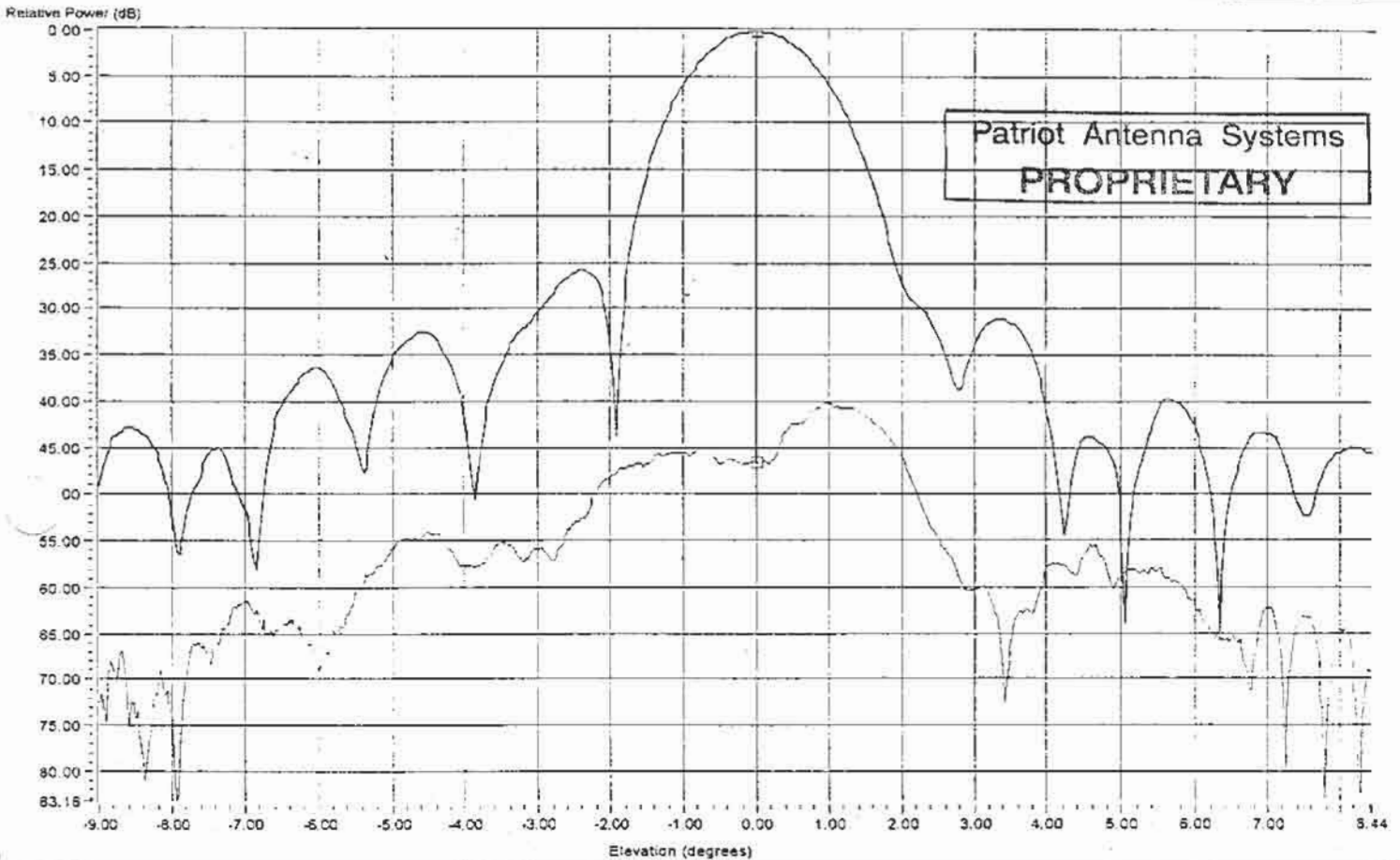
TOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Gross Polarization Isolation and Applied Curve

Save pattern to file

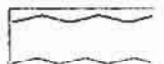
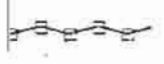
Applied Curve:



Pattern Information

Frequency Band: Transmit
 Polarization: HORIZONTAL
 Beginning Angle: -9.00 degrees
 Ending Angle: 8.47 degrees
 Test Frequency: 14.0000 GHz

Copol Pattern

Cross Pol Pattern: 
 Measured Cross Pol: 
 Cross Polarization Isolation: 46.49 dB

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
 Specified Gain: 42.29 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 135.0 sec
 Reference Level: -38.27 dB
 Center Frequency: 14.0000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

COMER: PATRIOT **SATELLITE:** Short Range
Service: VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

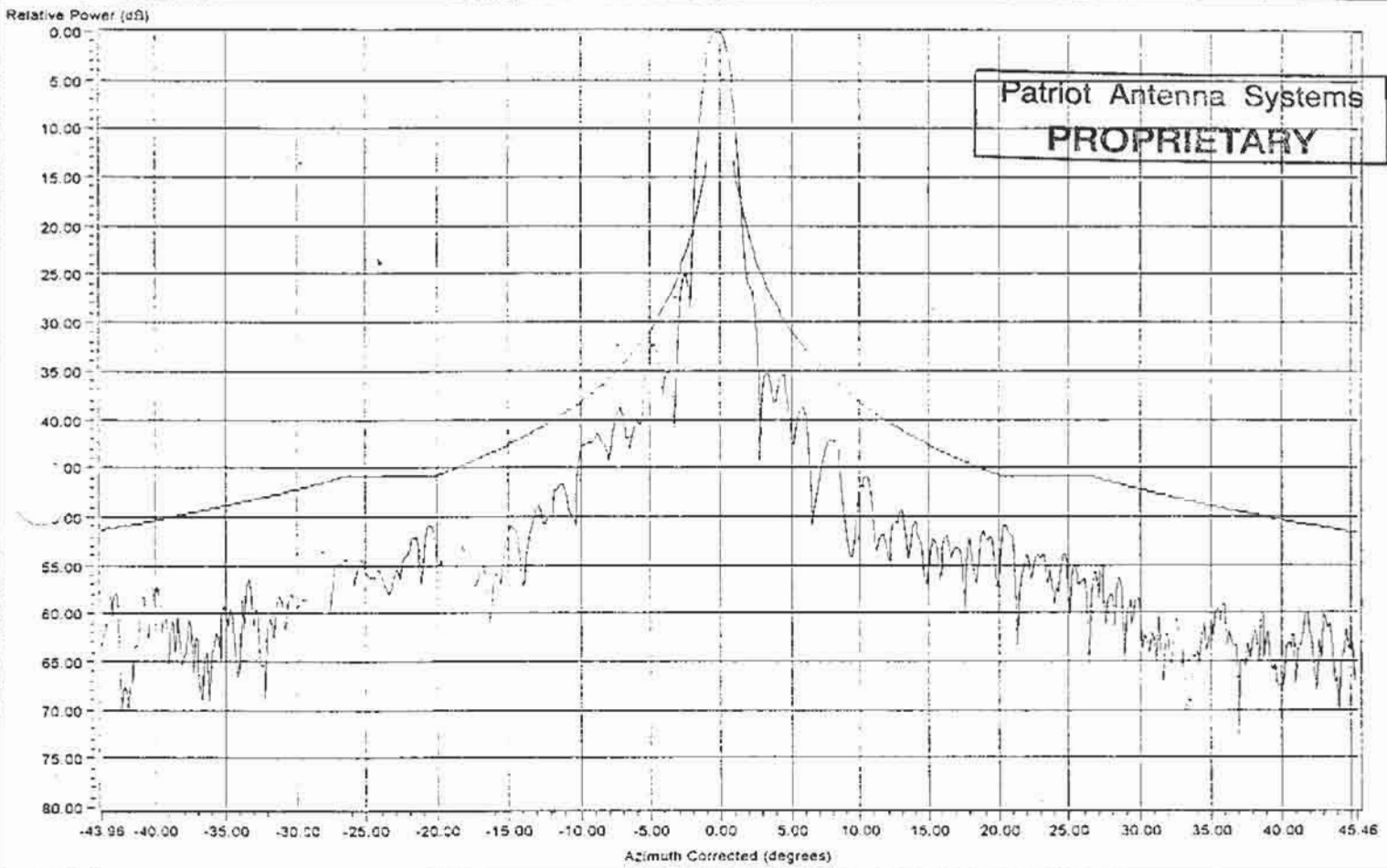
Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:

Exit



Pattern Information	
Frequency Band:	Transmit:
Polarization:	HORIZONTAL
Beginning Angle:	-45.00 degrees
Ending Angle:	46.53 degrees
Test Frequency:	14.0000 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.29 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	93.0 sec
Reference Level:	-38.76 dB
Center Frequency:	14.0000 GHz
Span:	0.0000 Hz

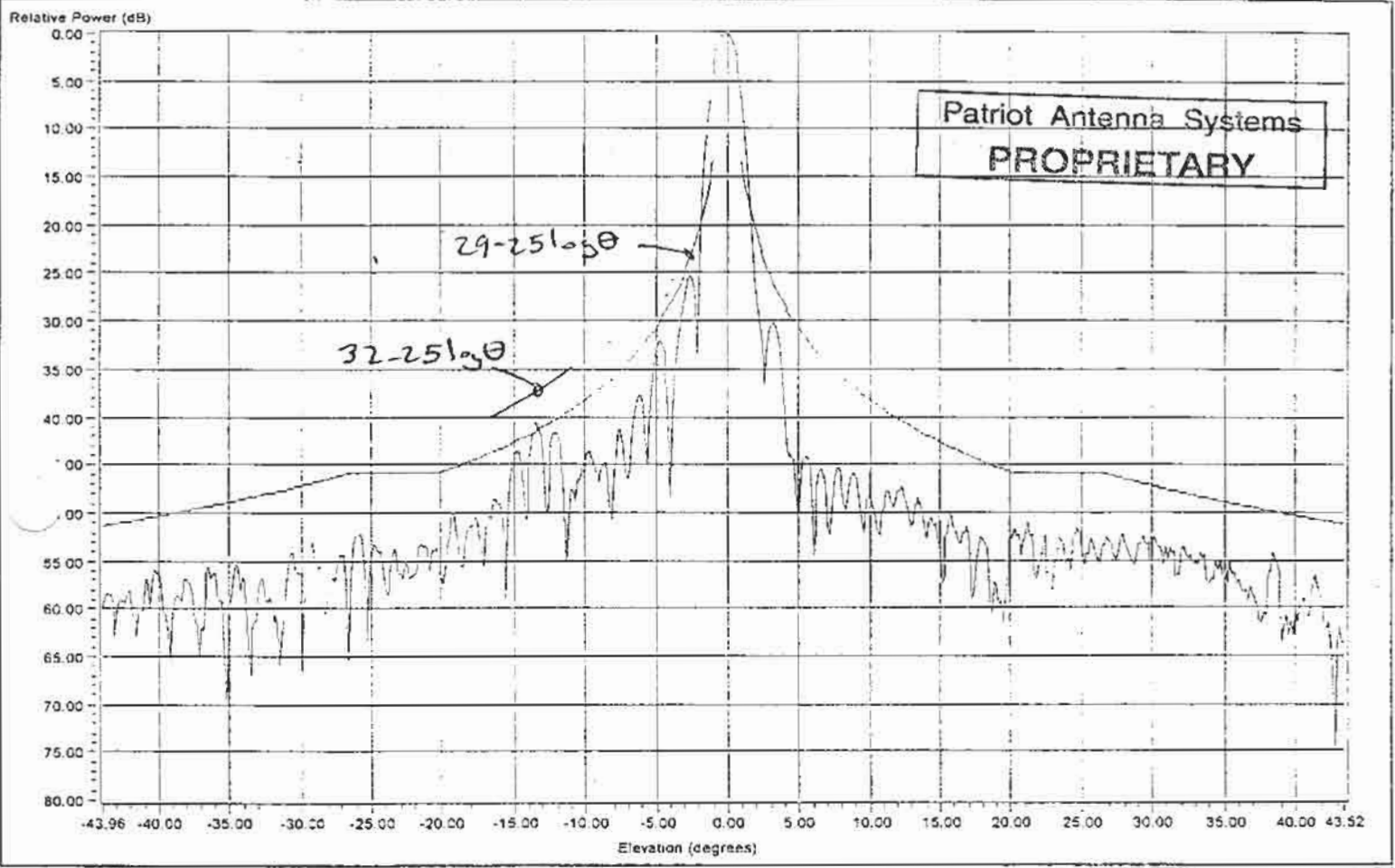
V RSI Representative

Representative

FORMER: PATRIOT	SATELLITE: Short Range	Comments: <div style="border: 1px solid black; height: 40px;"></div>
VertexRSI Test Range	TRANSPONDERS: N/A	
WEATHER: Clear	JOB NUMBER: S4184	
ANTENNA: 1.0m Ku #1	TEST ENGINEER: Todd Weaver	

Copolarization Pattern and Applied Curve Save pattern

Applied Curve:



Pattern Information	Antenna Information	Spectrum Analyzer Information
Frequency Band: Transmit	Beam Center: Azimuth: 0.000 deg	Resolution Bandwidth: 30.0000 Hz
Polarization: HORIZONTAL	Elevation: 12.000 deg	Video Bandwidth: 30.0000 Hz
Beginning Angle: -45.00 degrees	Specified Gain: 42.29 dB	Sweep Time: 93.0 sec
Ending Angle: 44.69 degrees		Reference Level: -38.10 dB
Test Frequency: 14.0000 GHz		Center Frequency: 14.0000 GHz
		Span: 0.0000 Hz

_____.RSI Representative _____ Representative

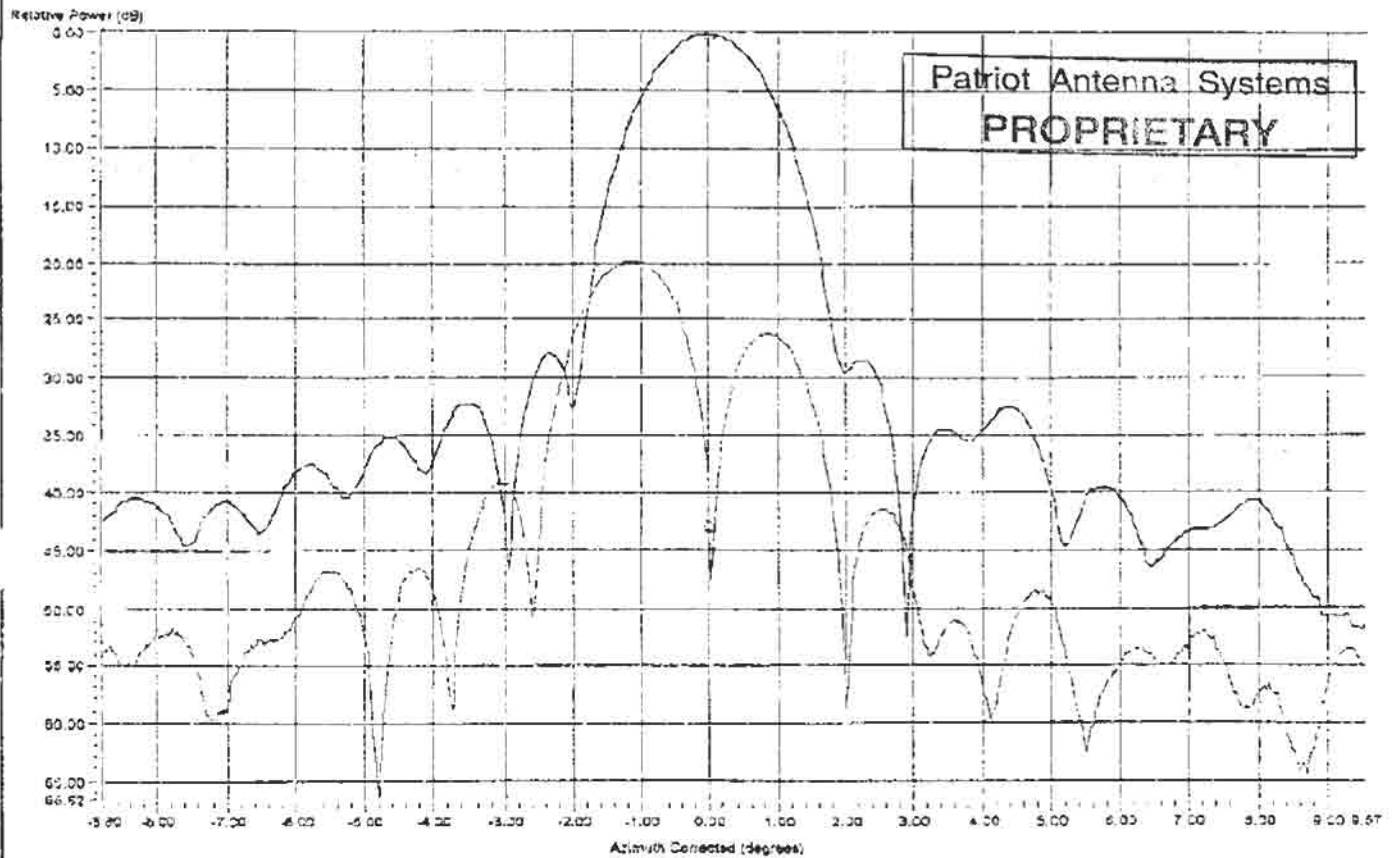
CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver


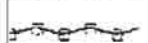
Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve: ITU 580-5



<p>Test Parameters:</p> <p>Frequency Band: Transmit Polarization: HORIZONTAL Beginning Angle: -8.60 degrees Ending Angle: 8.60 degrees Test Frequency: 14.2500 GHz</p>	<p>Copol Pattern</p> <p>Cross Pol Pattern </p> <p>Measured Cross Pol </p> <p>Cross Polarization Isolation: 42.78 dB</p>	<p>Spectrum Analyzer Information:</p> <p>Resolution Bandwidth: 30.0000 Hz Video Bandwidth: 30.0000 Hz Sweep Time: 130.0 sec Reference Level: -46.64 dB Center Frequency: 14.2500 GHz Span: 0.0000 Hz</p>
<p>Antenna Information:</p> <p>Beam Center: Azimuth: 0.00 deg Elevation: 12.00 deg Specified Gain: 42.36 dB</p>		

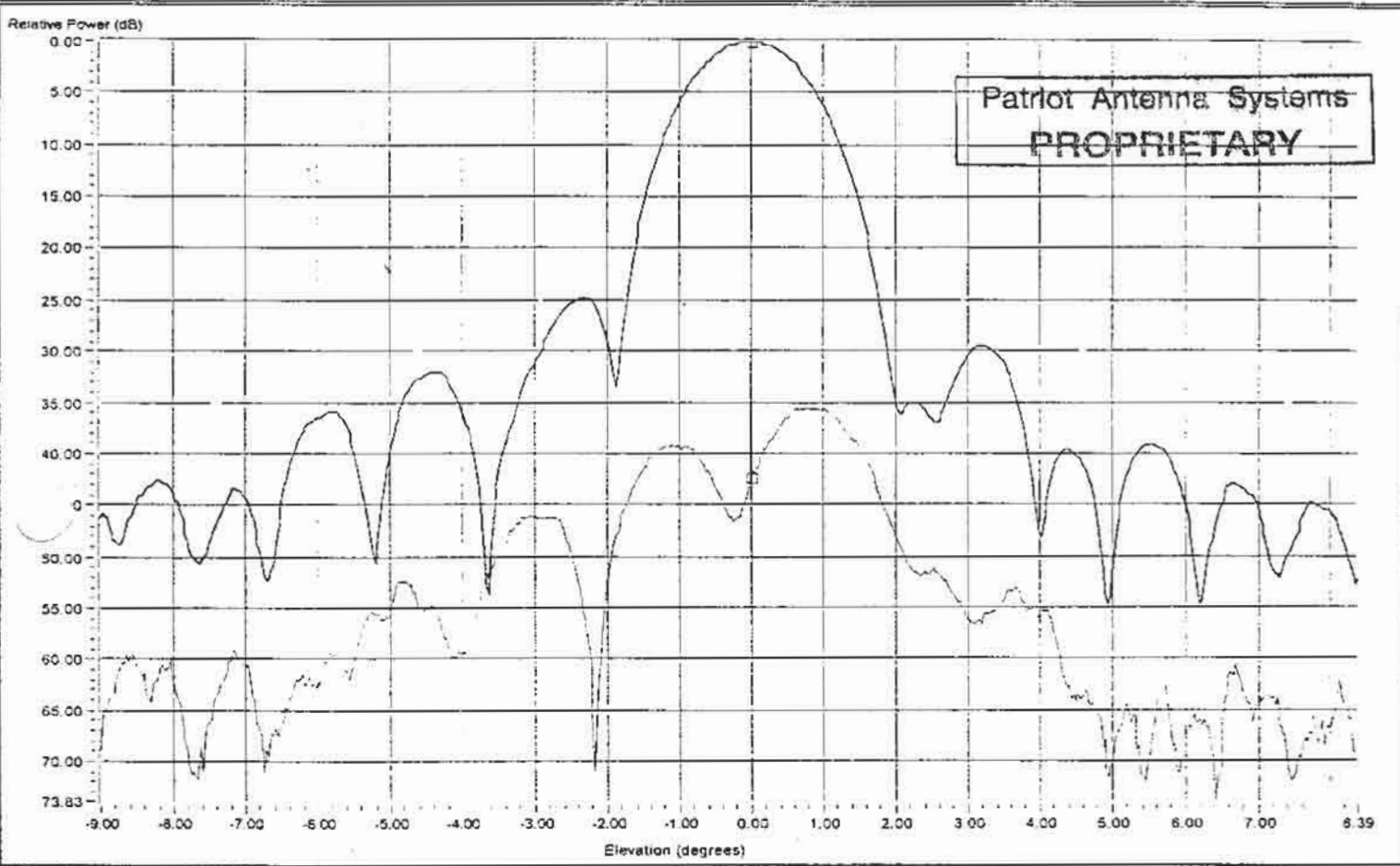
VertexRSI Representative




Representative

COMER: PATRIOT	SATELLITE: Short Range	Comments: <div style="border: 1px solid black; height: 40px;"></div>
VertexRSI Test Range	TRANSPONDERS: N/A	
WEATHER: Clear	JOB NUMBER: S4184	
ANTENNA: 1.0m Ku #1	TEST ENGINEER: Todd Weaver	

Cross Polarization Isolation and Applied Curve

Applied Curve:



<p>Pattern Information</p> <p>Frequency Band: Transmit</p> <p>Polarization: HORIZONTAL</p> <p>Beginning Angle: -9.00 degrees</p> <p>Ending Angle: 8.41 degrees</p> <p>Test Frequency: 14.2500 GHz</p>		<p>Copol Pattern </p> <p>Cross Pol Pattern </p> <p>Measured Cross Pol </p> <p>Cross Polarization Isolation: <input type="text" value="42.33 dB"/></p>	<p>Spectrum Analyzer Information</p> <p>Resolution Bandwidth: 30.0000 Hz</p> <p>Video Bandwidth: 30.0000 Hz</p> <p>Sweep Time: 135.0 sec</p> <p>Reference Level: -46.60 dB</p> <p>Center Frequency: 14.2500 GHz</p> <p>Span: 0.0000 Hz</p>
		<p>Antenna Information</p> <p>Beam Center: Azimuth: 0.00 deg</p> <p>Elevation: 12.00 deg</p> <p>Specified Gain: 42.38 dB</p>	

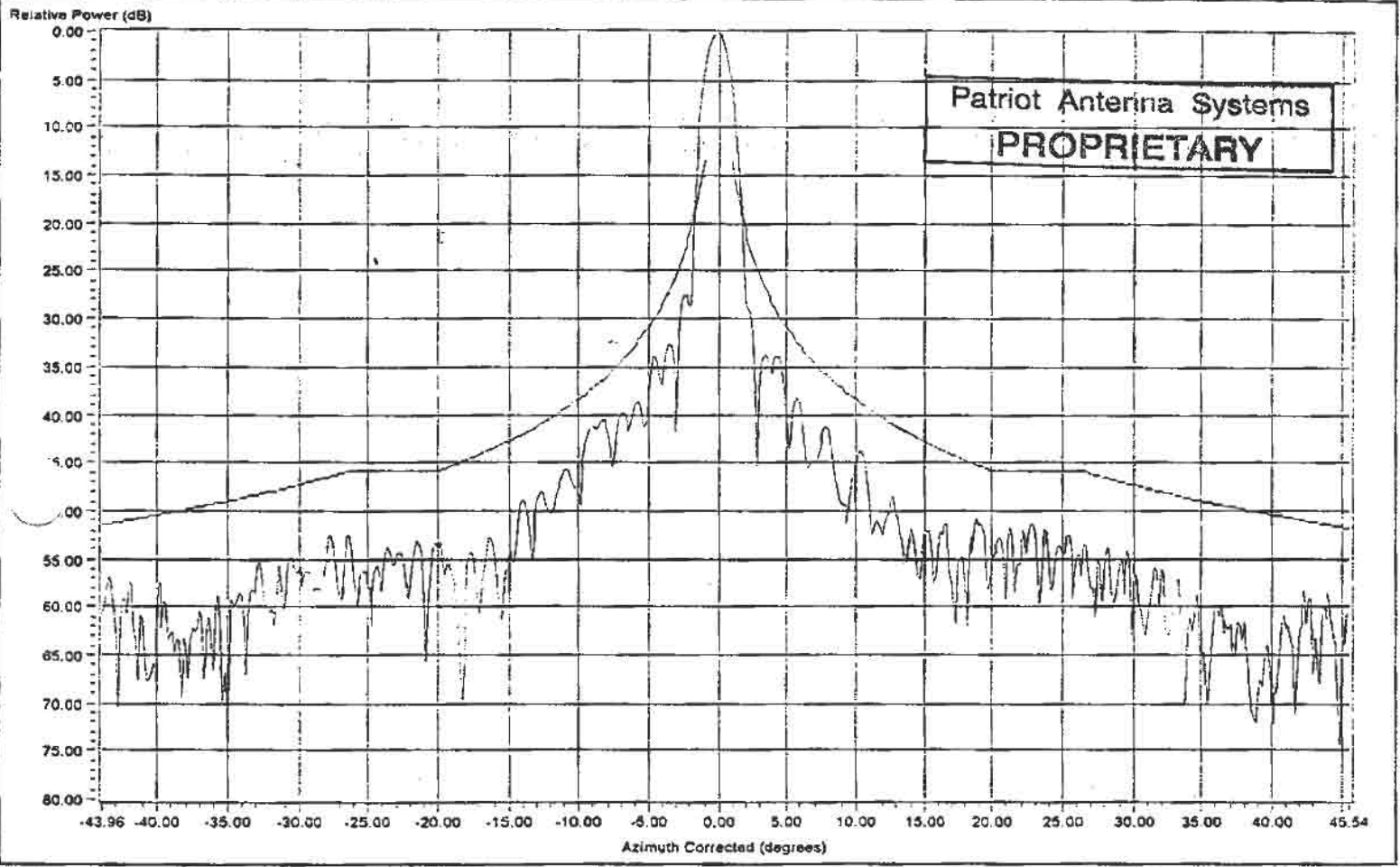
VertexRSI Representative Representative

CUSTOMER: PATRIOT	SATELLITE: Short Range	Comments:
TEST RANGE: VertexRSI Test Range	TRANSPONDERS: N/A	
WEATHER: Clear	JOB NUMBER: S4184	
ANTENNA: 1.0m Ku #1	TEST ENGINEER: Todd Weaver	

Coplanarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information	Antenna Information	Spectrum Analyzer Information
Frequency Band: Transmit	Beam Center: Azimuth: 0.000 deg	Resolution Bandwidth: 30.0000 Hz
Polarization: HORIZONTAL	Elevation: 12.000 deg	Video Bandwidth: 30.0000 Hz
Beginning Angle: -45.00 degrees	Specified Gain: 42.38 dB	Sweep Time: 93.0 sec
Ending Angle: 46.71 degrees		Reference Level: -46.64 dB
Test Frequency: 14.2500 GHz		Center Frequency: 14.2500 GHz
		Span: 0.0000 Hz

V RSI Representative Representative

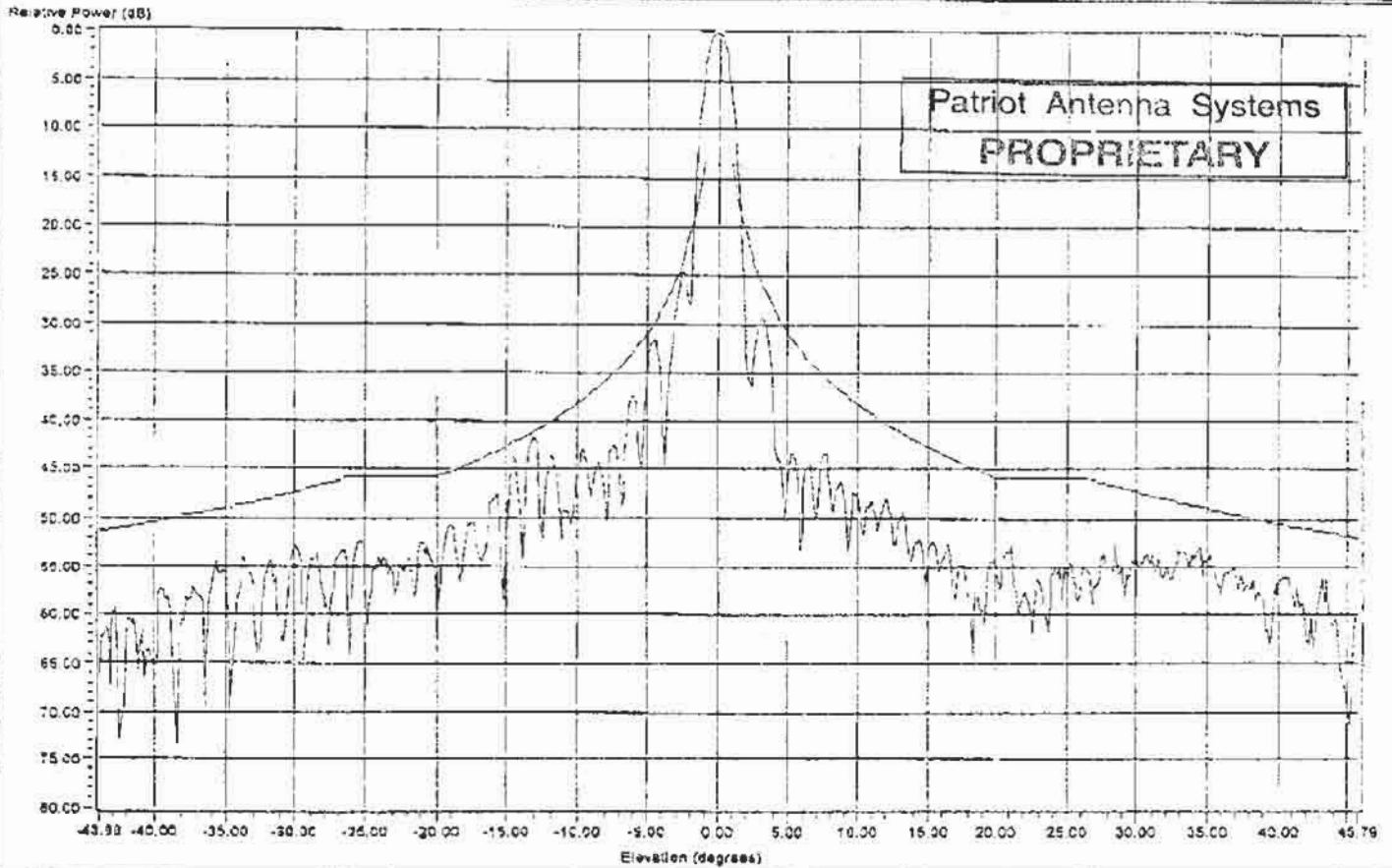
CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Save pattern

Depolarization Pattern and Applied Curve

Applied Curve: ITU 580.5



Pattern Information		Antenna Information		Spectrum Analyzer Information	
Frequency Band:	Transmit	Beam Center:	Azimuth: 0.000 deg	Resolution Bandwidth:	30.0000 Hz
Polarization:	HORIZONTAL		Elevation: 12.000 deg	Video Bandwidth:	30.0000 Hz
Beginning Angle:	-45.00 degrees	Specified Gain:	42.38 dB	Sweep Time:	93.0 sec
Ending Angle:	45.31 degrees			Reference Level:	-46.64 dB
Test Frequency:	14.2500 GHz			Center Frequency:	14.2500 GHz
				Span:	0.0000 Hz

VertexRSI Representative

Representative

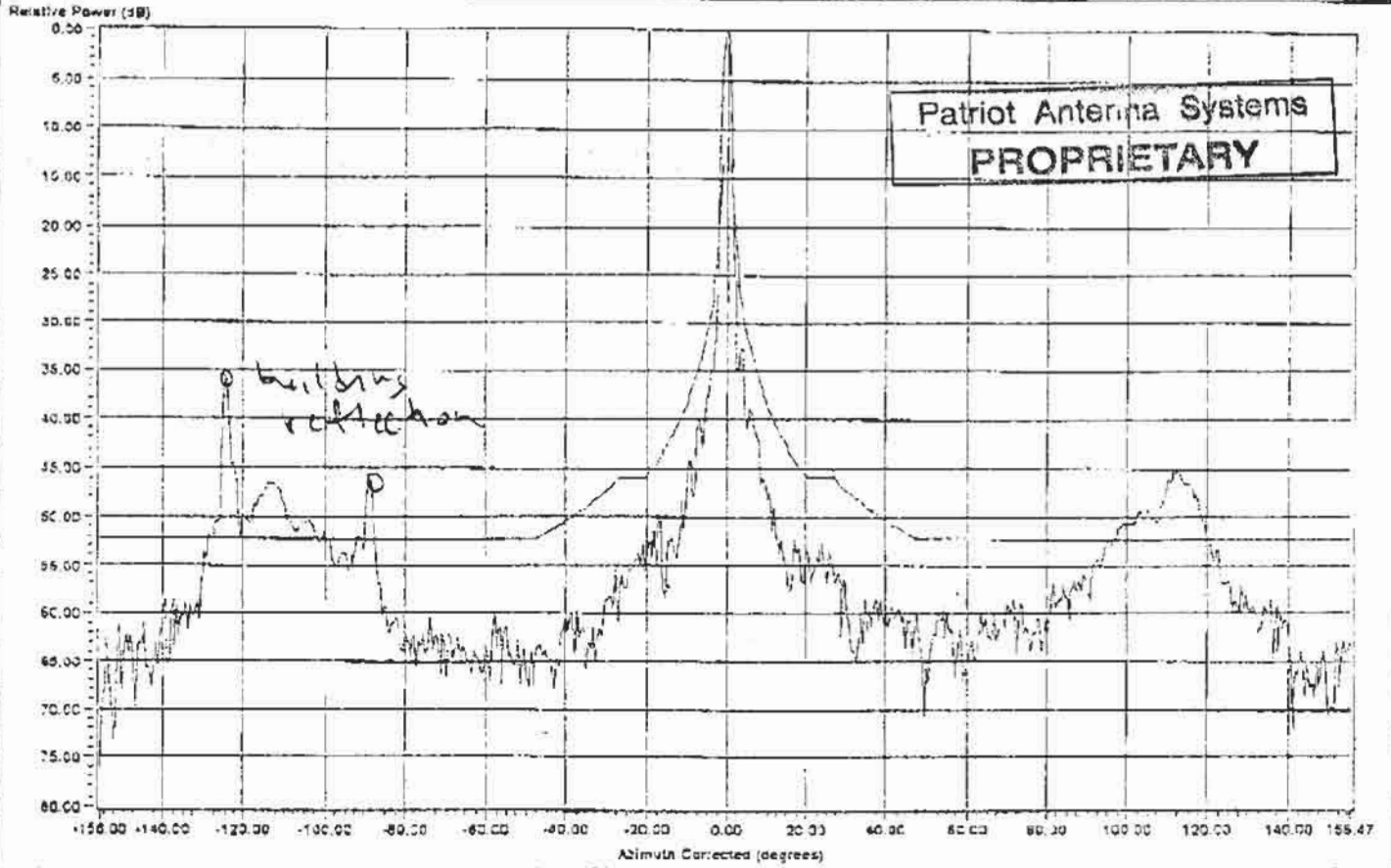
CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information		Antenna Information		Spectrum Analyzer Information	
Frequency Band:	Transmit	Beam Center:	Azimuth: 0.000 deg	Resolution Bandwidth:	30.0000 Hz
Polarization:	HORIZONTAL		Elevation: 12.000 deg	Video Bandwidth:	30.0000 Hz
Beginning Angle:	-180.00 degrees	Specified Gain:	42.38 dB	Sweep Time:	370.0 sec
Ending Angle:	178.99 degrees			Reference Level:	-46.93 dB
Test Frequency:	14.2500 GHz			Center Frequency:	14.2500 GHz
				Span:	0.0000 Hz

VertexRS Representative

Representative

Signature lines for the representatives.

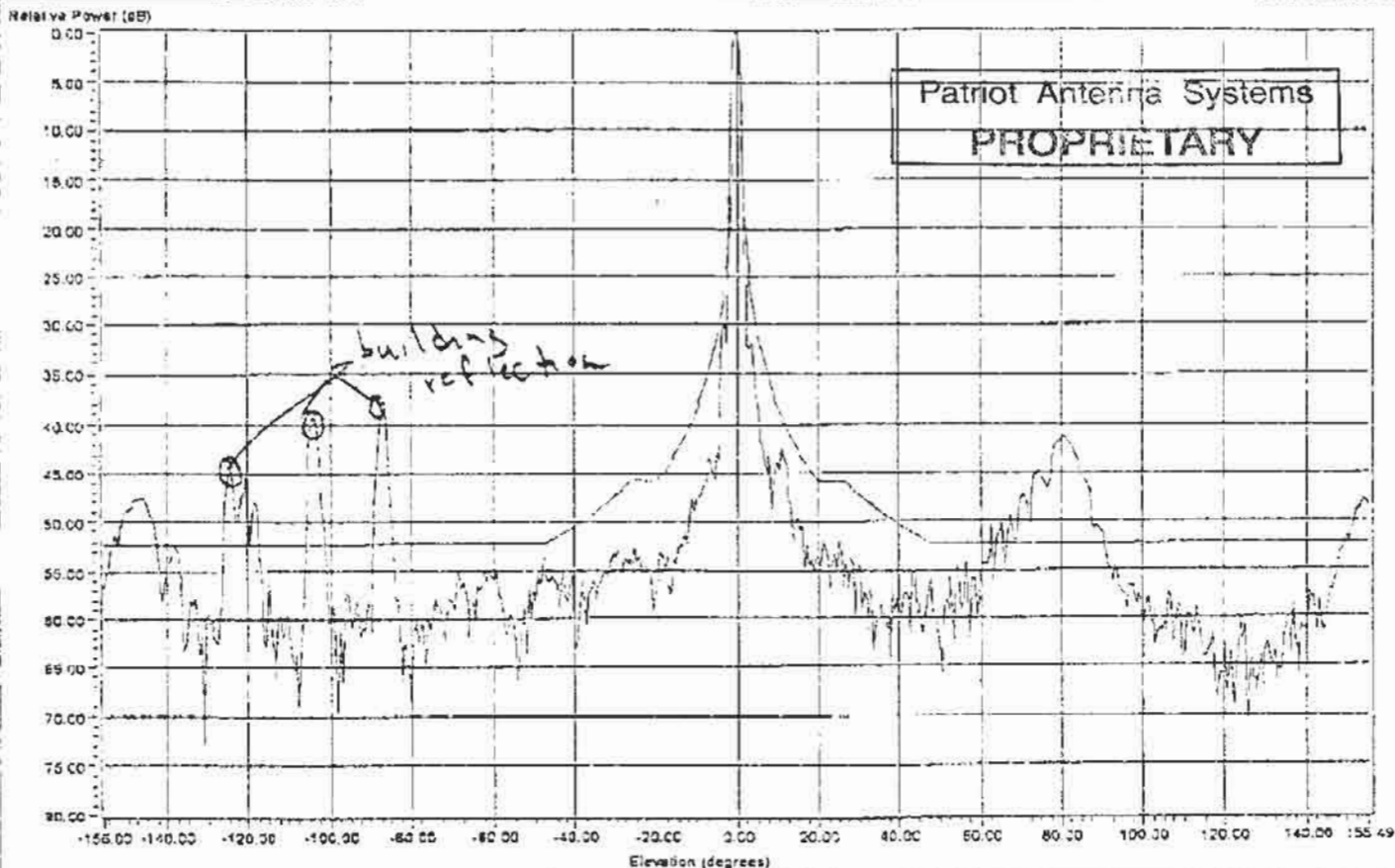
CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information	
Frequency Band:	Transmit
Polarization:	HORIZONTAL
Beginning Angle:	-180.00 degrees
Ending Angle:	179.94 degrees
Test Frequency:	14.2500 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.38 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	370.0 sec
Reference Level:	-45.60 dB
Center Frequency:	14.2500 GHz
Span:	0.0000 Hz

VertexRSI Representative

Representative

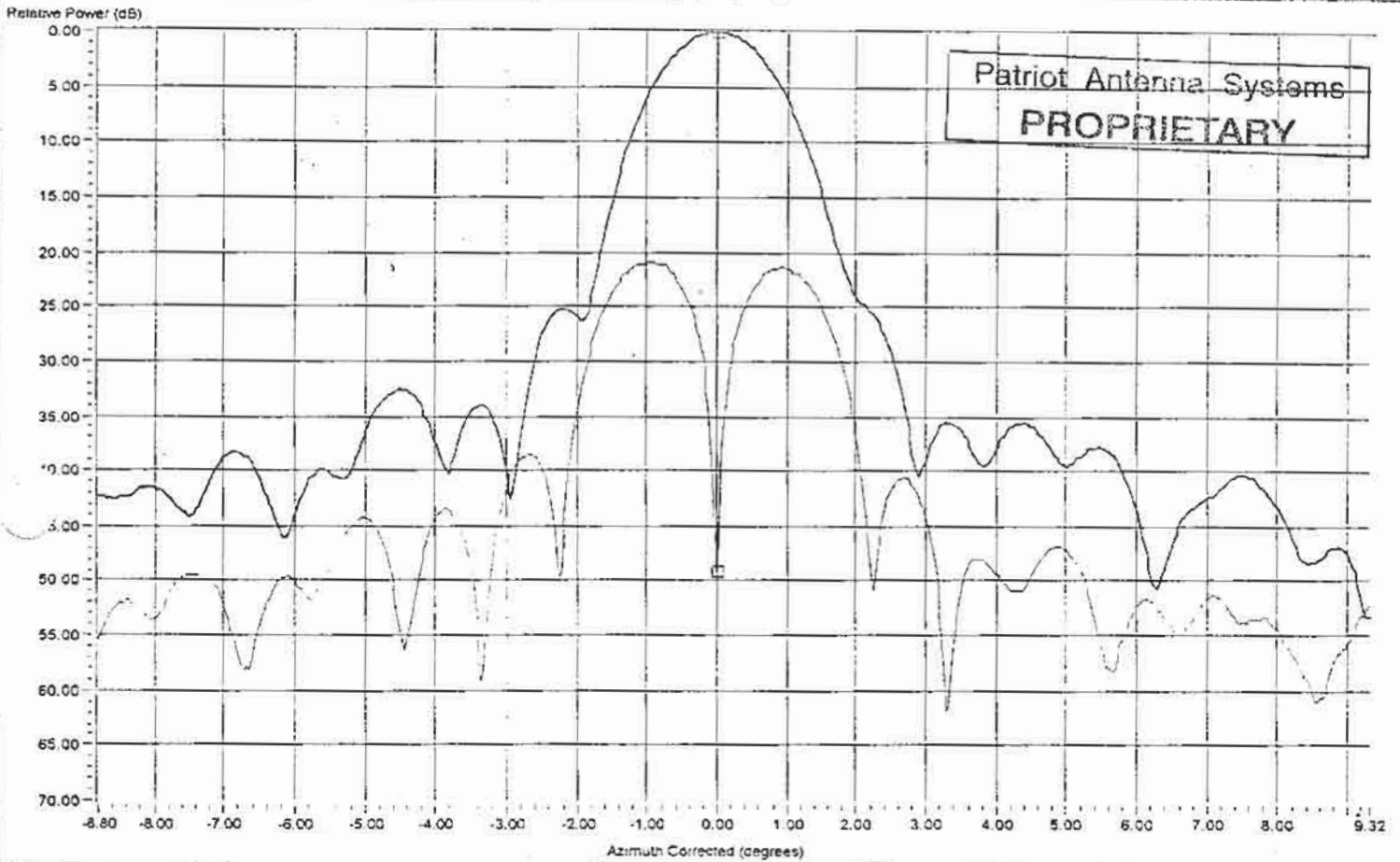
COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Applied Curve:

Save pattern to file



Pattern Information

Frequency Band: Transmit
Polarization: HORIZONTAL
Beginning Angle: -8.80 degrees
Ending Angle: 9.35 degrees
Test Frequency: 14.5000 GHz

Copol Pattern

Cross Pol Pattern

Measured Cross Pol

Cross Polarization Isolation:

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
Specified Gain: 42.47 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 130.0 sec
Reference Level: -30.50 dB
Center Frequency: 14.5000 GHz
Span: 0.0000 Hz

VertexRSI Representative

Representative

COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

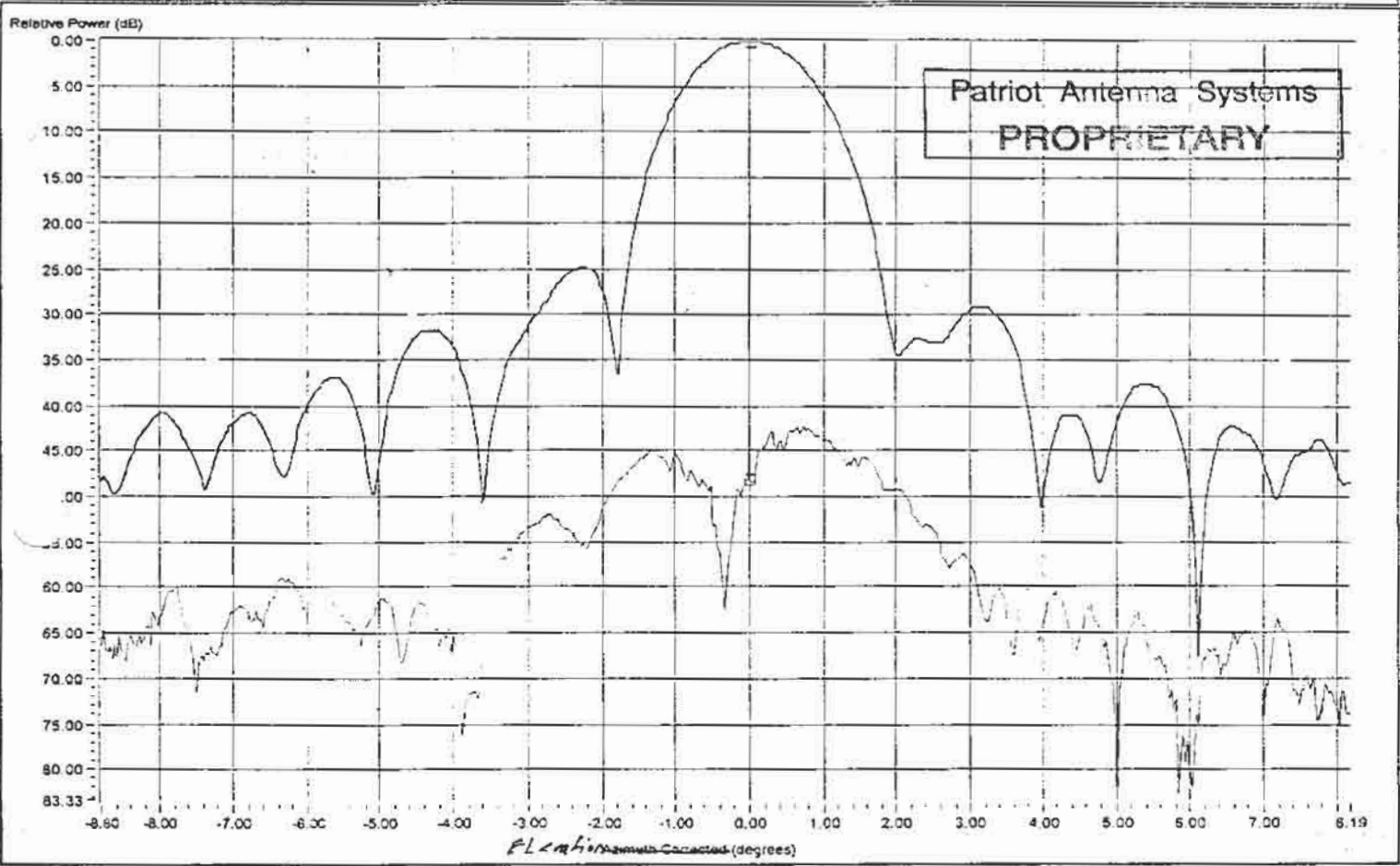
Comments:

Cross Polarization Isolation and Applied Curve

Applied Curve:

Save pattern to file

Print



Pattern Information	
Frequency Band:	Transmit
Polarization:	HORIZONTAL
Beginning Angle:	-8.80 degrees
Ending Angle:	8.21 degrees
Test Frequency:	14.5000 GHz

Copol Pattern	
Cross Pol Pattern	
Measured Cross Pol	
Cross Polarization Isolation:	48.00 dB

Antenna Information		
Beam Center:	Azimuth:	0.00 deg
	Elevation:	12.00 deg
Specified Gain:	42.47 dB	

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	135.0 sec
Reference Level:	-30.50 dB
Center Frequency:	14.5000 GHz
Span:	0.0000 Hz

VertexRSI Representative

Representative

VERITAS 3.1

REVISED BY ALAN B. POLLARD

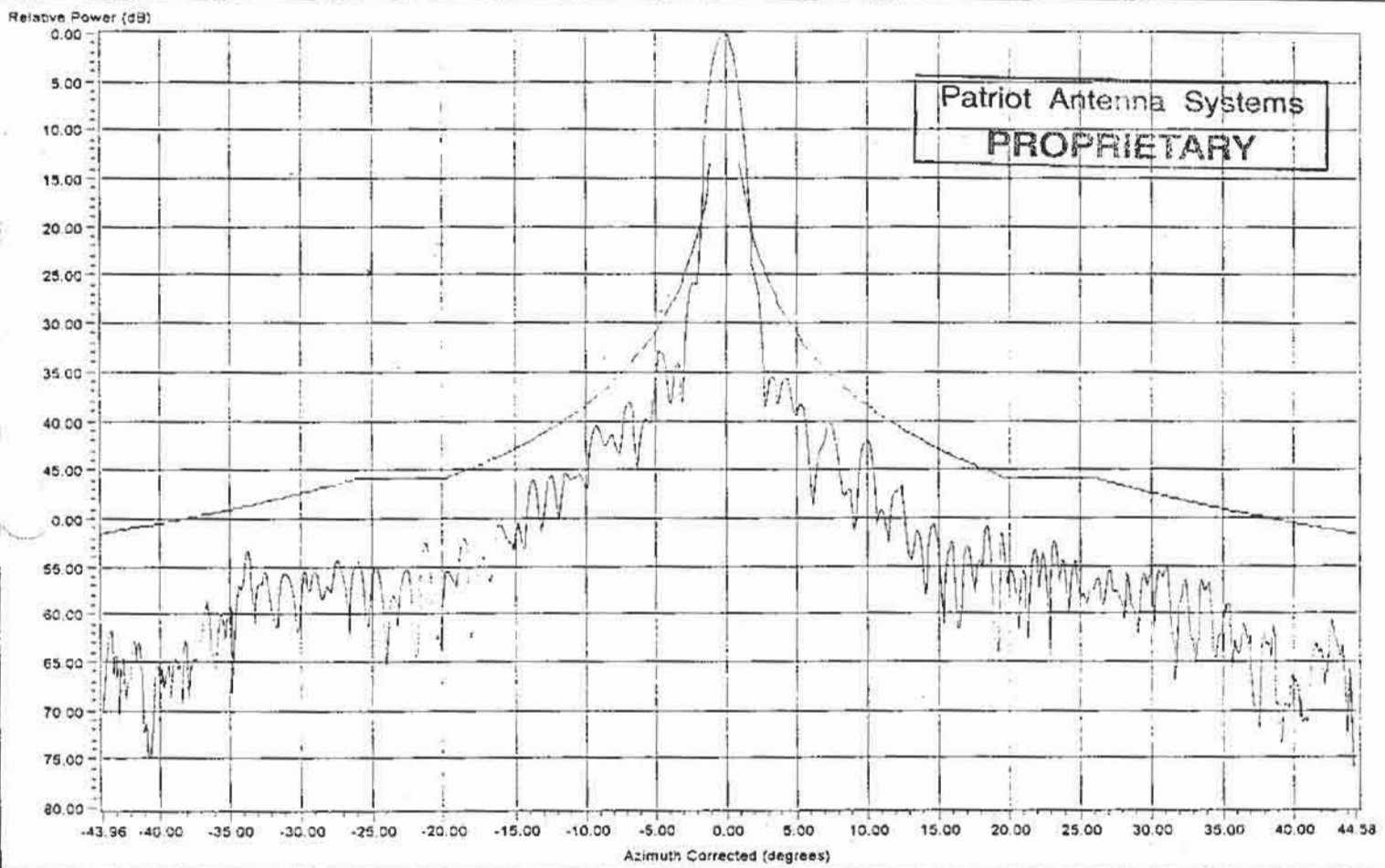
TOWER: PATRIOT
 VertexRSI Test Range
 WEATHER: Clear
 ANTENNA: 1.0m Ku #1
 SATELLITE: Short Range
 TRANSPONDERS: N/A
 JOB NUMBER: S4184
 TEST ENGINEER: Todd Weaver

Comments:
 [Empty Box]

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: HORIZONTAL
 Beginning Angle: -45.00 degrees
 Ending Angle: 45.66 degrees
 Test Frequency: 14.5000 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.47 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 93.0 sec
 Reference Level: -30.34 dB
 Center Frequency: 14.5000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

[Empty Signature Boxes]



CUSTOMER: PATRIOT
 VertexRSI Test Range
 WEATHER: Clear
 ANTENNA: 1.0m Ku #1

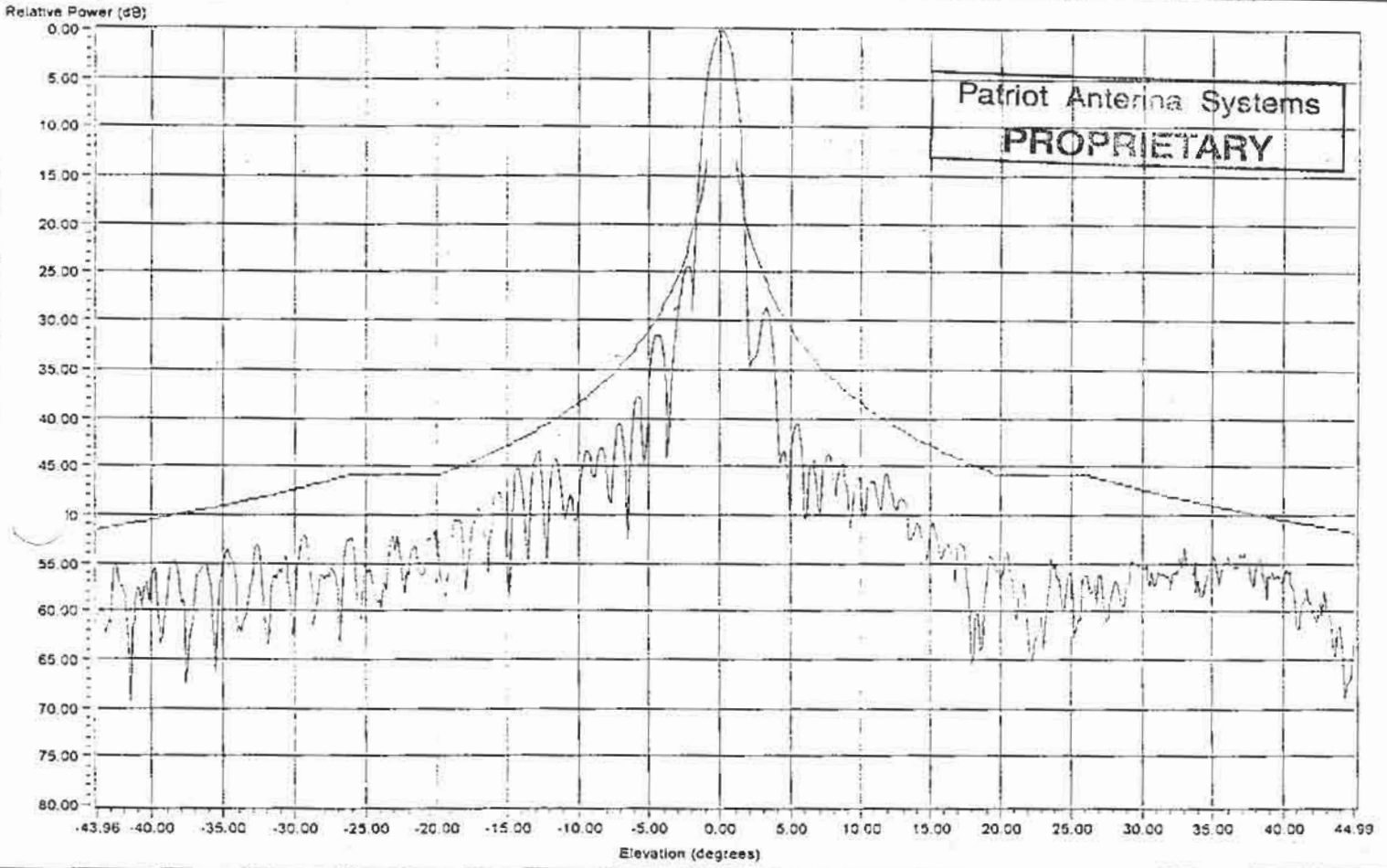
SATELLITE: Short Range
 TRANSPONDERS: N/A
 JOB NUMBER: S4184
 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: HORIZONTAL
 Beginning Angle: -45.00 degrees
 Ending Angle: 45.18 degrees
 Test Frequency: 14.5000 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.47 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 93.0 sec
 Reference Level: -30.34 dB
 Center Frequency: 14.5000 GHz
 Span: 0.0000 Hz

xRSI Representative

Representative

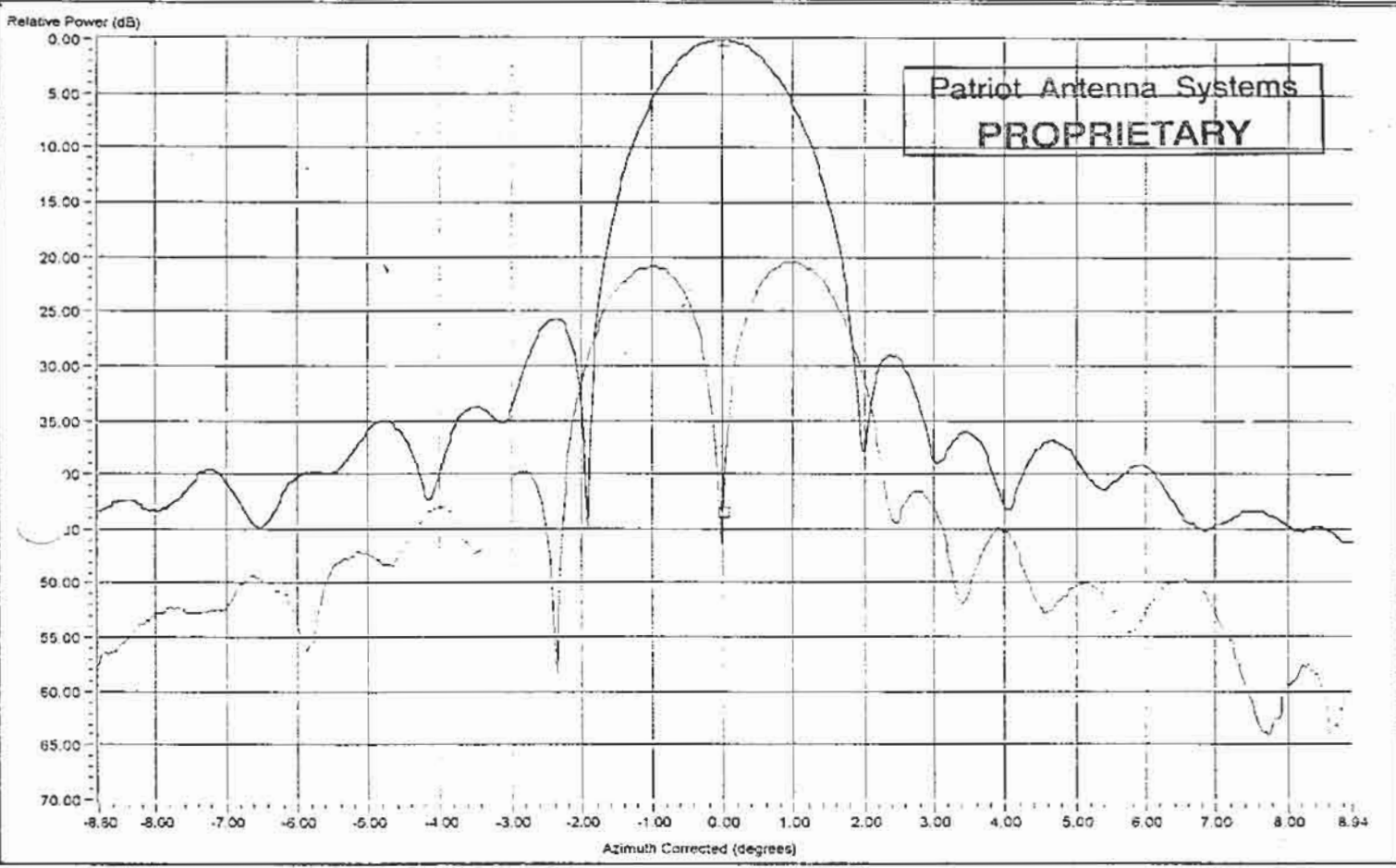
COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Applied Curve: ITU 580-5

Save pattern to file



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -8.80 degrees
 Ending Angle: 8.95 degrees
 Test Frequency: 13.7500 GHz

Copol Pattern
 Cross Pol Pattern
 Measured Cross Pol
 Cross Polarization Isolation: 43.34 dB

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
 Specified Gain: 42.28 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 130.0 sec
 Reference Level: -35.95 dB
 Center Frequency: 13.7500 GHz
 Span: 0.0000 Hz

VertexRSI Representative _____ Representative

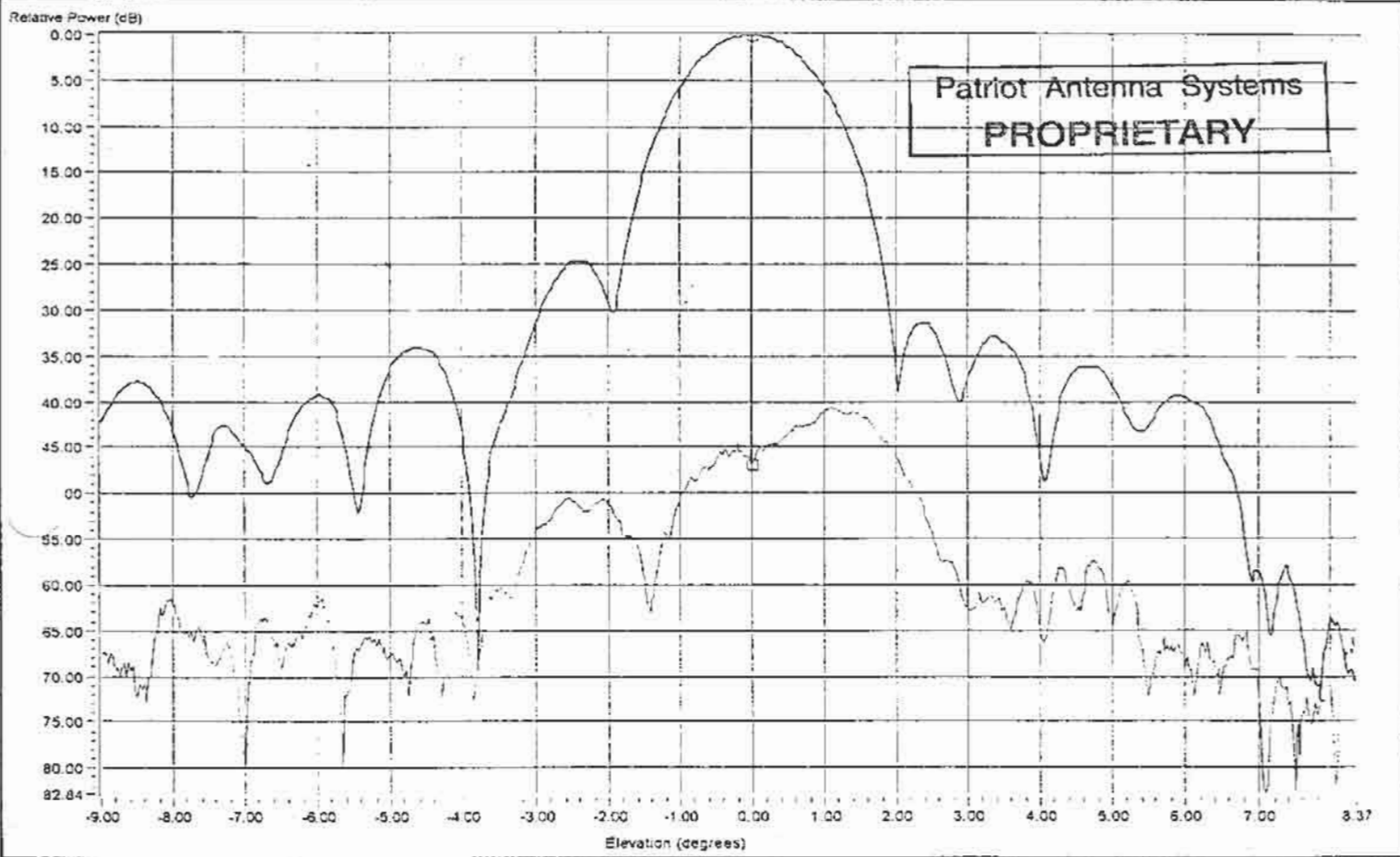
TOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4164
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve:



<p>Pattern information</p> <p>Frequency Band: Transmit Polarization: VERTICAL Beginning Angle: -9.00 degrees Ending Angle: 8.38 degrees Test Frequency: 13.7500 GHz</p>	<p>Coppl Pattern Cross Pol Pattern Measured Cross Pol Cross Polarization Isolation: 46.84 dB</p>	<p>Spectrum Analyzer information</p> <p>Resolution Bandwidth: 30.0000 Hz Video Bandwidth: 30.0000 Hz Sweep Time: 135.0 sec Reference Level: -36.96 dB Center Frequency: 13.7500 GHz Span: 0.0000 Hz</p>
<p>Antenna information</p> <p>Beam Center: Azimuth: 0.00 deg Elevation: 12.00 deg Specified Gain: 42.28 dB</p>		

VertexRSI Representative Representative

TOMER: PATRIOT
VertexRSI Test Range

WEATHER: Clear

ANTENNA: 1.0m Ku #1

SATELLITE: Short Range

TRANSPONDERS: N/A

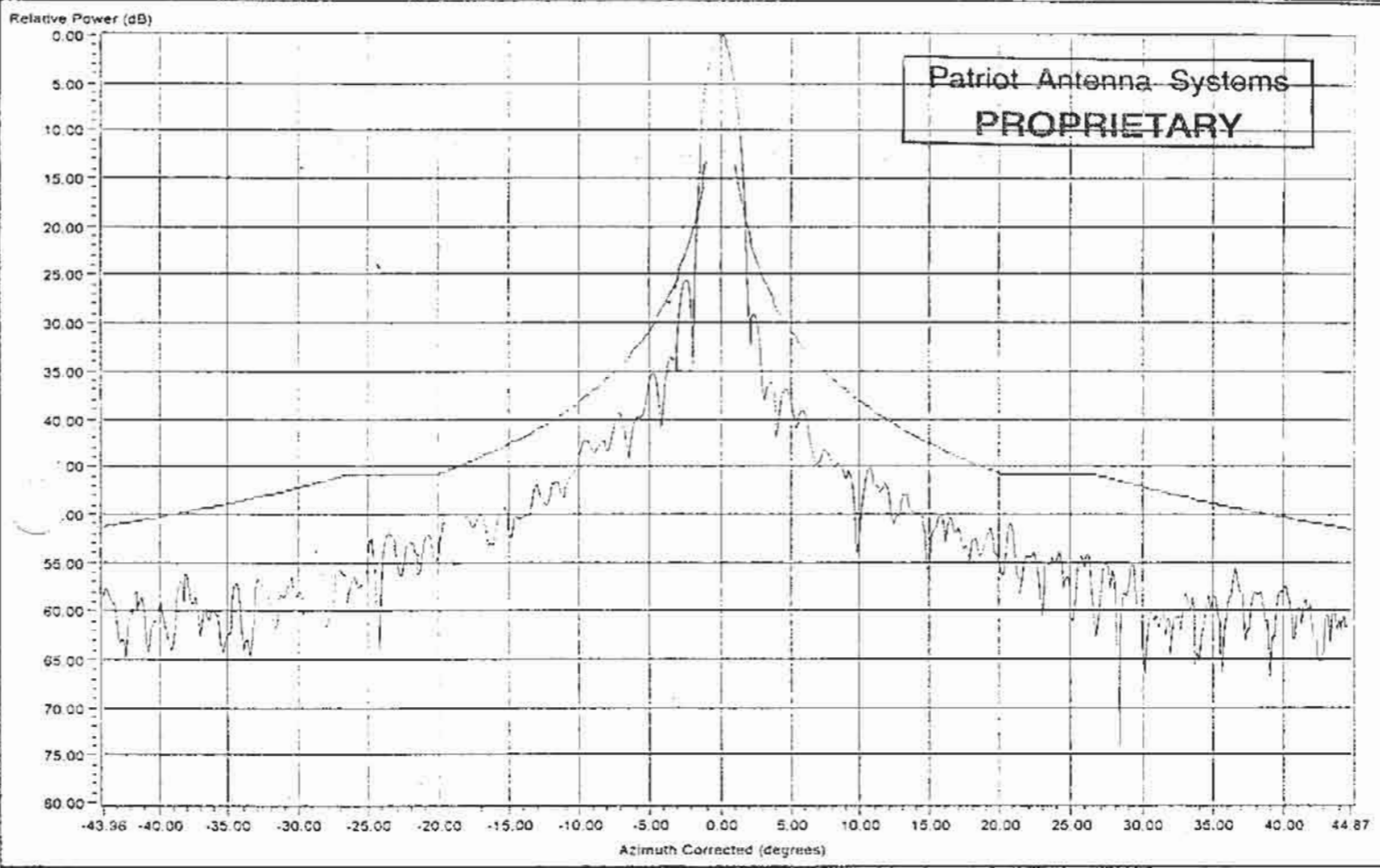
JOB NUMBER: S4184

TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Applied Curve:



Pattern Information	
Frequency Band:	Transmit
Polarization:	VERTICAL
Beginning Angle:	-45.00 degrees
Ending Angle:	45.95 degrees
Test Frequency:	13.7500 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.28 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	95.0 sec
Reference Level:	-36.95 dB
Center Frequency:	13.7500 GHz
Span:	0.0000 Hz

RSI Representative

Representative

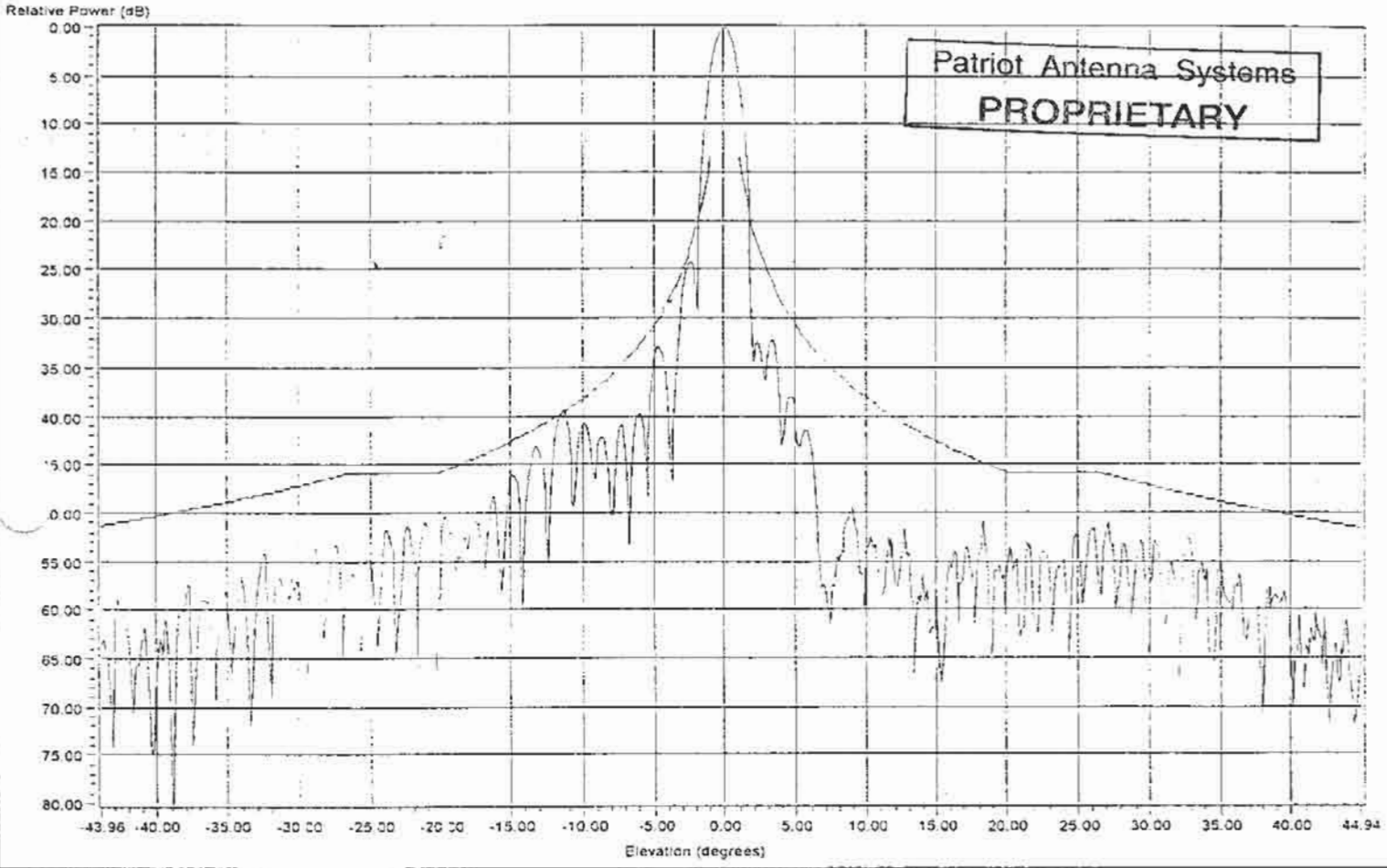
CUSTOMER: PATRIOT **SATELLITE:** Short Range
E: VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:



Pattern Information

Frequency Band: Transmit
Polarization: VERTICAL
Beginning Angle: -45.00 degrees
Ending Angle: 46.09 degrees
Test Frequency: 13.7500 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
Specified Gain: 42.28 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 95.0 sec
Reference Level: -36.96 dB
Center Frequency: 13.7500 GHz
Span: 0.0000 Hz

xRSI Representative

Representative

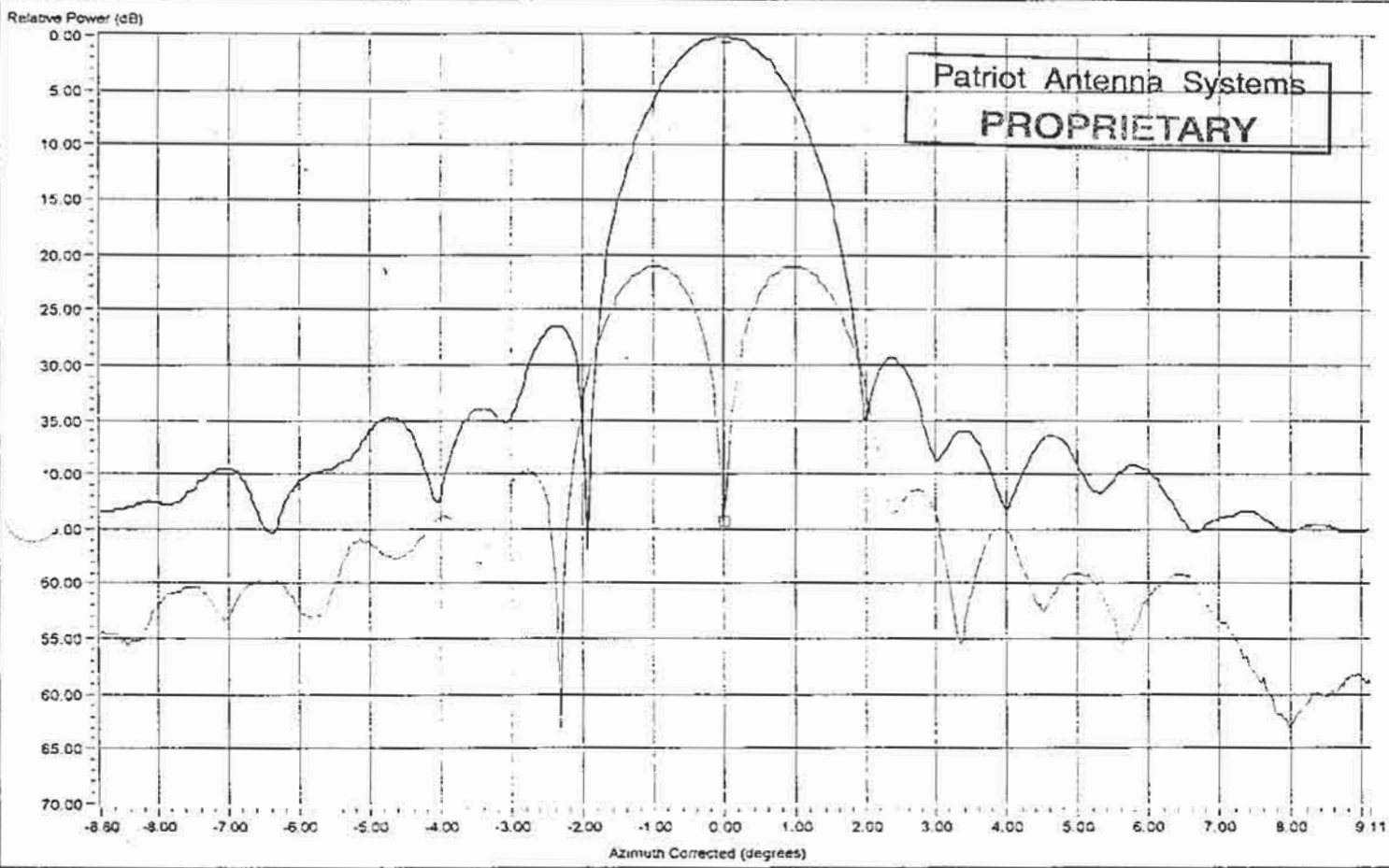
TOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve:

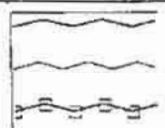


Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -8.80 degrees
 Ending Angle: 9.13 degrees
 Test Frequency: 14.0000 GHz

Copol Pattern

Cross Pol Pattern:
 Measured Cross Pol:



Cross Polarization Isolation:

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
 Specified Gain: 42.42 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 130.0 sec
 Reference Level: -36.30 dB
 Center Frequency: 14.0000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

TOWER: PATRIOT
VertexRSI Test Range
WEATHER: Clear
ANTENNA: 1.0m Ku #1

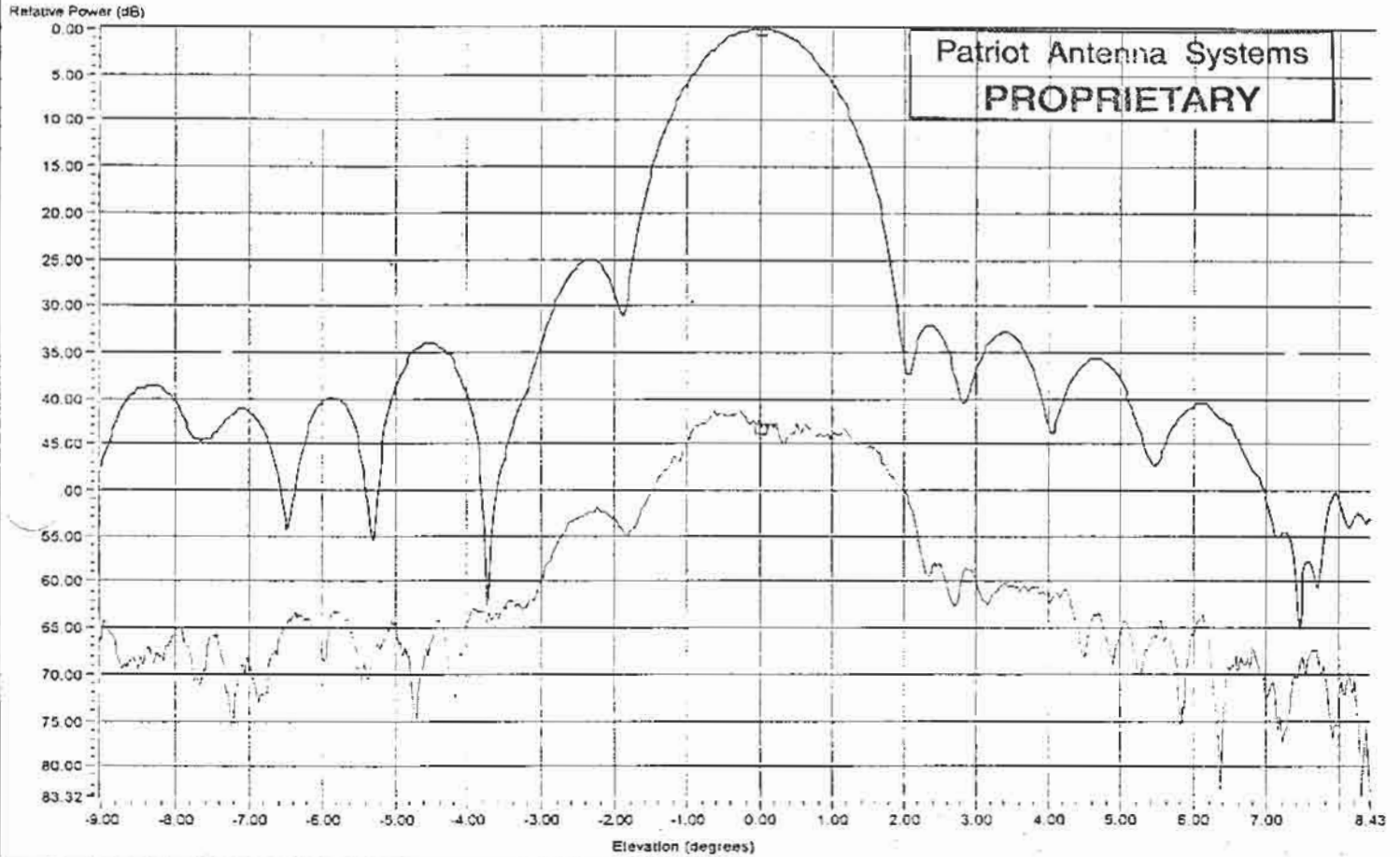
SATELLITE: Short Range
TRANSPONDERS: N/A
JOB NUMBER: S4184
TEST ENGINEER: Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve: ITU 580-5

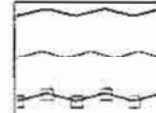


Pattern Information

Frequency Band: Transmit
Polarization: VERTICAL
Beginning Angle: -9.00 degrees
Ending Angle: 8.45 degrees
Test Frequency: 14.0000 GHz

Copol Pattern

Cross Pol Pattern
Measured Cross Pol



Cross Polarization Isolation:

43.32 dB

Antenna Information

Beam Center: Azimuth: 0.00 deg
Elevation: 12.00 deg
Specified Gain: 42.42 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 135.0 sec
Reference Level: -36.14 dB
Center Frequency: 14.0000 GHz
Span: 0.0000 Hz

VertexRSI Representative

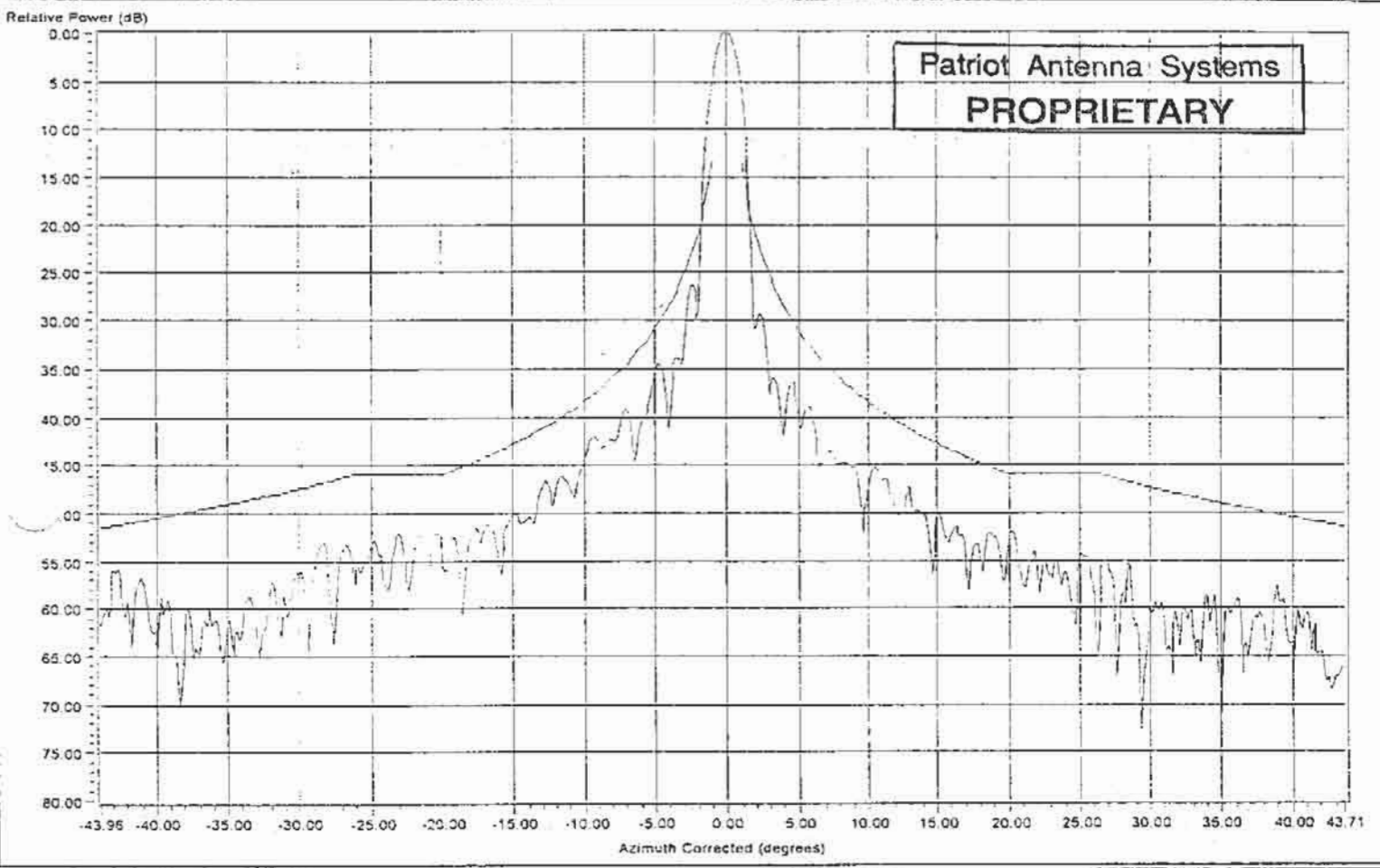
Representative

CUSTOMER: PATRIOT	SATELLITE: Short Range	Comments: <input type="text"/>
VertexRSI Test Range	TRANSPONDERS: N/A	
WEATHER: Clear	JOB NUMBER: S4184	
ANTENNA: 1.0m Ku #1	TEST ENGINEER: Todd Weaver	

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:



Pattern Information	
Frequency Band:	Transmit
Polarization:	VERTICAL
Beginning Angle:	-45.00 degrees
Ending Angle:	44.78 degrees
Test Frequency:	14.0000 GHz

Antenna Information		
Beam Center:	Azimuth:	0.000 deg
	Elevation:	12.000 deg
Specified Gain:		42.42 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	93.0 sec
Reference Level:	-36.30 dB
Center Frequency:	14.0000 GHz
Span:	0.0000 Hz

Representative

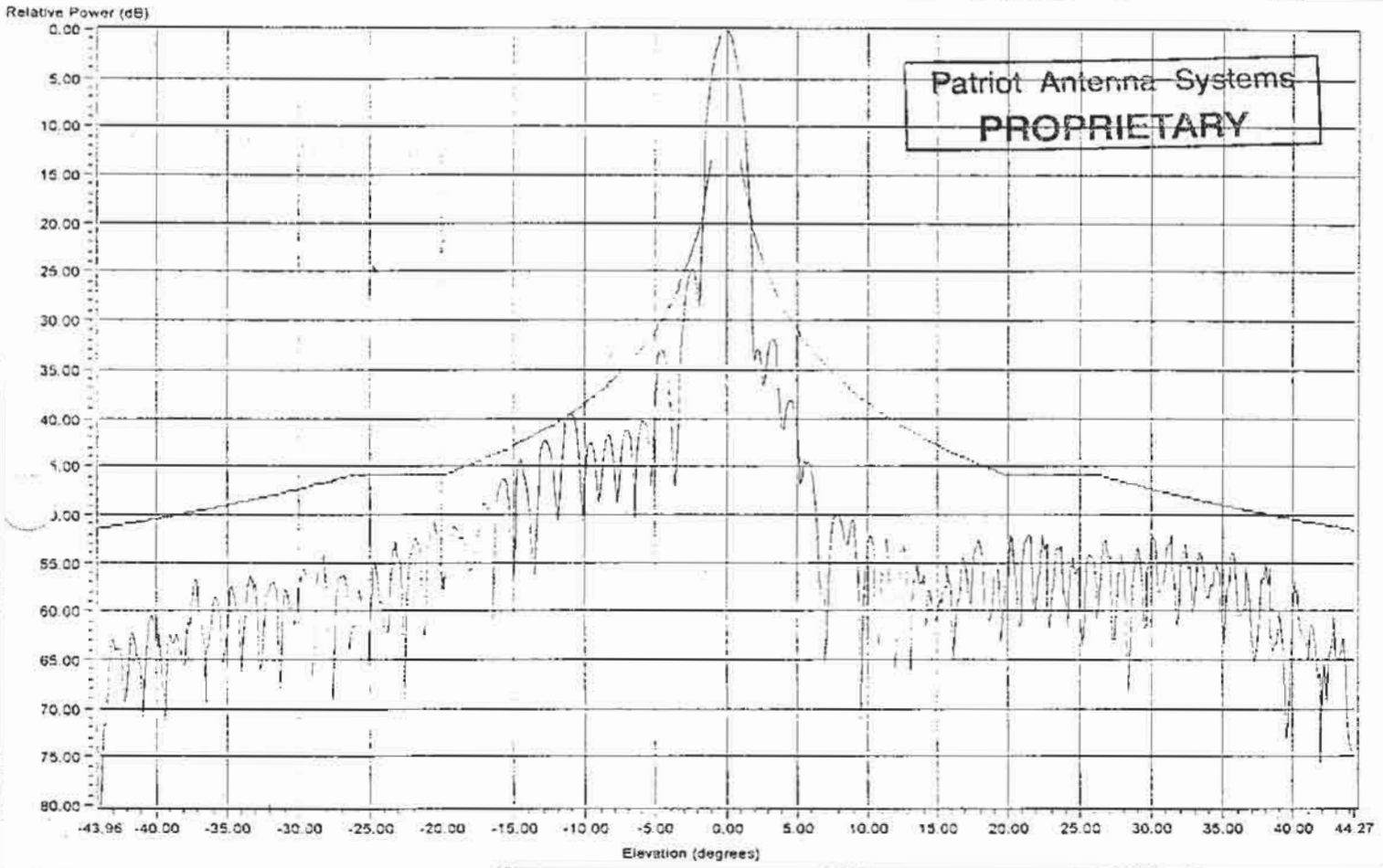
TOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -45.00 degrees
 Ending Angle: 45.33 degrees
 Test Frequency: 14.0000 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.42 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 93.0 sec
 Reference Level: -36.47 dB
 Center Frequency: 14.0000 GHz
 Span: 0.0000 Hz

xRSI Representative

Representative

CUSTOMER: PATRIOT
VertexRSI Test Range
WEATHER: Clear
ANTENNA: 1.0m Ku #1

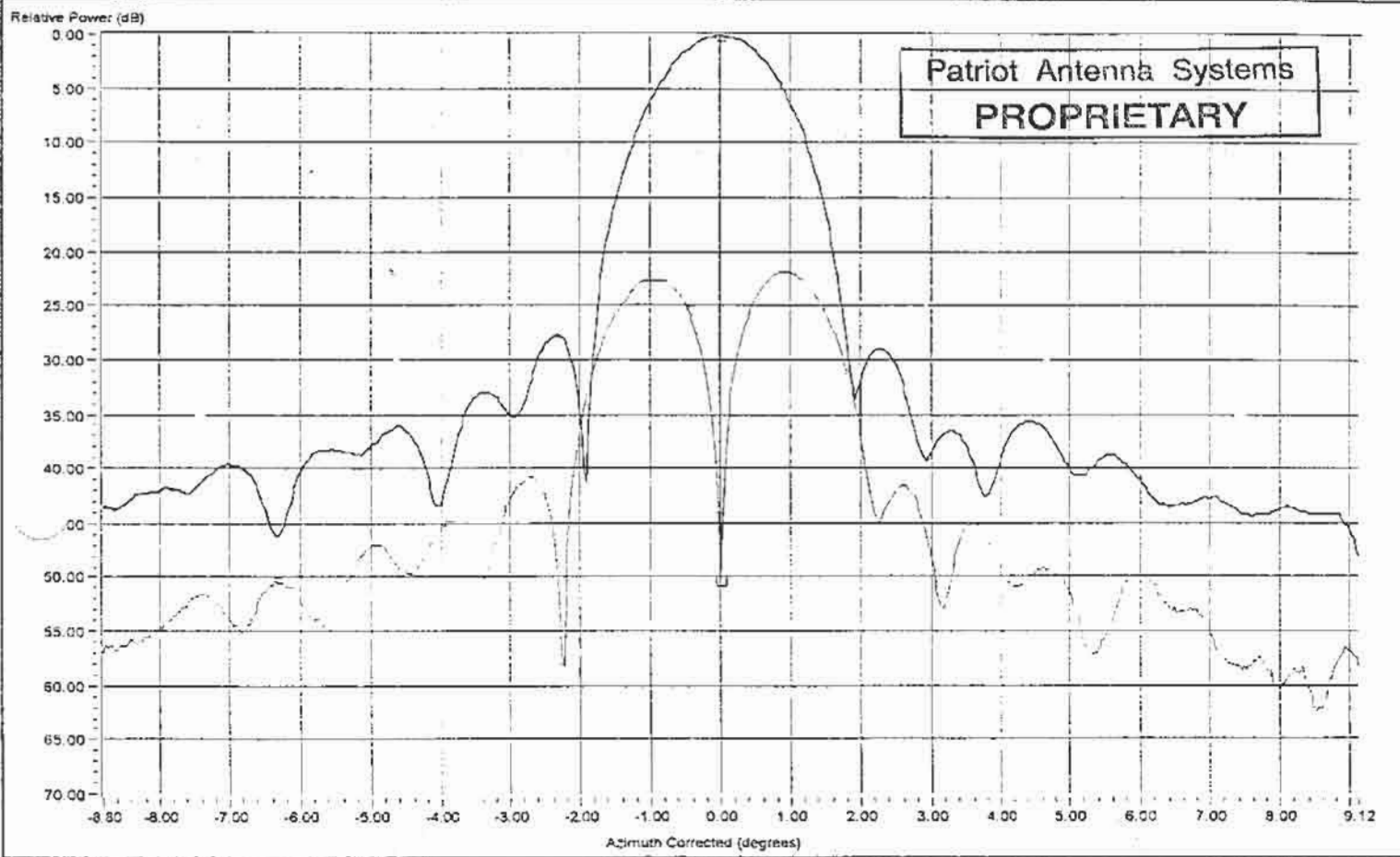
SATELLITE: Short Range
TRANSPONDERS: N/A
JOB NUMBER: S4184
TEST ENGINEER: Todd Weaver

Comments:

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve:



Pattern Information

Frequency Band: Transmit
Polarization: VERTICAL
Beginning Angle: -8.80 degrees
Ending Angle: 9.15 degrees
Test Frequency: 14.2500 GHz

Copol Pattern
Cross Pol Pattern
Measured Cross Pol
Cross Polarization Isolation:

Antenna Information

Beam Center: Azimuth: 0.00 deg
Elevation: 12.00 deg
Specified Gain: 42.33 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 130.0 sec
Reference Level: -35.44 dB
Center Frequency: 14.2500 GHz
Span: 0.0000 Hz

VertexRSI Representative

Representative

COMER: PATRIOT **SATELLITE:** Short Range
 VertexRSI Test Range **TRANSPONDERS:** N/A
WEATHER: Clear **JOB NUMBER:** S4184
ANTENNA: 1.0m Ku #1 **TEST ENGINEER:** Todd Weaver

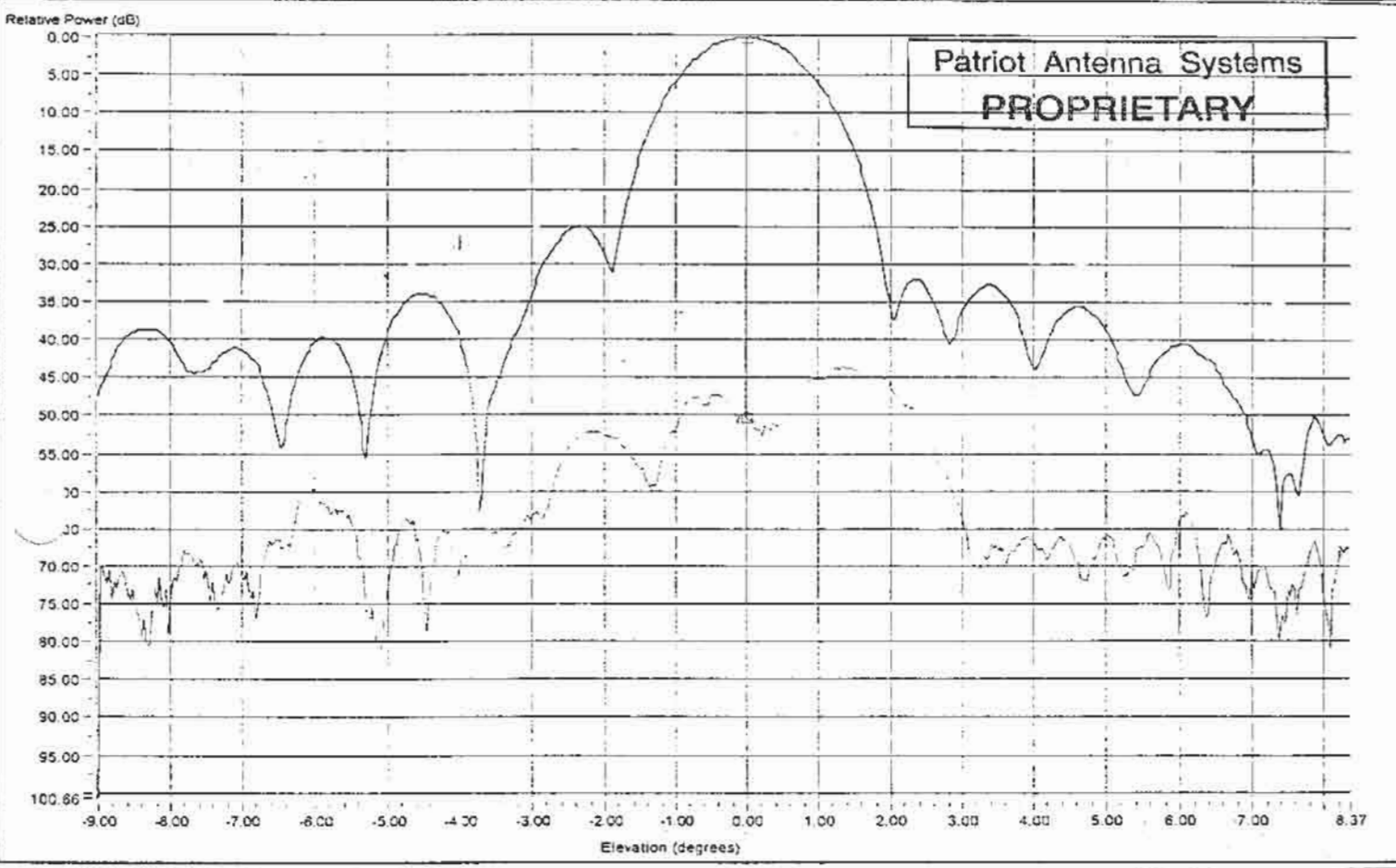
Comments:

Cross-Polarization Isolation and Applied Curve

Applied Curve: ITU 580-5

Save pattern to file


Exit




Pattern Information

Frequency Band:	Transmit
Polarization:	VERTICAL
Beginning Angle:	-9.00 degrees
Ending Angle:	8.38 degrees
Test Frequency:	14.2500 GHz


Copol Pattern



Cross Pol Pattern



Measured Cross Pol



Cross Polarization Isolation: 50.16 dB

Antenna Information

Beam Center:	Azimuth:	0.00	deg
	Elevation:	12.00	deg
Specified Gain:	42.33 dB		

Spectrum Analyzer Information

Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	135.0 sec
Reference Level:	-34.94 dB
Center Frequency:	14.2500 GHz
Span:	0.0000 Hz

VertexRSI Representative

Representative

CUSTOMER: PATRIOT
VertexRSI Test Range

WEATHER: Clear

ANTENNA: 1.0m Ku #1

SATELLITE: Short Range

TRANSPONDERS: N/A

JOB NUMBER: S4184

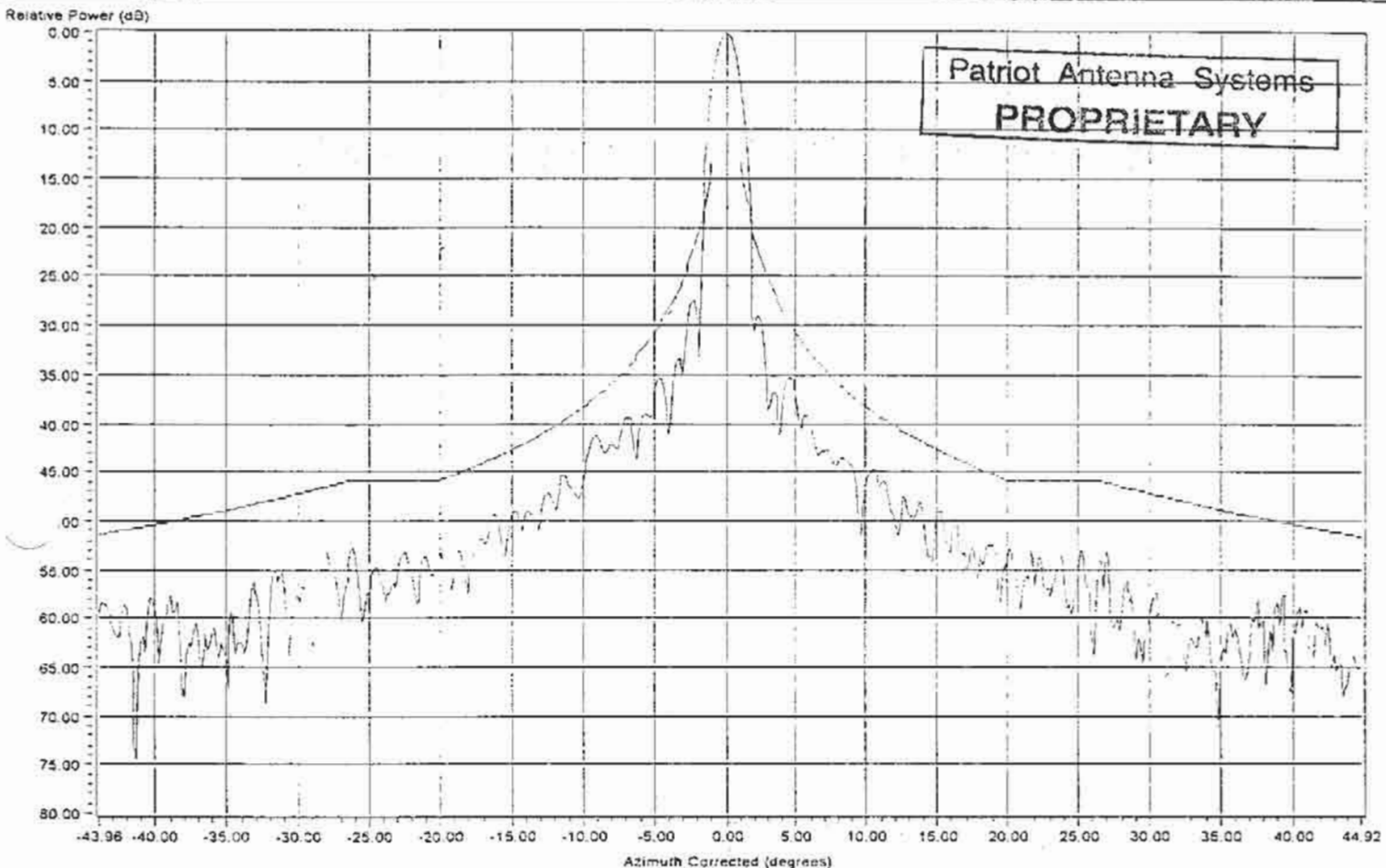
TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:



Pattern Information

Frequency Band: Transmit

Polarization: VERTICAL

Beginning Angle: -45.00 degrees

Ending Angle: 46.04 degrees

Test Frequency: 14.2500 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
Elevation: 12.000 deg

Specified Gain: 42.33 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz

Video Bandwidth: 30.0000 Hz

Sweep Time: 92.0 sec

Reference Level: -35.60 dB

Center Frequency: 14.2500 GHz

Span: 0.0000 Hz

V RSI Representative

Representative

CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

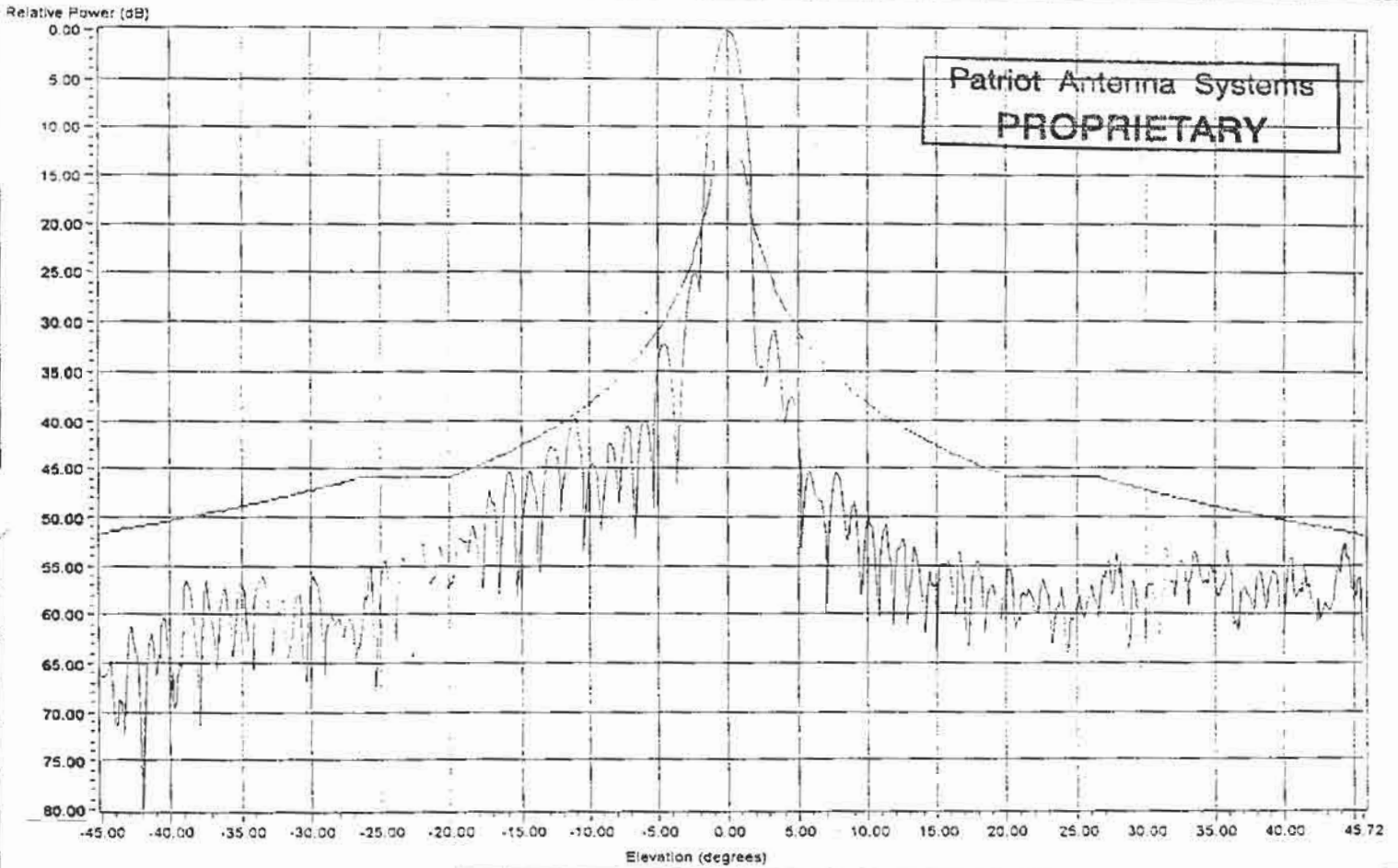
Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve:

OK



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -45.00 degrees
 Ending Angle: 45.83 degrees
 Test Frequency: 14.2500 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.33 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 92.0 sec
 Reference Level: -35.60 dB
 Center Frequency: 14.2500 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

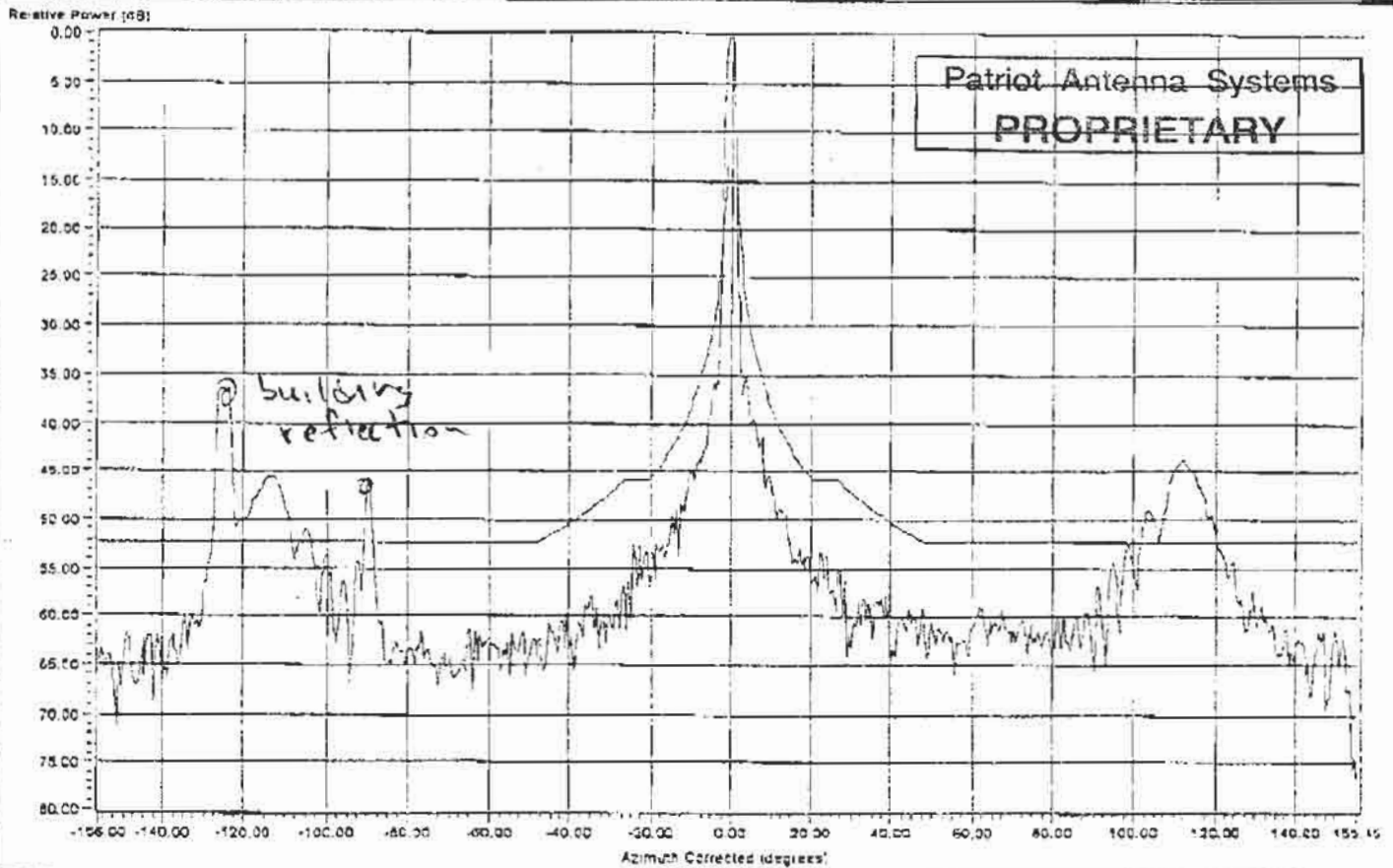
CUSTOMER: PATRIOT SATELLITE: Short Range
 SITE: VertexRSI Test Range TRANSPONDERS: N/A
 WEATHER: Clear JOB NUMBER: 54184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Co-polarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -180.00 degrees
 Ending Angle: 178.39 degrees
 Test Frequency: 14.2500 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.33 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 370.0 sec
 Reference Level: -35.44 dB
 Center Frequency: 14.2500 GHz
 Span: 0.0000 Hz

VertexRSI Representative

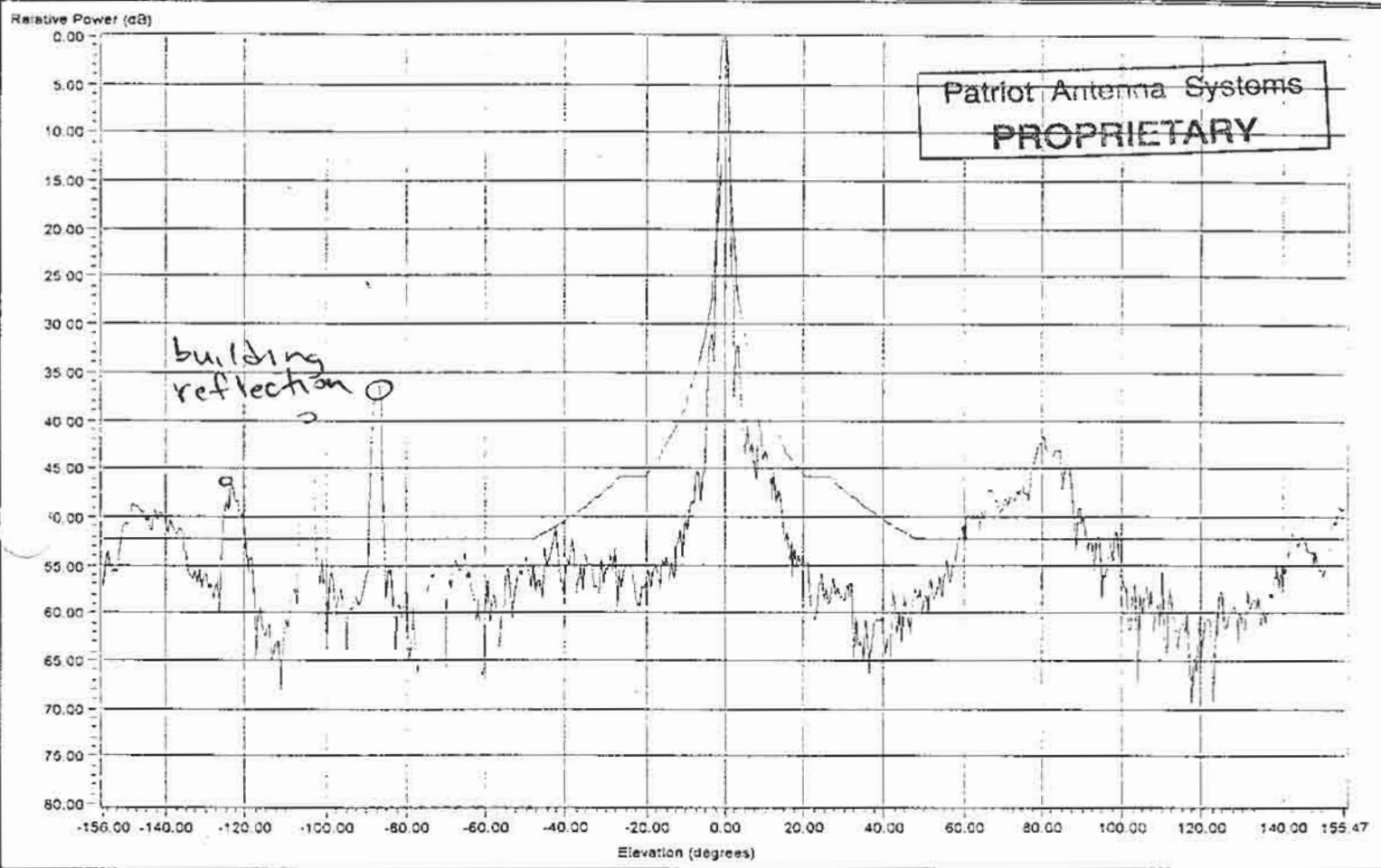
Representative

CUSTOMER: PATRIOT
 SATELLITE: Short Range
 TEST ENGINEER: Todd Weaver
 WEATHER: Clear
 JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1
 TRANSPONDERS: N/A

Comments:
 [Empty box]

Copolarization Pattern and Applied Curve
 Applied Curve: ITU 580-5

Save pattern



Pattern Information	
Frequency Band:	Transmit
Polarization:	VERTICAL
Beginning Angle:	-180.00 degrees
Ending Angle:	178.97 degrees
Test Frequency:	14.2500 GHz

Antenna Information	
Beam Center:	Azimuth: 0.000 deg
	Elevation: 12.000 deg
Specified Gain:	42.33 dB

Spectrum Analyzer Information	
Resolution Bandwidth:	30.0000 Hz
Video Bandwidth:	30.0000 Hz
Sweep Time:	370.0 sec
Reference Level:	-35.60 dB
Center Frequency:	14.2500 GHz
Span:	0.0000 Hz

VertexRSI Representative [Empty box] Representative [Empty box]

CUSTOMER: PATRIOT
 VertexRSI Test Range
 WEATHER: Clear
 ANTENNA: 1.0m Ku #1

SATELLITE: Short Range
 TRANSPONDERS: N/A
 JOB NUMBER: S4184
 TEST ENGINEER: Todd Weaver

Comments:

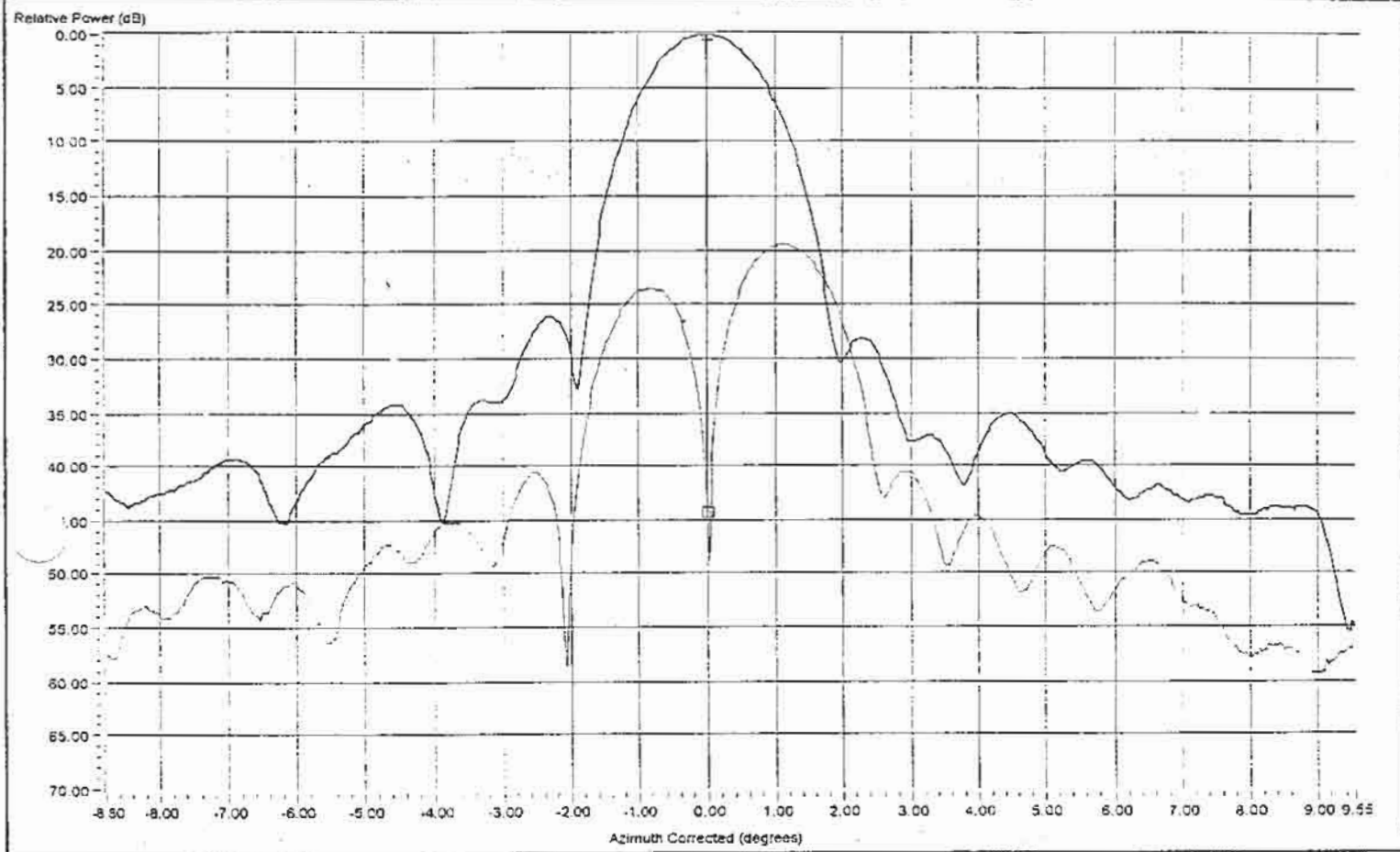
[Empty text box for comments]

Cross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve: ITU 580-5

Fig



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -8.80 degrees
 Ending Angle: 9.56 degrees
 Test Frequency: 14.5000 GHz

Copol Pattern



Cross Pol Pattern



Measured Cross Pol



Cross Polarization Isolation: 44.32 dB

Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
 Specified Gain: 42.50 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 130.0 sec
 Reference Level: -28.94 dB
 Center Frequency: 14.5000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

[Empty text box for VertexRSI Representative signature]

[Empty text box for Representative signature]

CUSTOMER: PATRIOT
 SATELLITE: Short Range
 VertexRSI Test Range
 TRANSPONDERS: N/A
 WEATHER: Clear
 JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1
 TEST ENGINEER: Todd Weaver

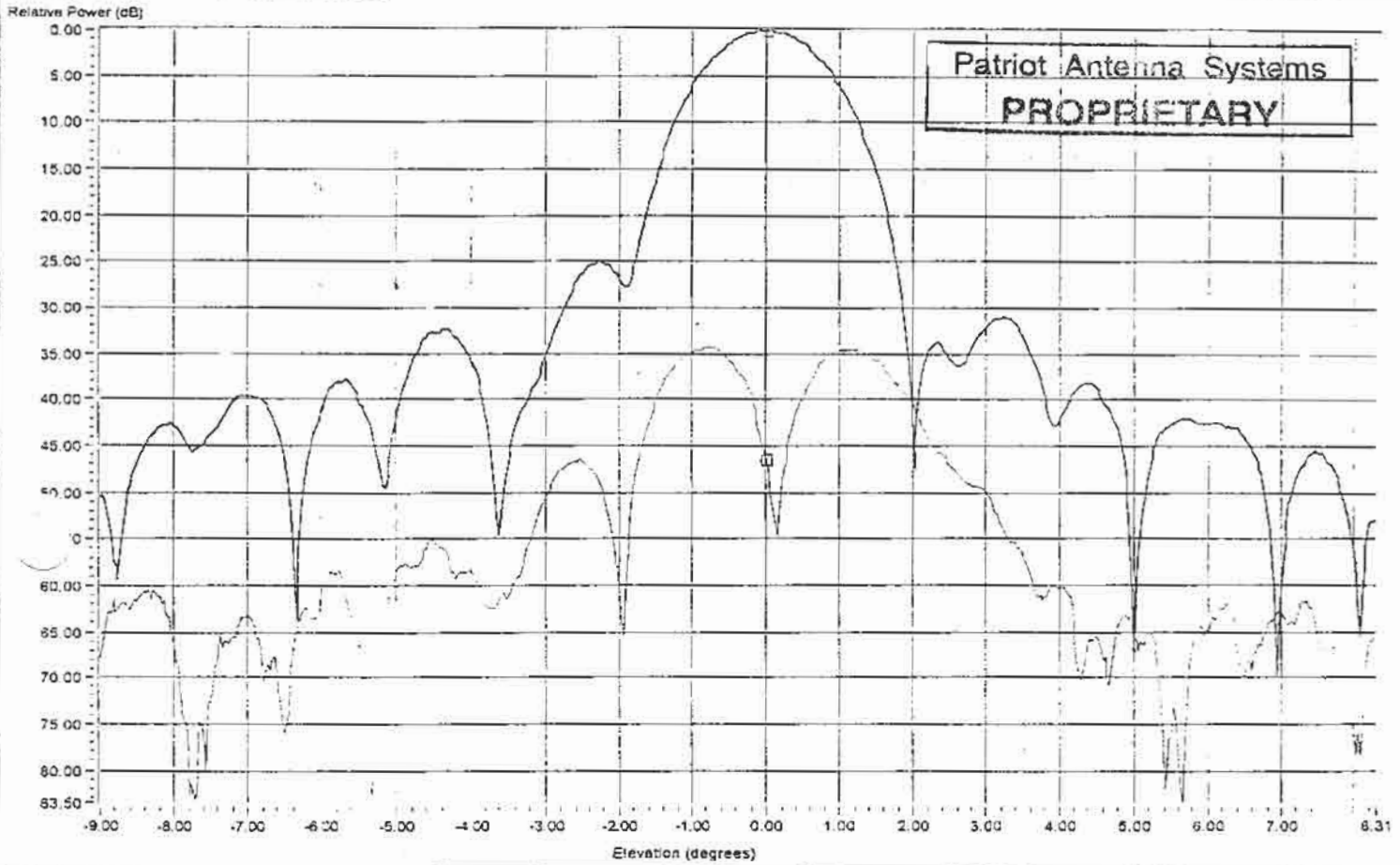
Comments

Empty text box for comments.

Gross Polarization Isolation and Applied Curve

Save pattern to file

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -9.00 degrees
 Ending Angle: 8.31 degrees
 Test Frequency: 14.5000 GHz

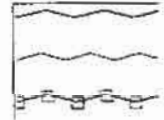
Copol Pattern

Cross Pol Pattern

Measured Cross Pol

Cross Polarization Isolation:

46.50 dB



Antenna Information

Beam Center: Azimuth: 0.00 deg
 Elevation: 12.00 deg
 Specified Gain: 42.50 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 135.0 sec
 Reference Level: -29.26 dB
 Center Frequency: 14.5000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative

Two empty rectangular boxes for signatures.

CUSTOMER: PATRIOT
VertexRSI Test Range
WEATHER: Clear
ANTENNA: 1.0m Ku #1

SATELLITE: Short Range
TRANSPONDERS: N/A
JOB NUMBER: S4184
TEST ENGINEER: Todd Weaver

Comments:

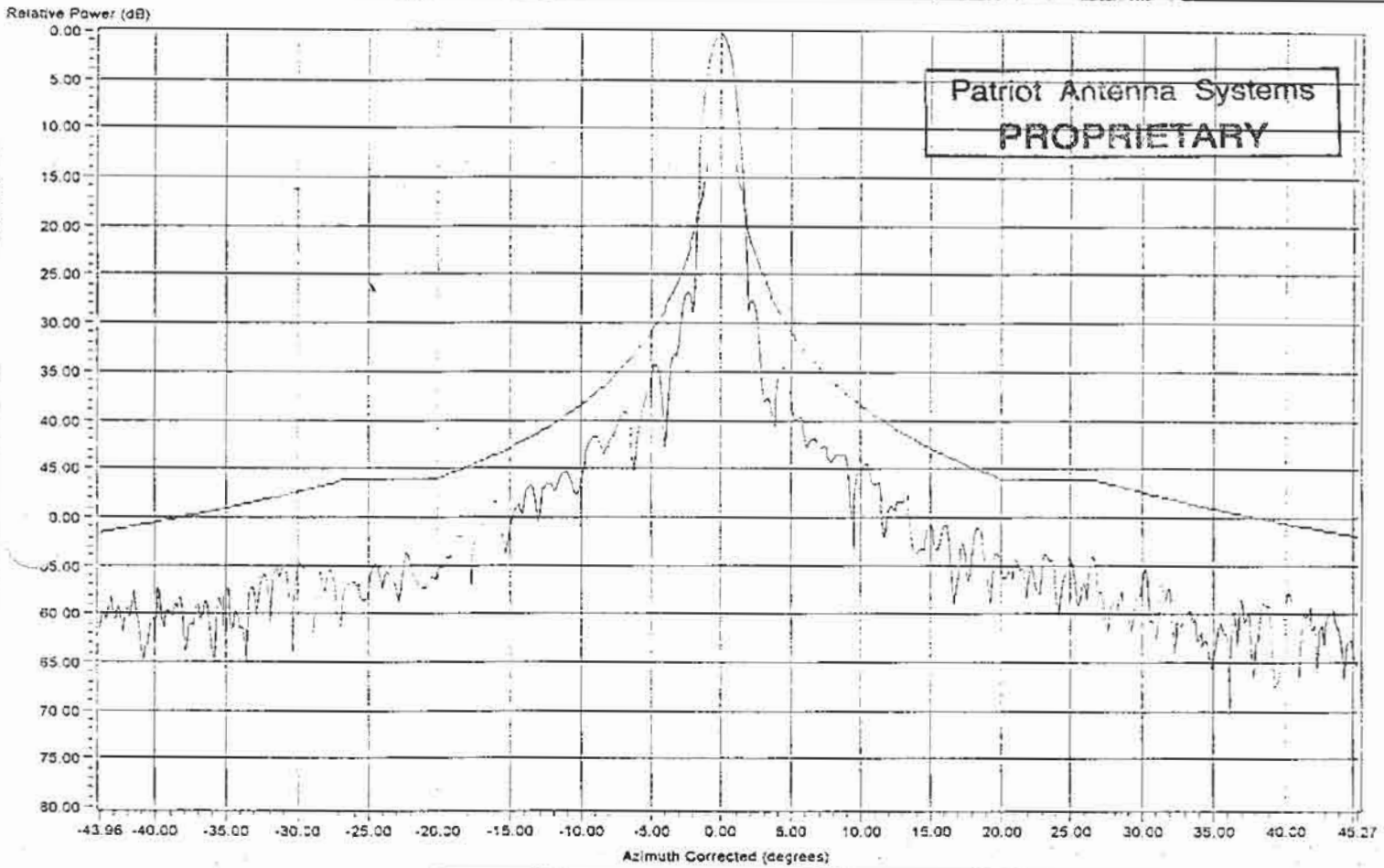
Empty text box for comments.

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5

Print



Pattern Information

Frequency Band: Transmit
Polarization: VERTICAL
Beginning Angle: -45.00 degrees
Ending Angle: 46.45 degrees
Test Frequency: 14.5000 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
Elevation: 12.000 deg
Specified Gain: 42.50 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
Video Bandwidth: 30.0000 Hz
Sweep Time: 93.0 sec
Reference Level: -28.94 dB
Center Frequency: 14.5000 GHz
Span: 0.0000 Hz

VertexRSI Representative

Representative

Empty signature box for VertexRSI Representative.

Empty signature box for Representative.

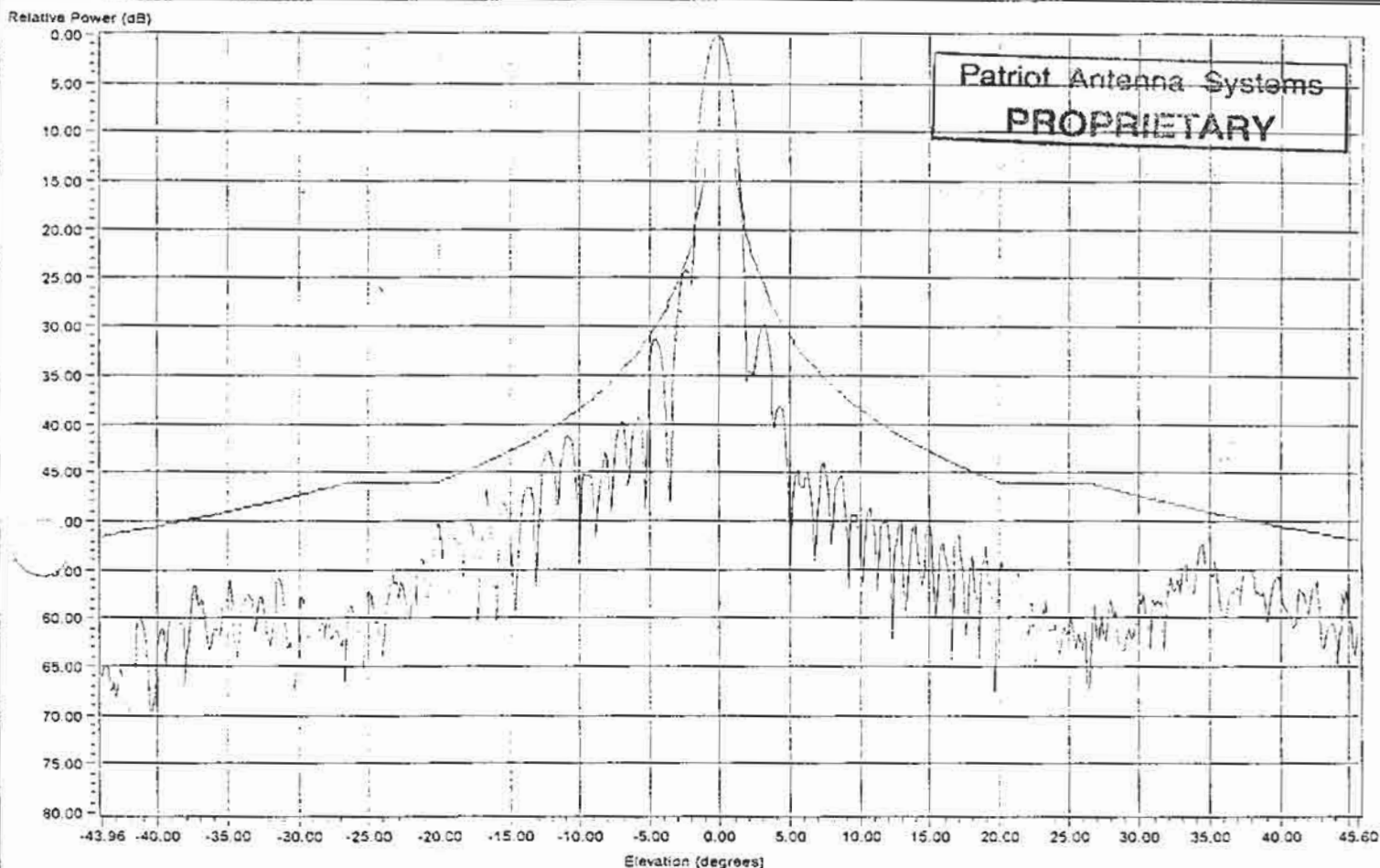
CUSTOMER: PATRIOT SATELLITE: Short Range
 VertexRSI Test Range TRANSPONDERS: N/A
 OTHER: Clear JOB NUMBER: S4184
 ANTENNA: 1.0m Ku #1 TEST ENGINEER: Todd Weaver

Comments:

Copolarization Pattern and Applied Curve

Save pattern

Applied Curve: ITU 580-5



Pattern Information

Frequency Band: Transmit
 Polarization: VERTICAL
 Beginning Angle: -45.00 degrees
 Ending Angle: 46.82 degrees
 Test Frequency: 14.5000 GHz

Antenna Information

Beam Center: Azimuth: 0.000 deg
 Elevation: 12.000 deg
 Specified Gain: 42.50 dB

Spectrum Analyzer Information

Resolution Bandwidth: 30.0000 Hz
 Video Bandwidth: 30.0000 Hz
 Sweep Time: 93.0 sec
 Reference Level: -28.60 dB
 Center Frequency: 14.5000 GHz
 Span: 0.0000 Hz

VertexRSI Representative

Representative