



MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 2.200 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.16
3 dB Beam Width	1.20
Left Side Lobe Level	-21.01
Right Side Lobe Level	-21.07

Frequency: 2.250 Scan of Lower Az at (Disabled axis) = 0.0

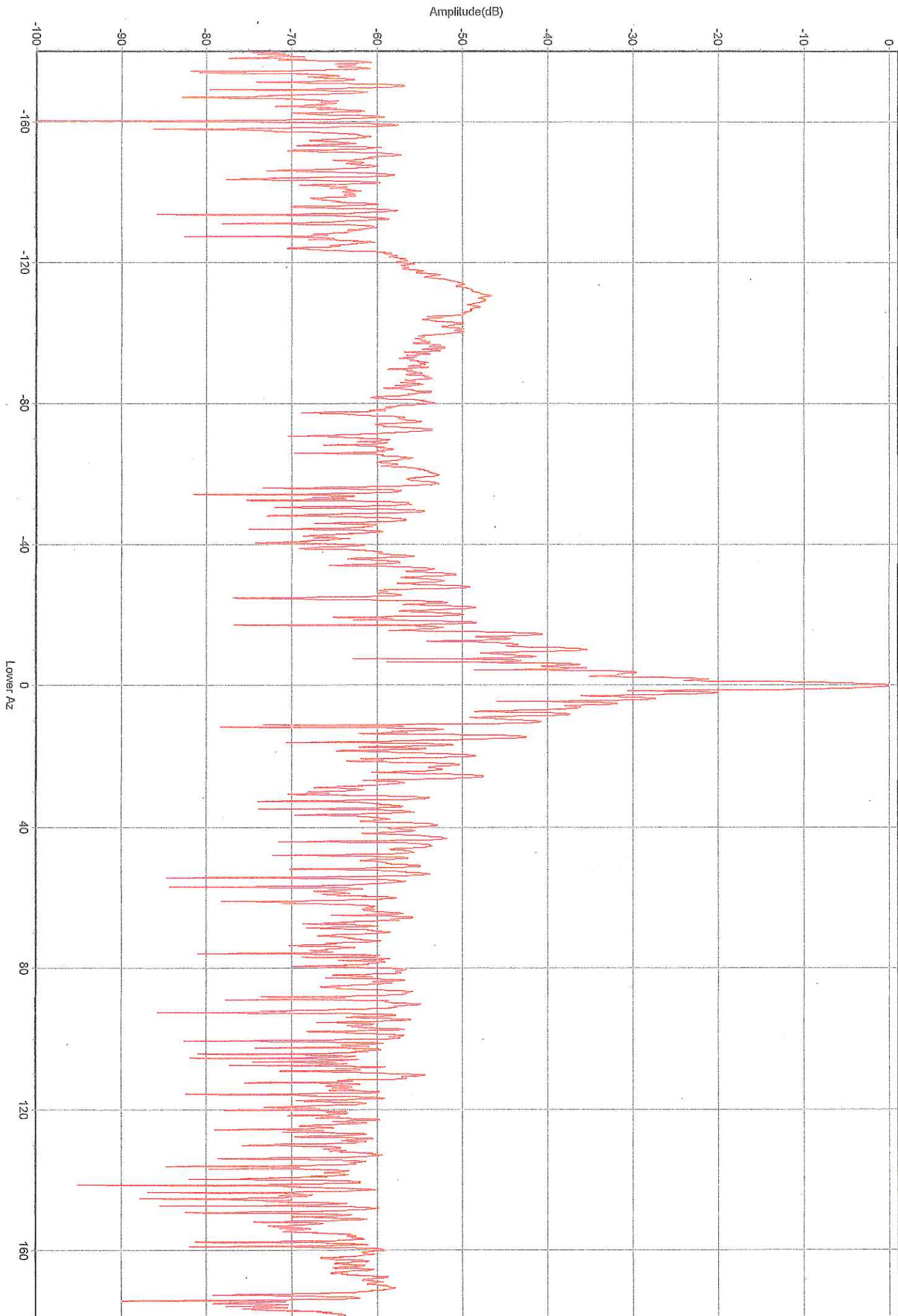
10 dB Beam Width	2.16
3 dB Beam Width	1.19
Left Side Lobe Level	-21.38
Right Side Lobe Level	-19.31

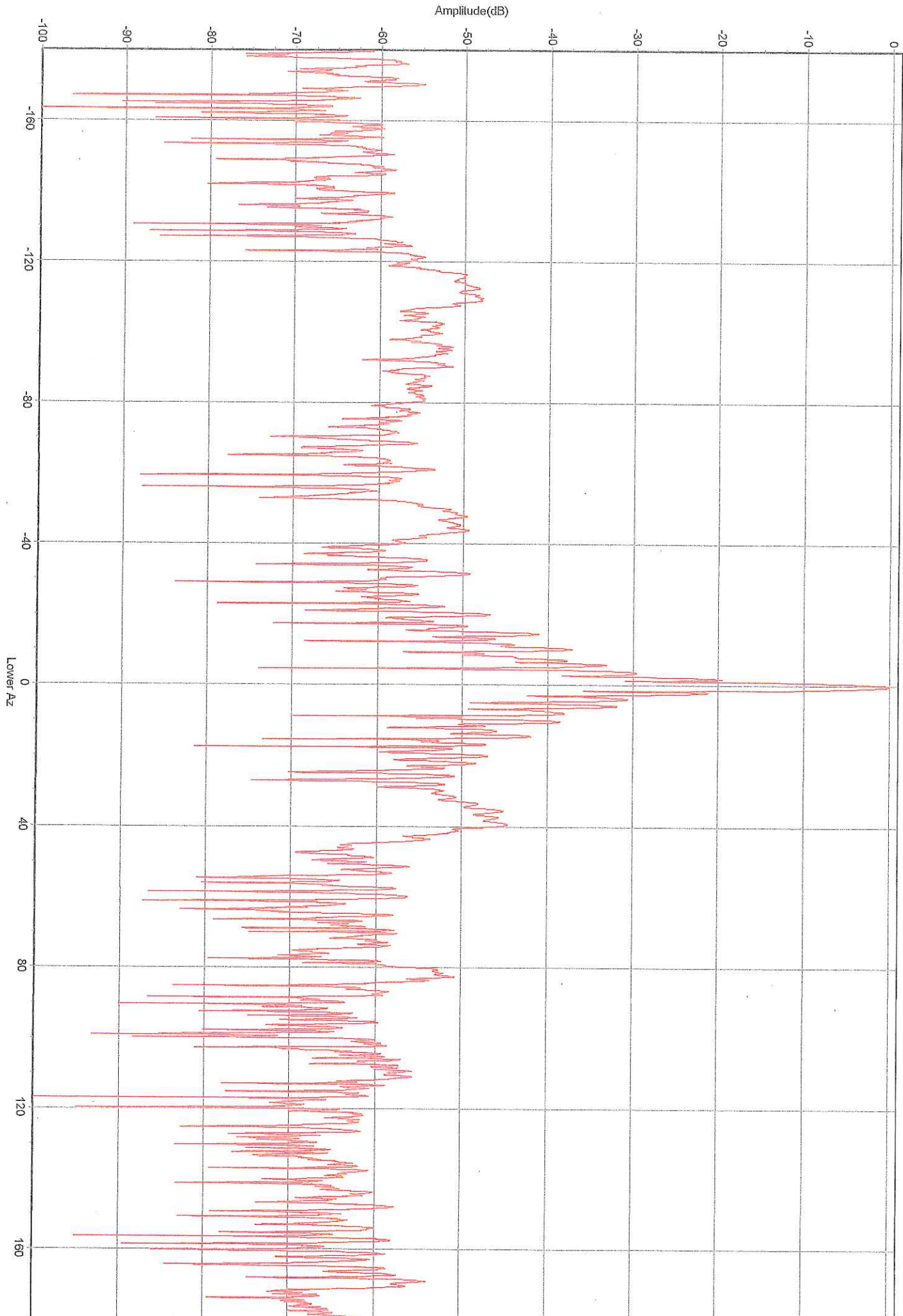
Frequency: 2.300 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.10
3 dB Beam Width	1.15
Left Side Lobe Level	-19.29
Right Side Lobe Level	-19.79

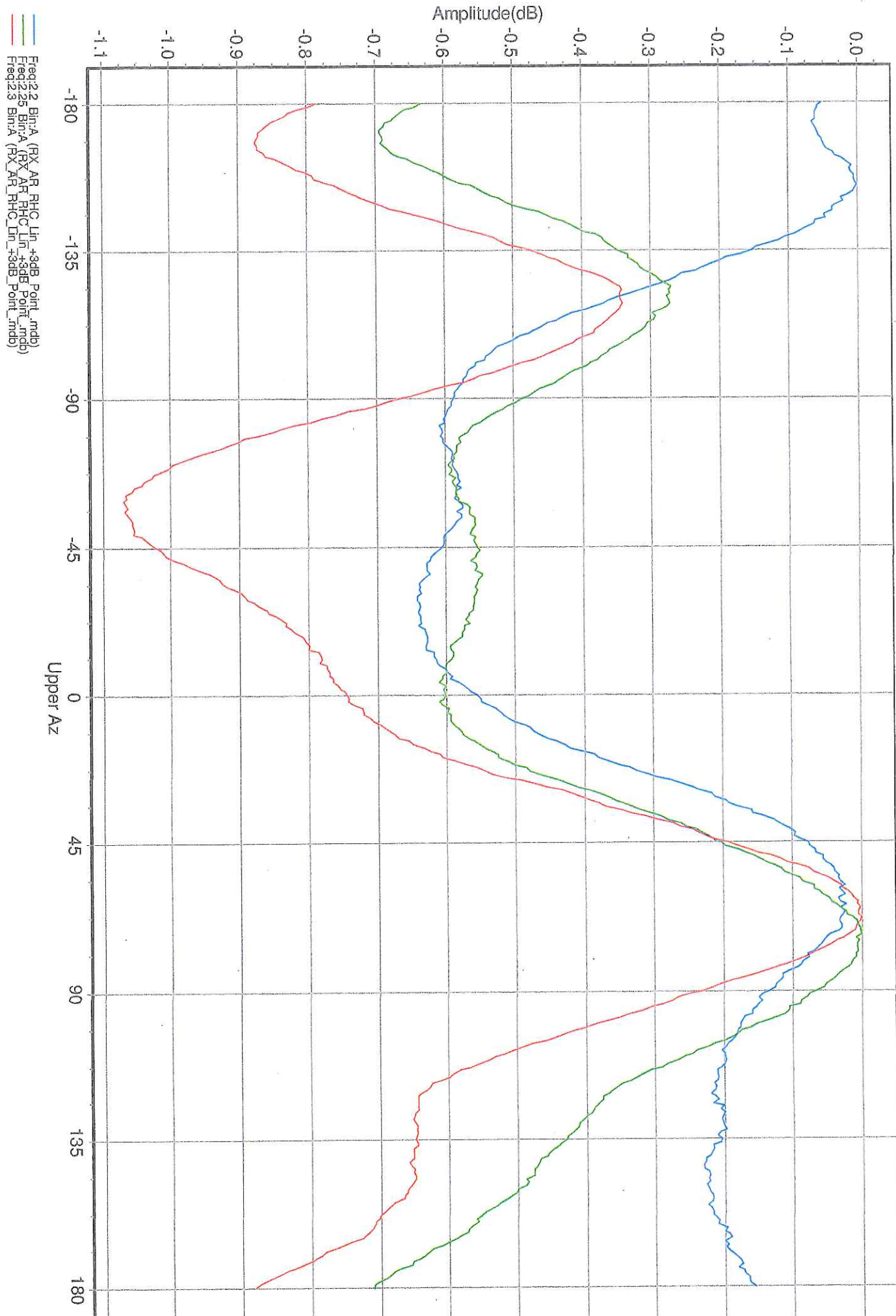
Planar Pattern Analysis of file Rx_EL_LH_LH_360.MDB

Analysis performed on:
all scans in the acquisition
all frequencies
all beams
the A/R channel
Each scan normalized to that scan's peak

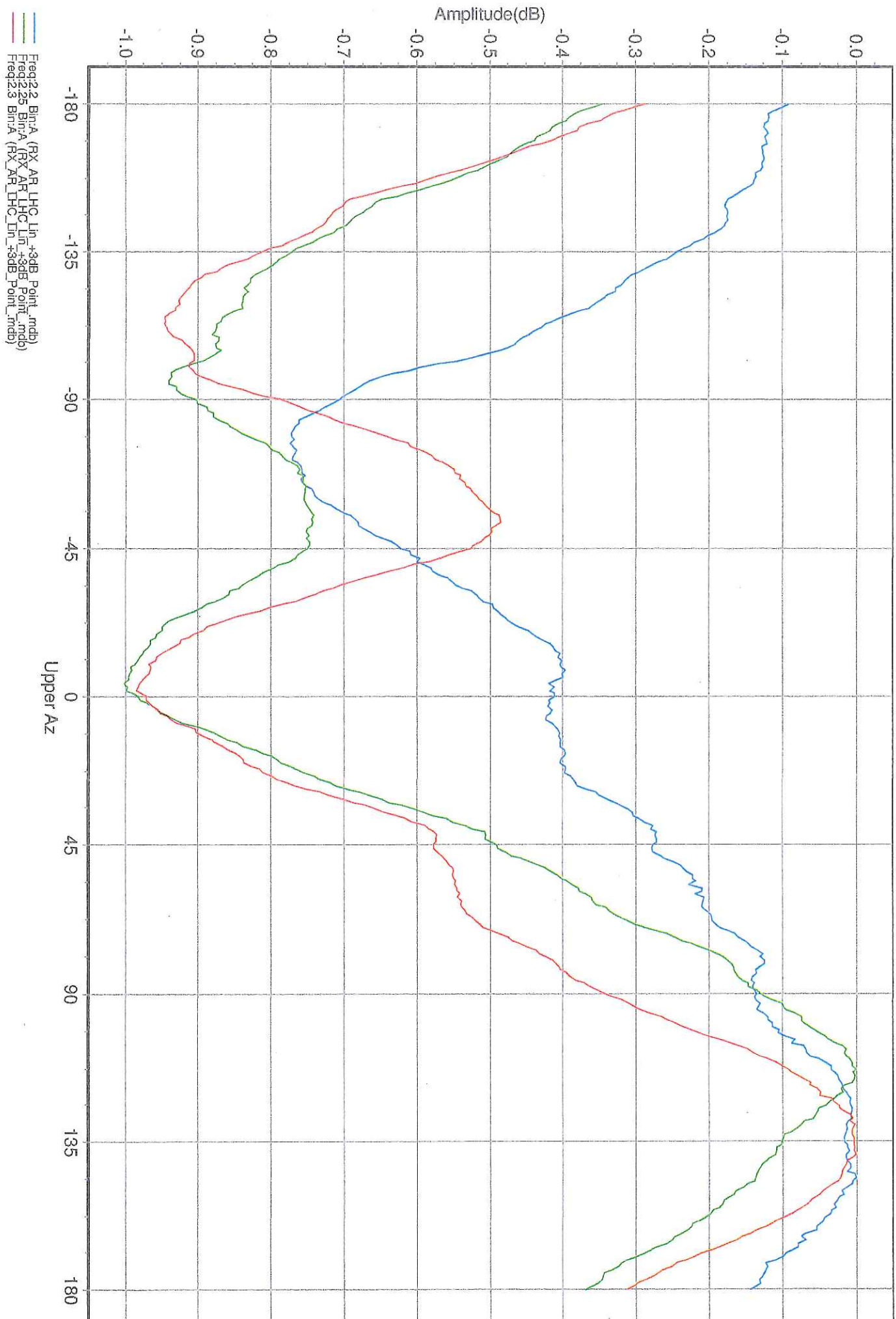




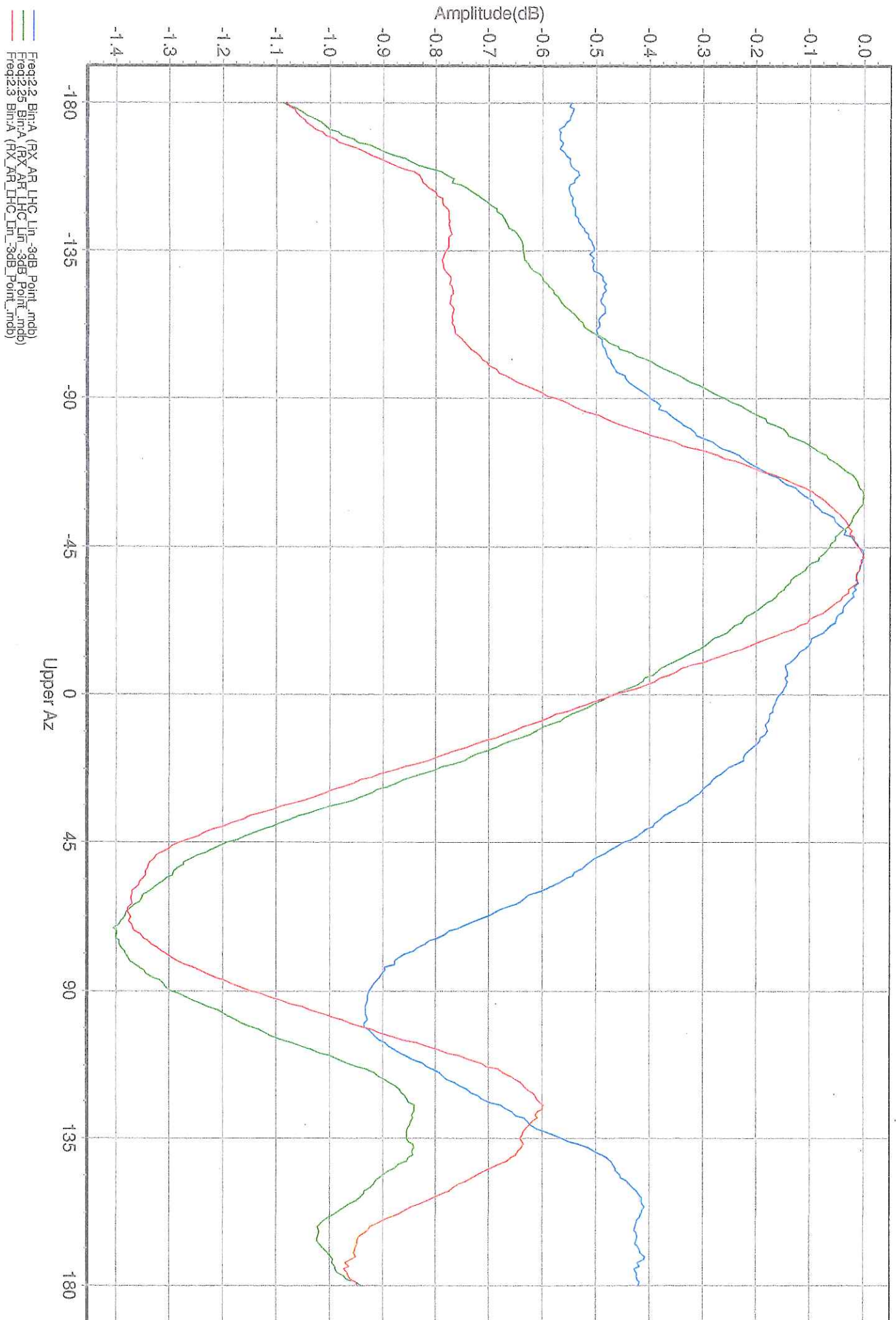
0001720, Axial Ratio Rx RHC +3dB Beamwidth Point @ 2.2 GHz



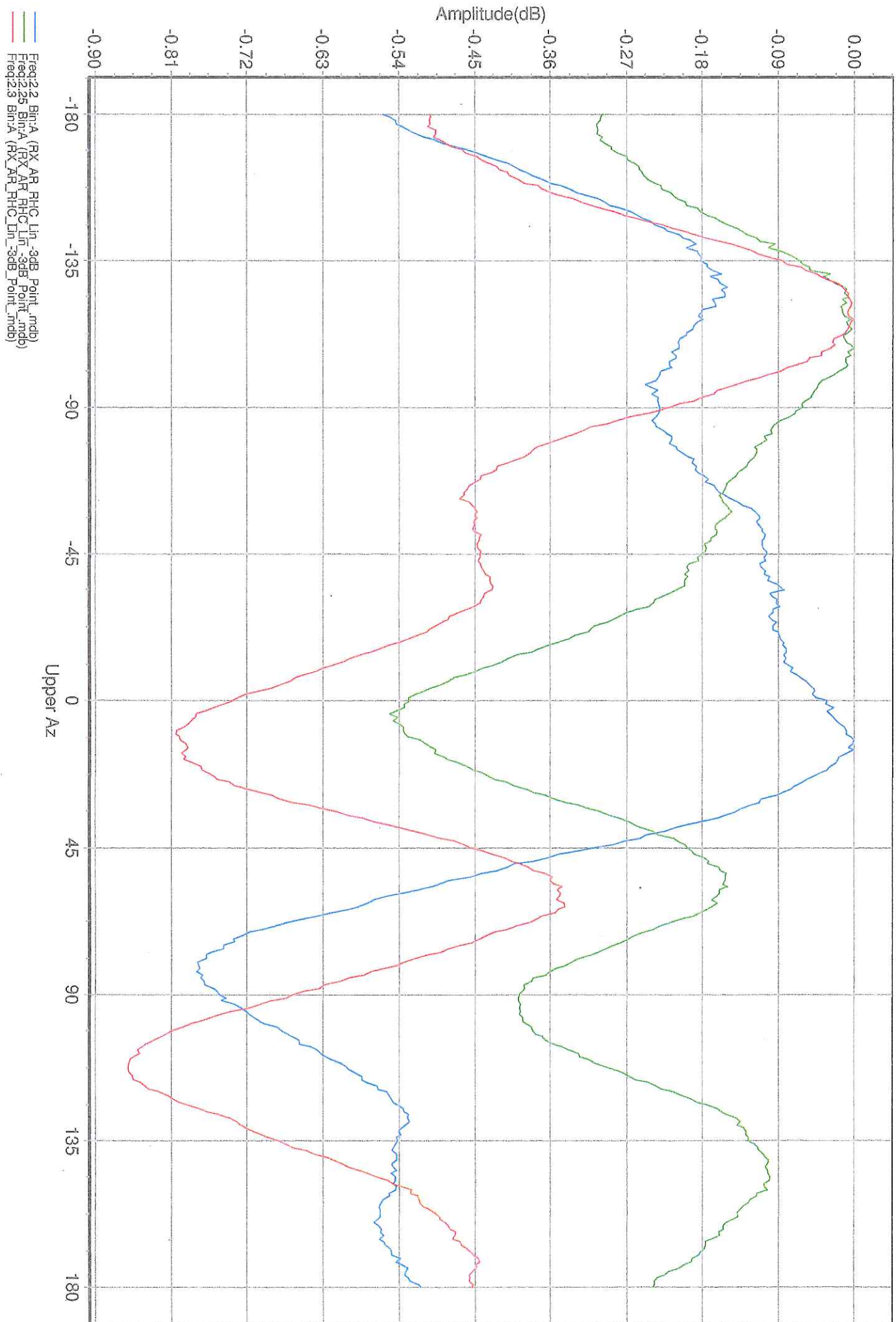
0001720, Axial Ratio Rx LHC +3dB Beamwidth Point @ 2.2GHz



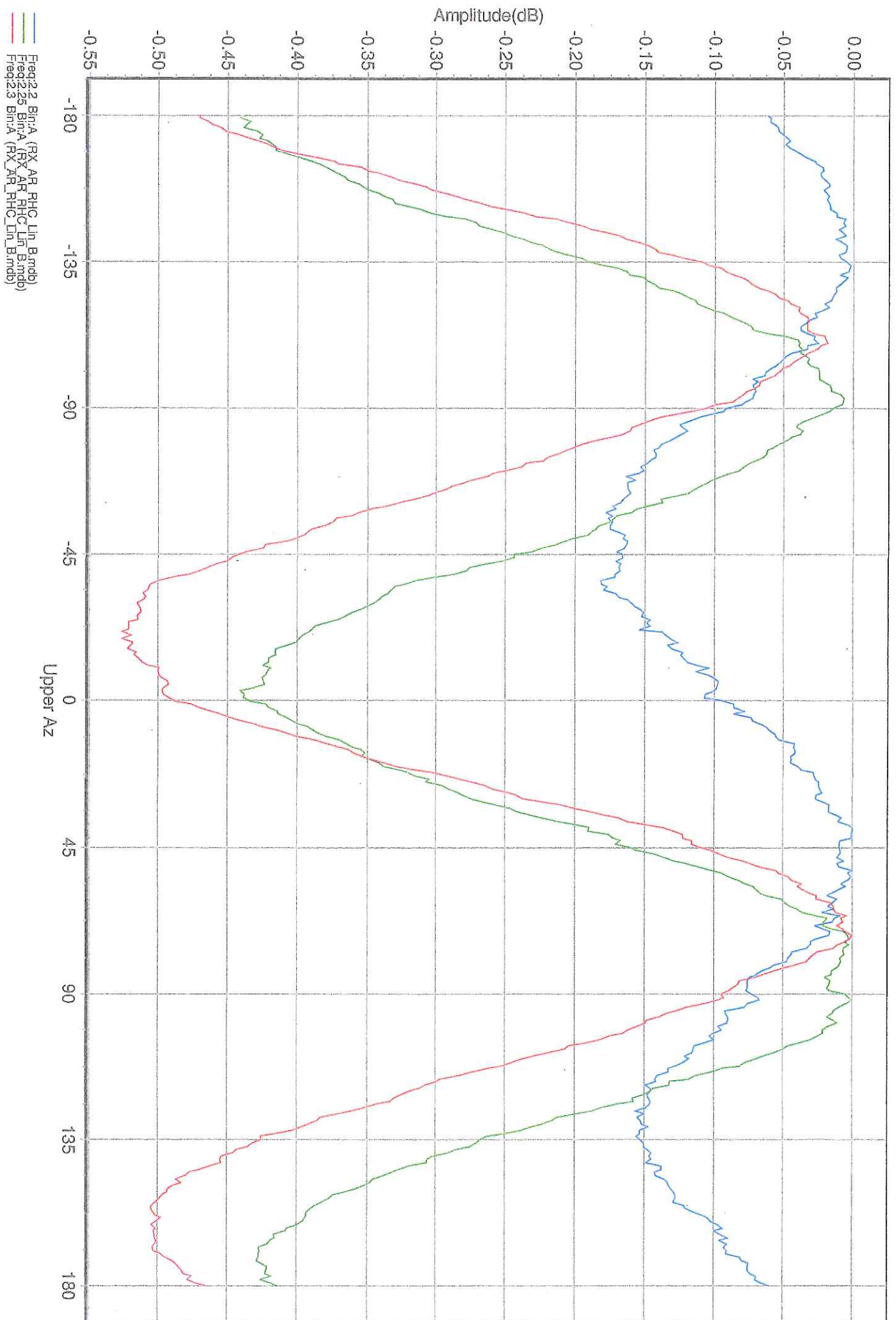
0001720, Axial Ratio Rx LHC -3dB Beamwidth Point @2.2 GHz



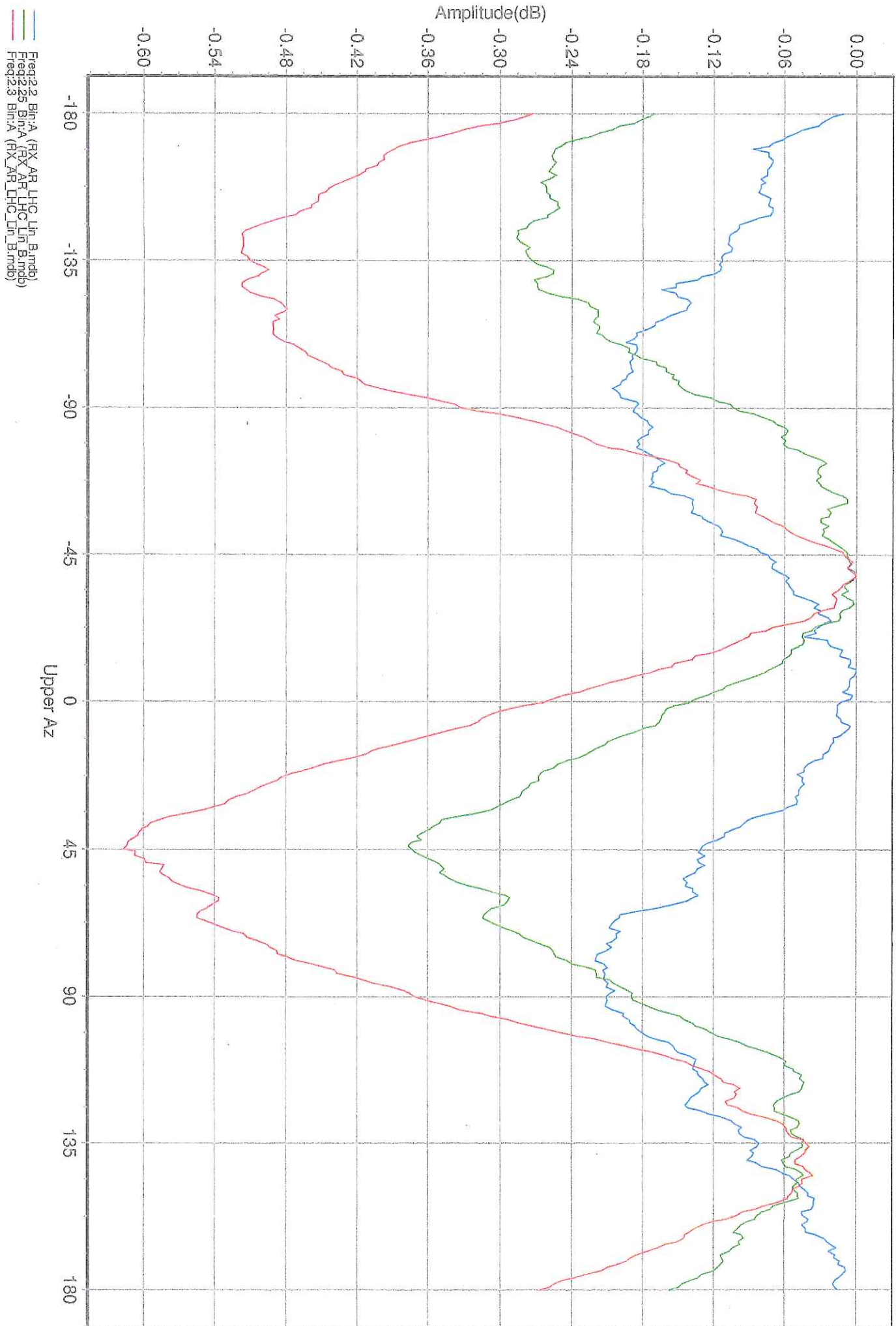
0001720, Axial Ratio Rx RHC -3dB Beamwidth Point @ 2.2GHz



0001720, Axial Ratio Rx RHC Boresight



0001720, Axial Ratio Rx LHC Boresight



ACR

6/9/16

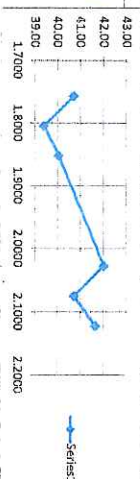
Intelsat 7.3M

Notes:

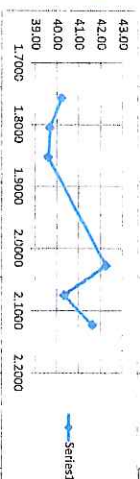
SGH at bottom edge of reflector with 2x4 wood mount and absorber.
20 dB attenuator moved with cable from AUT to SGH.

Job: 0061203210
Diameter: 288 in
Engineers: R.Barber

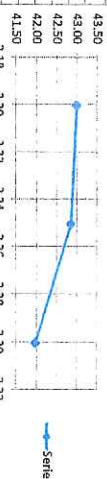
Transmit									
RHC									
Freq.	SGH	Feed Bypass	Other	Taper	Correct.	SGH level	0 level	90 level	Sum
Gain	Loss	Corrections	Correct.						Delta
1.7550	14.700	0.55	0.045	0.045		-20.83	1.53	1.65	4.599
1.8025	14.900	0.50	0.048	0.048		-19.38	1.60	1.50	25.43
1.8500	15.065	0.44	0.050	0.050		-18.30	3.31	3.08	40.72
2.0250	15.650	0.51	0.060	0.060		-19.54	3.40	3.12	45.65%
2.0725	15.650	0.64	0.062	0.062		-19.01	2.22	2.49	46.22%
2.1200	15.250	0.82	0.055	0.055		-18.67	1.95	2.32	48.84%



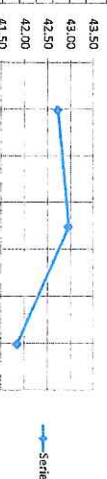
Transmit									
LHC									
Freq.	SGH	Feed Bypass	Other	Taper	Correct.	SGH level	0 level	90 level	Sum
Loss									Delta
1.7550	14.700	0.55	0.045	0.045		-20.83	1.12	1.03	4.094
1.8025	14.900	0.50	0.048	0.048		-19.36	1.59	2.09	24.91
1.8500	15.065	0.44	0.050	0.050		-18.30	3.03	2.42	48.64%
2.0250	15.650	0.51	0.060	0.060		-19.54	3.54	3.38	48.95%
2.0725	15.650	0.64	0.062	0.062		-19.01	2.10	1.85	42.24
2.1200	15.950	0.82	0.065	0.065		-19.67	1.95	2.26	40.35



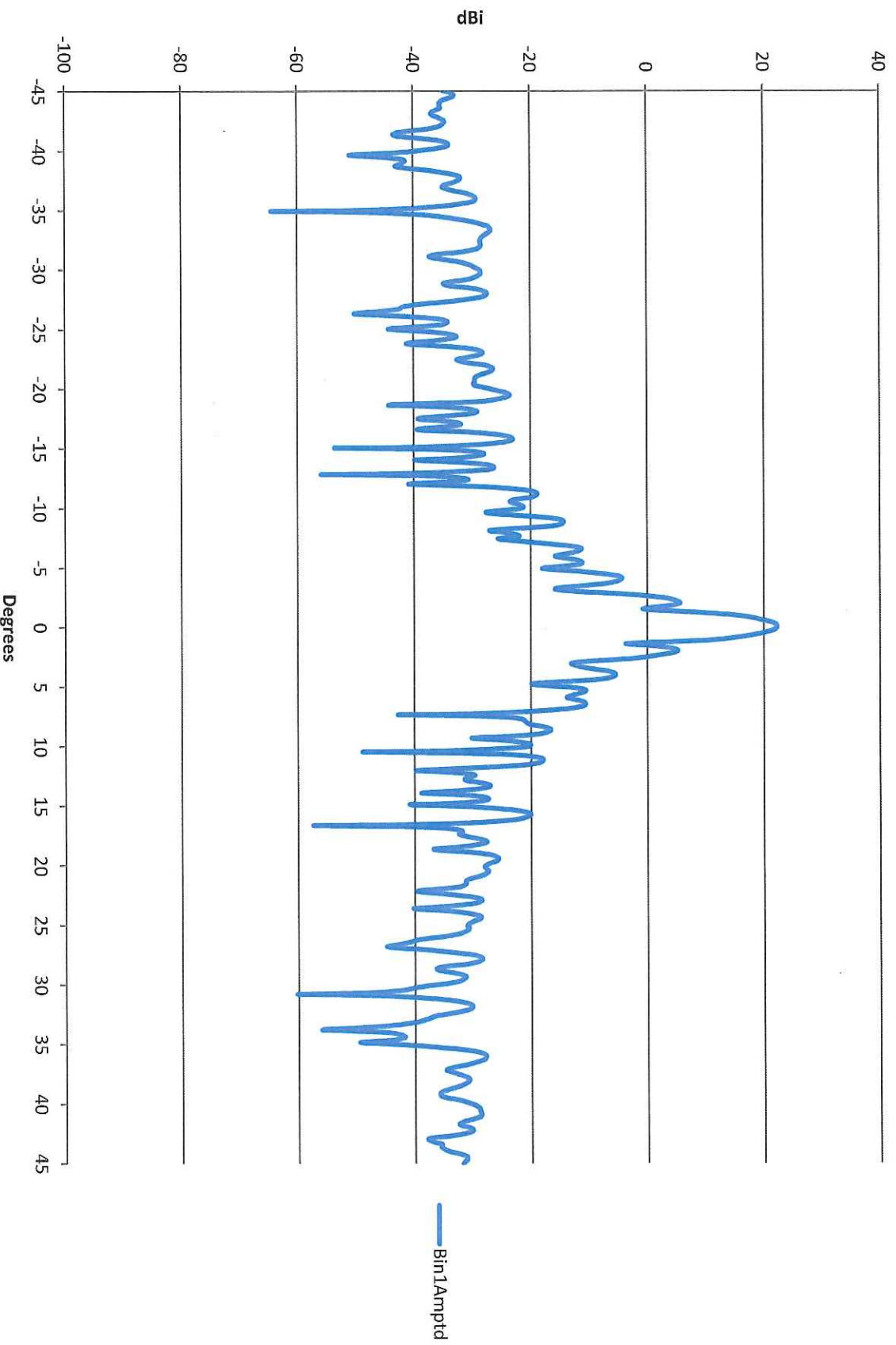
Receive									
RHC									
Freq.	SGH	Feed Bypass	Other	Taper	Correct.	SGH level	0 level	90 level	Sum
Gain	Loss	Corrections	Correct.						Delta
2.20	16.219	4.1800	0.070	0.074		-20.80	-1.1852	-1.3868	1.725
2.25	16.360	4.0500	0.074			-19.53	-0.1558	-0.1727	22.53
2.30	16.495	4.1000	0.077			-17.80	0.4927	0.5191	42.86



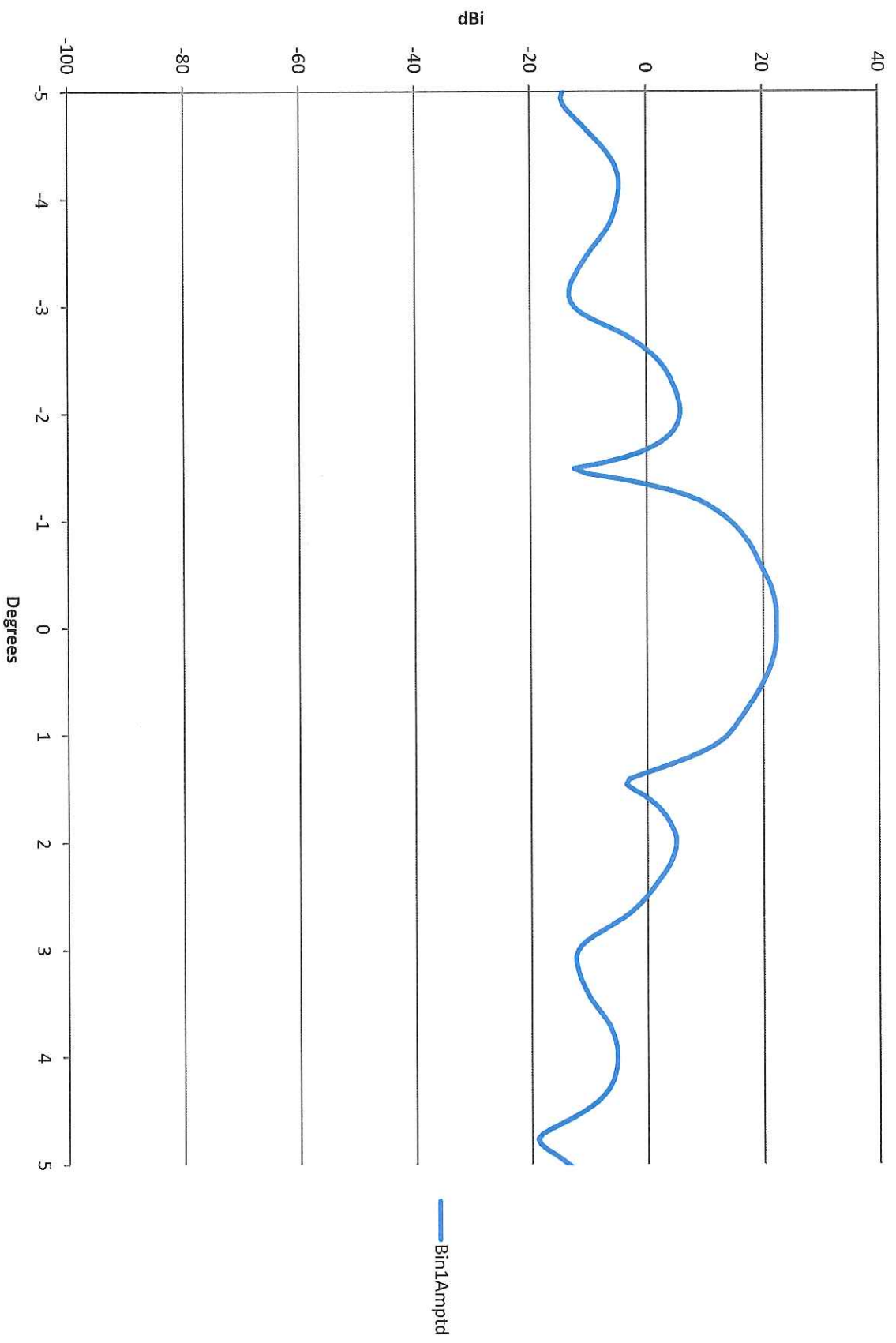
Receive									
LHC									
Freq.	SGH	Feed Bypass	Other	Taper	Correct.	SGH level	0 level	90 level	Sum
Loss									Delta
2.20	16.219	4.1800	0.070	0.074		-20.80	-1.1852	-1.3868	1.456
2.25	16.360	4.0500	0.074			-19.53	-0.10	-0.02	22.48
2.30	16.495	4.1000	0.077			-17.80	0.33	0.41	42.97



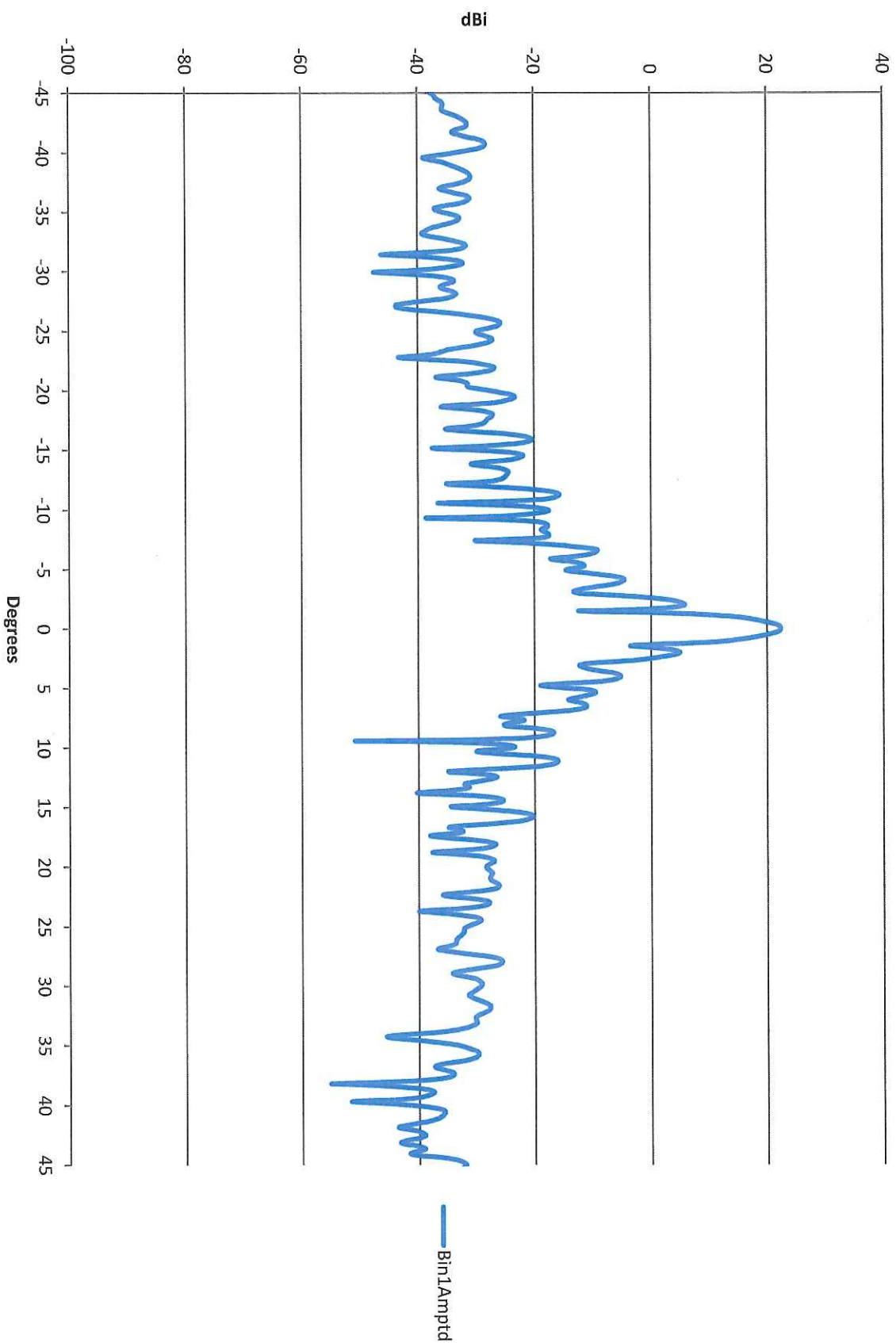
2.0725 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 45



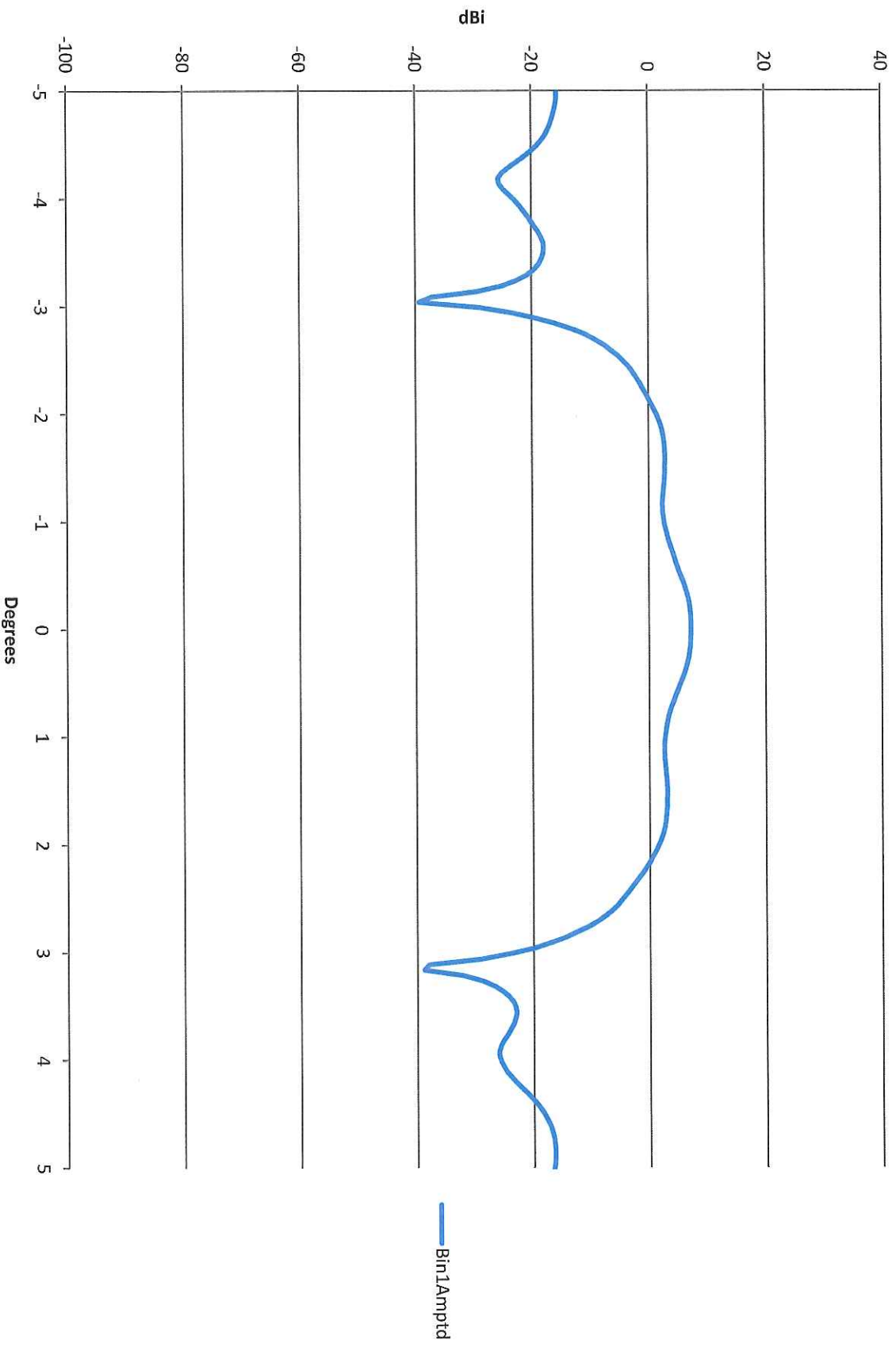
2.0725 GHz, Xmit Pol: RHC , Rcv. Pol: RHC +/- 5



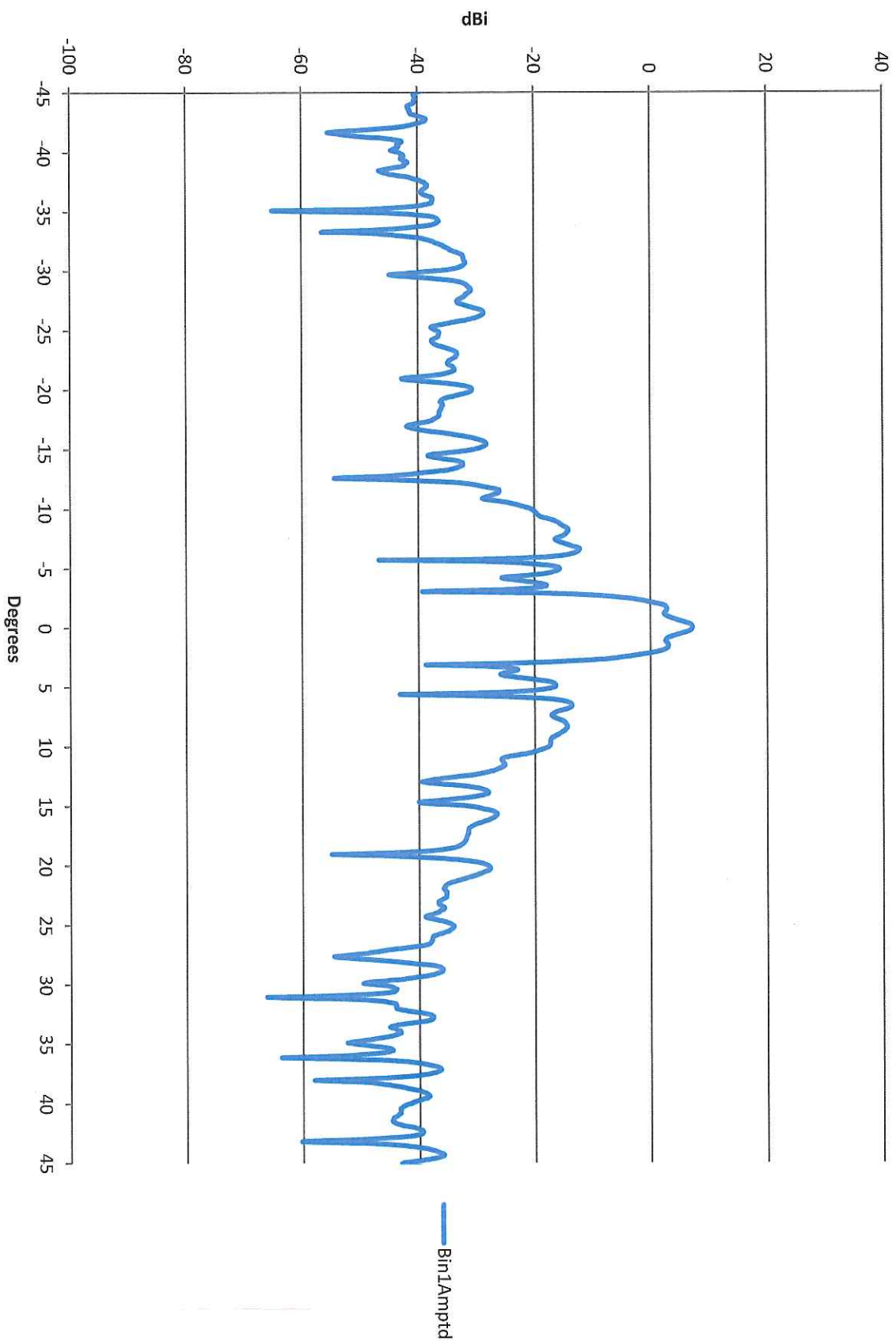
2.0725 GHz, Xmit Pol: RHC, Rcv. Pol: RHC +/- 45



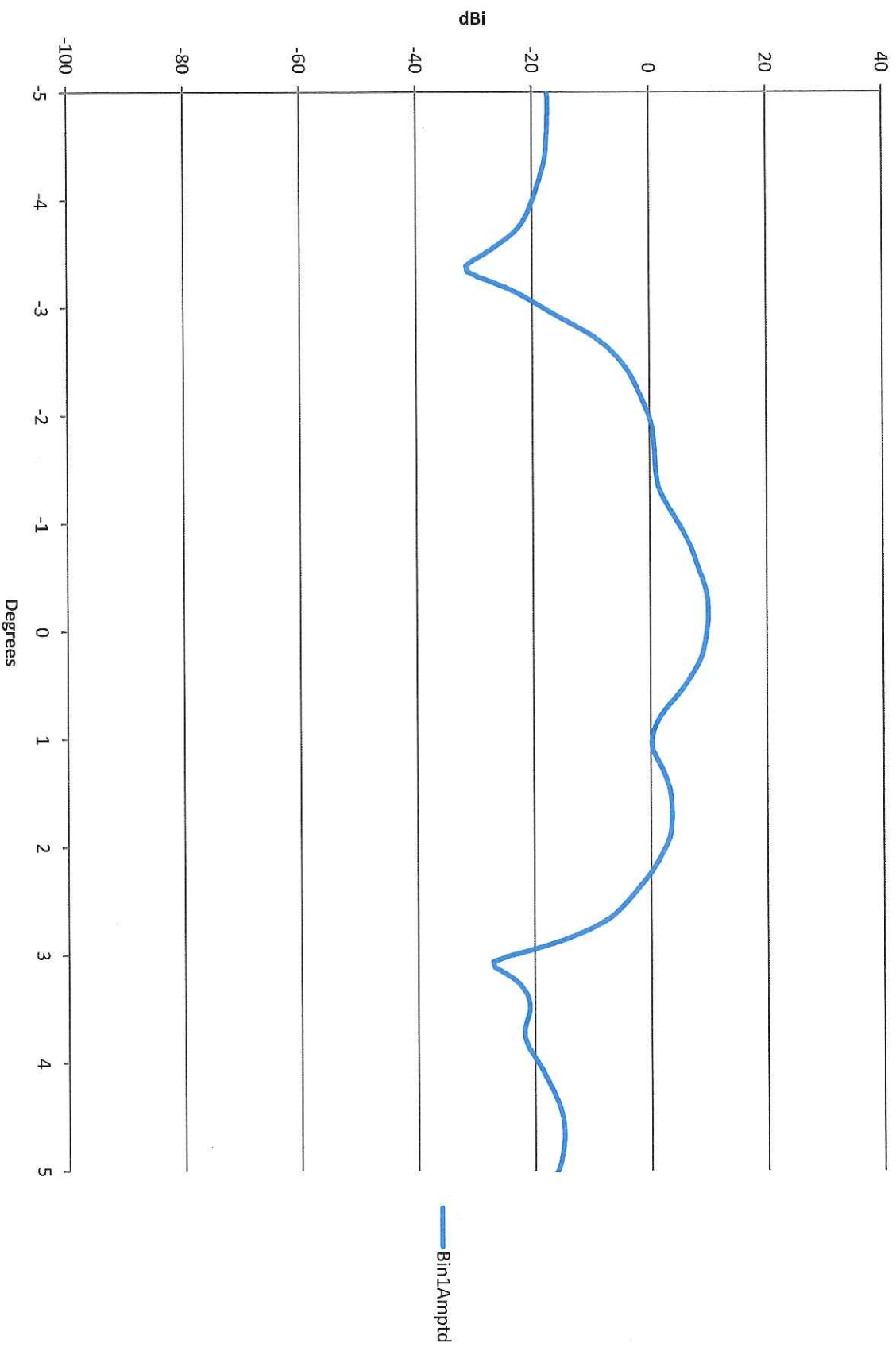
2.0725 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 5



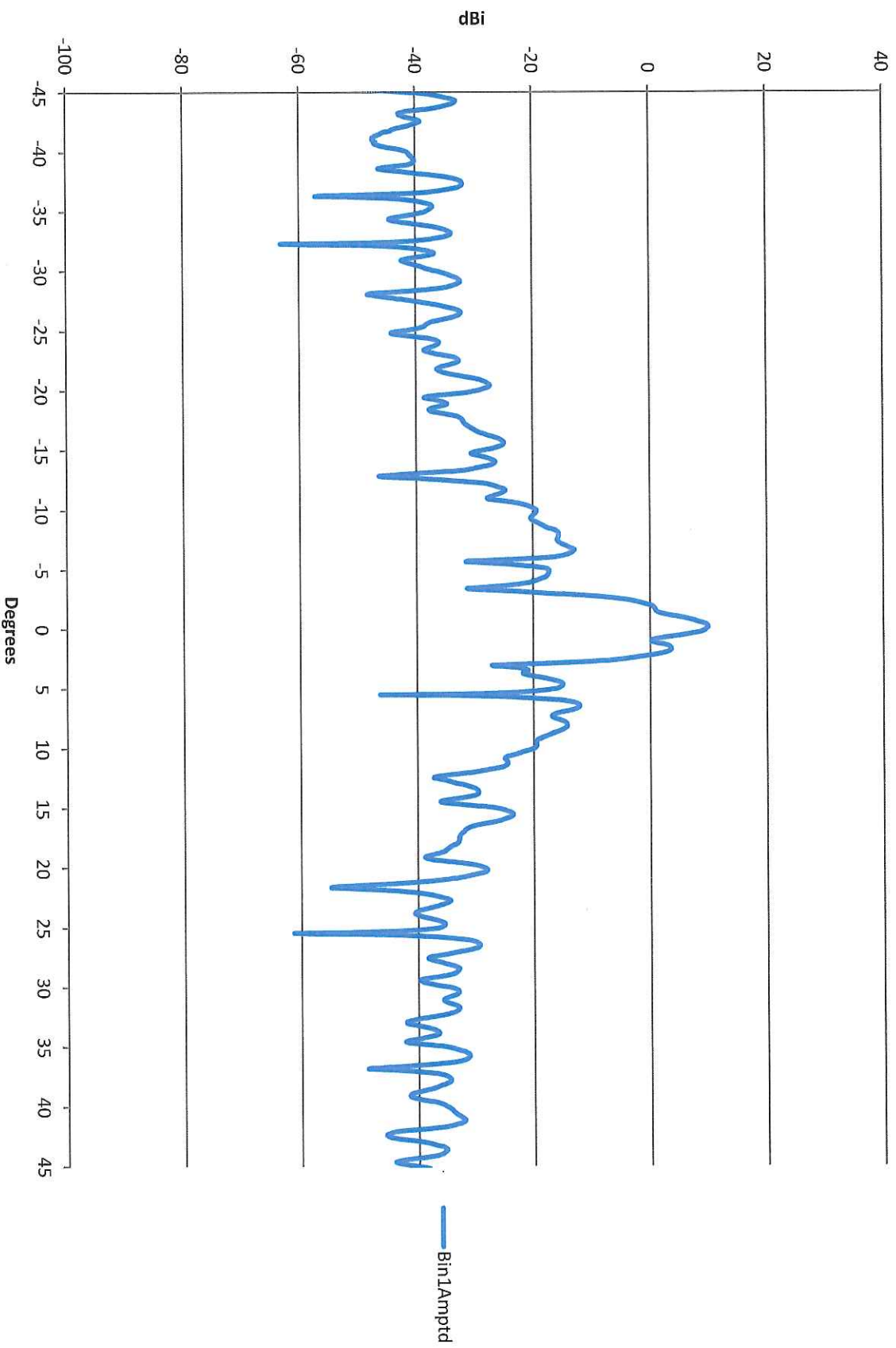
2.0725 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 45



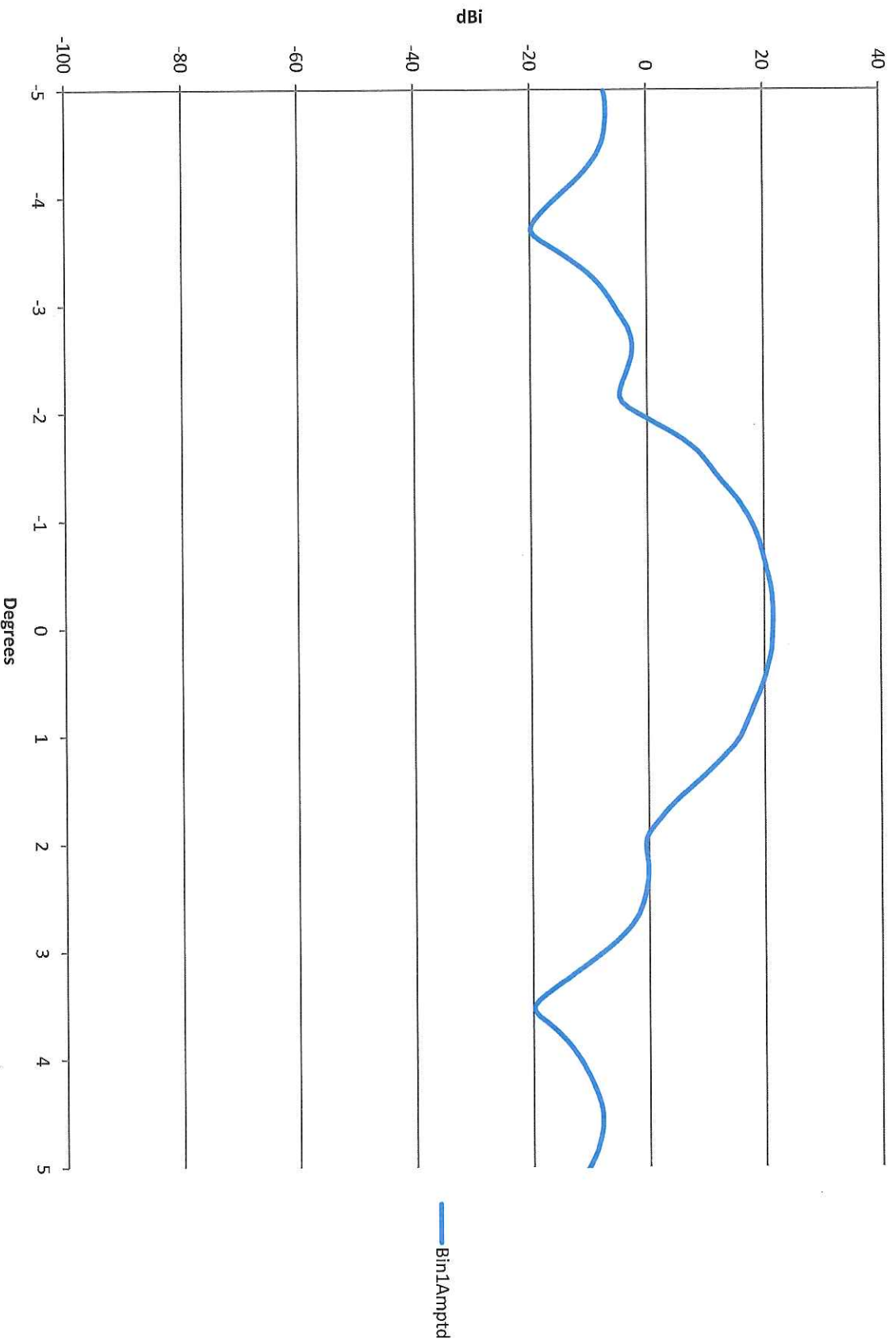
2.0725 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 5



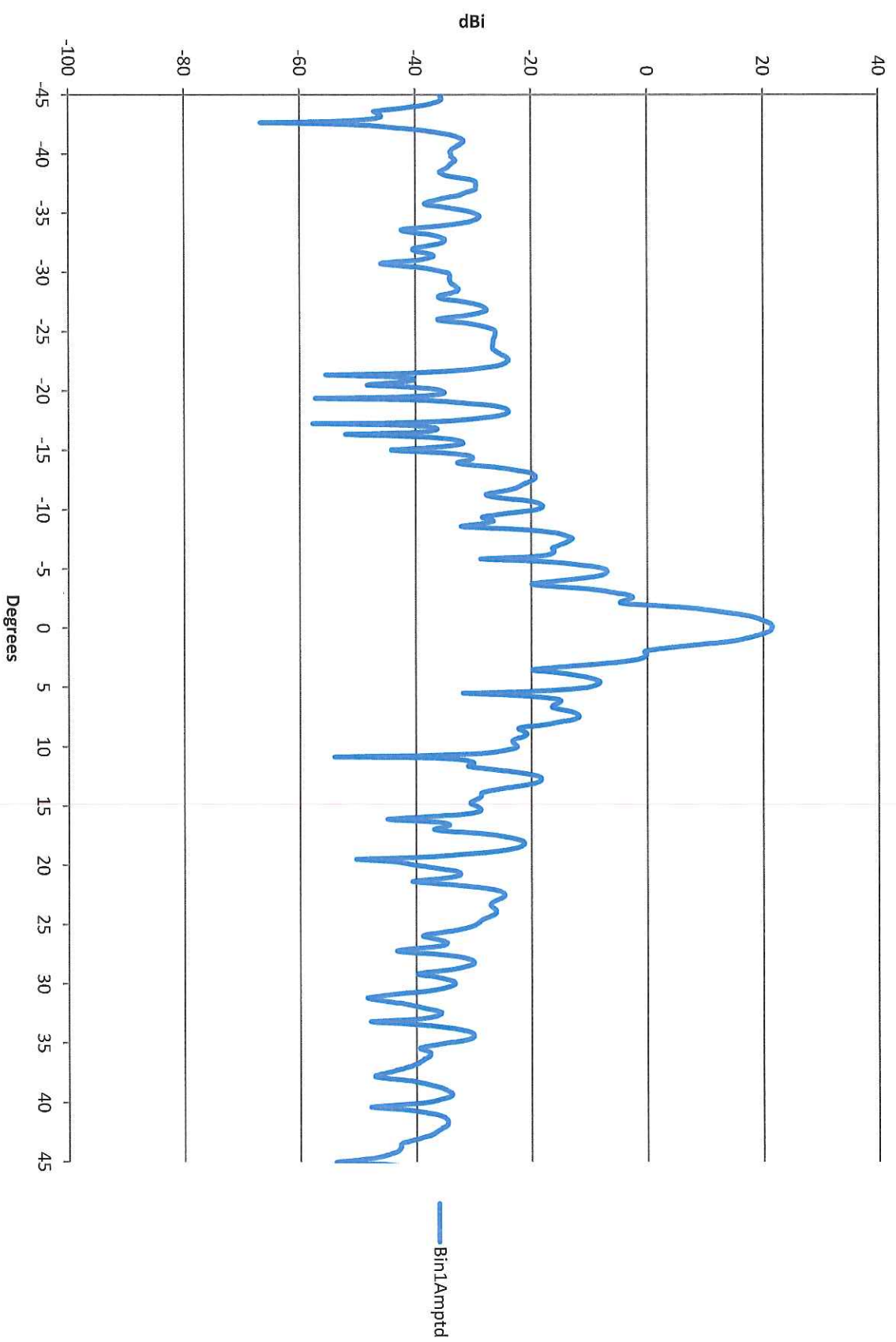
2.0725 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 45



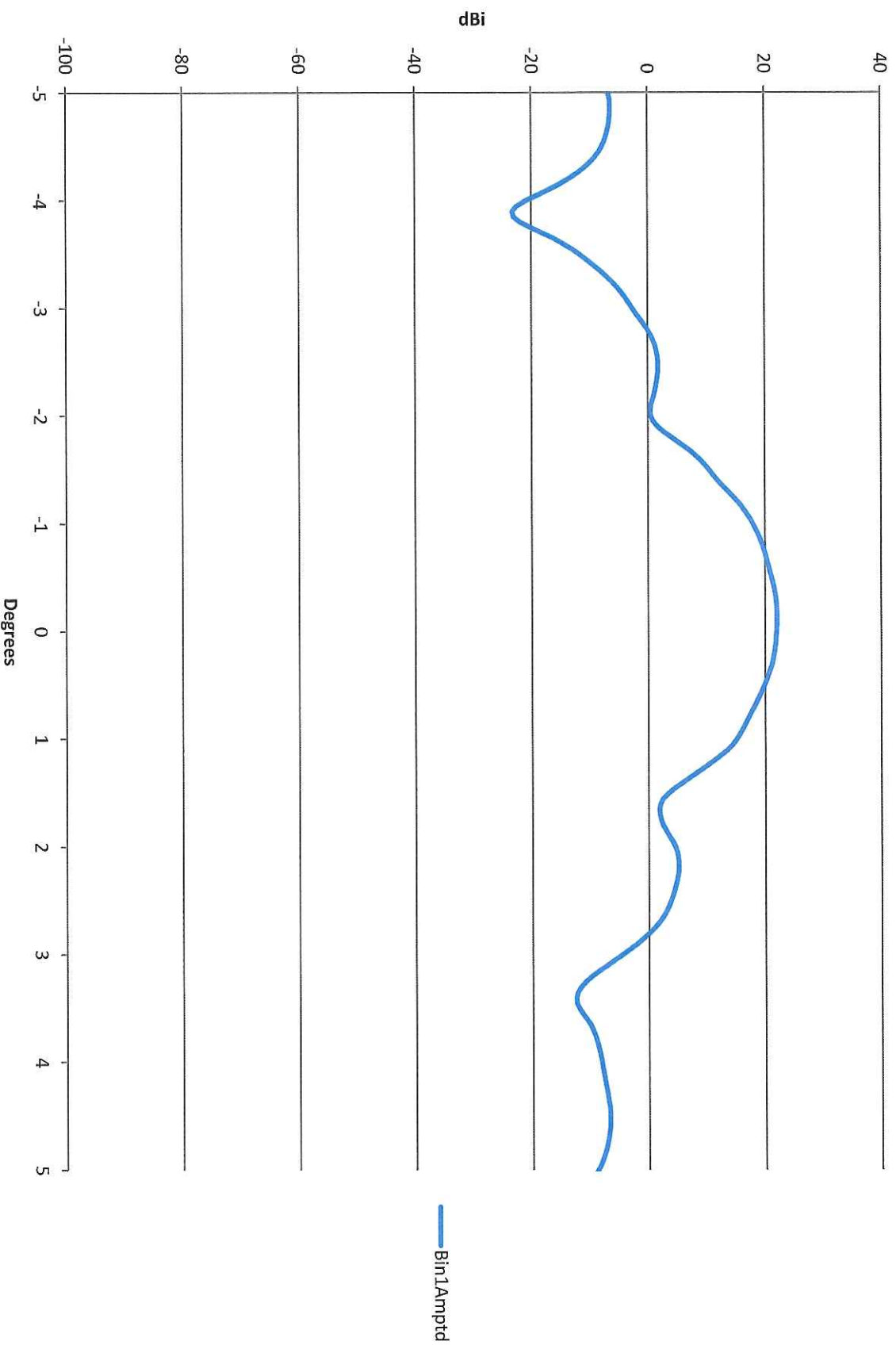
1.8025 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 5



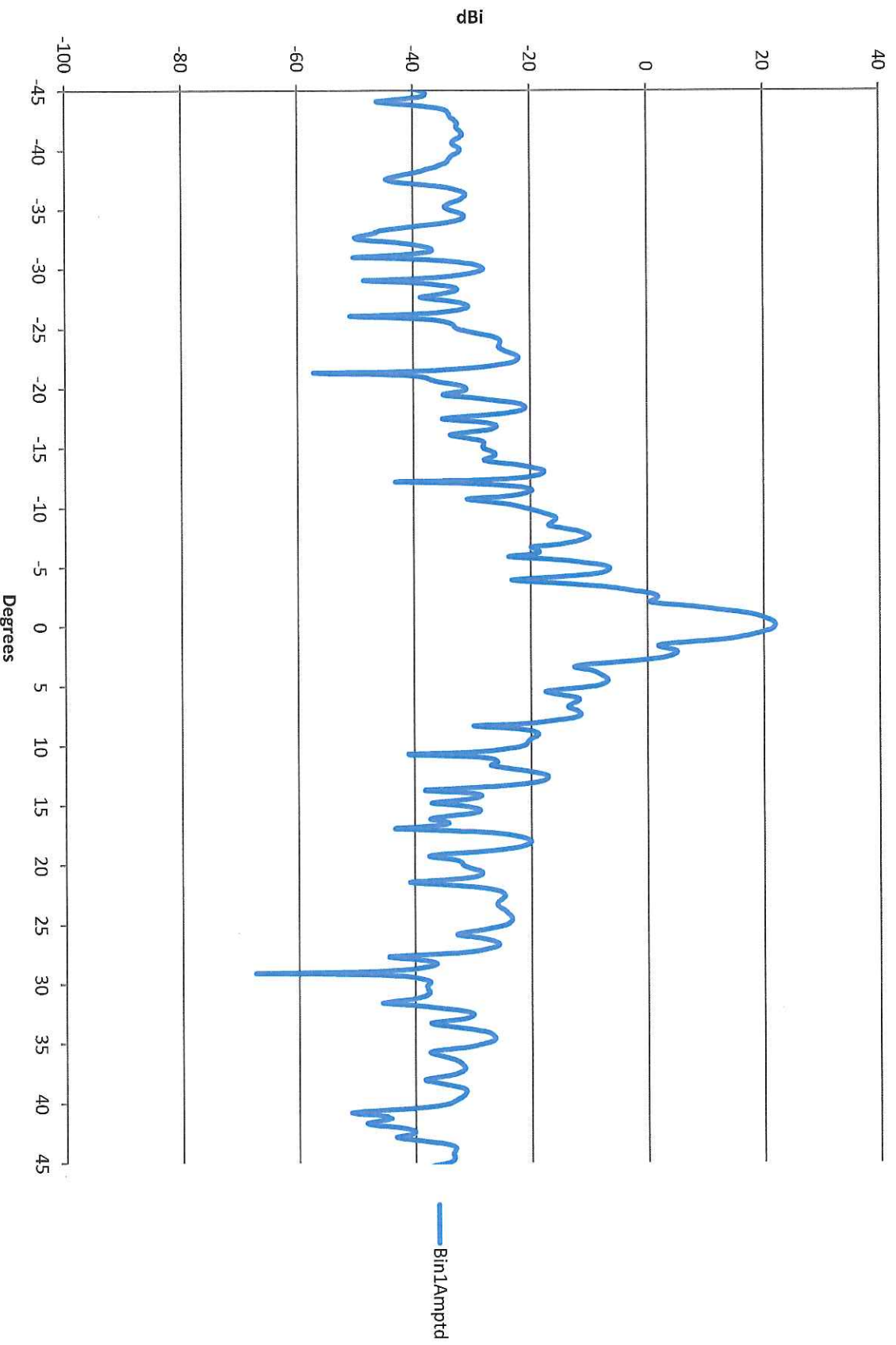
1.8025 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 45



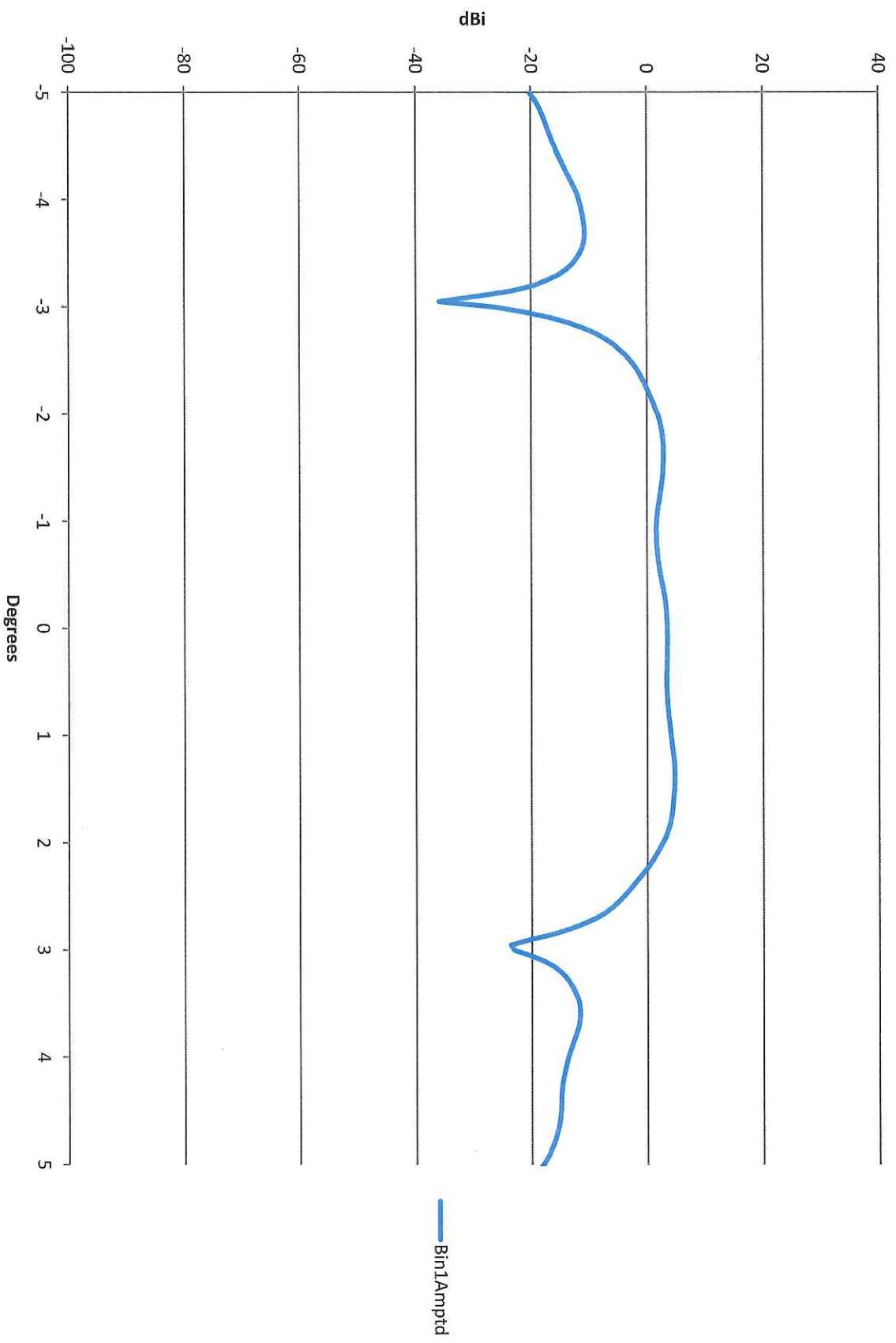
1.8025 GHz, Xmit Pol: RHC , Rcv. Pol: RHC +/- 5



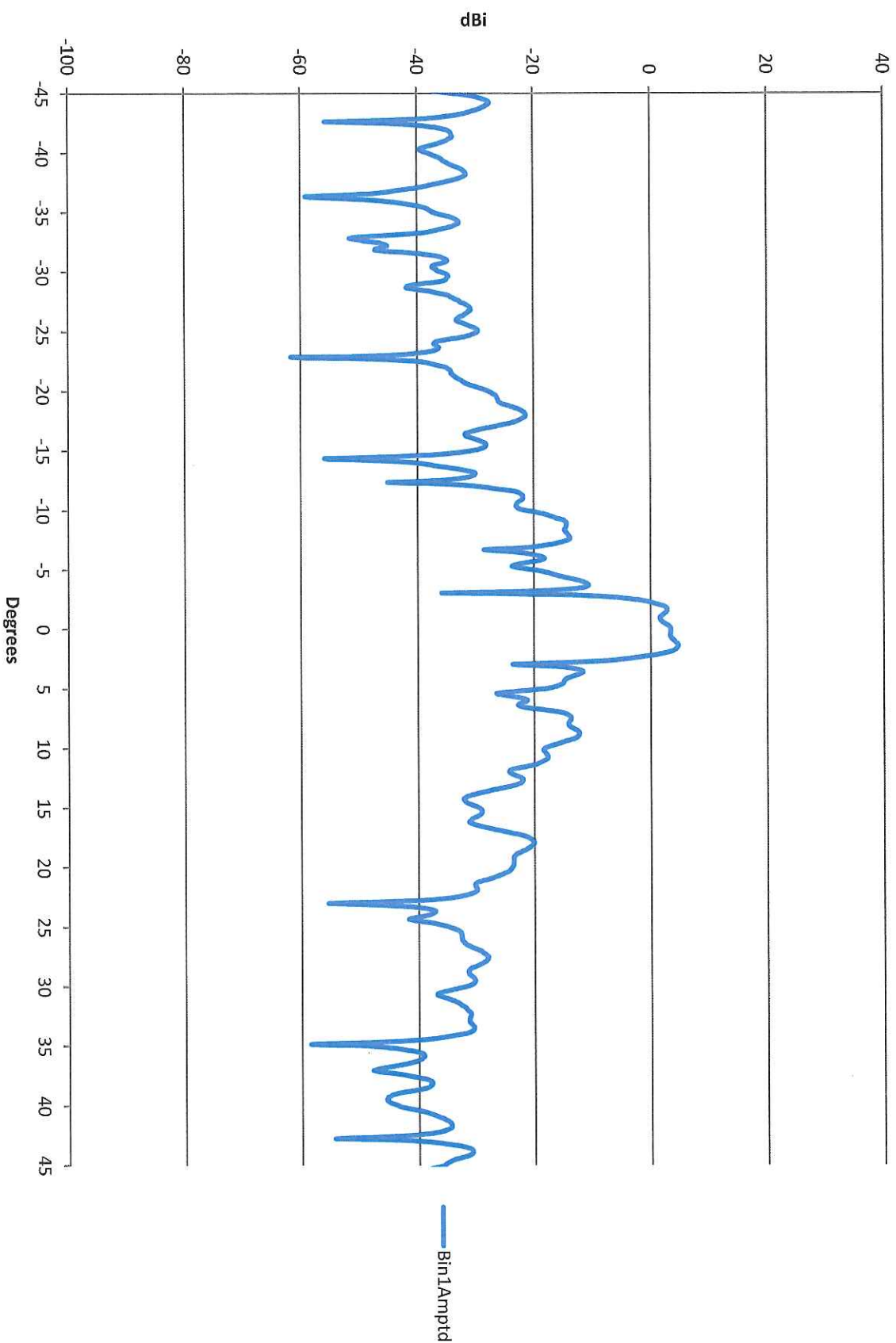
1.8025 GHz, Xmit Pol: RHC , Rcv. Pol: RHC +/- 45



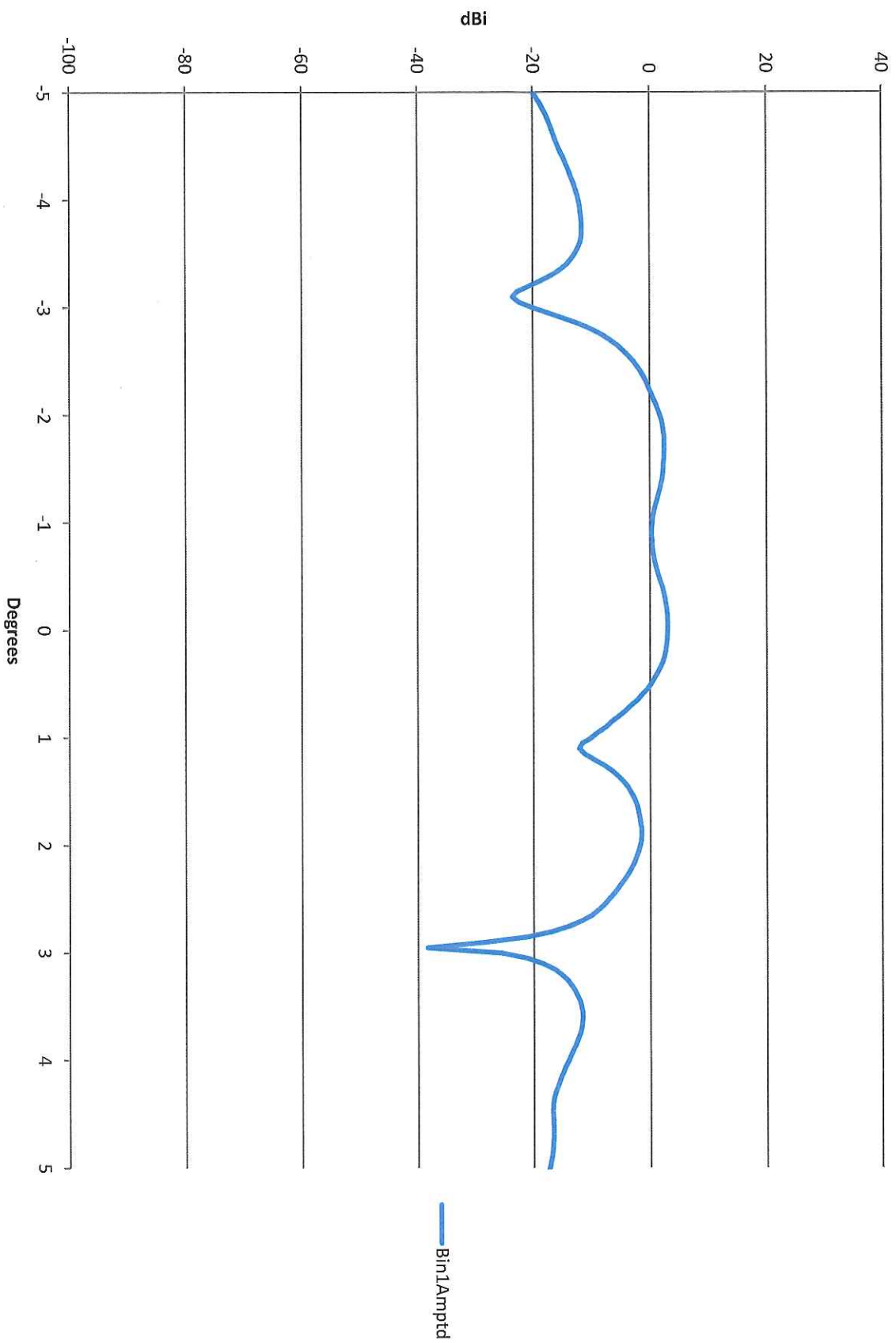
1.8025 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 5



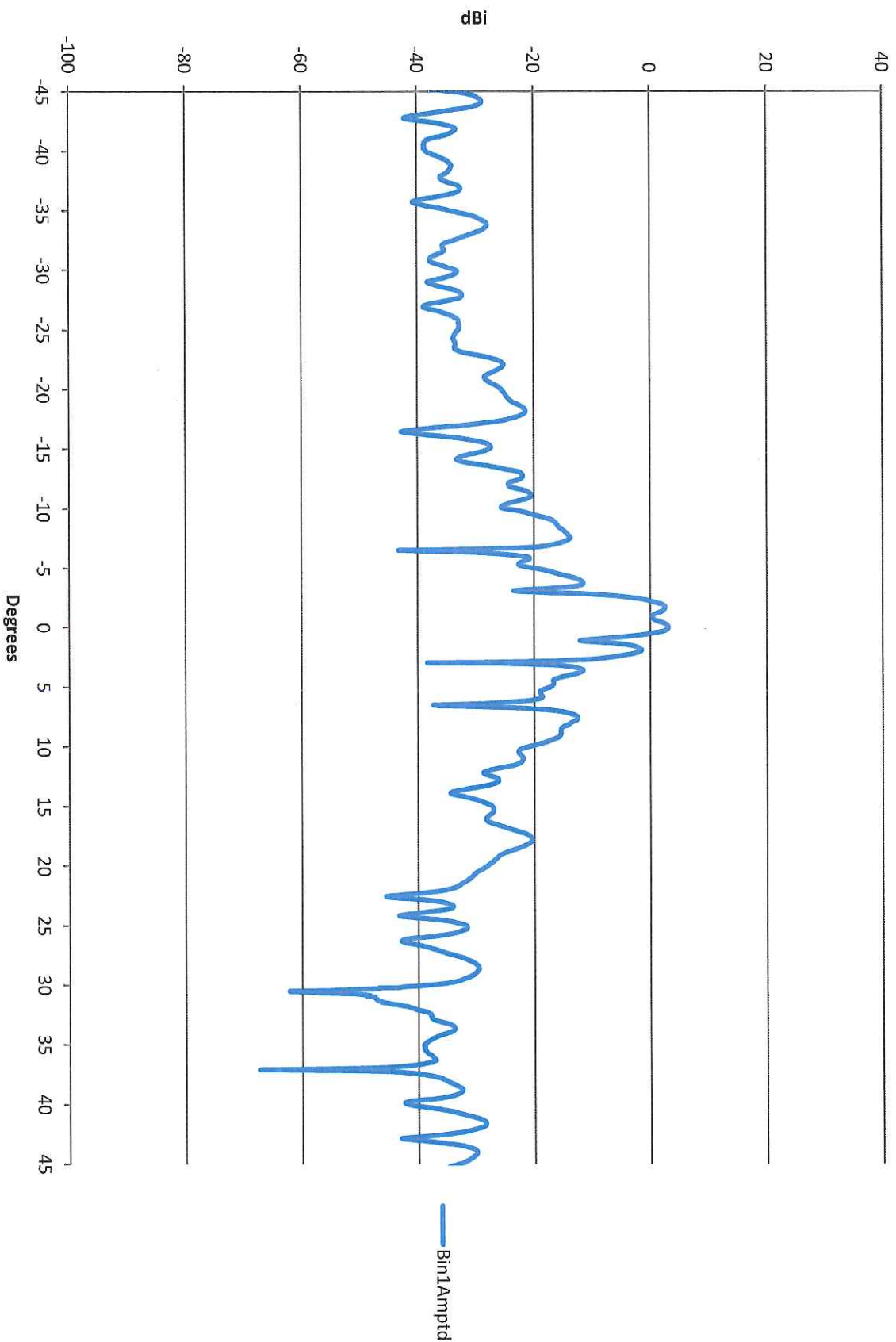
1.8025 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 45



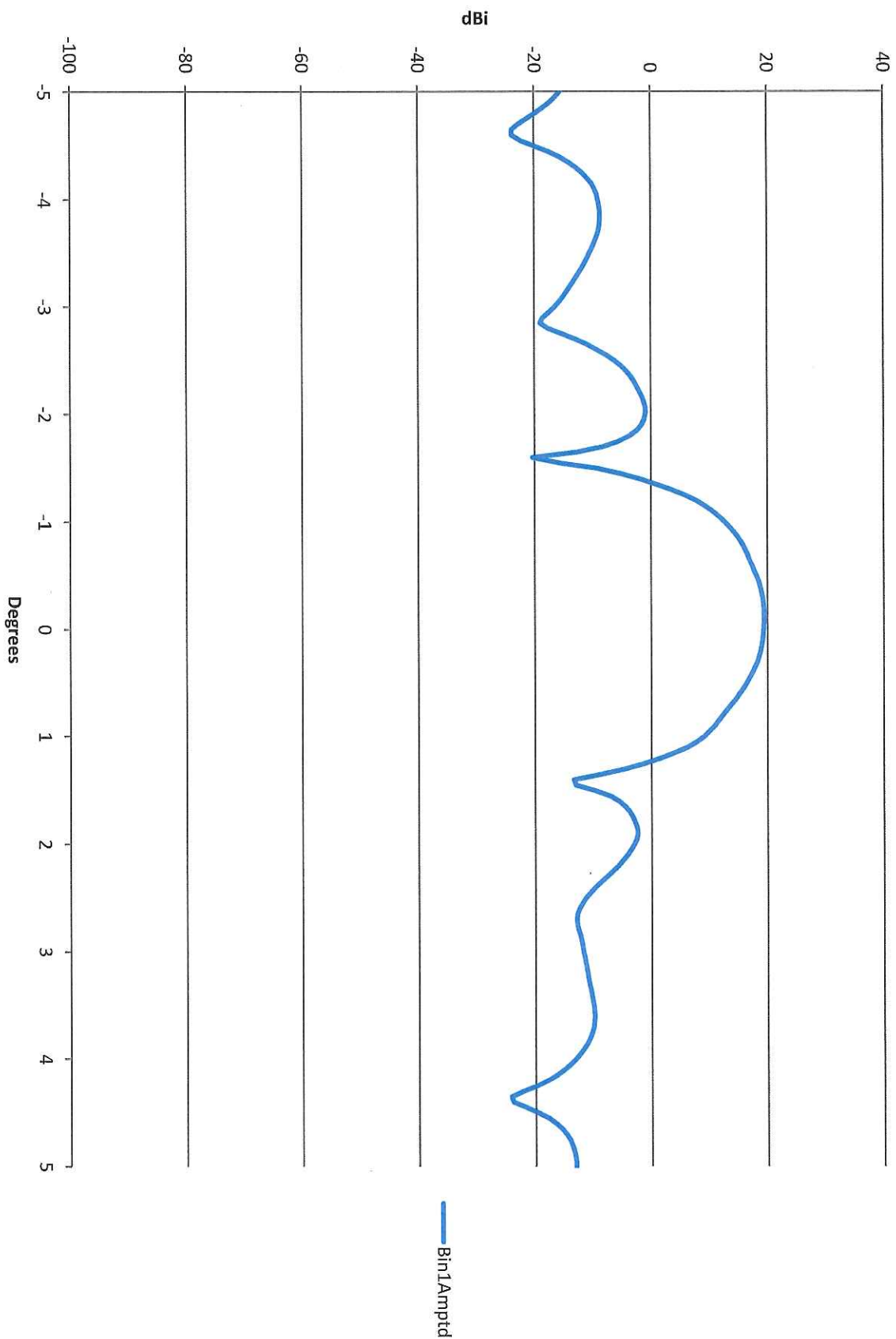
1.8025 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 5



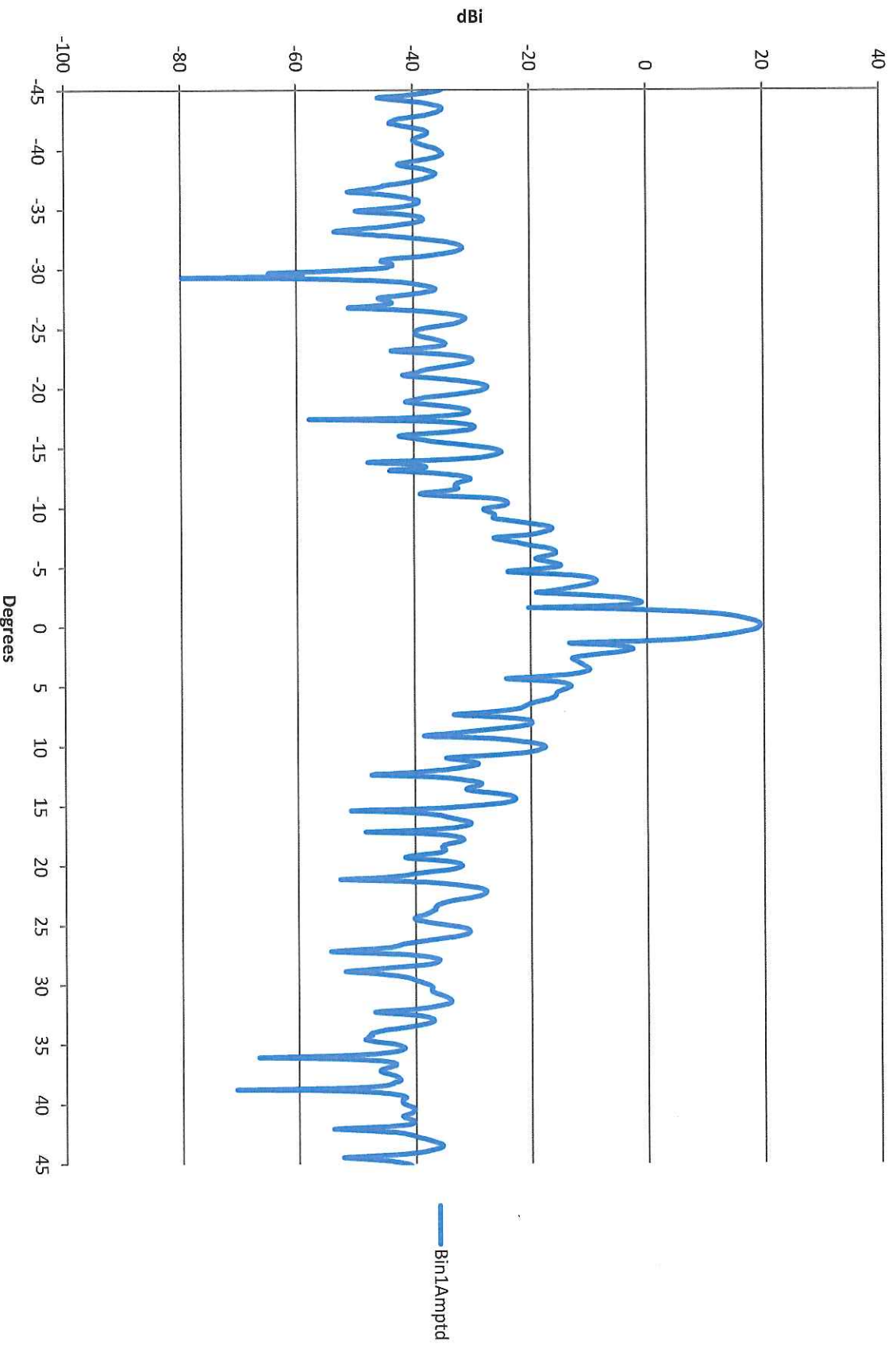
1.8025 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 45



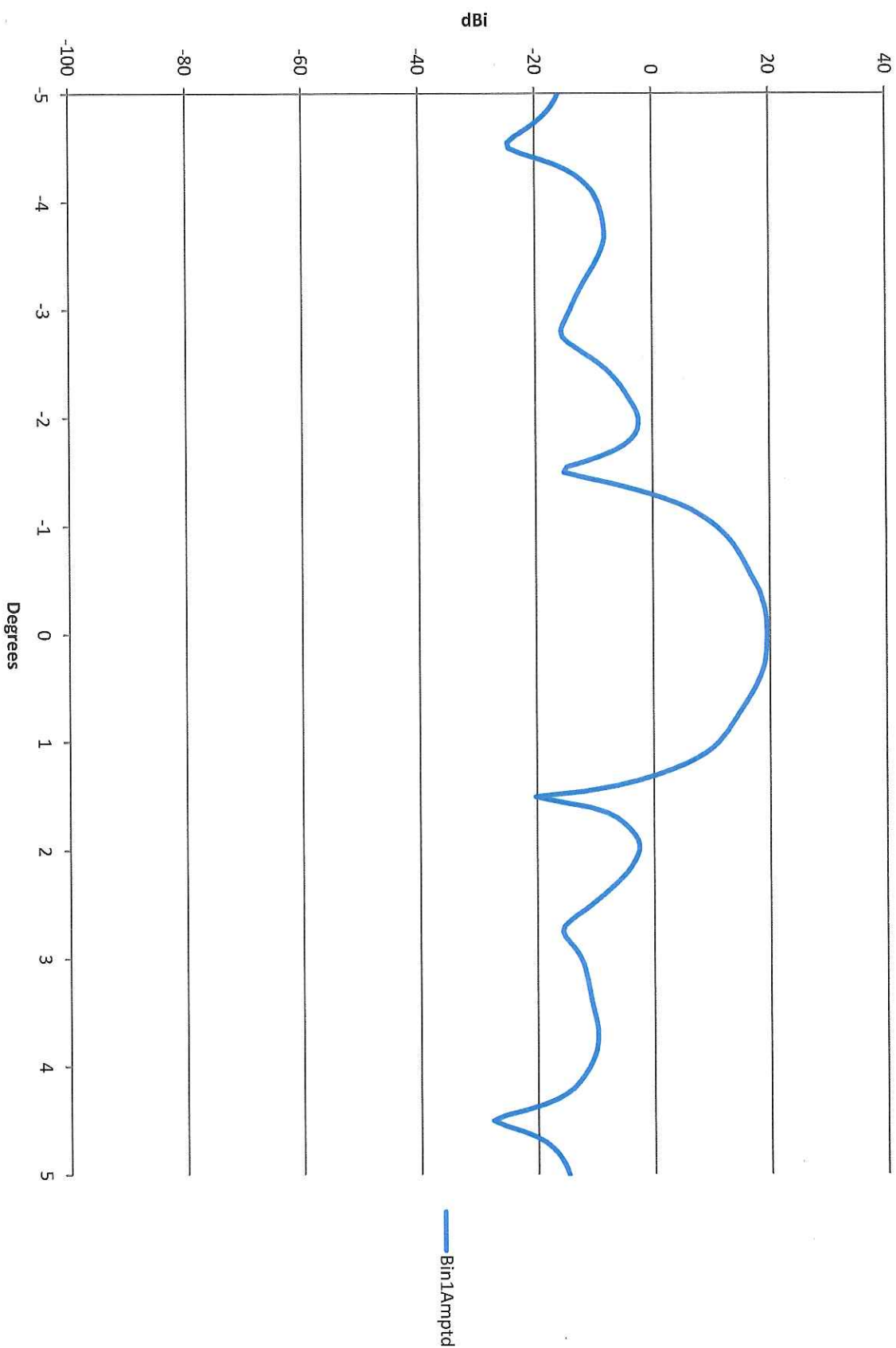
2.25 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 5



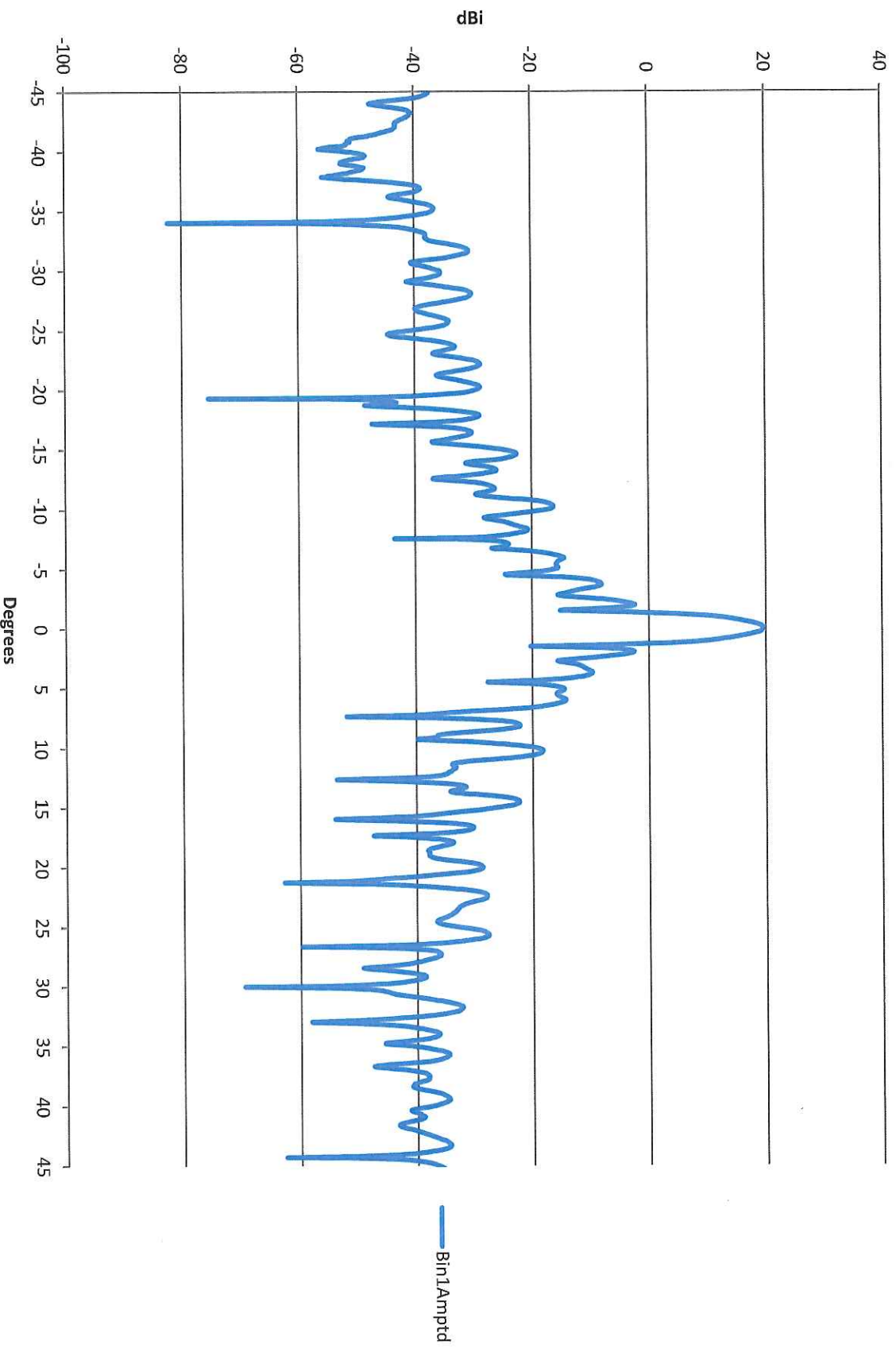
2.25 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 45



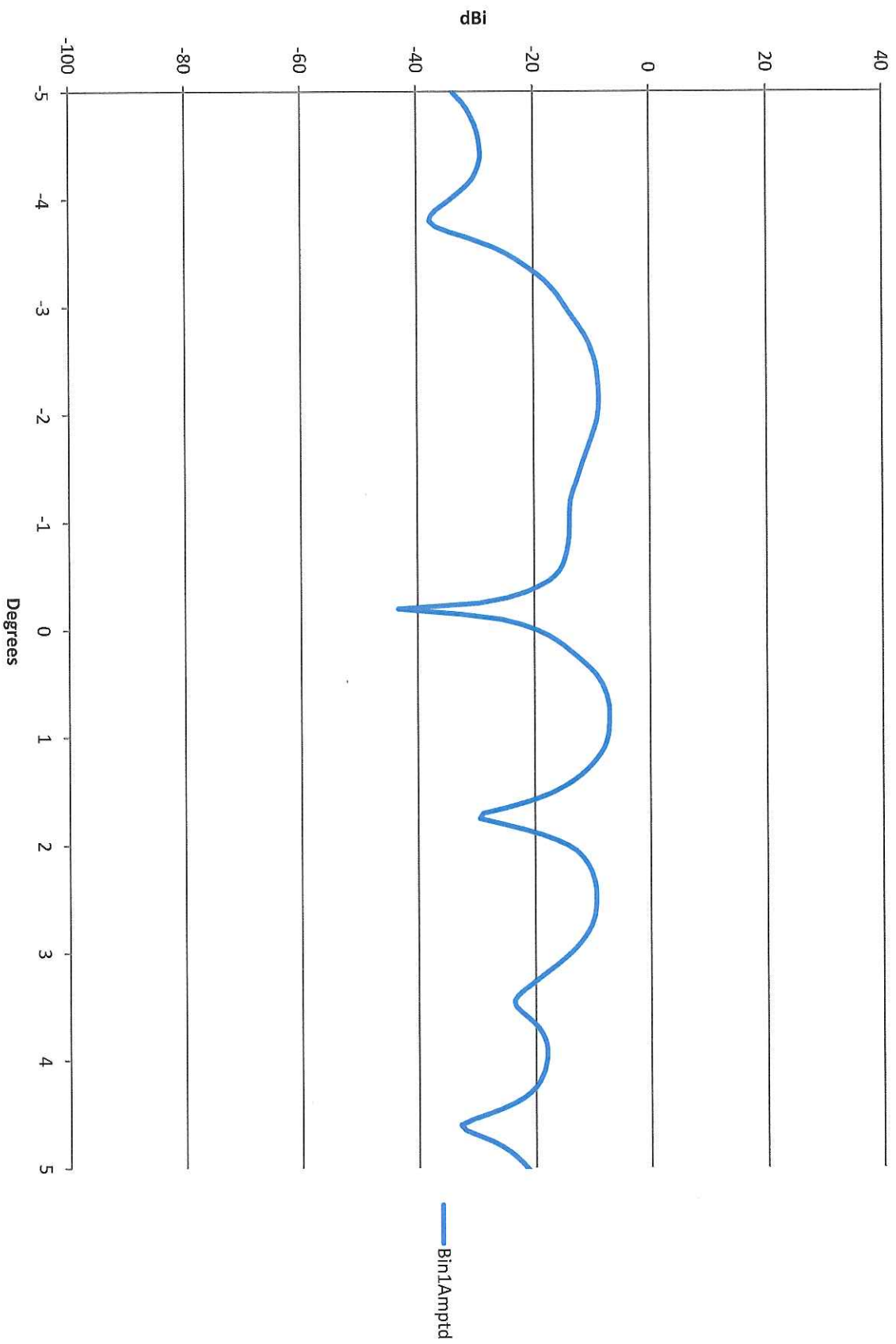
2.25 GHz, Xmit Pol: RHC , Rcv. Pol: RHC +/- 5



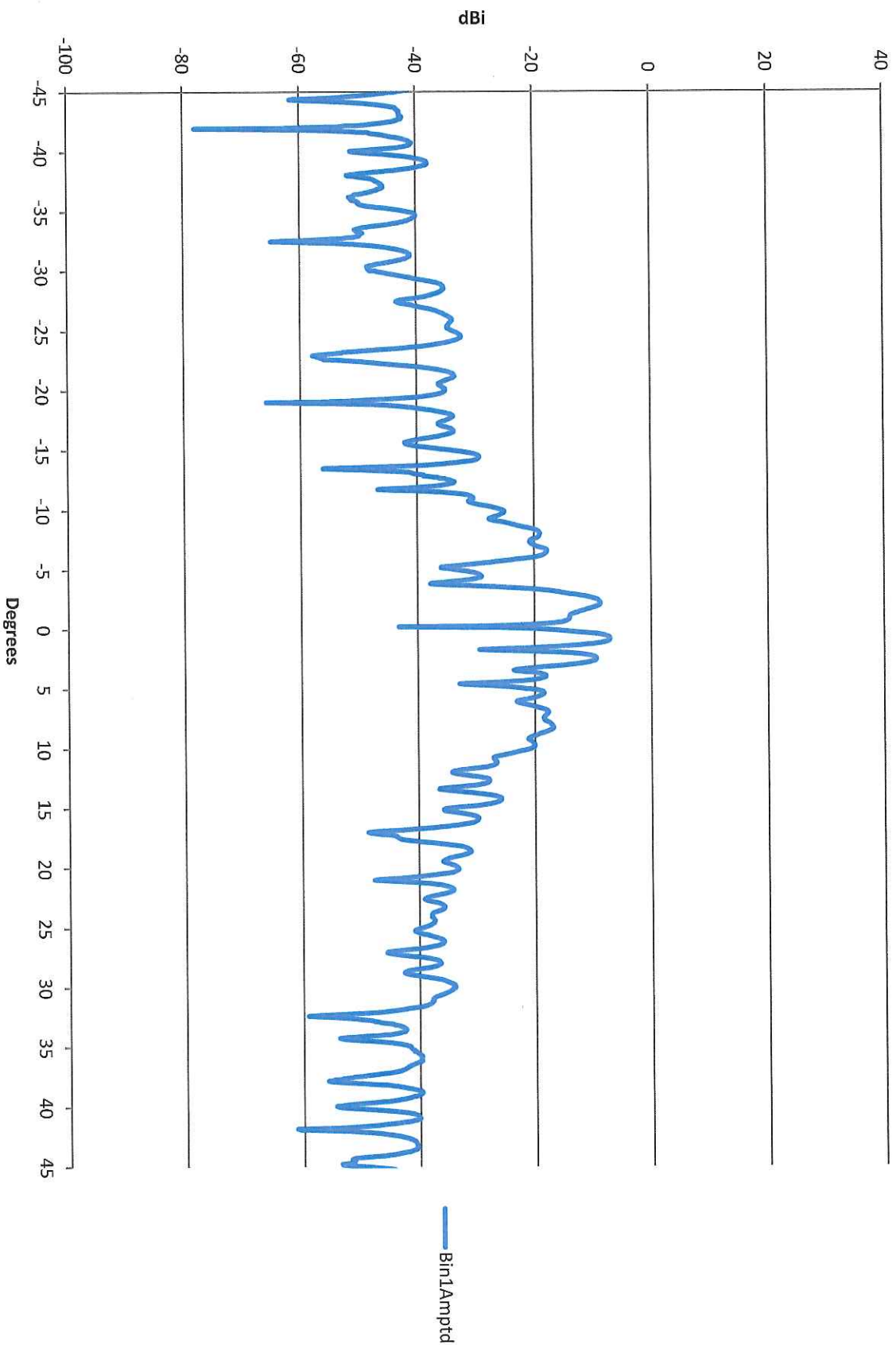
2.25 GHz, Xmit Pol: RHC , Rcv. Pol: RHC +/- 45



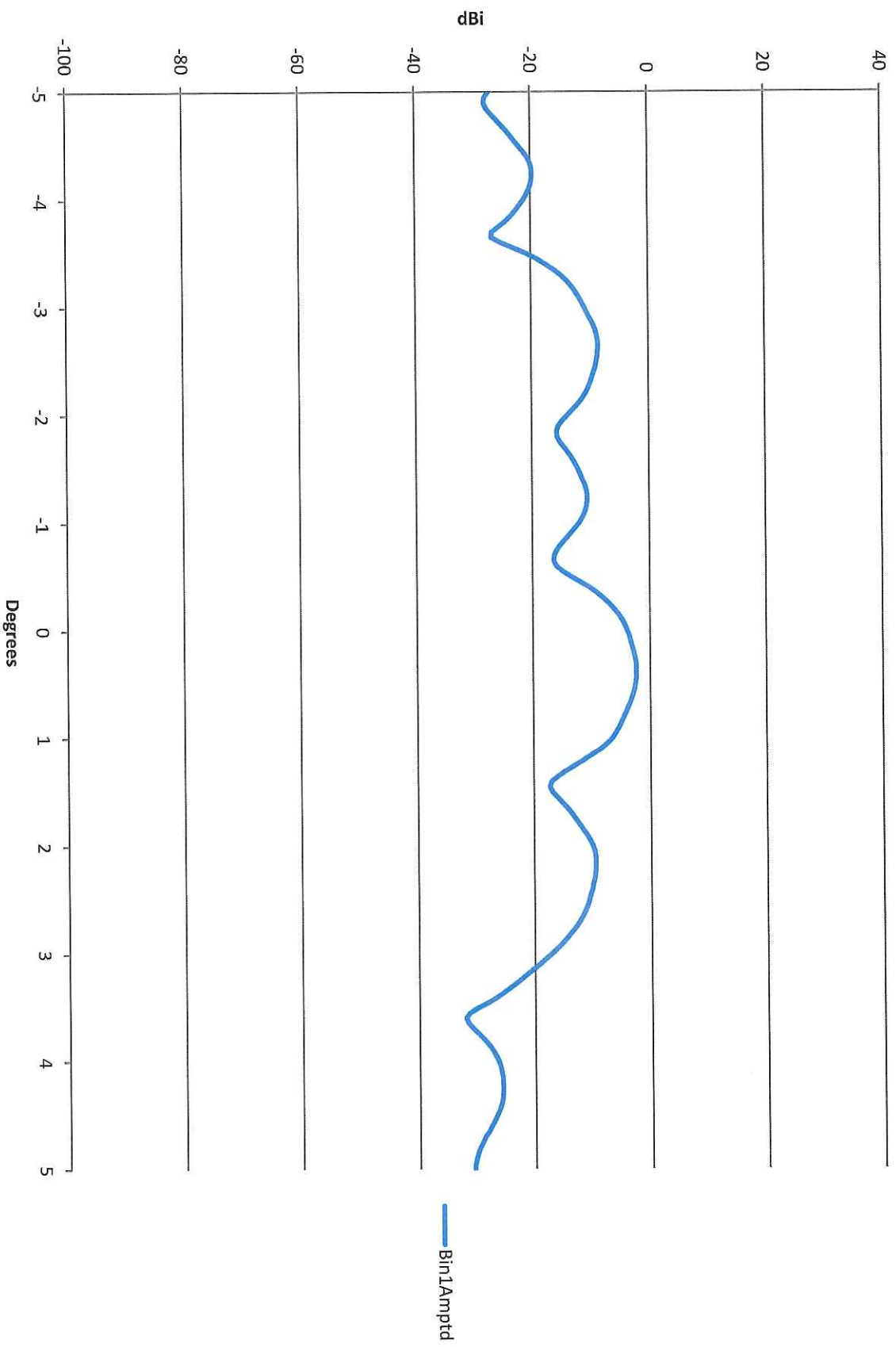
2.25 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 5



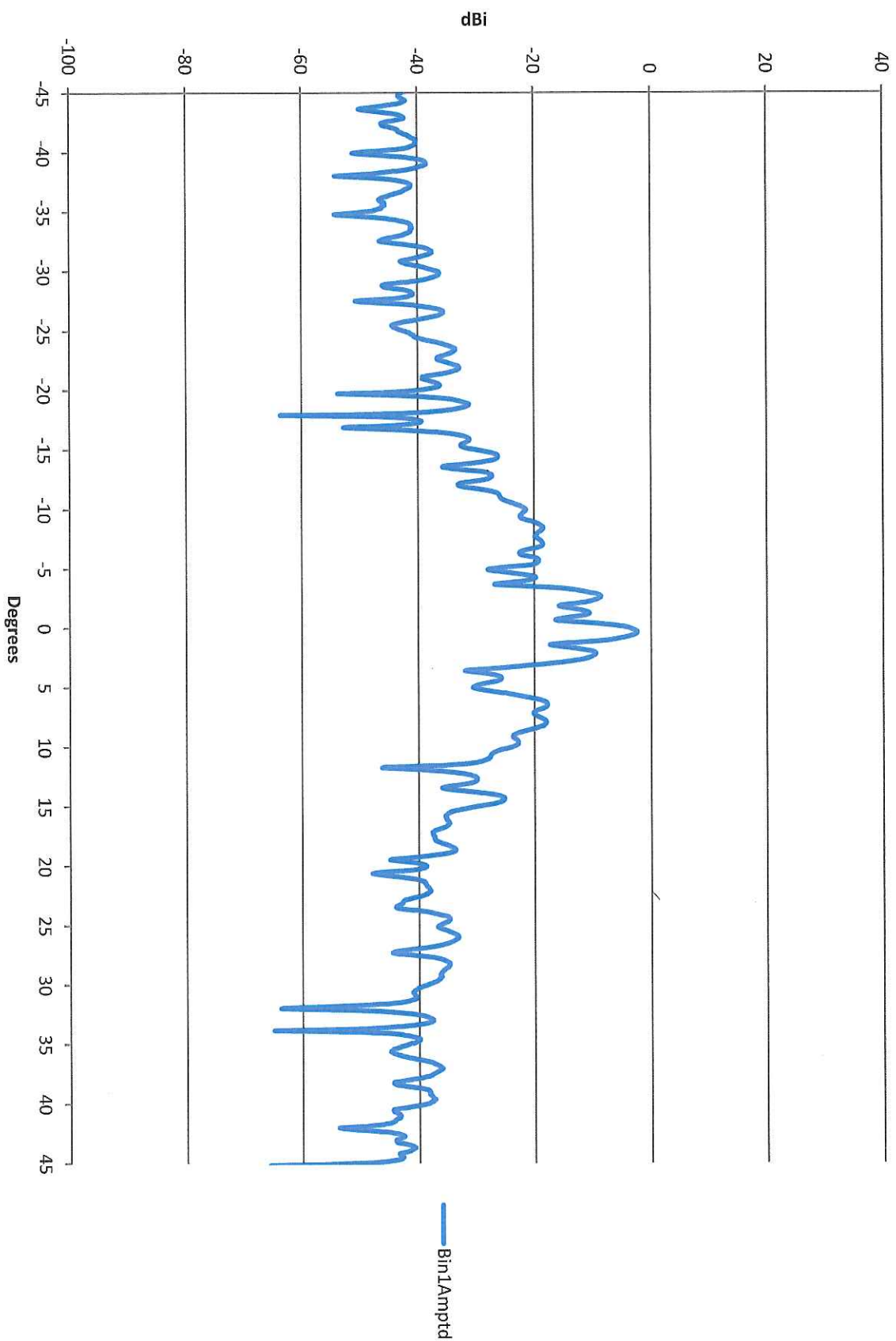
2.25 GHz, Xmit Pol: LHC , Rcv. Pol: RHC +/- 45



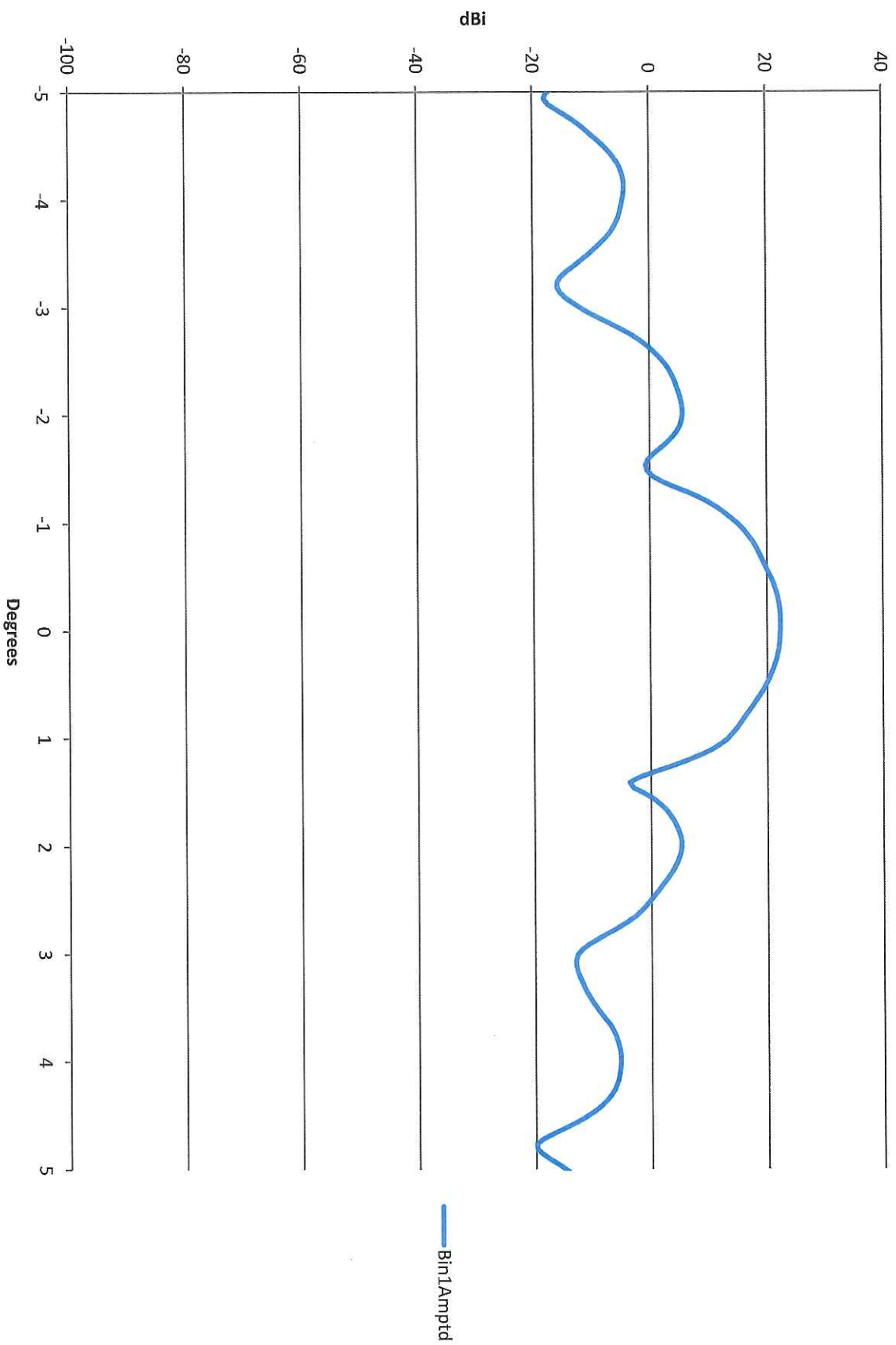
2.25 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 5



2.25 GHz, Xmit Pol: RHC , Rcv. Pol: LHC +/- 45



2.0725 GHz, Xmit Pol: LHC , Rcv. Pol: LHC +/- 5





MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 1.755 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width **2.61**

3 dB Beam Width **1.54**

Left Side Lobe Level **-21.31**

Right Side Lobe Level **-20.85**

Frequency: 1.8025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width **2.52**

3 dB Beam Width **1.47**

Left Side Lobe Level **-20.74**

Right Side Lobe Level **-20.25**

Frequency: 1.850 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width **2.66**

3 dB Beam Width **1.53**

Left Side Lobe Level **-23.48**

Right Side Lobe Level **-29.63**

Frequency: 2.025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width **2.31**

3 dB Beam Width **1.30**

Left Side Lobe Level **-19.97**

Right Side Lobe Level **-18.76**

Frequency: 2.0725 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width **2.37**

3 dB Beam Width **1.34**

Left Side Lobe Level **-23.86**

Right Side Lobe Level **-23.26**



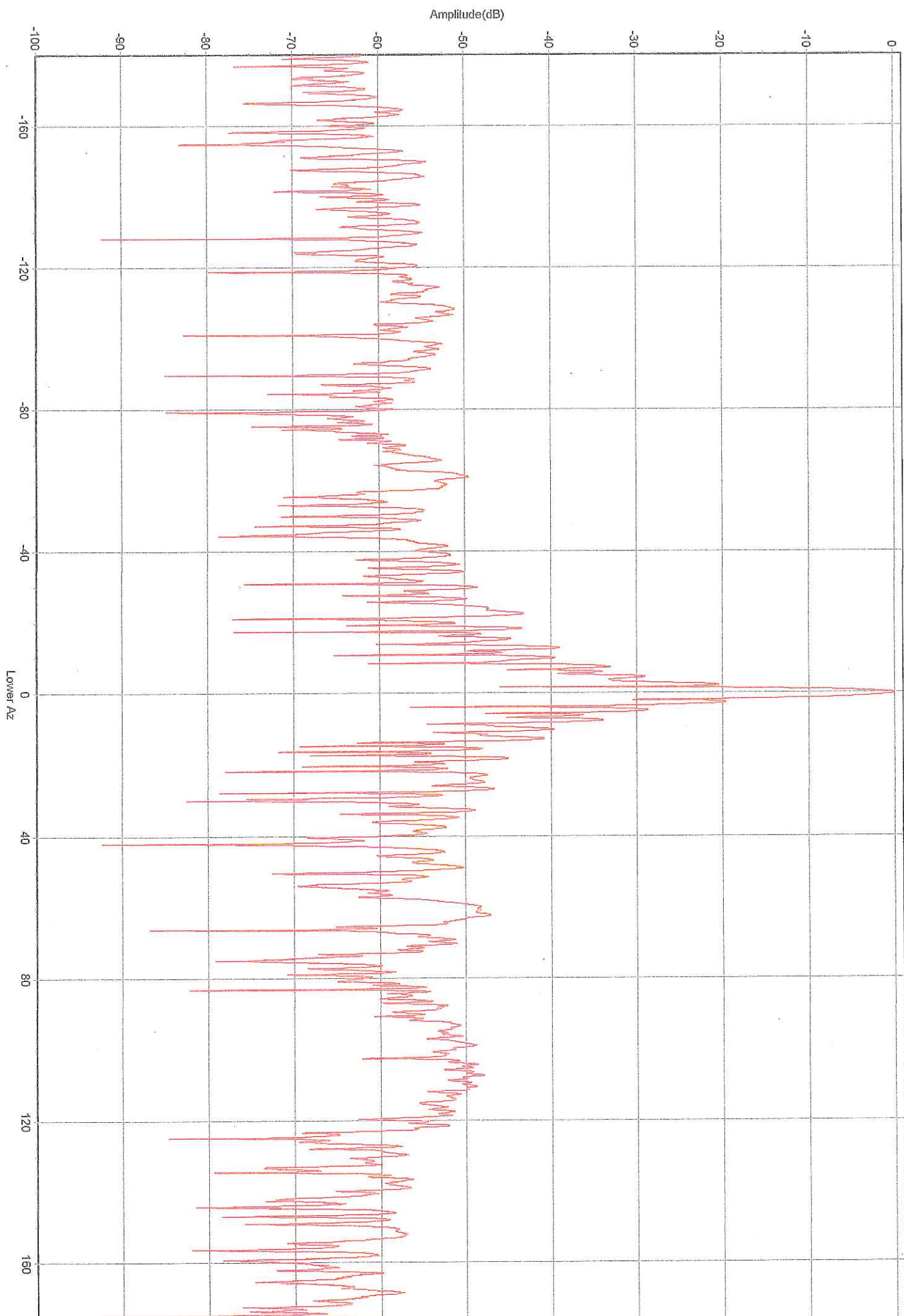
MI-3000 Analysis Results

<i>Value being computed</i>	<i>Min</i>	<i>Result</i>	<i>Max</i>	<i>Units</i>
Frequency: 2.120 Scan of Lower Az at (Disabled axis) = 0.0				
10 dB Beam Width		2.13		
3 dB Beam Width		1.18		
Left Side Lobe Level		-15.35		
Right Side Lobe Level		-16.75		

Planar Pattern Analysis of file TX_EL_RH_RH_360.mdb

Analysis performed on:
all scans in the acquisition
all frequencies
all beams
the A/R channel

Each scan normalized to that scan's peak





MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 1.755 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.68

3 dB Beam Width 1.56

Left Side Lobe Level -21.47

Right Side Lobe Level -22.13

Frequency: 1.8025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.39

3 dB Beam Width 1.37

Left Side Lobe Level -16.40

Right Side Lobe Level -16.35

Frequency: 1.850 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.69

3 dB Beam Width 1.55

Left Side Lobe Level -30.62

Right Side Lobe Level -20.27

Frequency: 2.025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.26

3 dB Beam Width 1.26

Left Side Lobe Level -16.96

Right Side Lobe Level -17.44

Frequency: 2.0725 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.33

3 dB Beam Width 1.32

Left Side Lobe Level -23.36

Right Side Lobe Level -22.68



MI-3000 Analysis Results

<i>Value being computed</i>	<i>Min</i>	<i>Result</i>	<i>Max</i>	<i>Units</i>
Frequency: 2.120 Scan of Lower Az at (Disabled axis) = 0.0				
10 dB Beam Width		2.12		
3 dB Beam Width		1.19		
Left Side Lobe Level		-15.18		
Right Side Lobe Level		-15.45		
Planar Pattern Analysis of file TX_EL_LH_LH_360.mdb				
Analysis performed on:				
all scans in the acquisition				
all frequencies				
all beams				
the A/R channel				
Each scan normalized to that scan's peak				



MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 1.755 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.64
3 dB Beam Width	1.55
Left Side Lobe Level	-20.47
Right Side Lobe Level	-22.60

Frequency: 1.8025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.56
3 dB Beam Width	1.48
Left Side Lobe Level	-20.27
Right Side Lobe Level	-16.94

Frequency: 1.850 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.36
3 dB Beam Width	1.35
Left Side Lobe Level	-16.05
Right Side Lobe Level	-19.66

Frequency: 2.025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.34
3 dB Beam Width	1.31
Left Side Lobe Level	-21.18
Right Side Lobe Level	-19.88

Frequency: 2.0725 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.15
3 dB Beam Width	1.20
Left Side Lobe Level	-16.55
Right Side Lobe Level	-17.42



MI-3000 Analysis Results

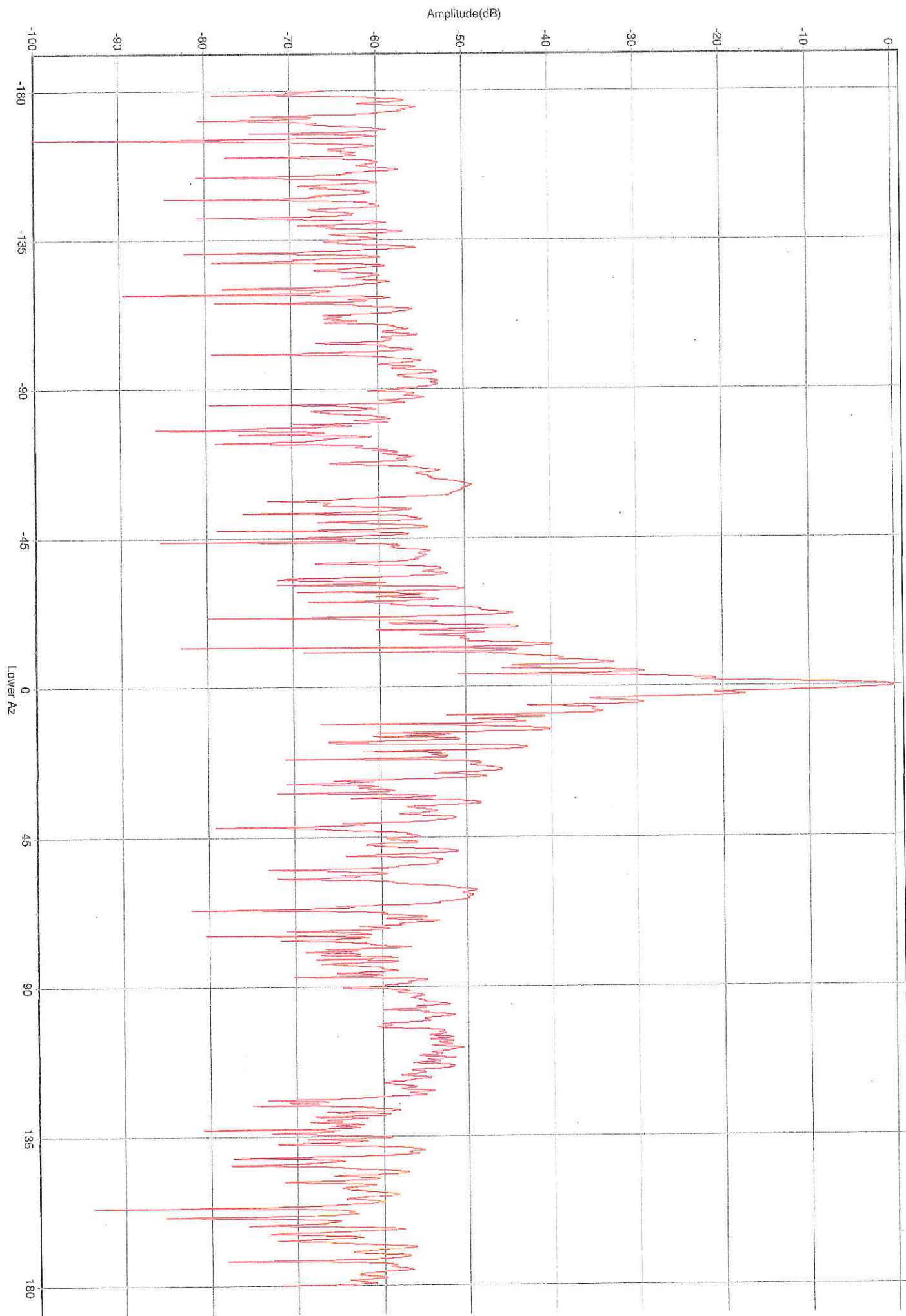
<i>Value being computed</i>	<i>Min</i>	<i>Result</i>	<i>Max</i>	<i>Units</i>
Frequency: 2.120 Scan of Lower Az at (Disabled axis) = 0.0				
10 dB Beam Width		2.25		
3 dB Beam Width		1.25		
Left Side Lobe Level		-20.81		
Right Side Lobe Level		-23.58		

Planar Pattern Analysis of file TX_AZ_RH_RH_360.mdb

Analysis performed on:
all scans in the acquisition
all frequencies
the A/R channel

Each scan normalized to that scan's peak

7.3M LS TX AZ RHC RHC Pattern Intelsat Witness





MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 1.755 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.55

3 dB Beam Width 1.48

Left Side Lobe Level -18.37

Right Side Lobe Level -19.12

Frequency: 1.8025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.72

3 dB Beam Width 1.58

Left Side Lobe Level -24.10

Right Side Lobe Level -21.65

Frequency: 1.850 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.34

3 dB Beam Width 1.33

Left Side Lobe Level -15.94

Right Side Lobe Level -16.95

Frequency: 2.025 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.38

3 dB Beam Width 1.35

Left Side Lobe Level -22.44

Right Side Lobe Level -21.44

Frequency: 2.0725 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width 2.16

3 dB Beam Width 1.21

Left Side Lobe Level -16.63

Right Side Lobe Level -17.07



MI-3000 Analysis Results

<i>Value being computed</i>	<i>Min</i>	<i>Result</i>	<i>Max</i>	<i>Units</i>
Frequency: 2.120 Scan of Lower Az at (Disabled axis) = 0.0				
10 dB Beam Width		2.23		
3 dB Beam Width		1.25		
Left Side Lobe Level		-18.75		
Right Side Lobe Level		-22.46		

Planar Pattern Analysis of file TX_AZ_LH_LH_360.mdb

Analysis performed on:
all scans in the acquisition
all frequencies
the A/R channel

Each scan normalized to that scan's peak



MI-3000 Analysis Results

<i>Value being computed</i>	<i>Min</i>	<i>Result</i>	<i>Max</i>	<i>Units</i>
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Planar Pattern Analysis

Frequency: 2.200 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.17
3 dB Beam Width	1.20
Left Side Lobe Level	-21.15
Right Side Lobe Level	-22.19

Frequency: 2.250 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.13
3 dB Beam Width	1.16
Left Side Lobe Level	-21.90
Right Side Lobe Level	-22.05

Frequency: 2.300 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.09
3 dB Beam Width	1.14
Left Side Lobe Level	-20.81
Right Side Lobe Level	-22.07

Planar Pattern Analysis of file RX_Az_RH_RH_360.mdb

Analysis performed on:
all scans in the acquisition
all frequencies
all beams
the A/R channel

Each scan normalized to that scan's peak



MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 2.200 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.14
3 dB Beam Width	1.18
Left Side Lobe Level	-20.11
Right Side Lobe Level	-20.26

Frequency: 2.250 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.11
3 dB Beam Width	1.15
Left Side Lobe Level	-21.35
Right Side Lobe Level	-19.83

Frequency: 2.300 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.09
3 dB Beam Width	1.14
Left Side Lobe Level	-20.16
Right Side Lobe Level	-19.96

Planar Pattern Analysis of file RX_EL_RH_RH_360.mdb

Analysis performed on:
all scans in the acquisition
all frequencies
all beams
the A/R channel

Each scan normalized to that scan's peak



MI-3000 Analysis Results

Value being computed Min Result Max Units

Planar Pattern Analysis

Frequency: 2.200 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.15
3 dB Beam Width	1.19
Left Side Lobe Level	-20.76
Right Side Lobe Level	-22.77

Frequency: 2.250 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.13
3 dB Beam Width	1.21
Left Side Lobe Level	-20.35
Right Side Lobe Level	-21.86

Frequency: 2.300 Scan of Lower Az at (Disabled axis) = 0.0

10 dB Beam Width	2.07
3 dB Beam Width	1.15
Left Side Lobe Level	-20.30
Right Side Lobe Level	-20.96

Planar Pattern Analysis of file Rx_AZ_LH_LH_360.MDB

Analysis performed on:
all scans in the acquisition
all frequencies
all beams
the A/R channel

Each scan normalized to that scan's peak

Year	Population (millions)
2018	42.55
2019	42.65
2020	42.75
2021	42.85
2022	43.15