

Figure	Frequency	Plane of Cut	Pattern Extent	Pattern
1	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol.
2	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. & cross-pol.
3	29.350 GHz	Azimuth	$\pm 3^\circ$	Meas. co-pol.
4	29.350 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol.
5	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol.
6	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. & cross-pol.
7	29.350 GHz	Elevation	$\pm 3^\circ$	Meas. co-pol.
8	29.350 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol.
9	19.700 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol.
10	19.700 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol.
11	19.700 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol.
12	19.700 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol.
13	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
14	29.350 GHz	Azimuth	$\pm 3^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
15	29.350 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
16	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
17	29.350 GHz	Elevation	$\pm 3^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
18	29.350 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
19	19.700 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
20	19.700 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
21	19.700 GHz	Elevation	$\pm 1^\circ$	Meas. co-pol. (<i>vs. pred.</i>)
22	19.700 GHz	Elevation	$\pm 10^\circ$	Meas. co-pol. (<i>vs. pred.</i>)

Table 1: List of Measured Patterns For ViaSat 9.1m Antenna

Job:1195 Antenna: 9.1m Comment: 5/18/06: Antenna focused at 29.35 GHz
Measured Pattern
Freq: 29.350 GHz Plane: Azimuth Test port: RHCP-TX AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

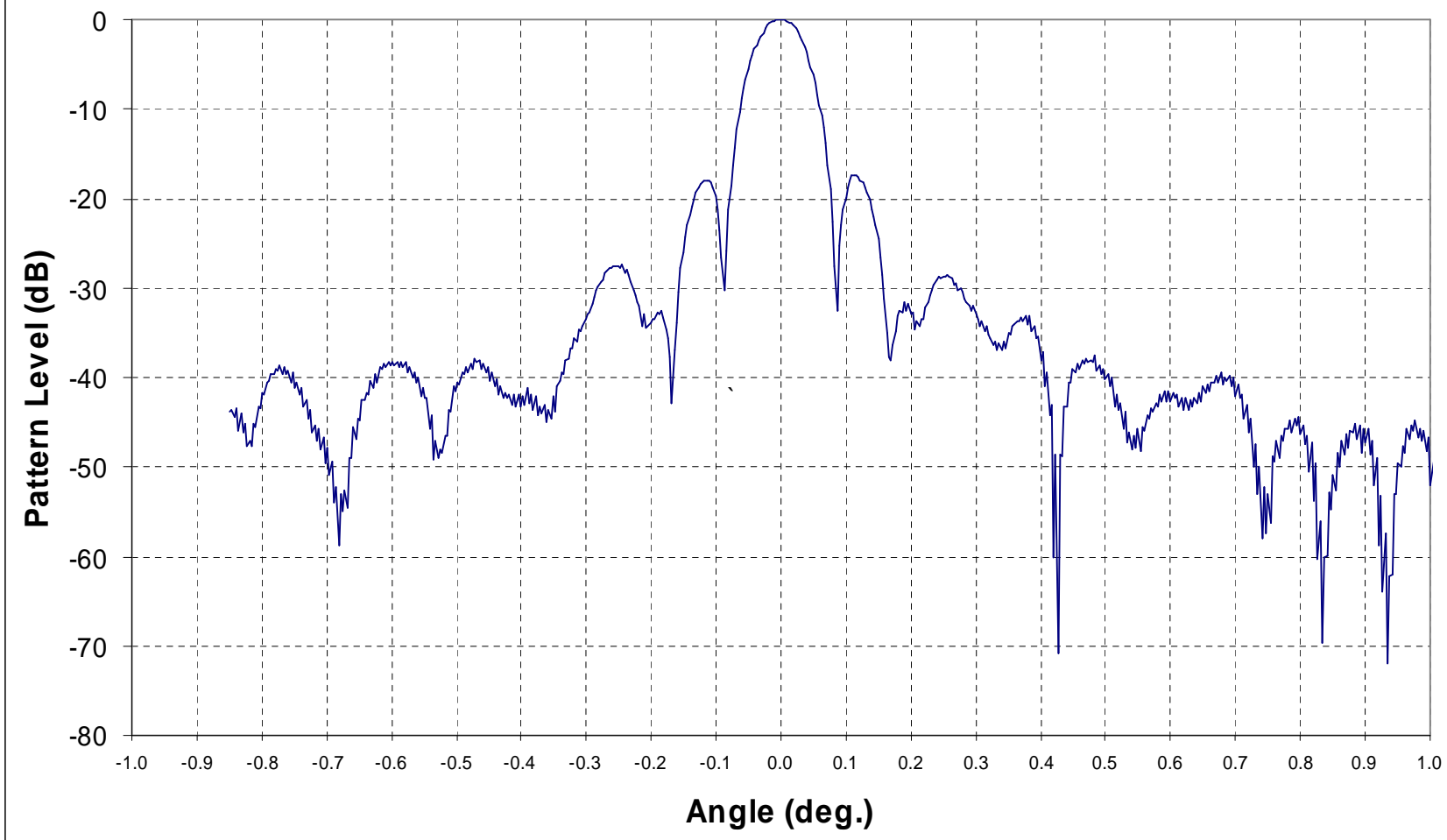


Figure 1
29.350 GHz, Azimuth, ±1°, Meas. Co-pol

Job:1195 Antenna: 9.1m Comment: 5/19/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 29.350 GHz Plane: Azimuth Test port: RHCP-TX, LHCP-TX AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

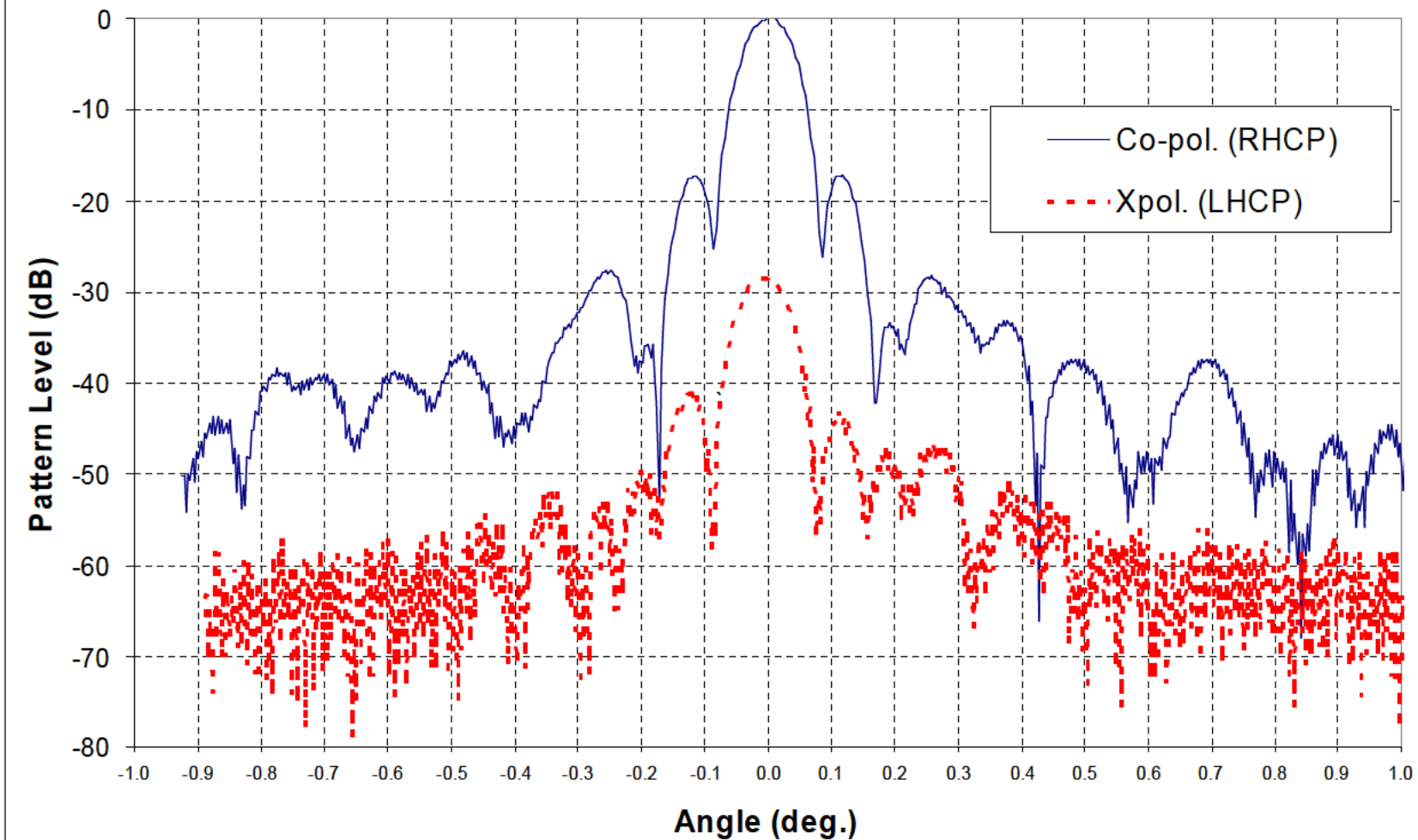


Figure 2

29.350 GHz, Azimuth, ±1°, Meas. Co-pol & Cross-pol.

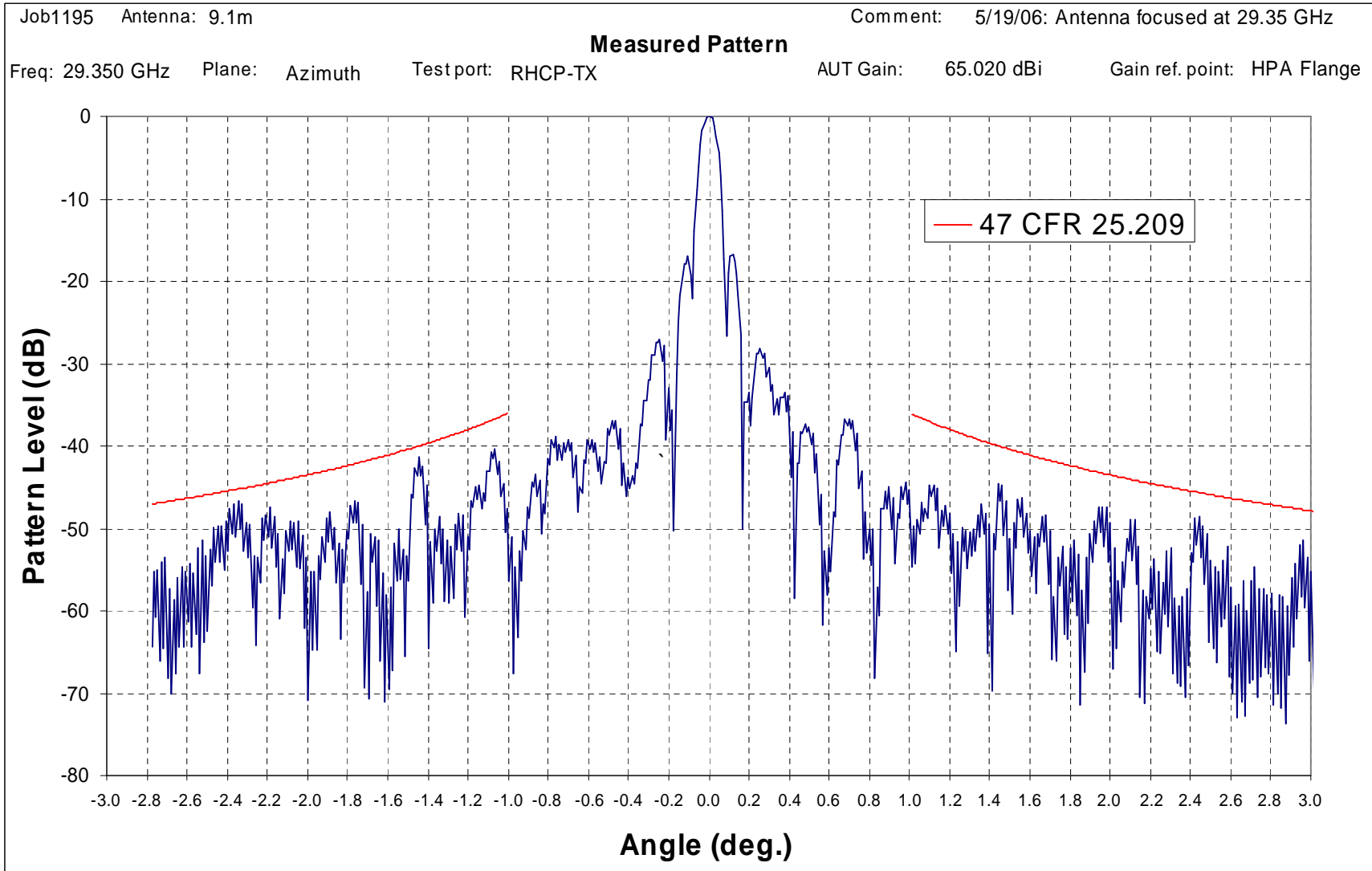


Figure 3
29.350 GHz, Azimuth, ±3°, Meas. Co-pol.

Job:1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 29.350 GHz Plane: Azimuth Test port: RHCP-TX

AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

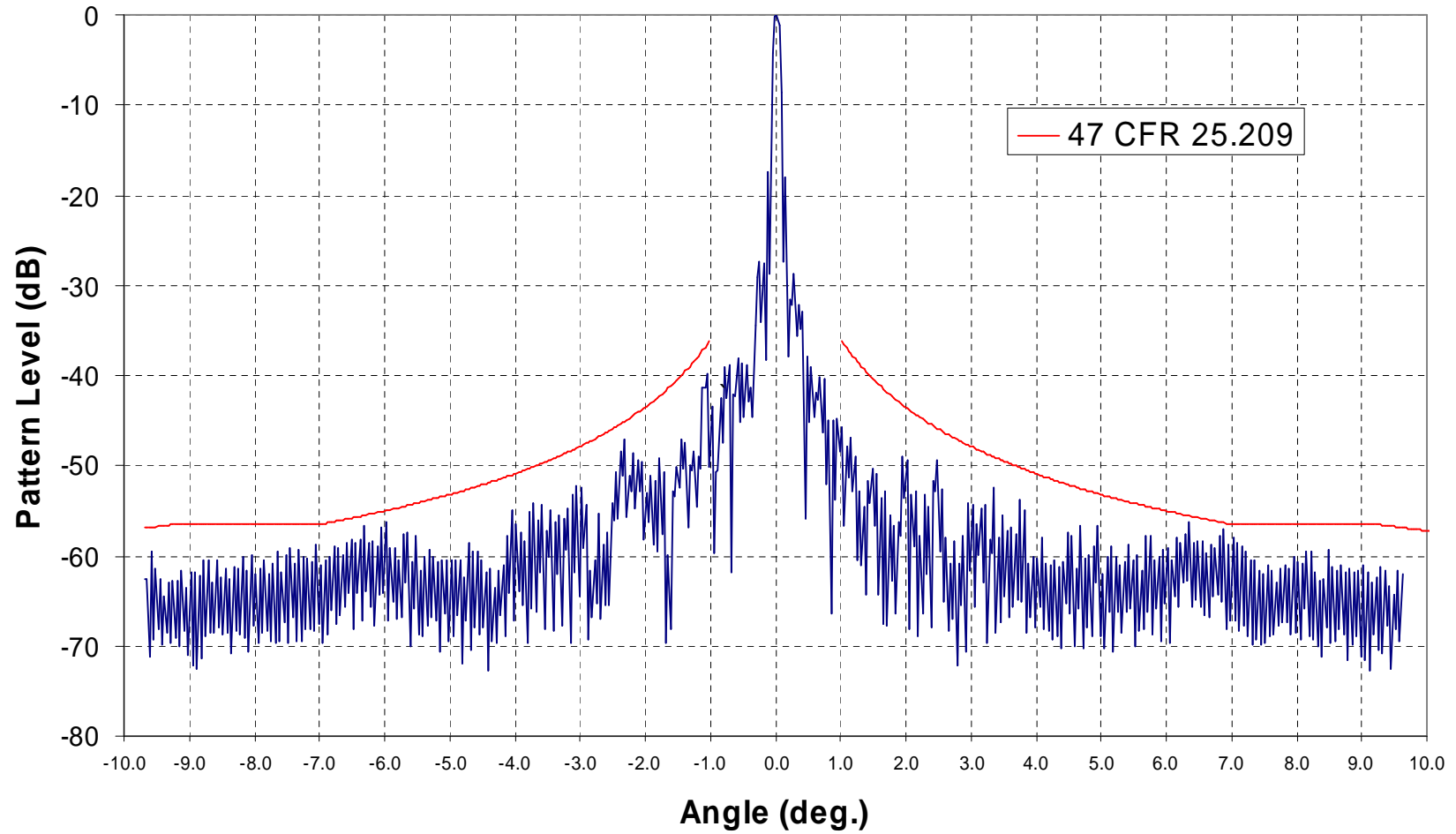


Figure 4
29.350 GHz, Azimuth, $\pm 10^\circ$. Meas. Co-pol.

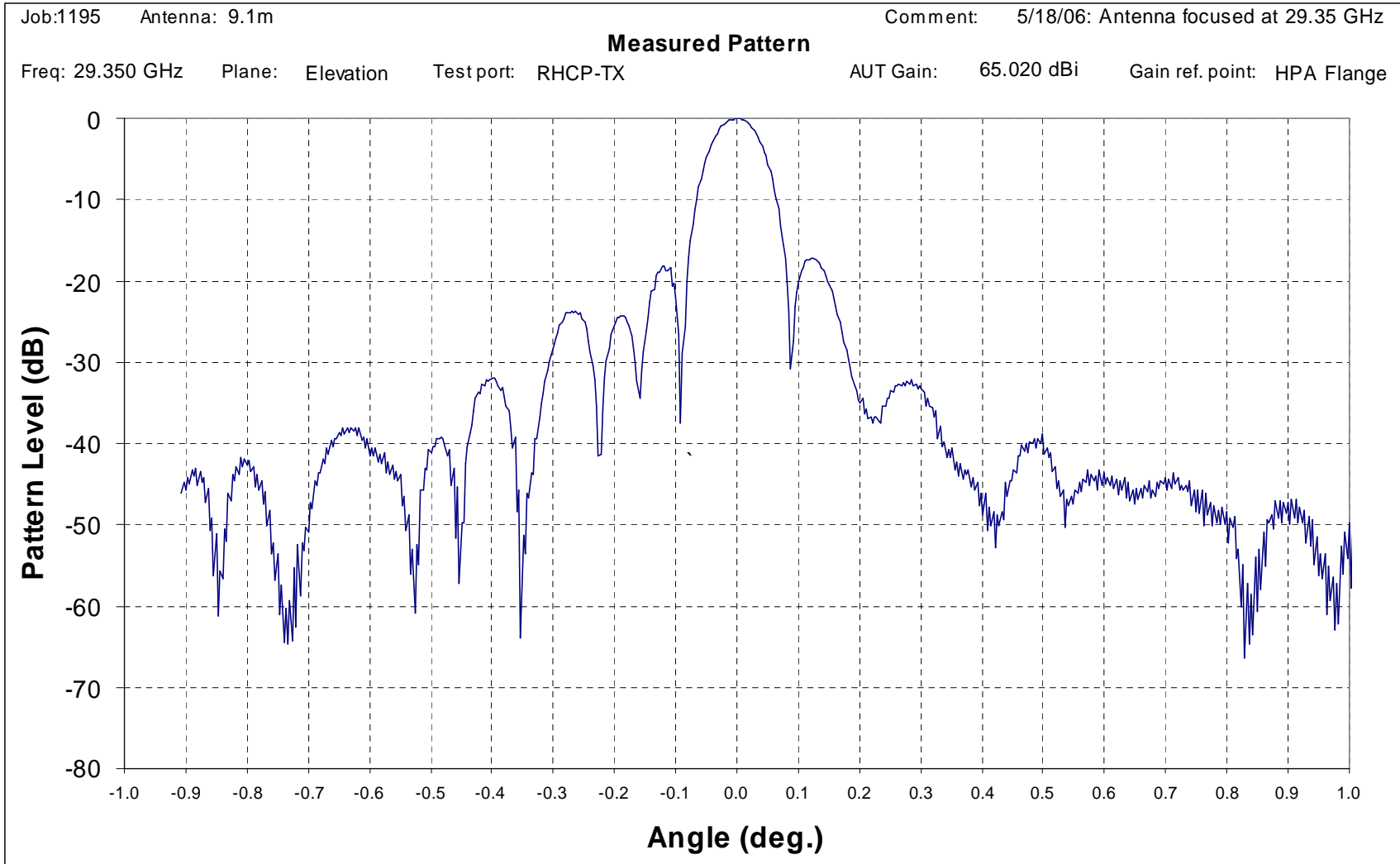


Figure 5
29.350 GHz, Elevation, $\pm 1^\circ$. Meas. Co-pol.

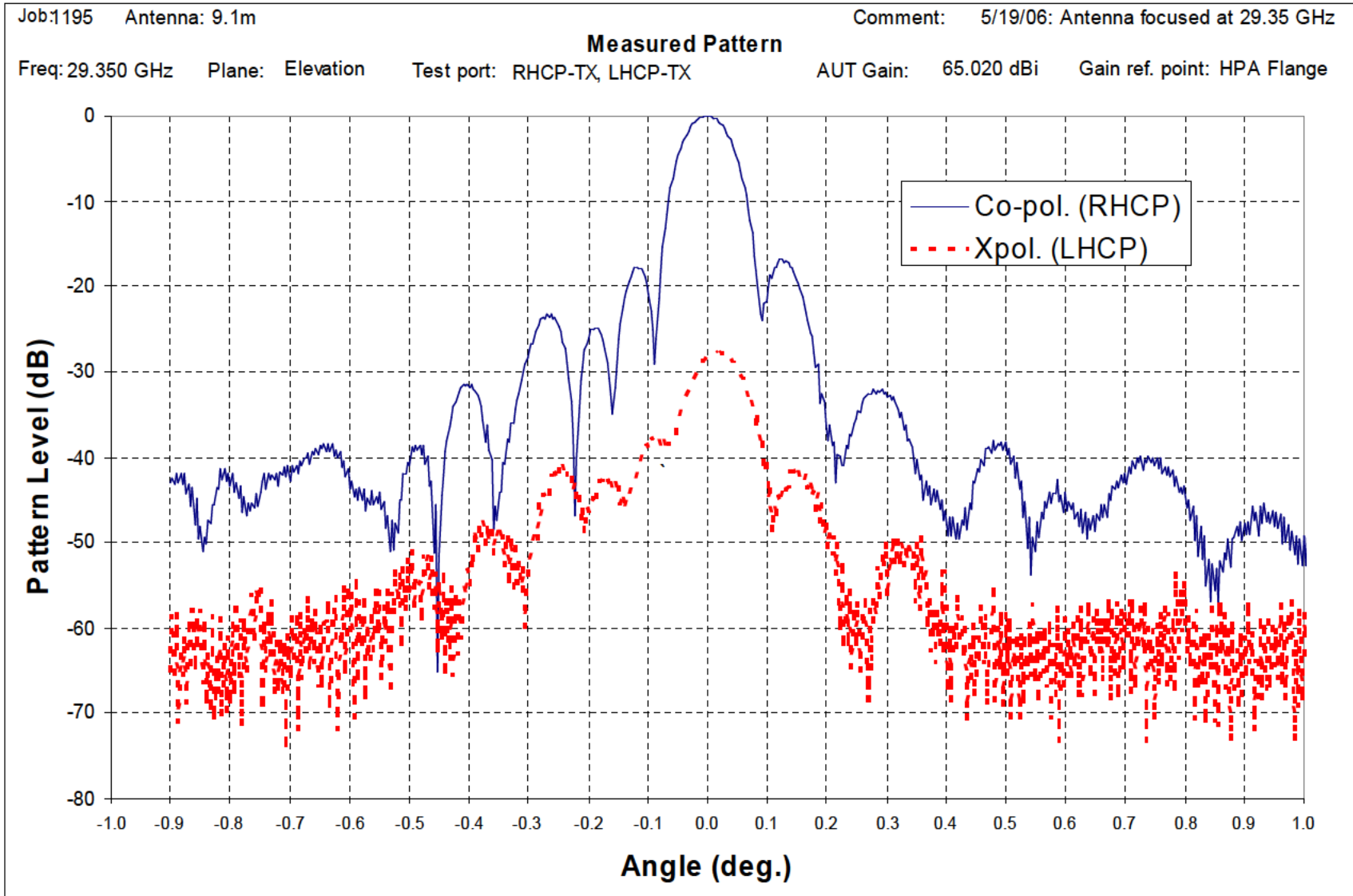


Figure 6
29.350 GHz, Elevation, $\pm 1^\circ$. Meas. Co-pol. & Cross-pol.

Job:1195 Antenna: 9.1m

Comment: 5/19/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 29.350 GHz Plane: Elevation Test port: RHCP-TX

AUT Gain: 65.020 dBi Gain ref. point: HPA Flange

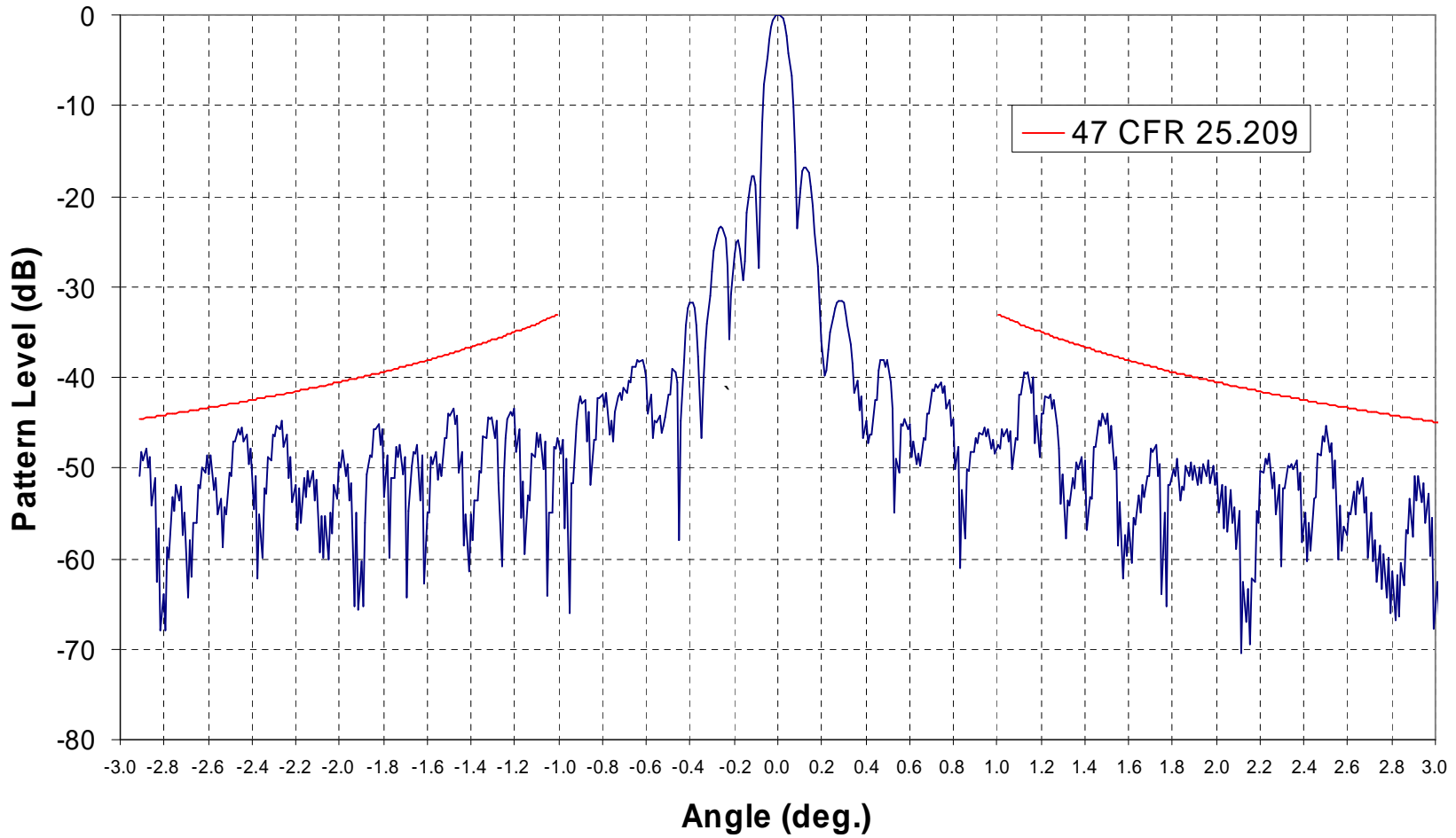


Figure 7

29.350 GHz, Elevation, $\pm 3^\circ$. Meas. Co-pol.

Job:1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 29.350 GHz Plane: Elevation Test port: RHCP-TX

AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

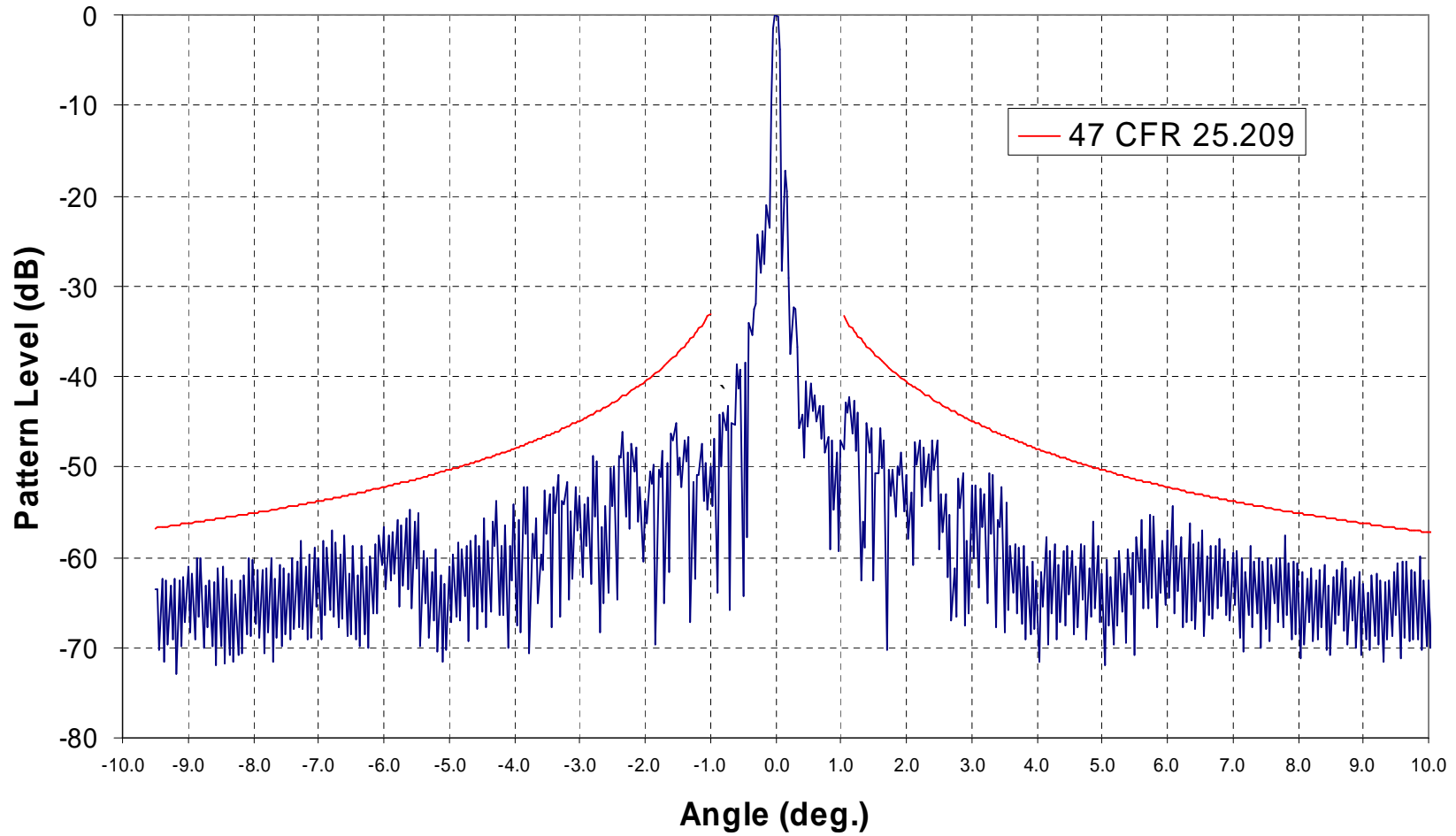


Figure 8

29.350 GHz, Elevation, $\pm 10^\circ$. Meas. Co-pol.

Job:1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 19.700 GHz Plane: Azimuth Test port: RHCP-RX

AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy.Input

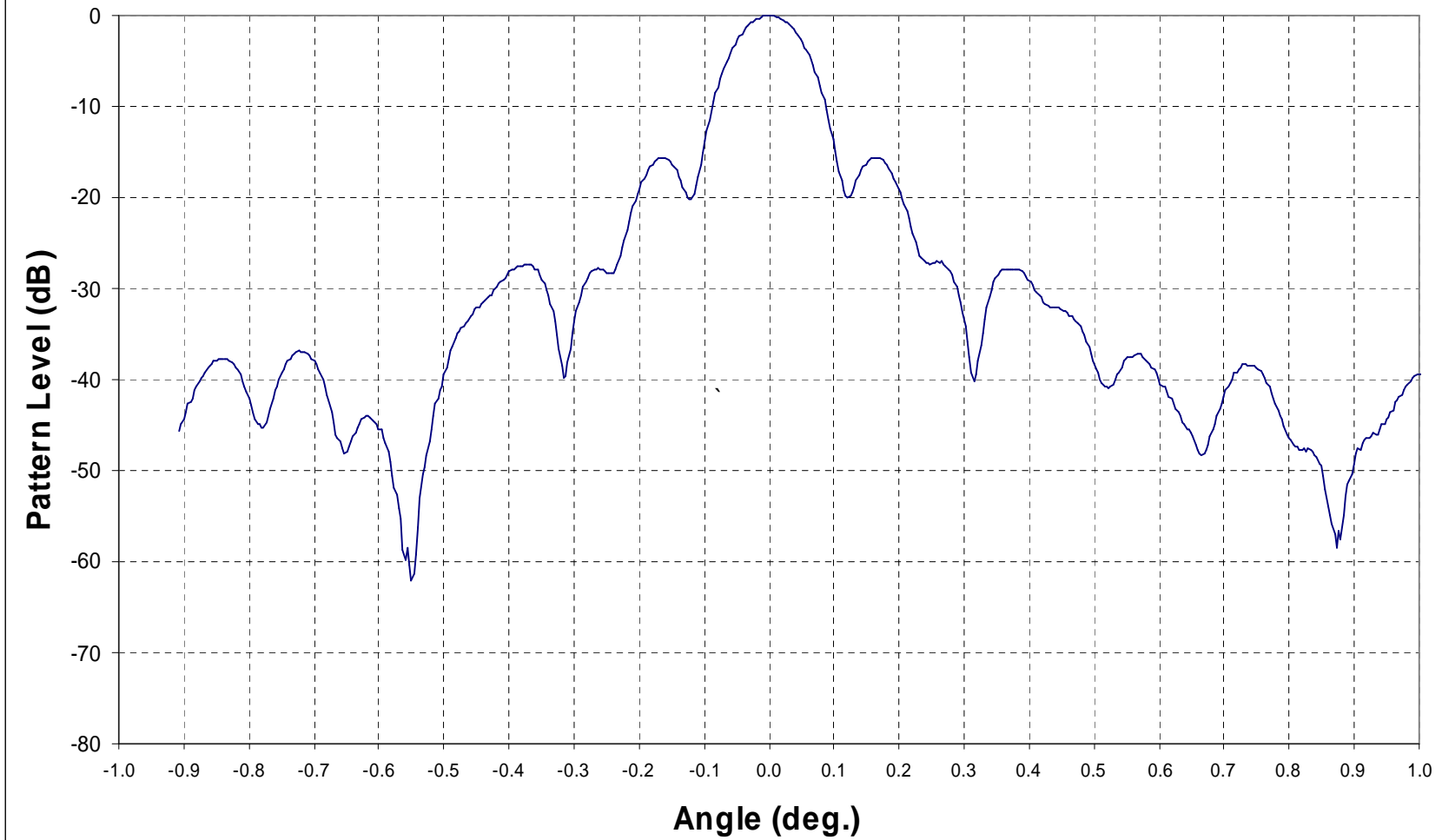


Figure 9
19.700 GHz, Azimuth, $\pm 1^\circ$. Meas. Co-pol.

Job:1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 19.700 GHz Plane: Azimuth Test port: RHCP-RX

AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy. Input

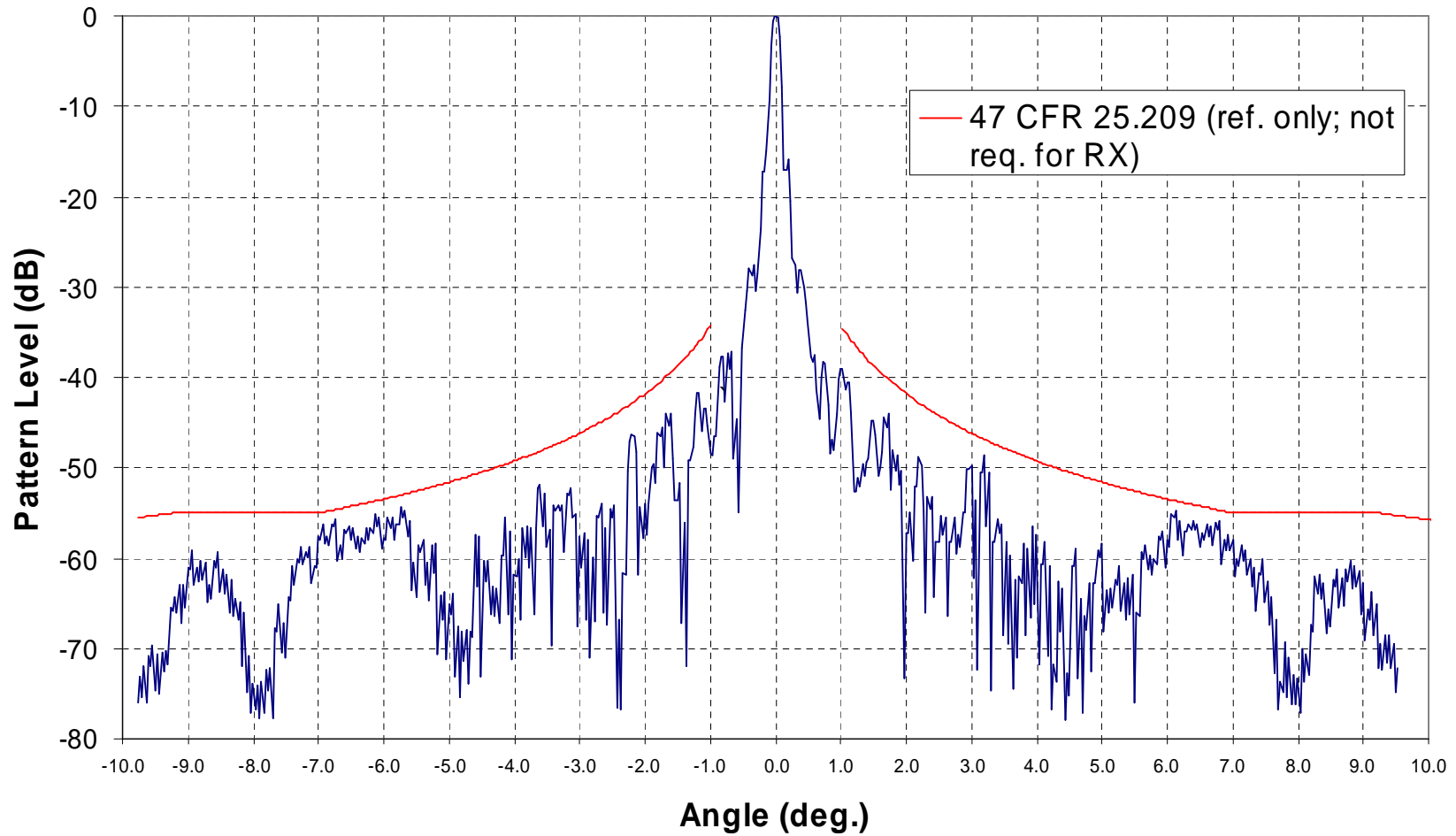


Figure 10
19.700 GHz, Azimuth, $\pm 10^\circ$. Meas. Co-pol

Job:1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq:19.700 GHz Plane: Elevation

Test port: RHCP-RX

AUT Gain: 63.310 dBi

Gain ref. point: 1:2 LNA Assy.Input

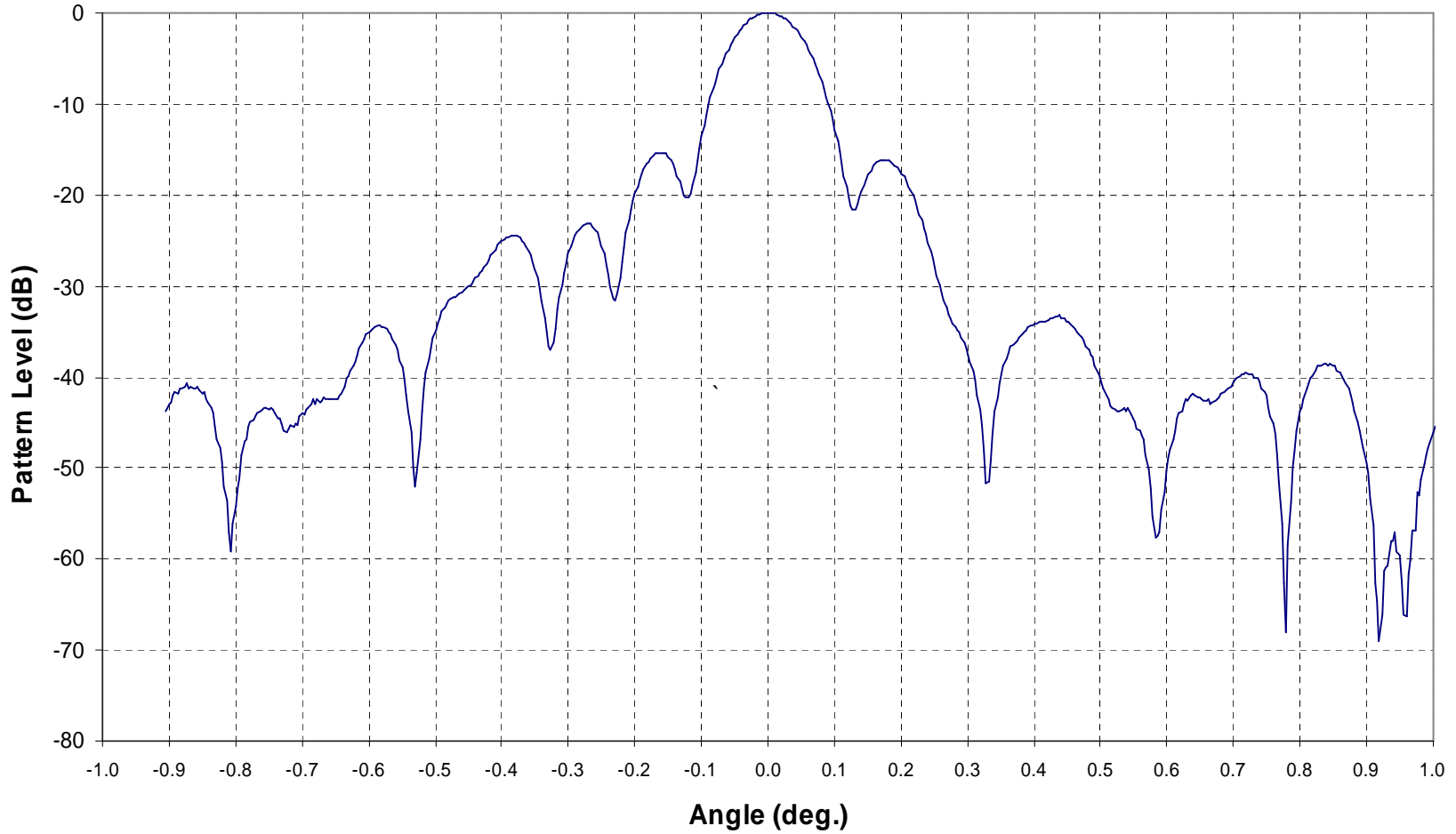


Figure 11
19.700 GHz, Elevation, $\pm 1^\circ$. Meas. Co-pol.

Job:1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern

Freq: 19.700 GHz Plane: Elevation Test port: RHCP-RX

AUT Gain: 63.310 dBi Gain ref. point: 1:2 LNA Assy. Input

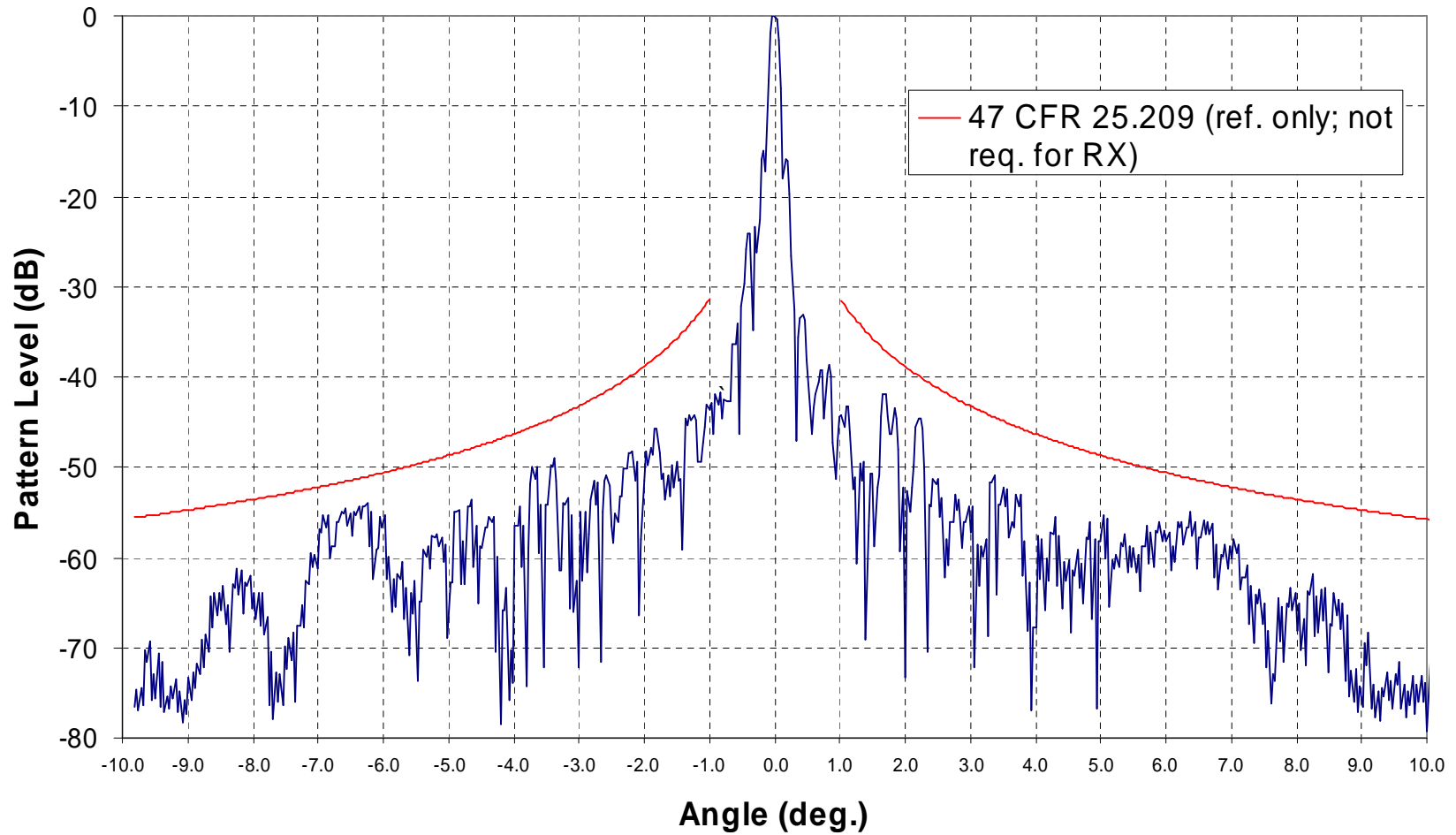


Figure 12
19.700 GHz, Elevation, $\pm 10^\circ$. Meas. Co-pol.

Job: 1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz

Plane: Azimuth

Test port: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

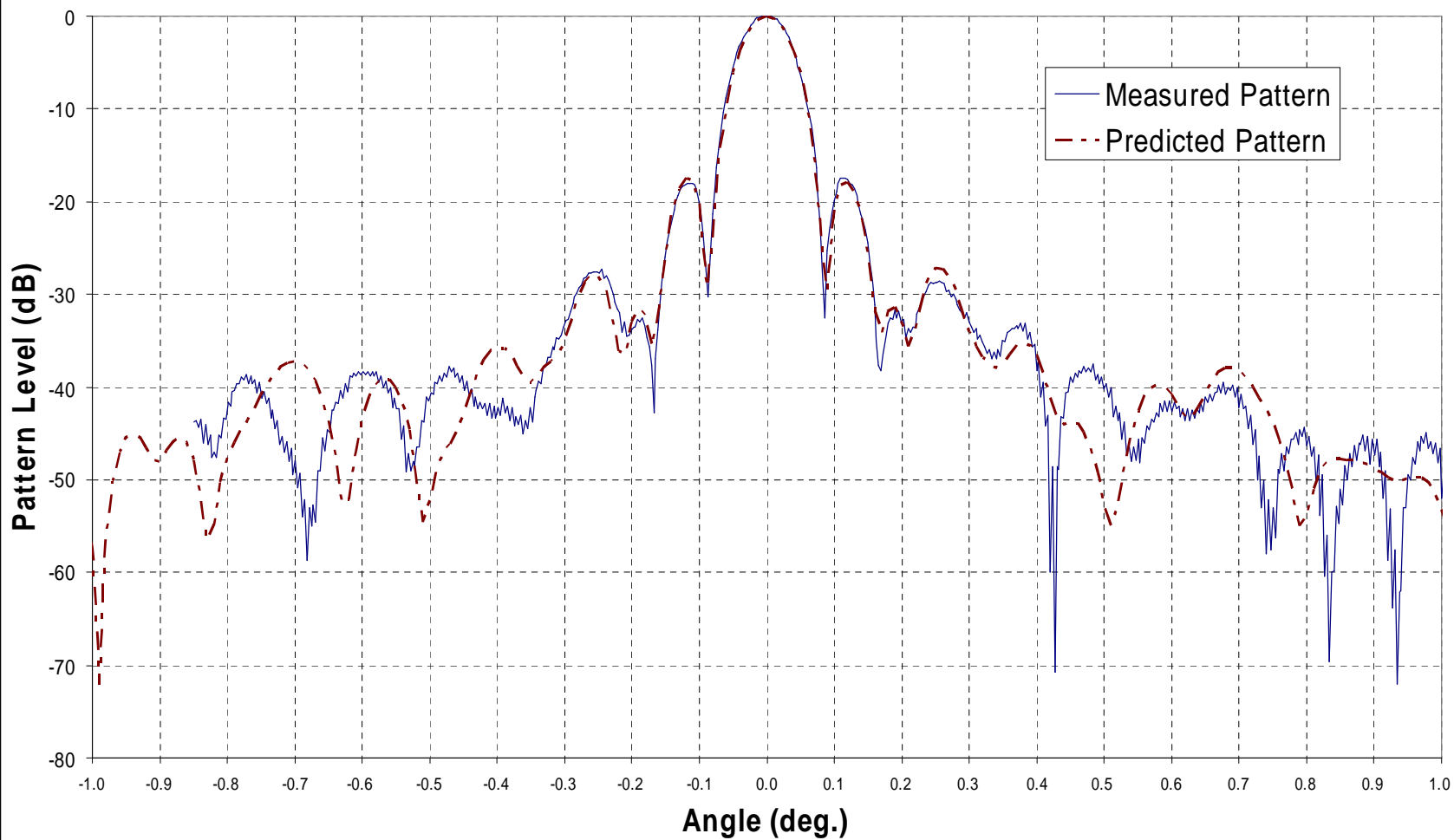


Figure 13

29.350 GHz, Azimuth, $\pm 1^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/19/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz Plane: Azimuth

Testport: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

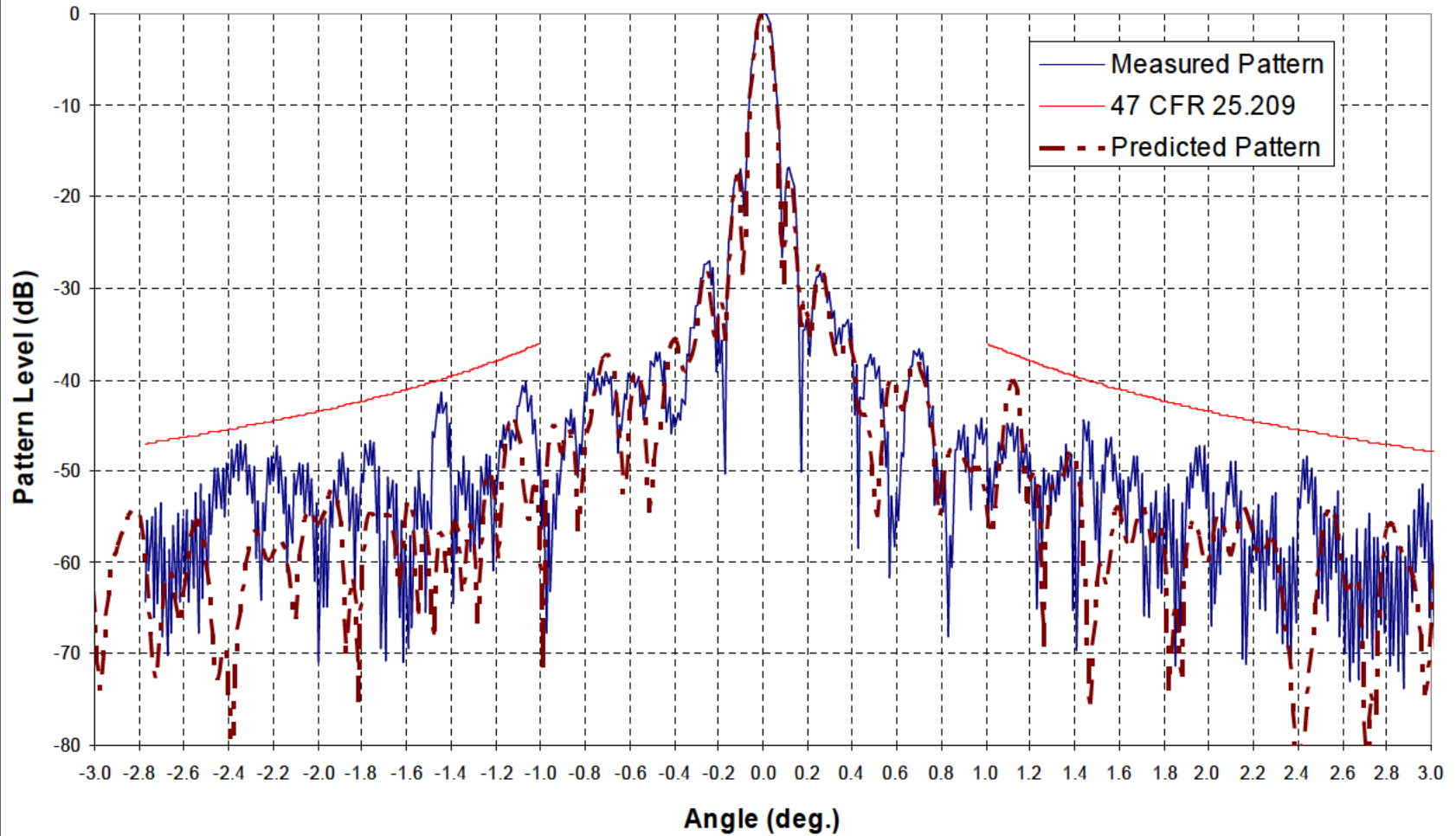


Figure 14

29.350 GHz, Azimuth, $\pm 3^\circ$. Meas. Co-pol. (vs. pred.)

Job#195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz

Plane: Azimuth

Test port:

RHCP-TX

Meas. AUT Gain:

65.020 dBi

Gain ref. point:

HPA Flange

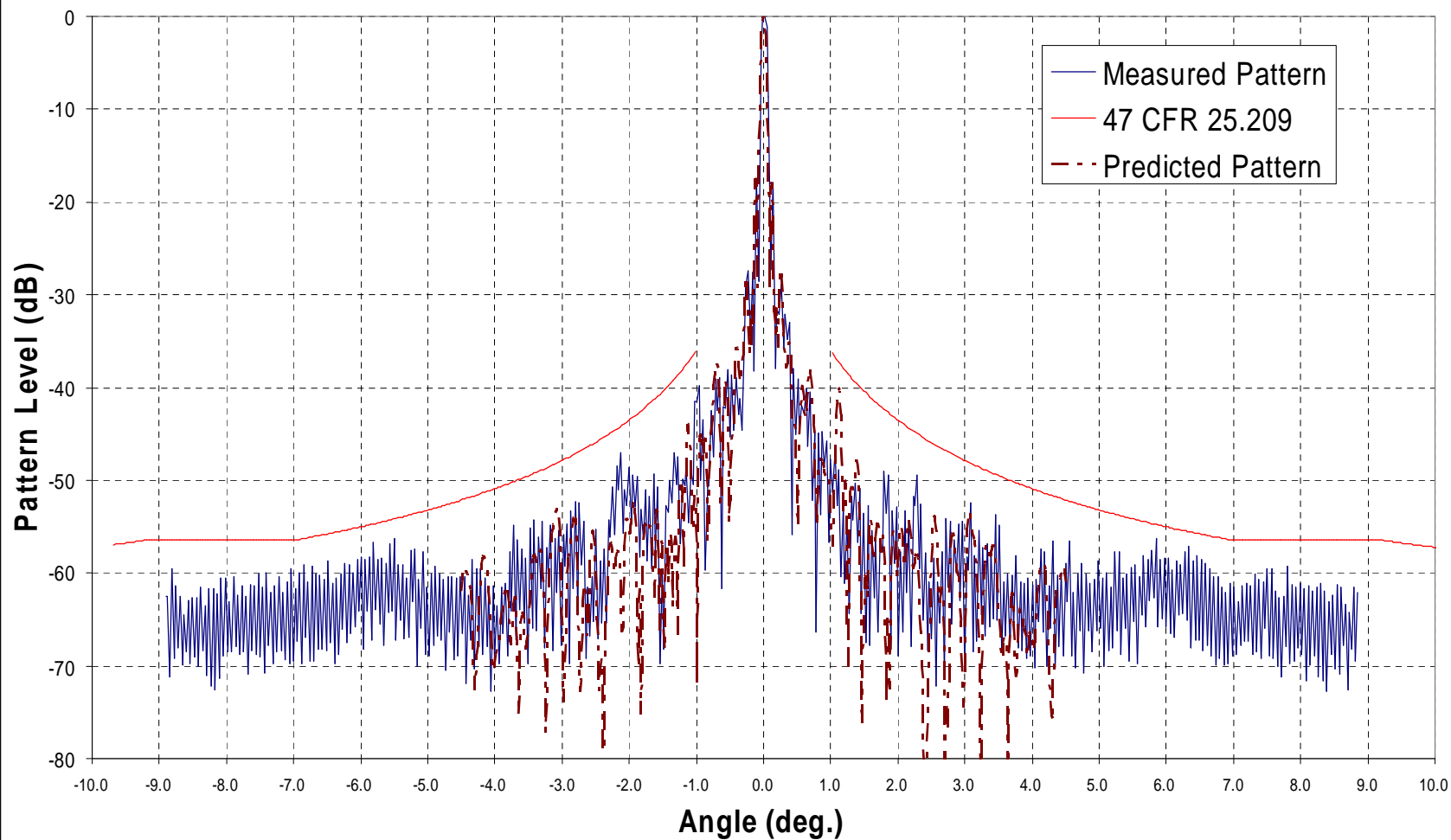


Figure 15

29.350 GHz, Azimuth, $\pm 10^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz

Plane: Elevation

Test port: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

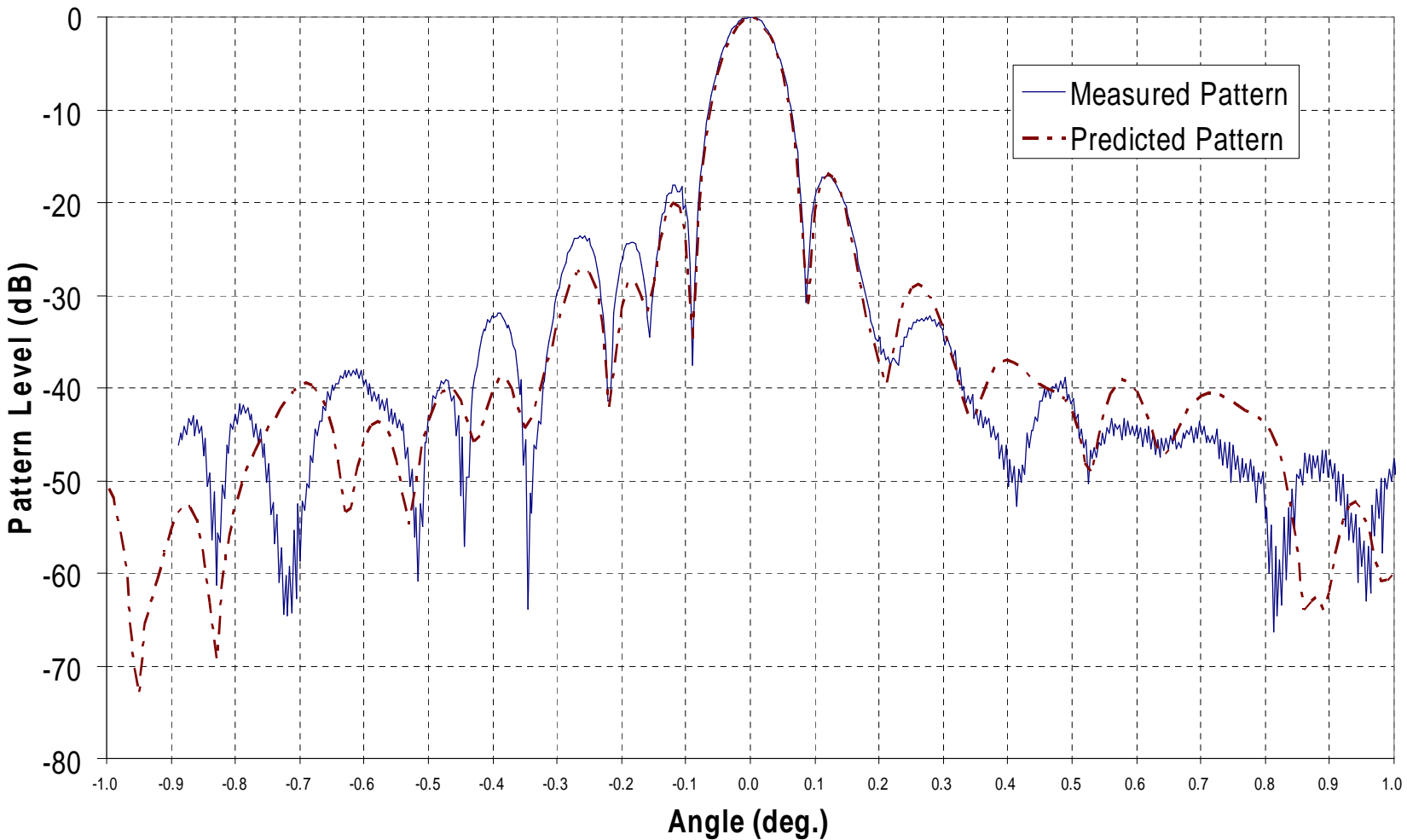


Figure 16

29.350 GHz, Elevation, $\pm 1^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195Antenna: 9.1m

Comment: 5/19/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz Plane: Elevation Test port: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

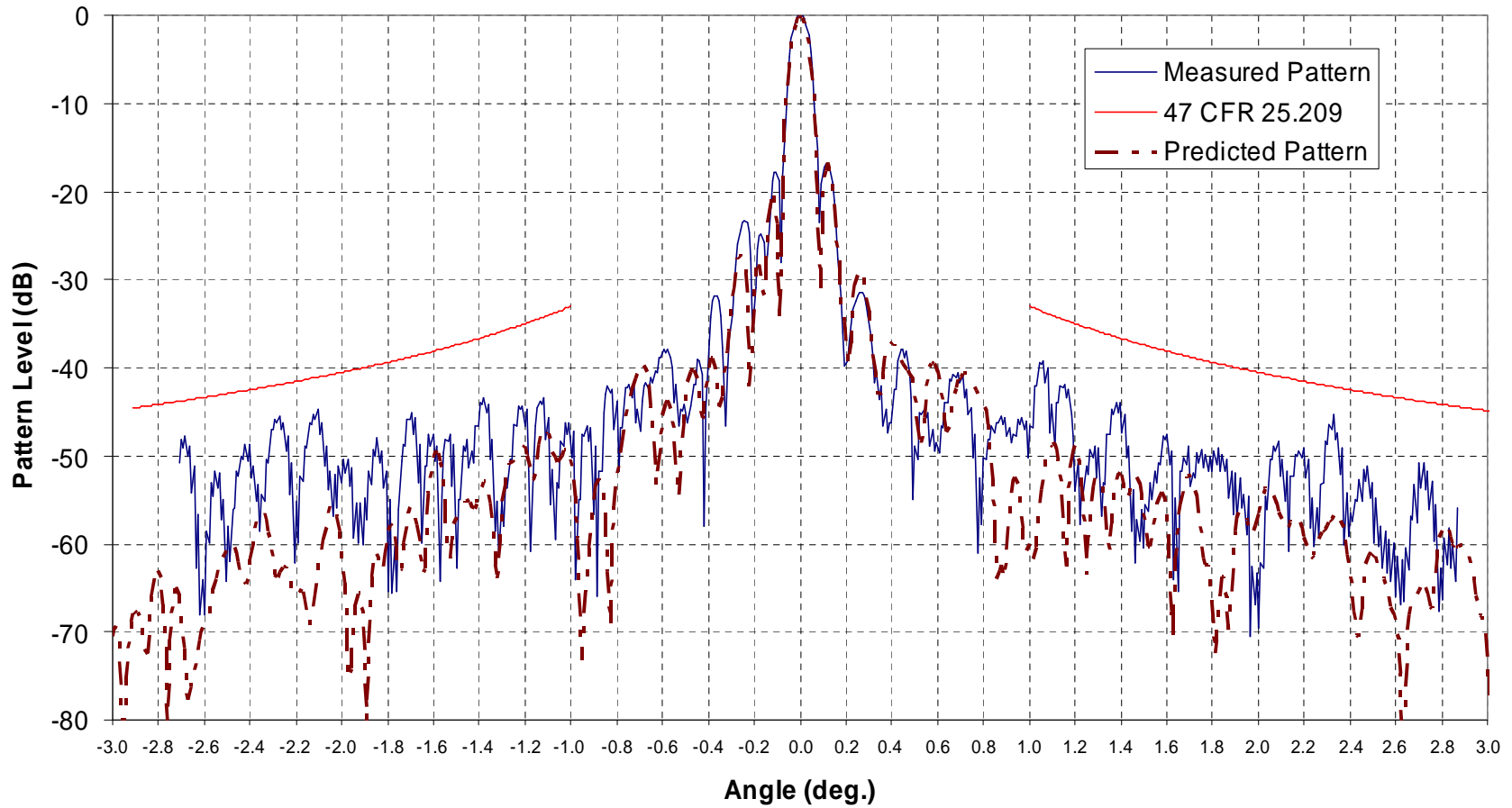


Figure 17
29.350 GHz, Elevation, $\pm 3^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/18/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 29.350 GHz Plane: Elevation

Test port: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange

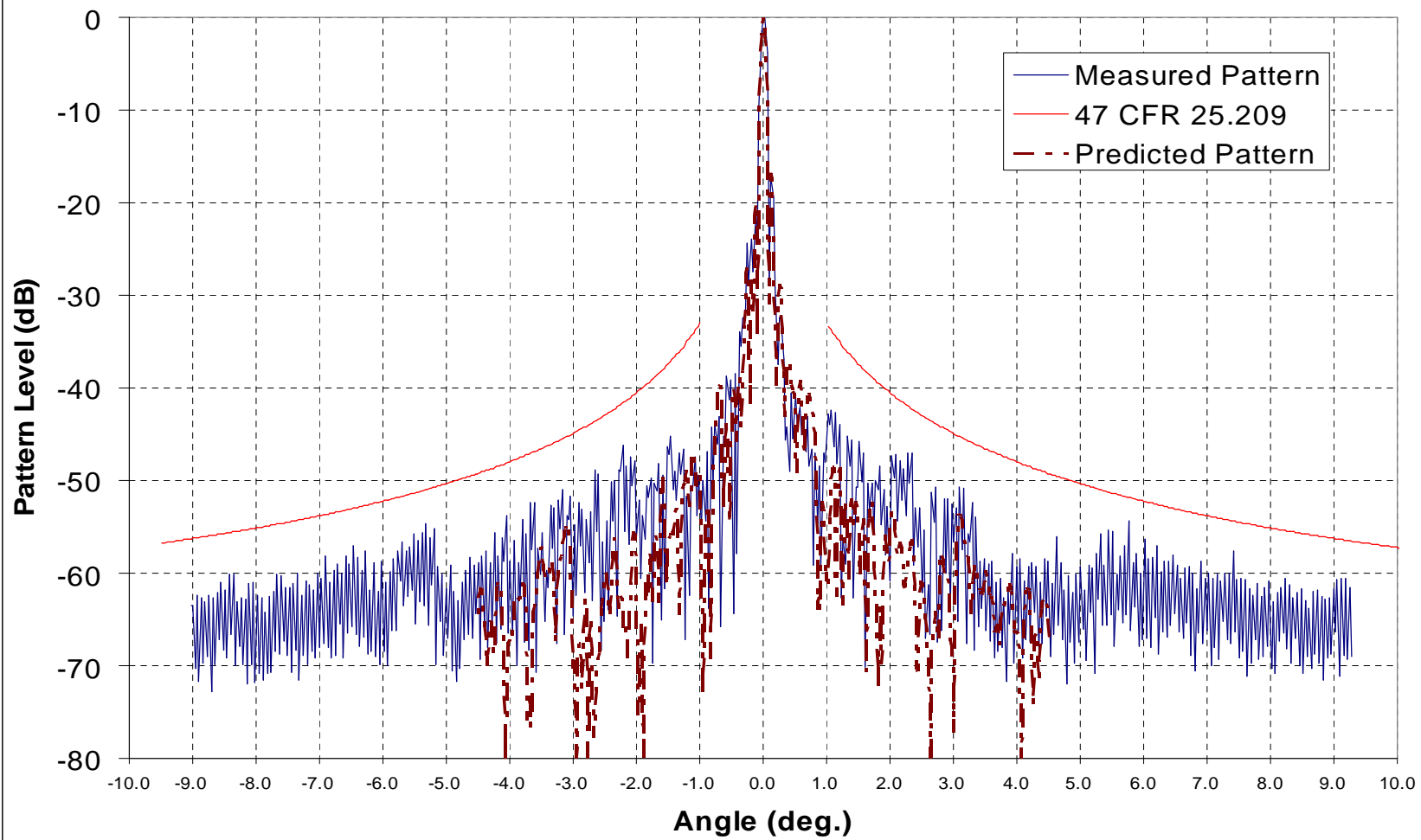


Figure 18

29.350 GHz, Elevation, ±10°. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Azimuth

Test port: RHCP-RX

Meas. AUT Gain: 63.310 dBi

Gain ref. point: 1:2 LNA Assy.Input

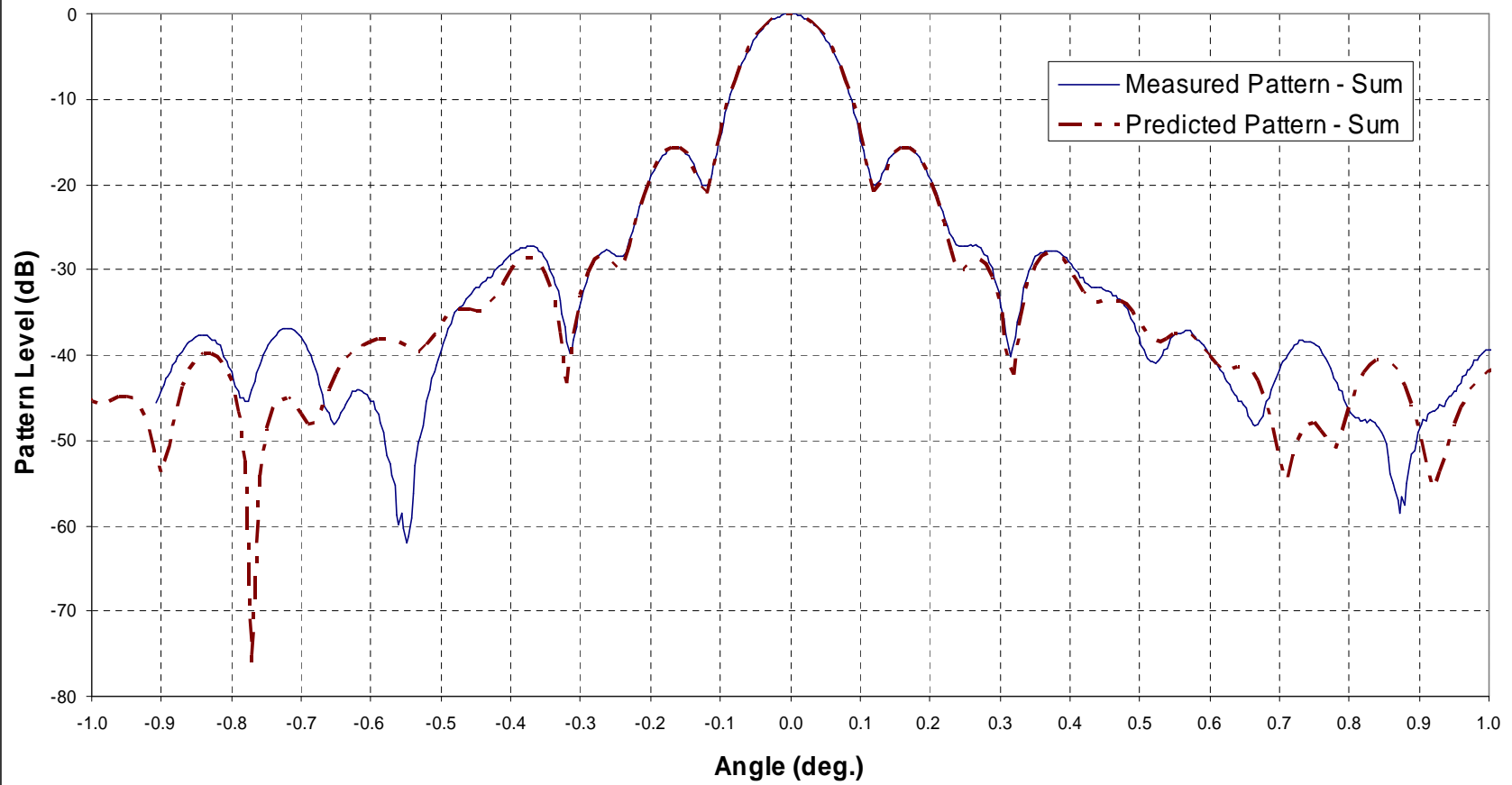


Figure 19

19.700 GHz, Azimuth, $\pm 1^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Azimuth Test port: RHCP-RX

Meas. AUT Gain: 63.310 dBi

Gain ref.point: 1:2 LNA Assy. Input

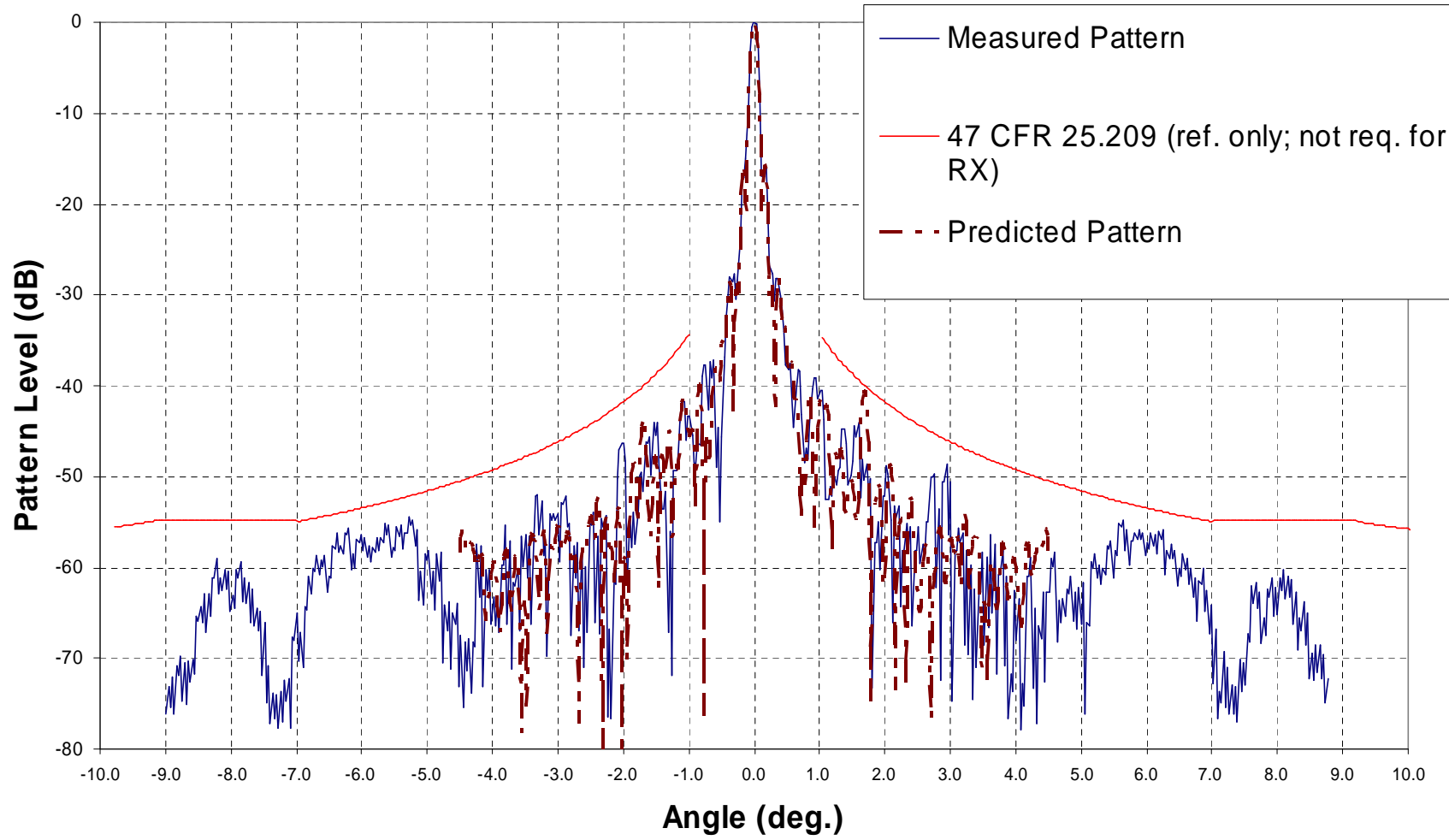


Figure 20

19.700 GHz, Azimuth, ±10°. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Elevation Test port: RHCP-RX

Meas. AUT Gain: 63.310 dBi

Gain ref. point: 1:2 LNA Assy.Input

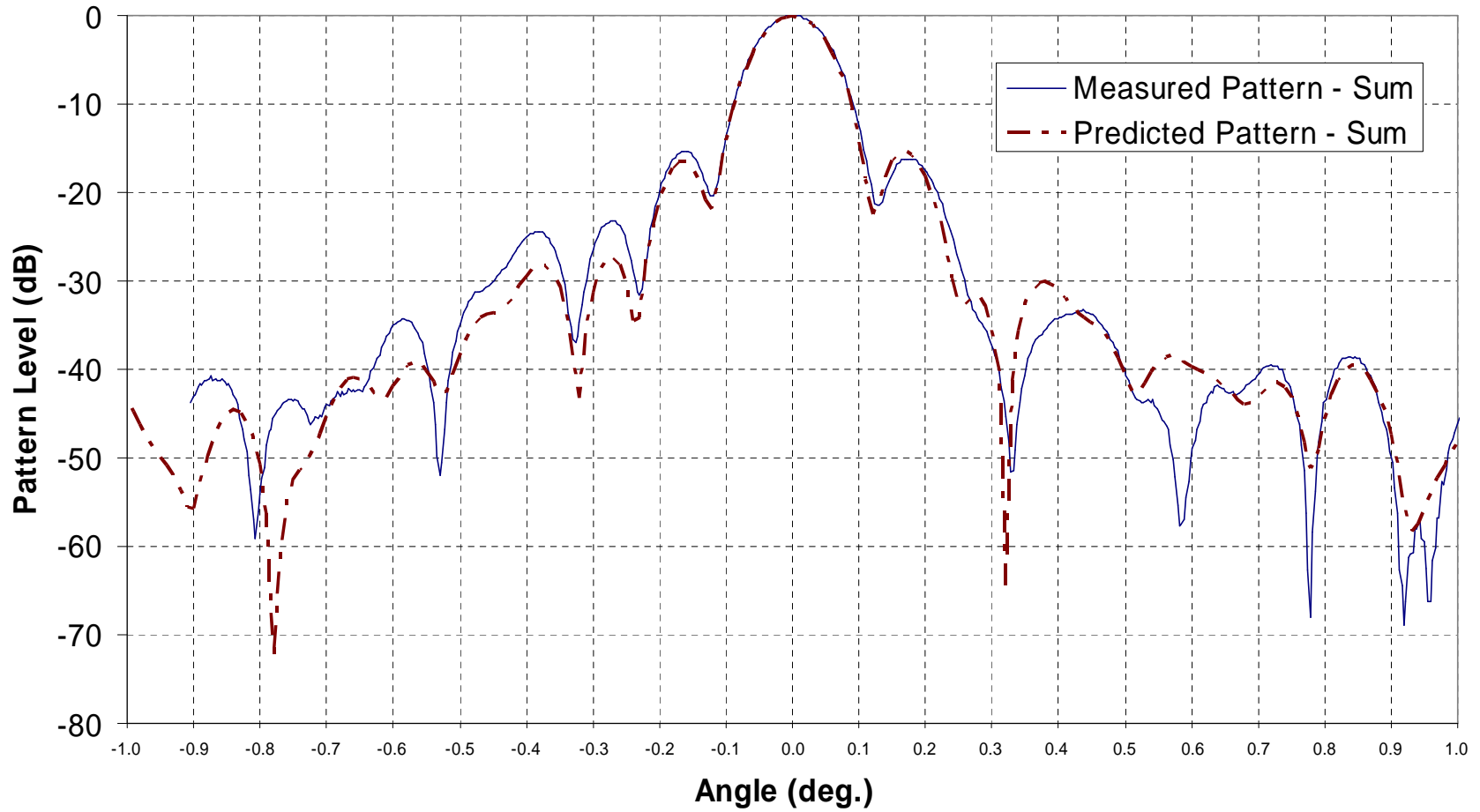


Figure 21

19.700 GHz, Elevation, $\pm 1^\circ$. Meas. Co-pol. (vs. pred.)

Job: 1195 Antenna: 9.1m

Comment: 5/22/06: Antenna focused at 29.35 GHz

Measured Pattern vs. Predicted

Freq: 19.700 GHz Plane: Elevation Test port: RHCP-RX

Meas. AUT Gain: 63.310 dBi

Gain ref. point: 1:2 LNA Assy. Input

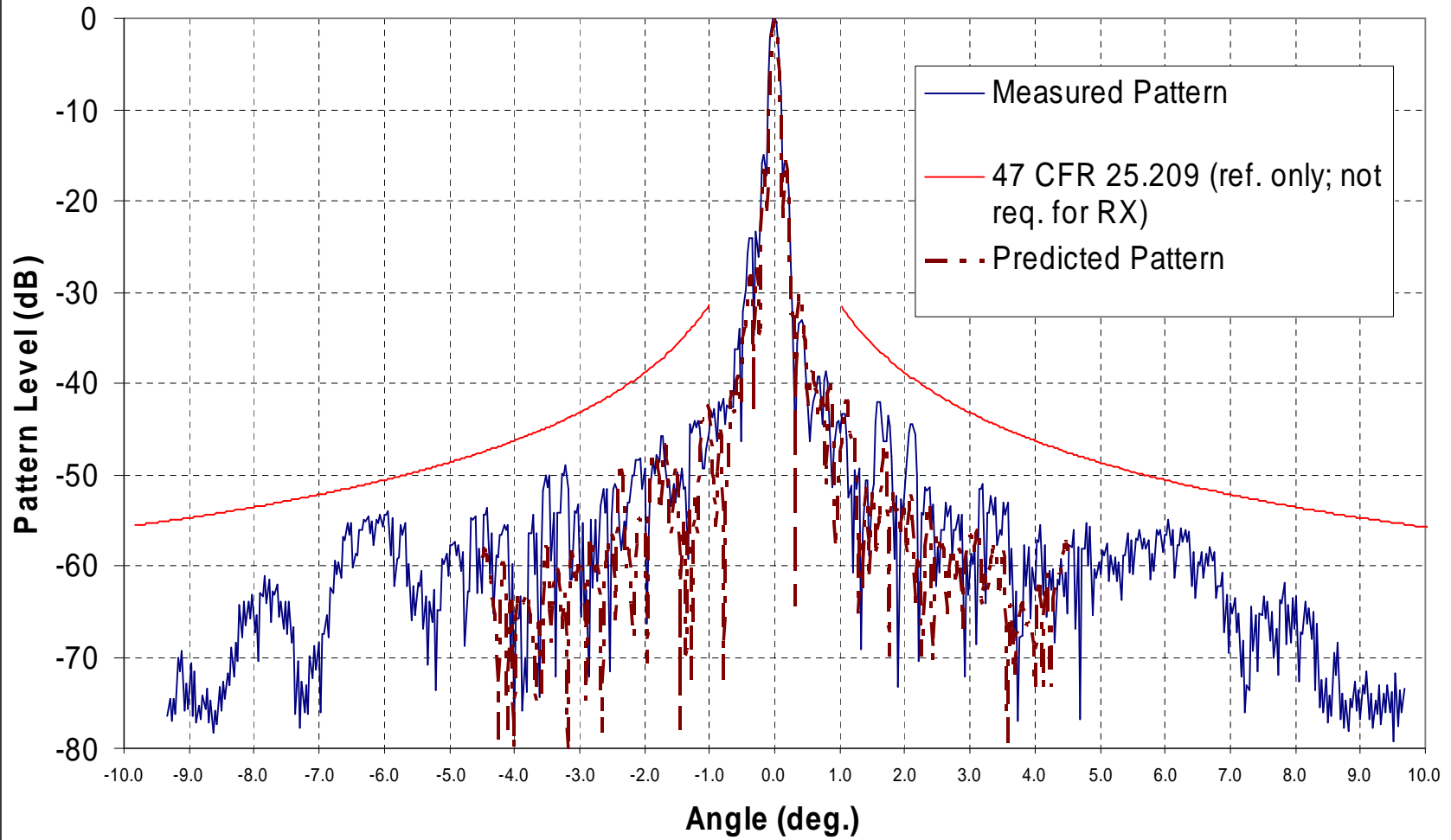


Figure 22

19.700 GHz, Elevation, $\pm 10^\circ$. Meas. Co-pol.(vs. pred.)