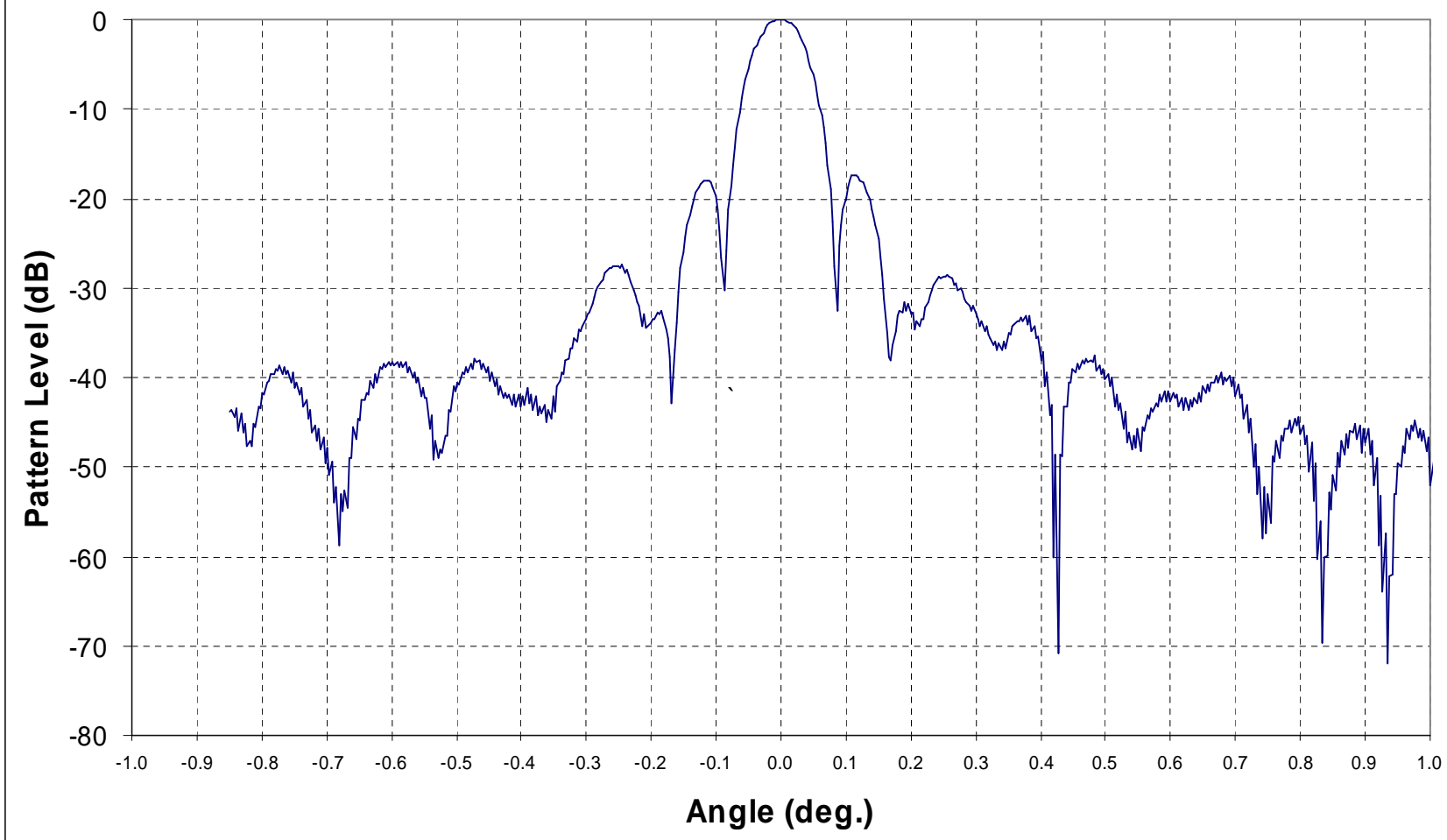


Figure	Frequency	Plane of Cut	Pattern Extent	Pattern
1	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol.
2	29.350 GHz	Azimuth	$\pm 1^\circ$	Meas. co-pol. & cross-pol.
3	29.350 GHz	Azimuth	$\pm 3^\circ$	Meas. co-pol.
4	29.350 GHz	Azimuth	$\pm 10^\circ$	Meas. co-pol.
5	29.350 GHz	Elevation	$\pm 1^\circ$	Meas. 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

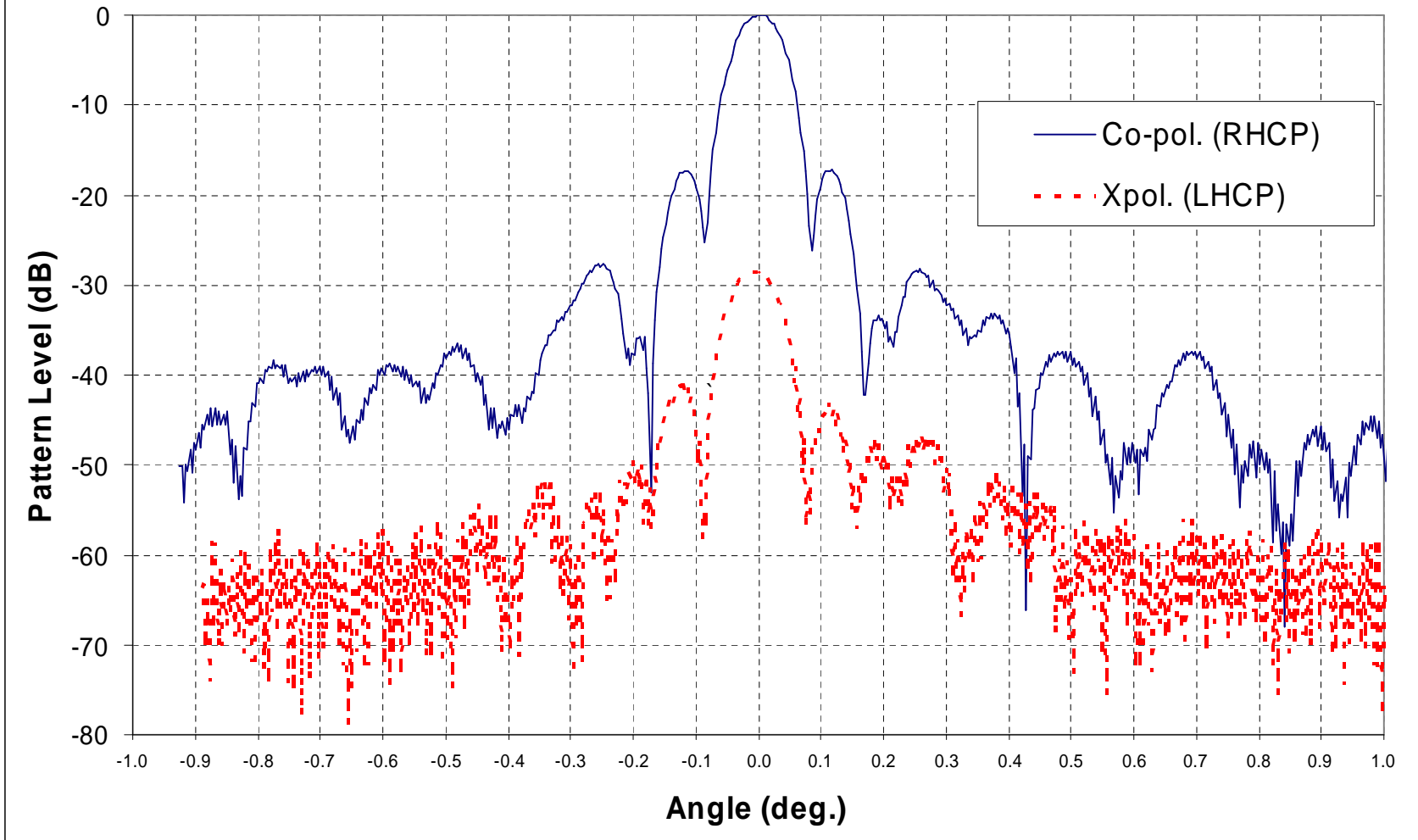


**Figure 1**  
**29.350 GHz, Azimuth,  $\pm 1^\circ$ , Meas. Co-pol**

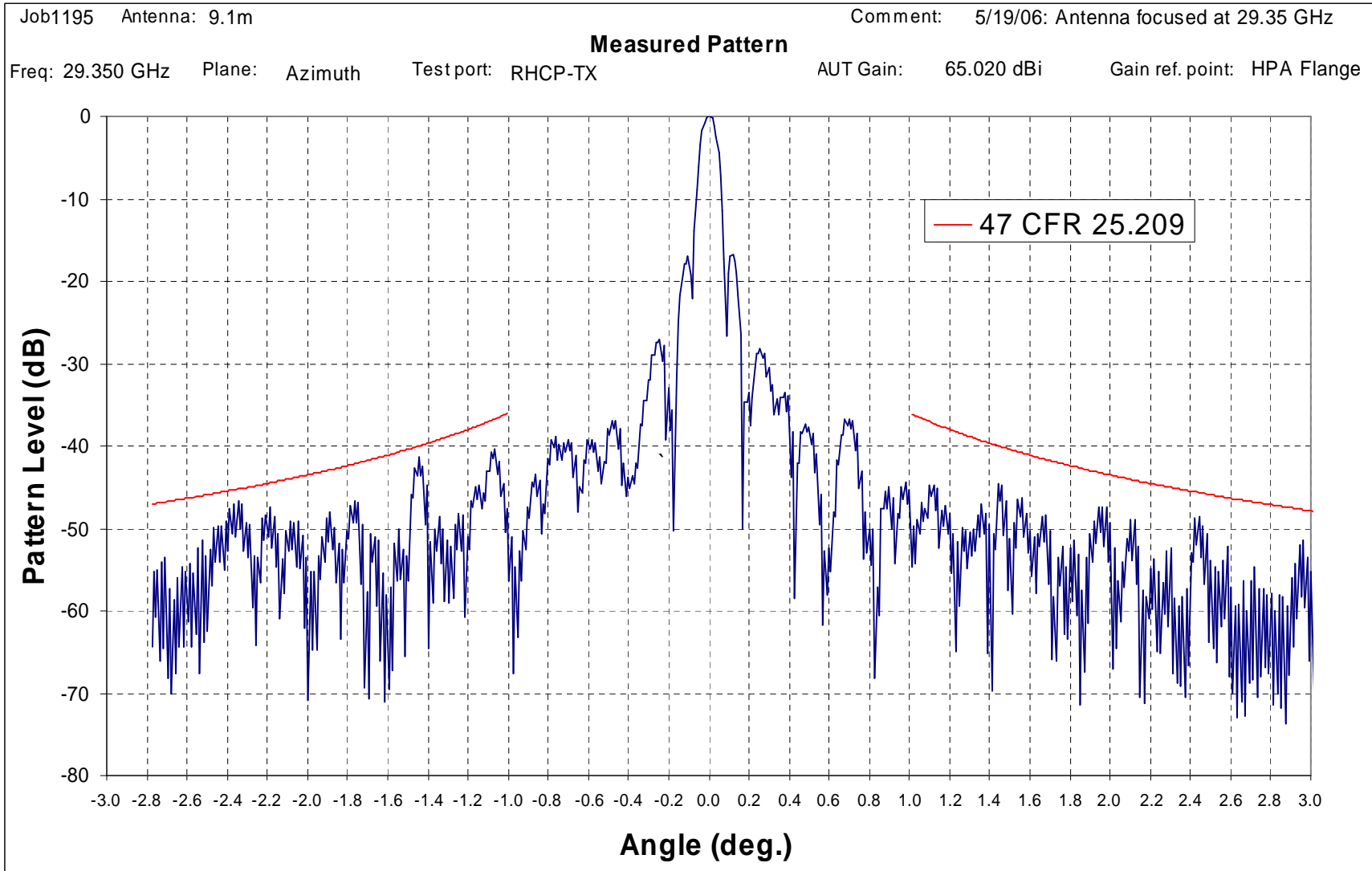
Job:1195    Antenna: 9.1m    Comment: 5/19/06: Antenna focused at 29.35 GHz

### 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,  $\pm 1^\circ$ , Meas. Co-pol & Cross-pol.**

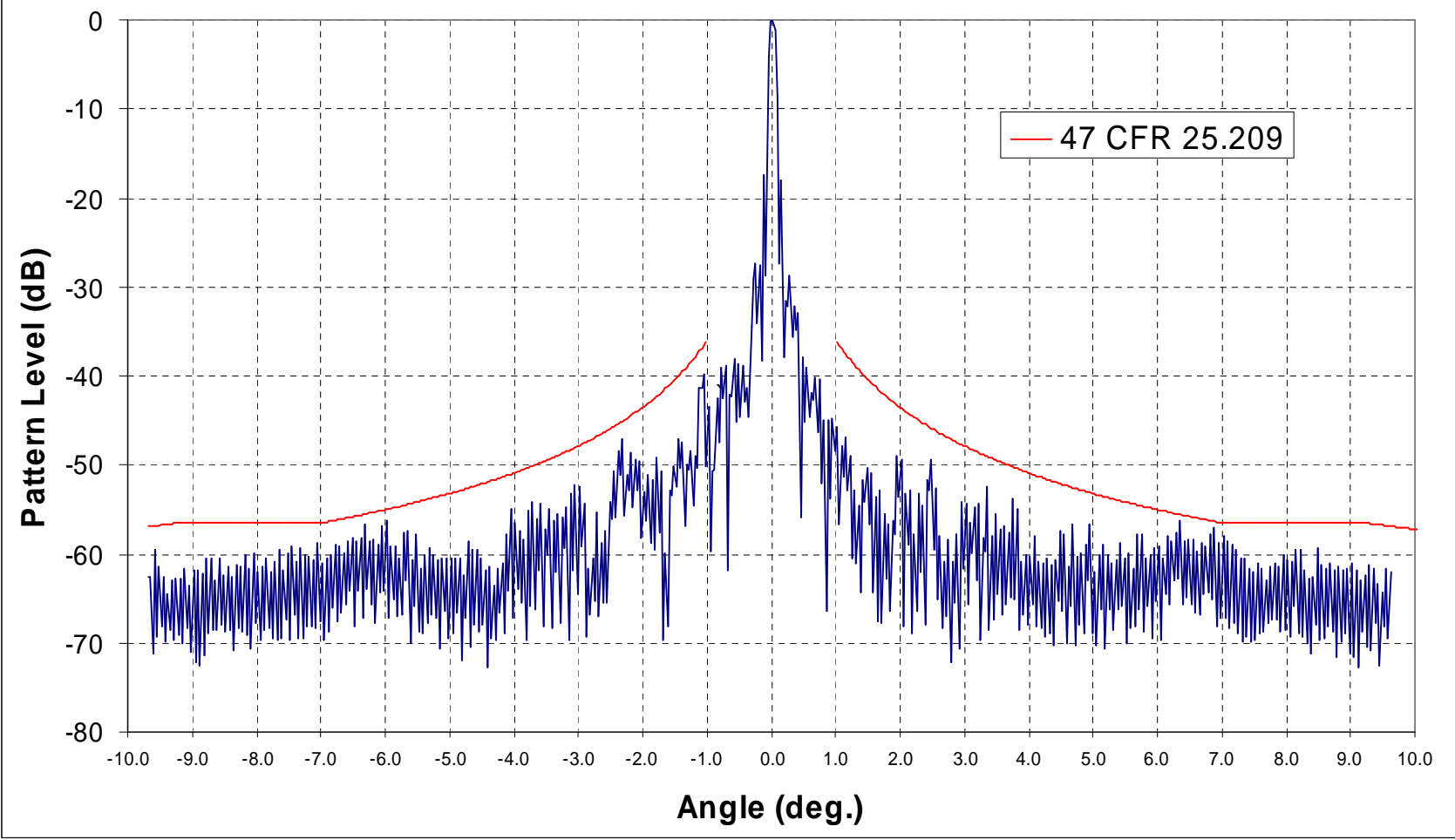


**Figure 3**  
**29.350 GHz, Azimuth,  $\pm 3^\circ$ , Meas. Co-pol.**

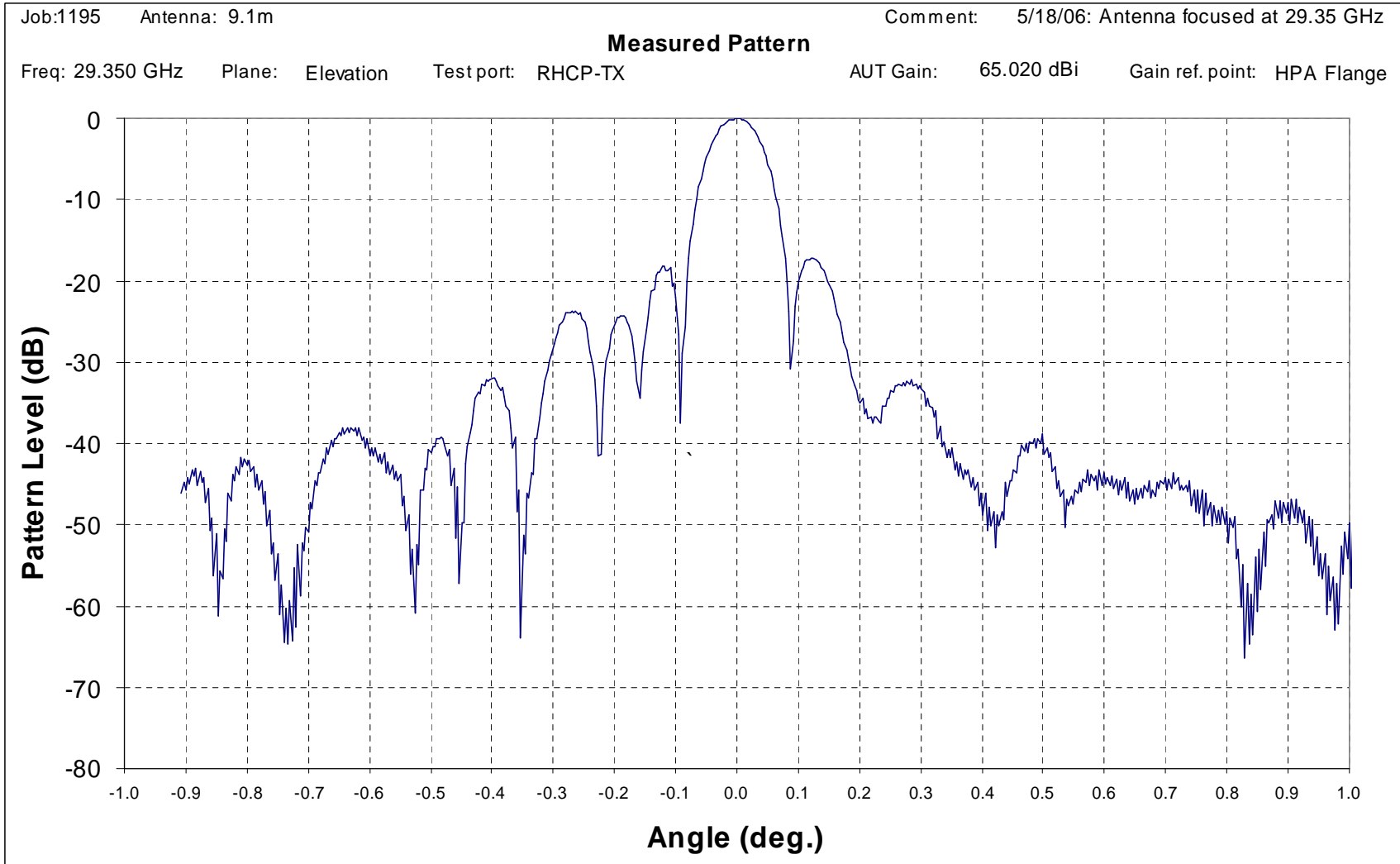
Job:1195    Antenna: 9.1m    Comment: 5/18/06: Antenna focused at 29.35 GHz

### Measured Pattern

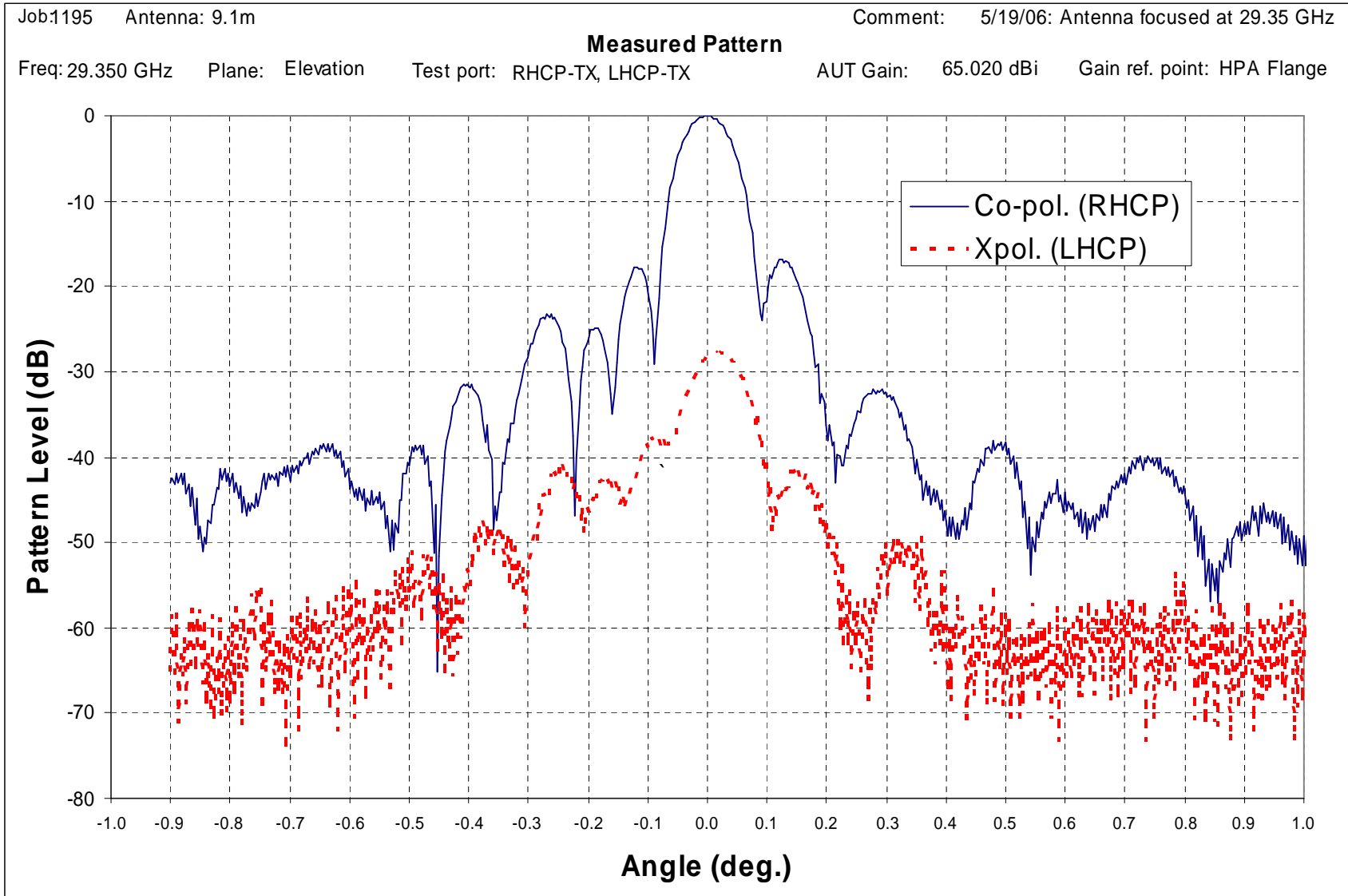
Freq: 29.350 GHz    Plane: Azimuth    Test port: RHCP-TX    AUT Gain: 65.020 dBi    Gain ref. point: HPA Flange



**Figure 4**  
**29.350 GHz, Azimuth, ±10°. 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.**

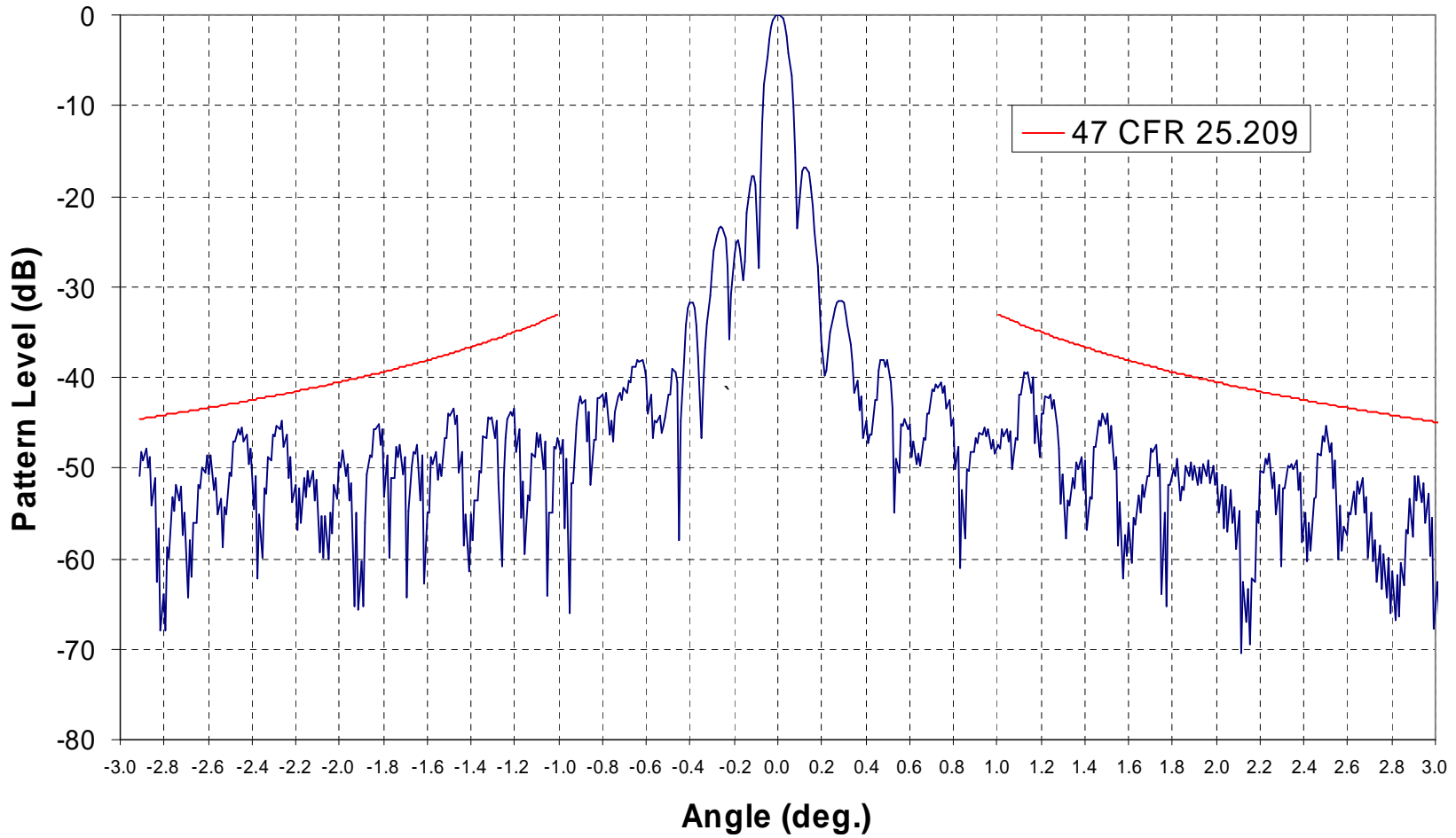
Job:1195 Antenna: 9.1m

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

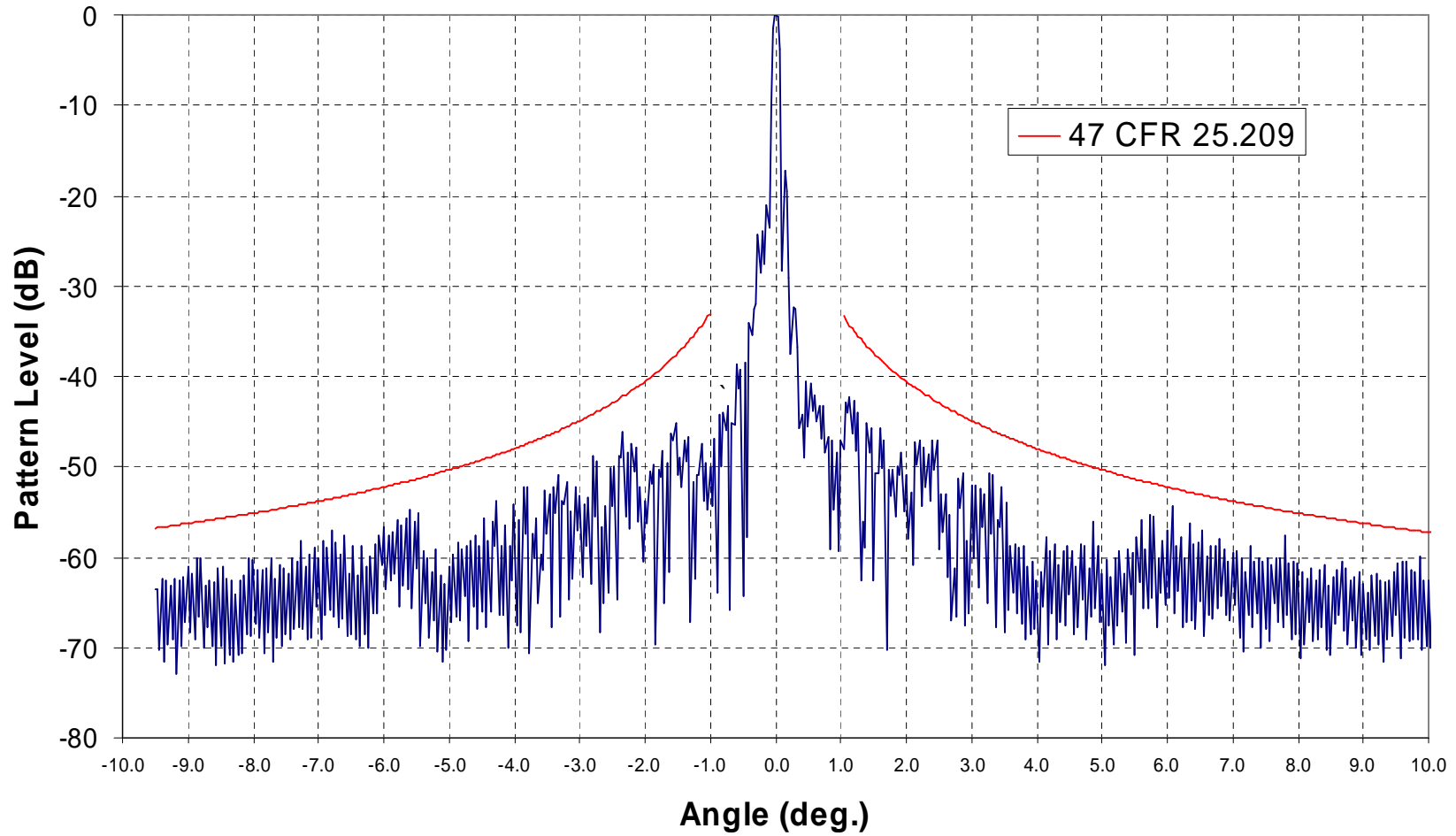


Figure 8

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

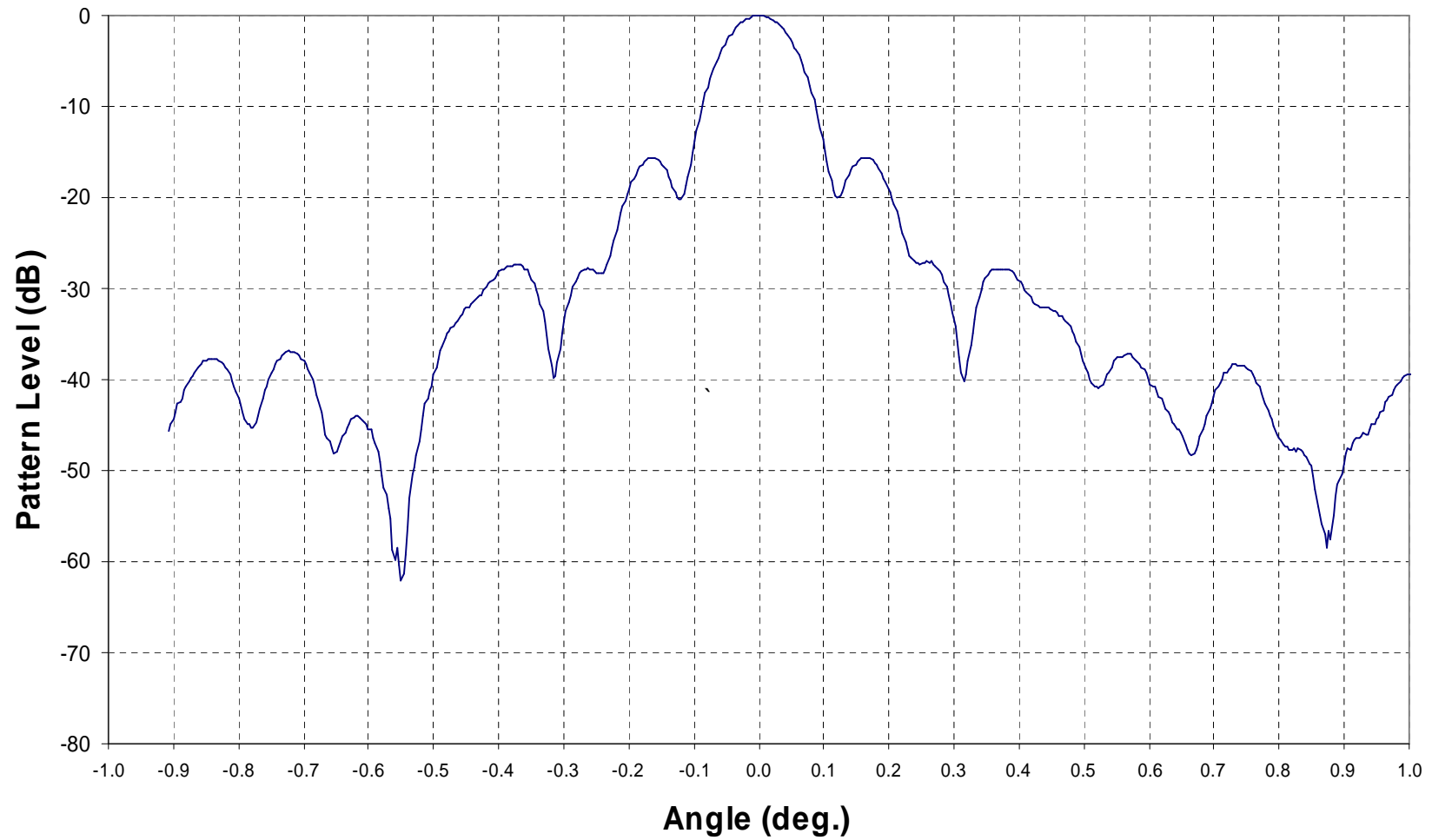
Job:1195 Antenna: 9.1m

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.**

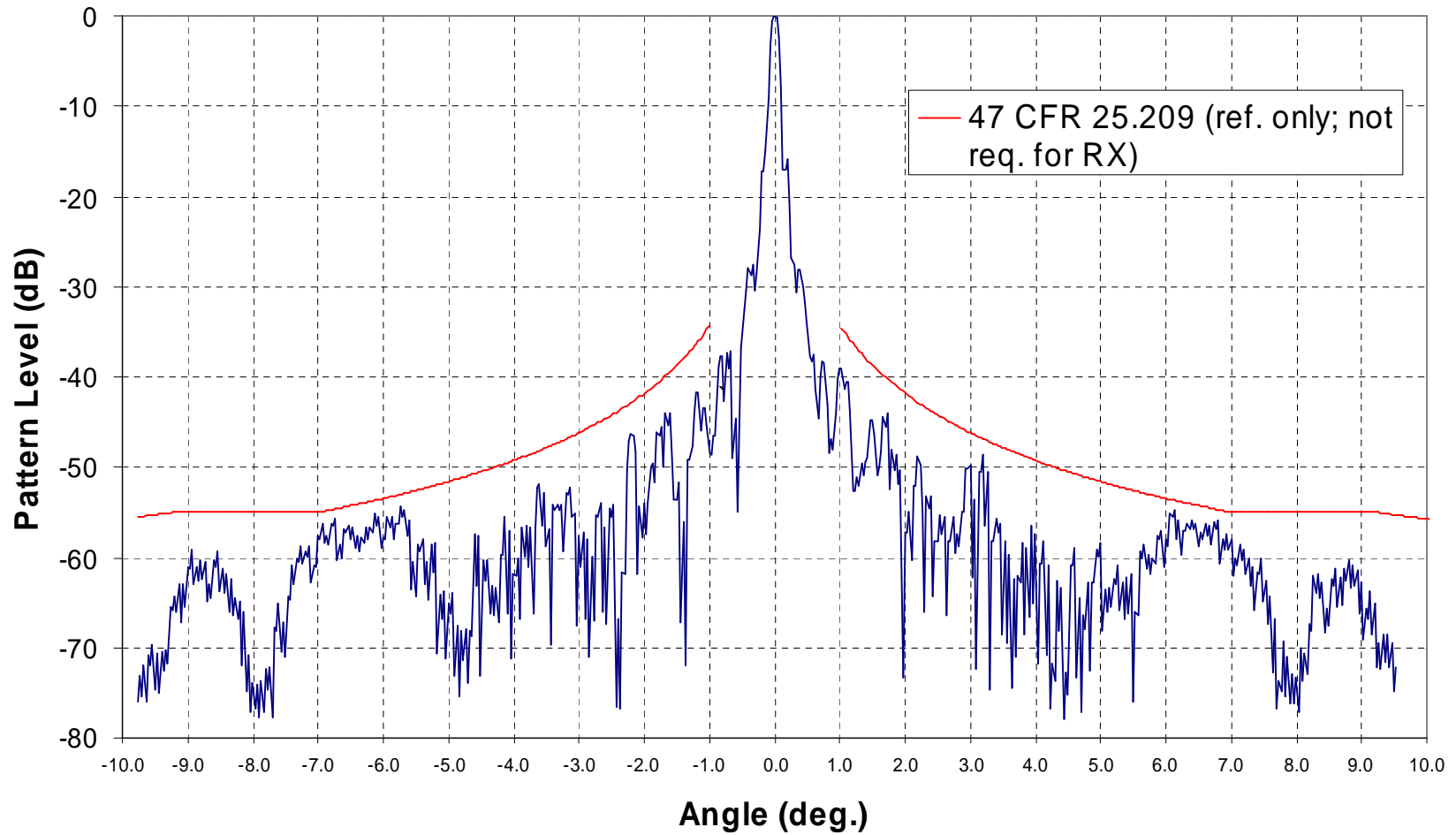
Job:1195 Antenna: 9.1m

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, ±10°. Meas. Co-pol**

Job:1195 Antenna: 9.1m

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

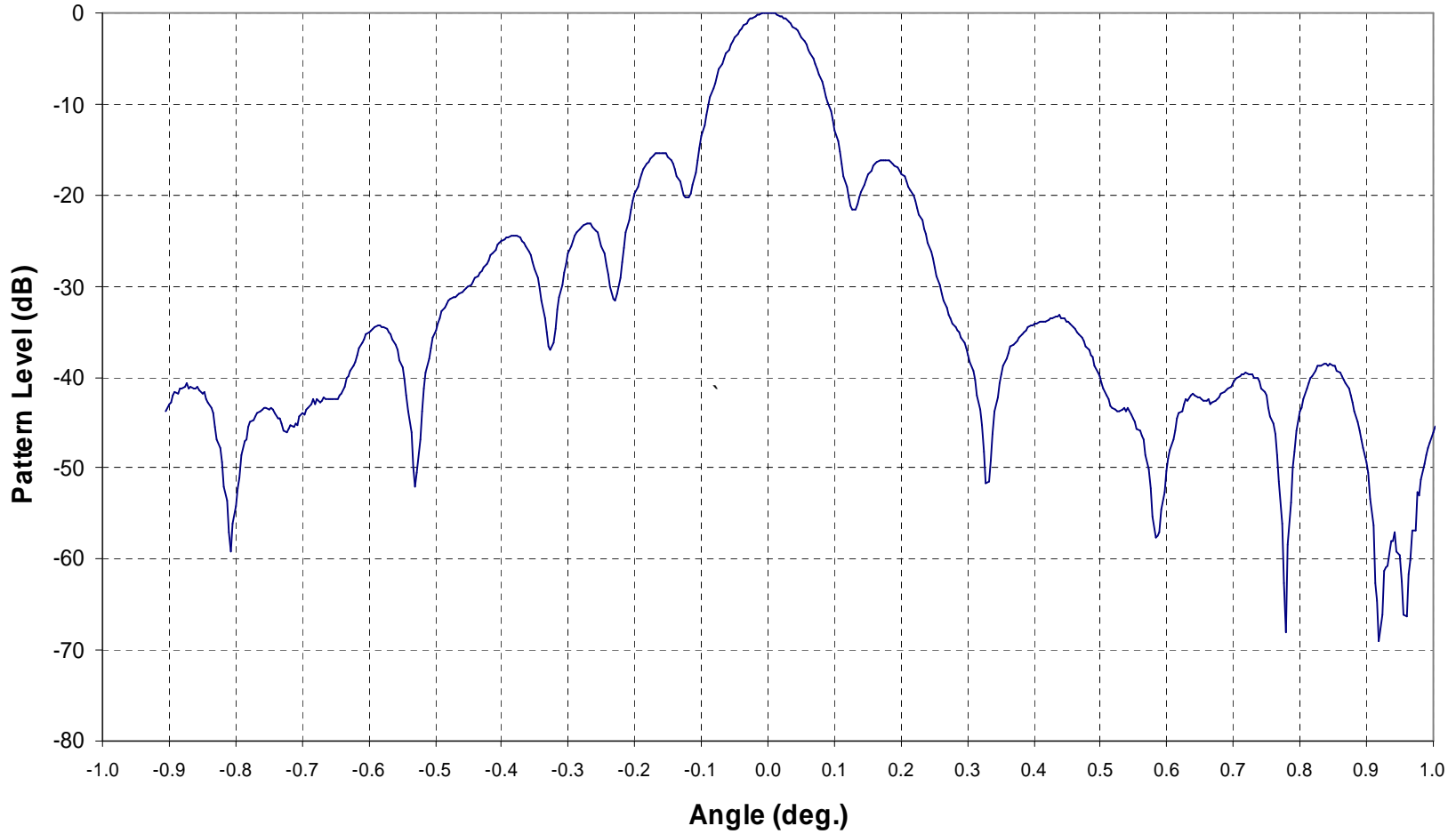
### Measured Pattern

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.**

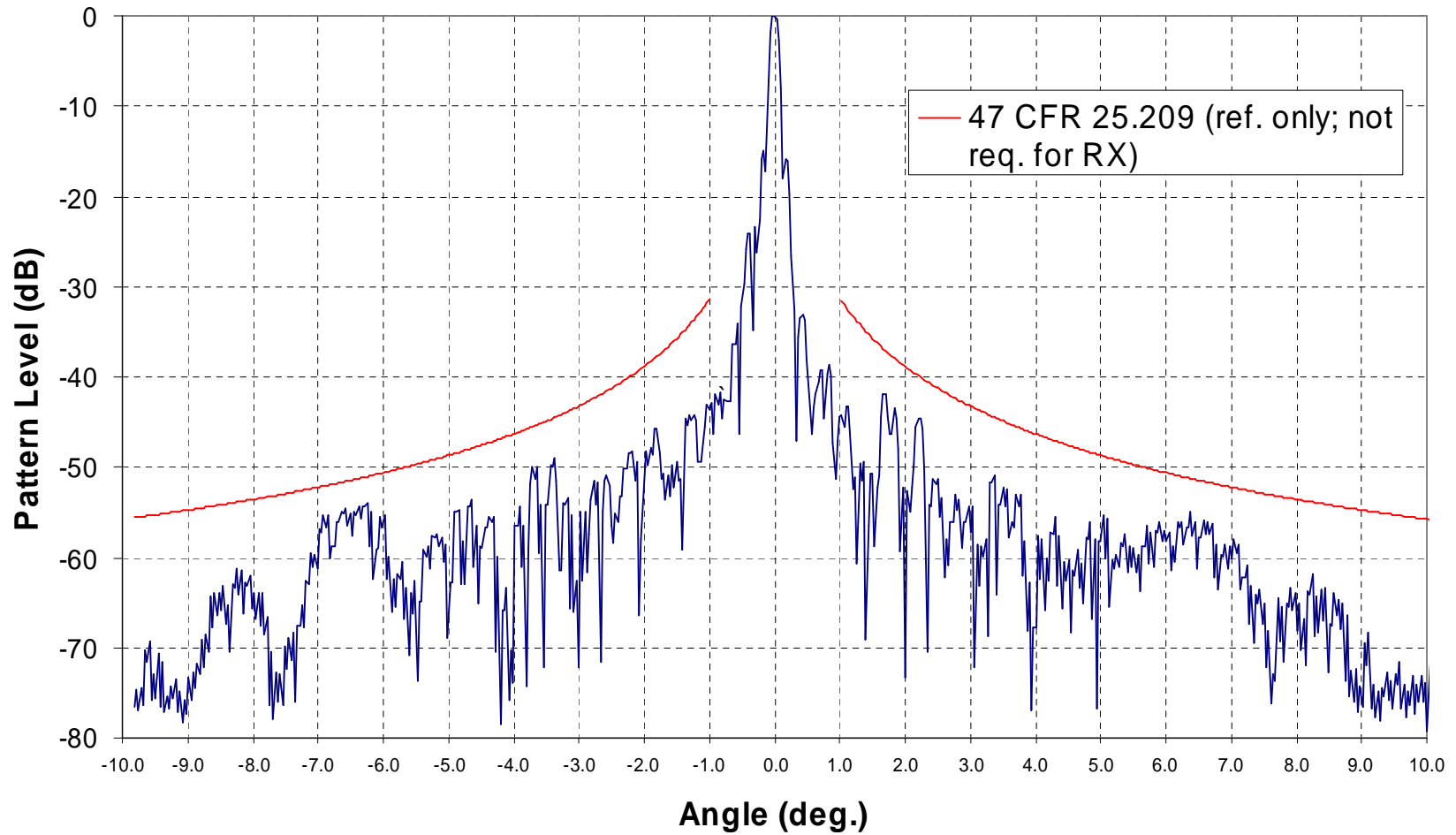
Job:1195    Antenna: 9.1m

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, ±10°. Meas. Co-pol.**

Job: 1195 Antenna: 9.1m

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

### Measured Pattern vs. Predicted

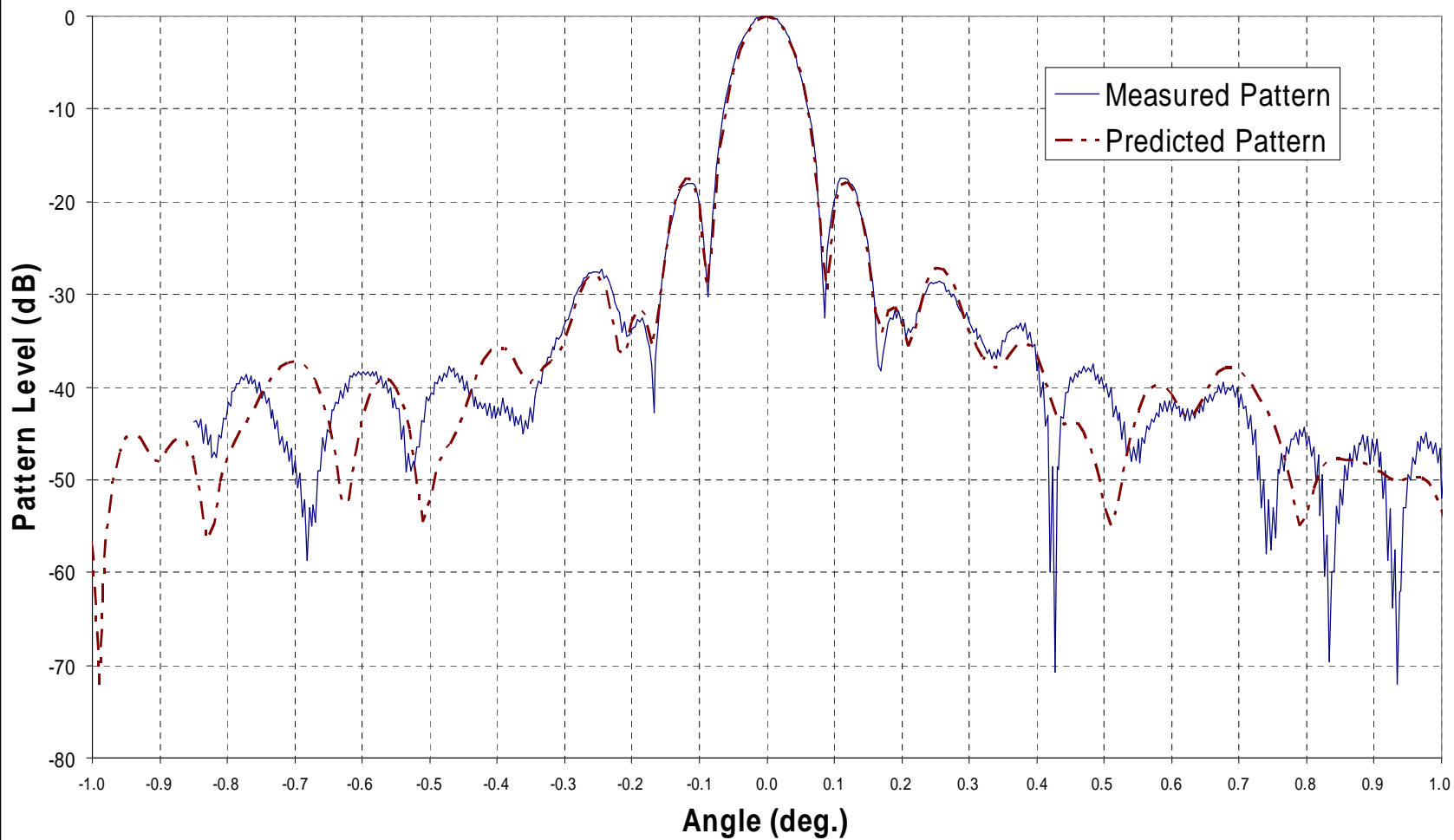
Freq: 29.350 GHz

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

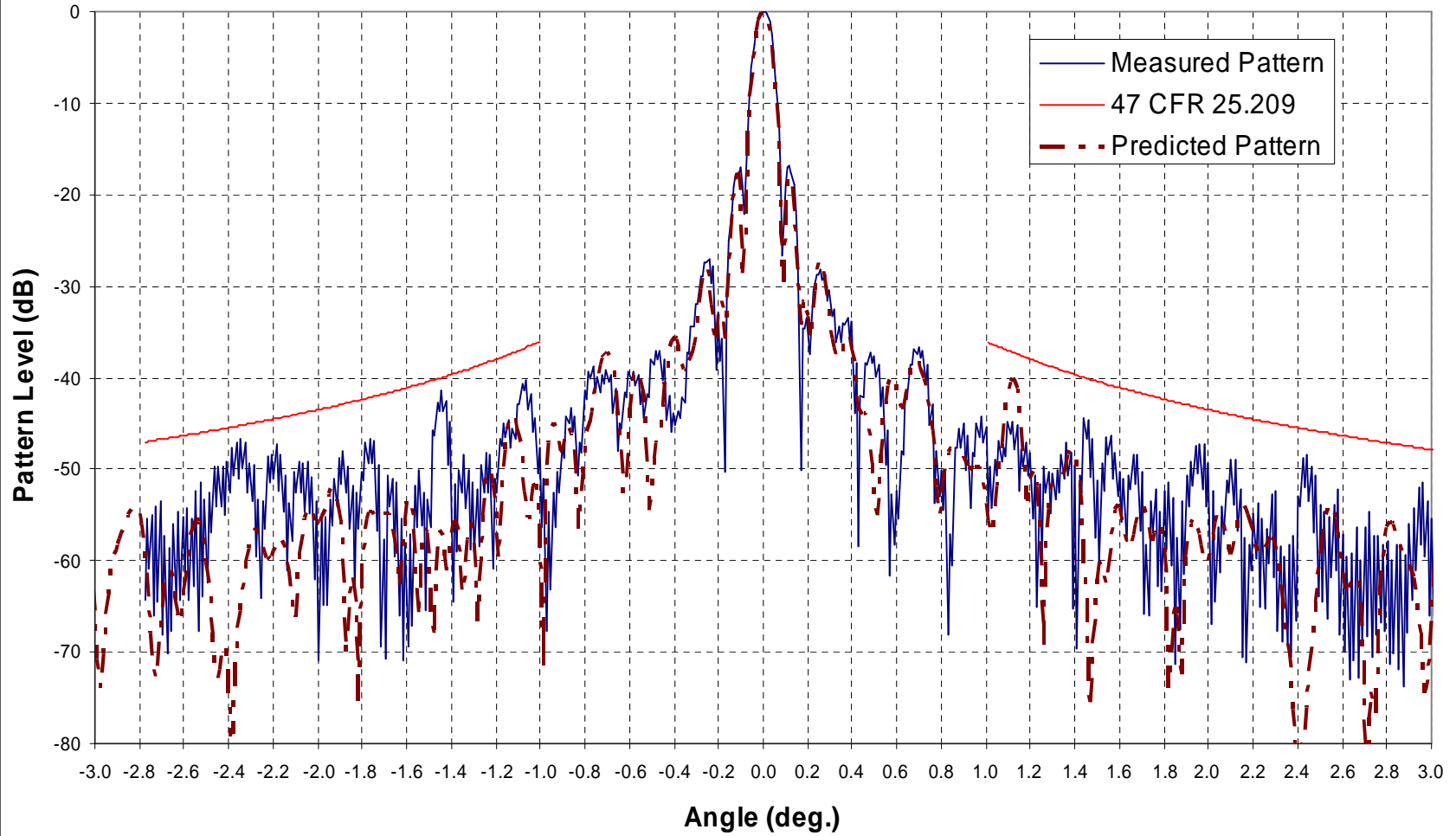
### Measured Pattern vs. Predicted

Freq: 29.350 GHz Plane: Azimuth

Test port: 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:

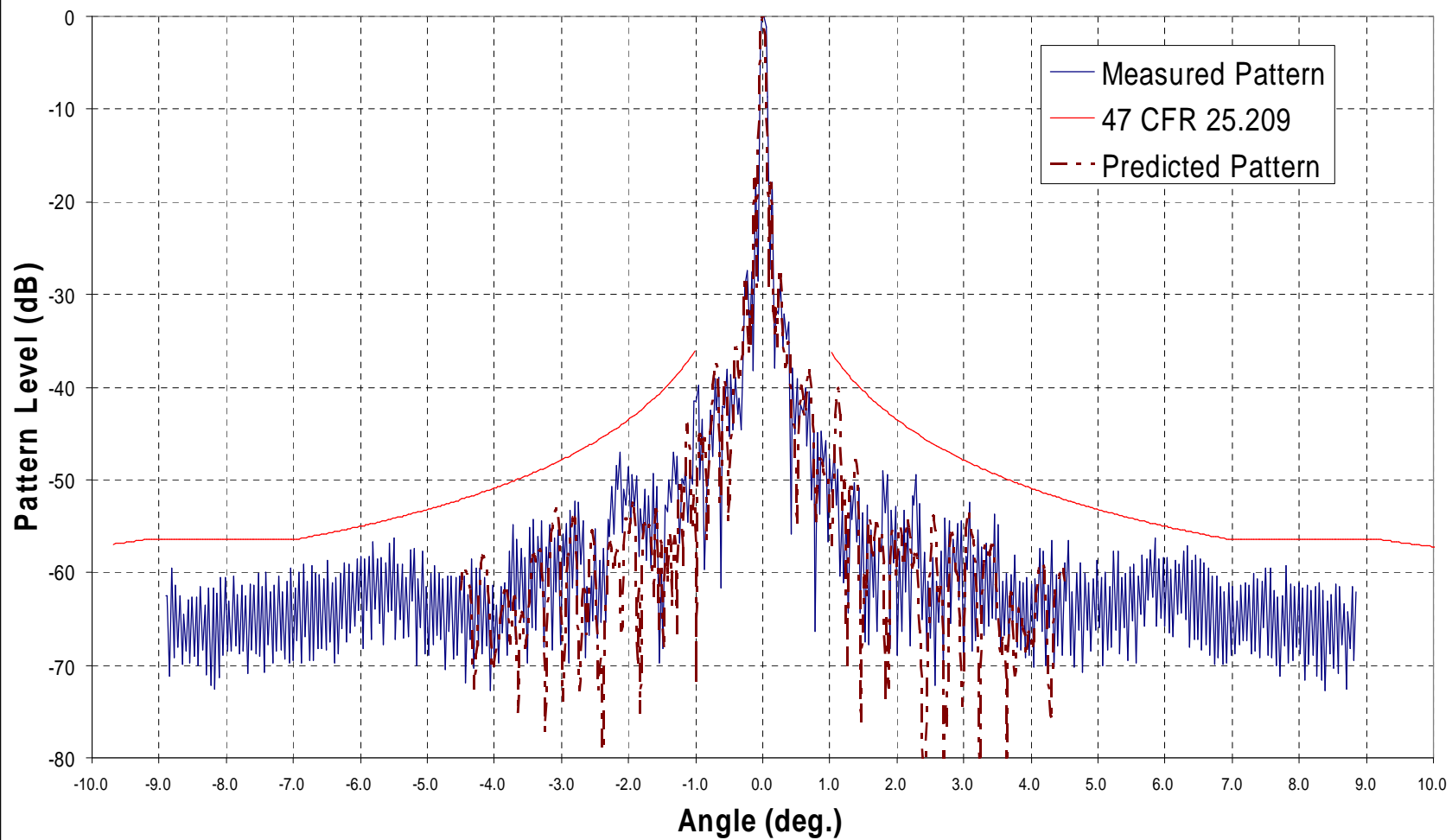
RHCP-TX

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

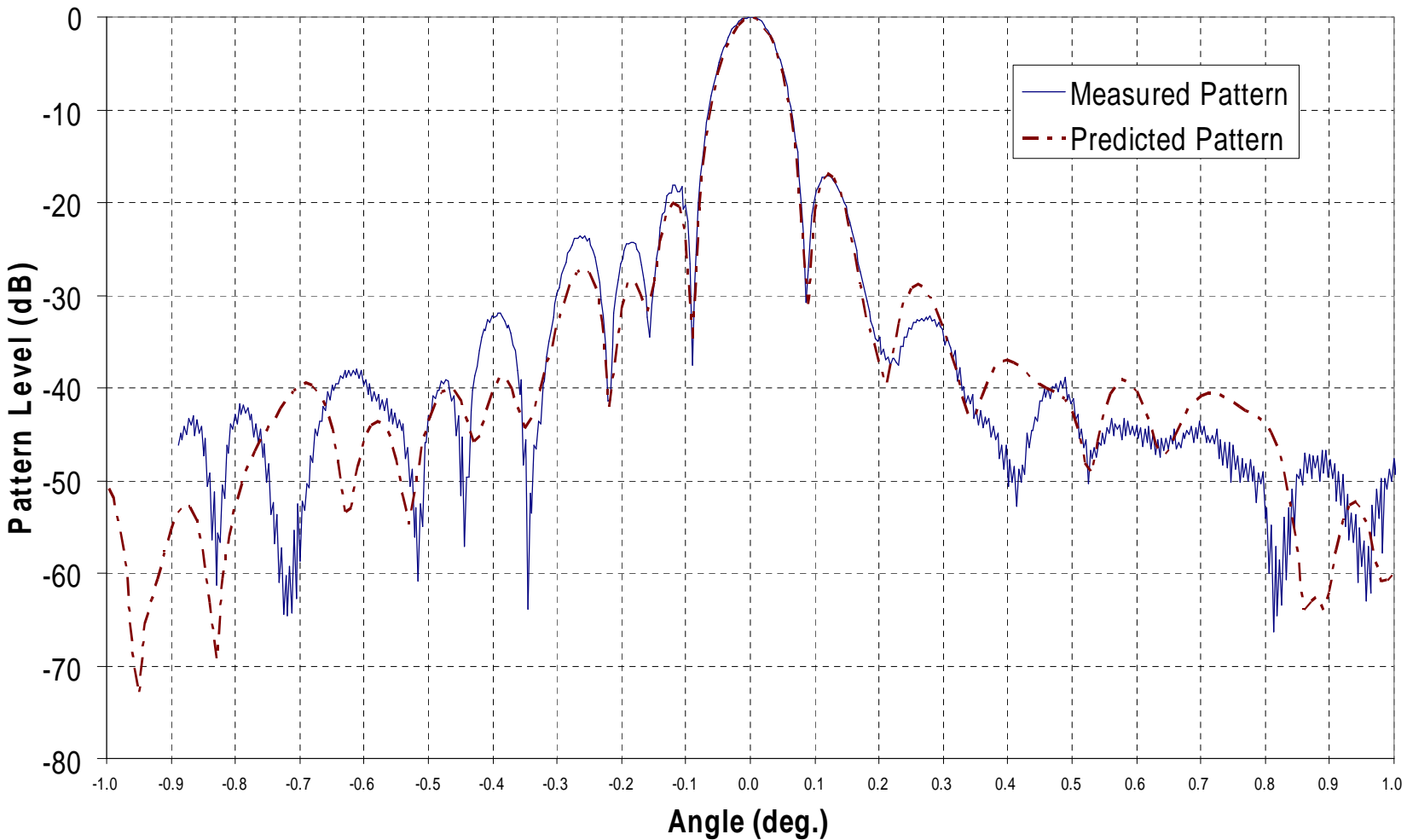
Freq: 29.350 GHz

Plane: Elevation

Test port: RHCP-TX

Meas. AUT Gain: 65.020 dBi

Gain ref. point: HPA Flange



**Figure 16**

**29.350 GHz, Elevation, ±1°. Meas. Co-pol. (vs. pred.)**

Job: 1195Antenna: 9.1m

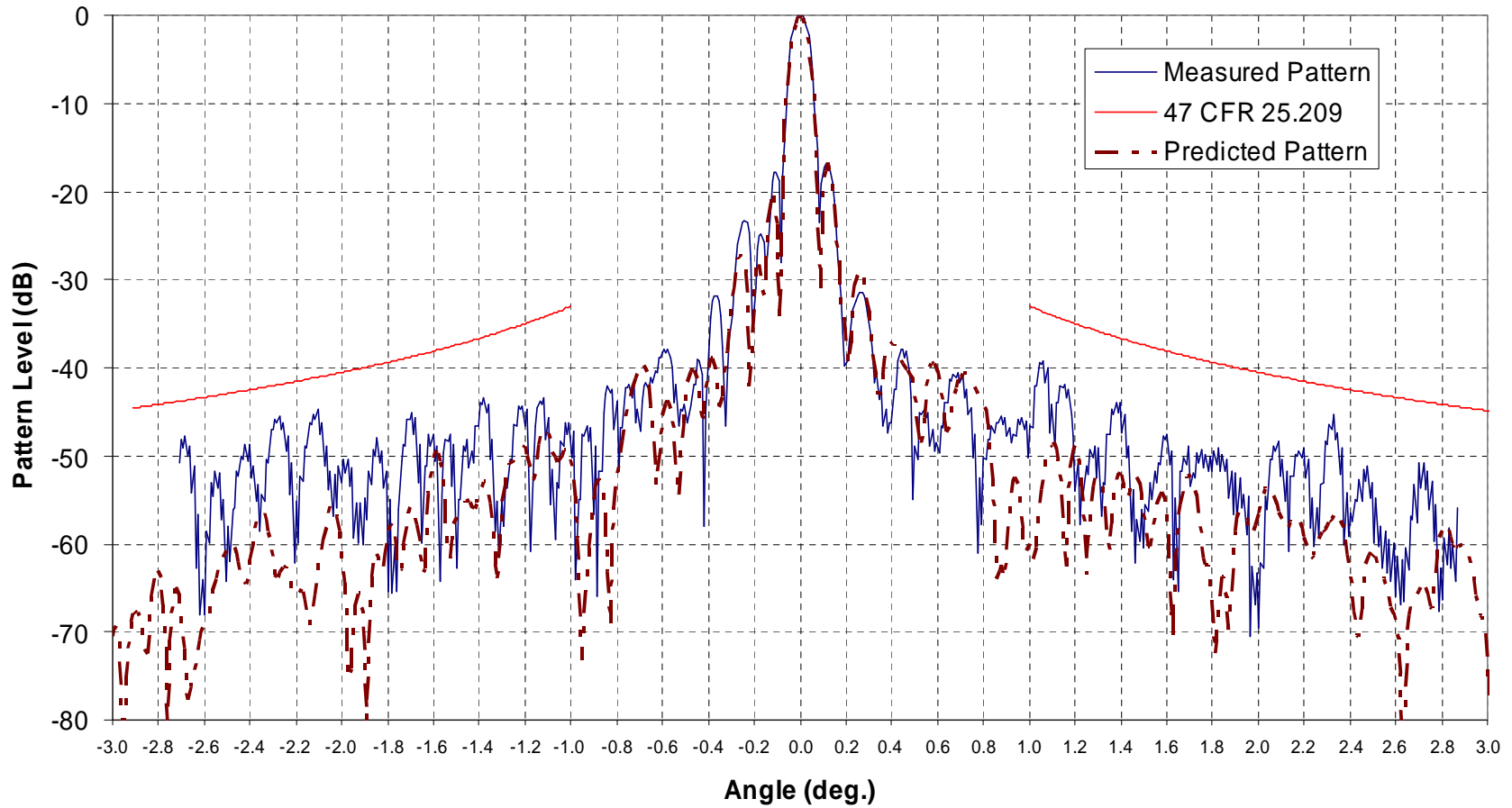
Comment: 5/19/06: Antenna focused at 29.35 GHz

### 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

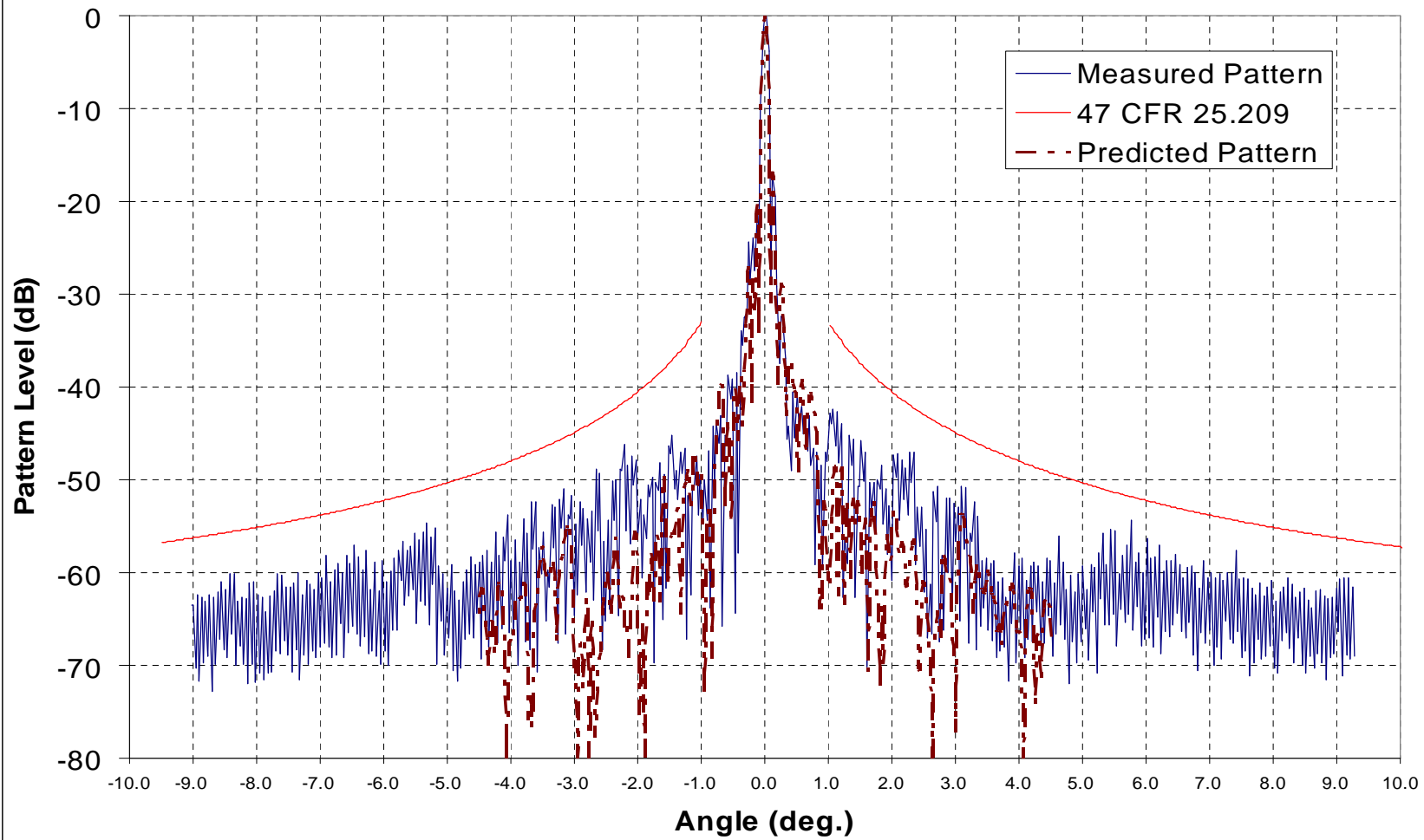
### Measured Pattern vs. Predicted

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

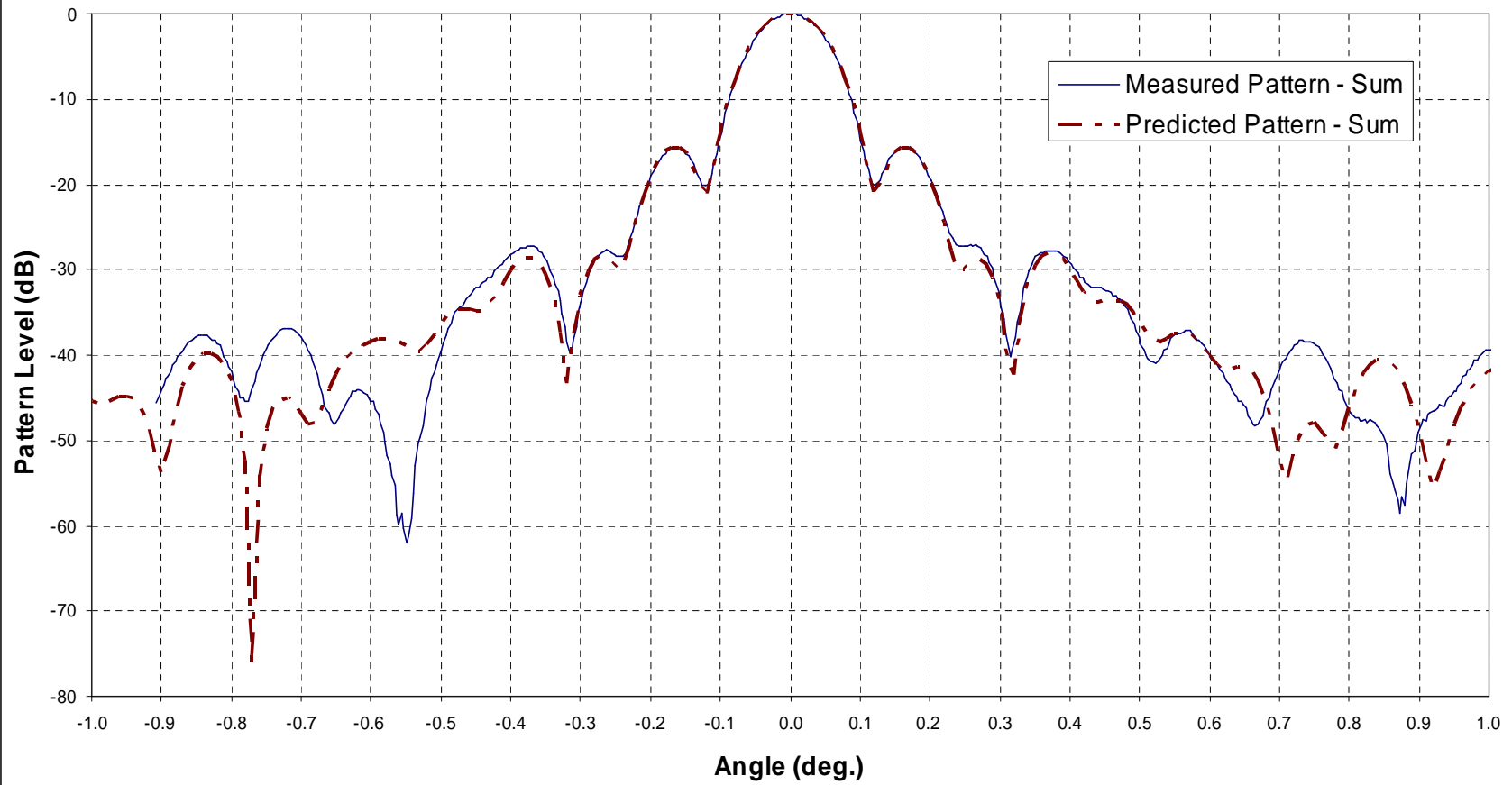
### Measured Pattern vs. Predicted

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

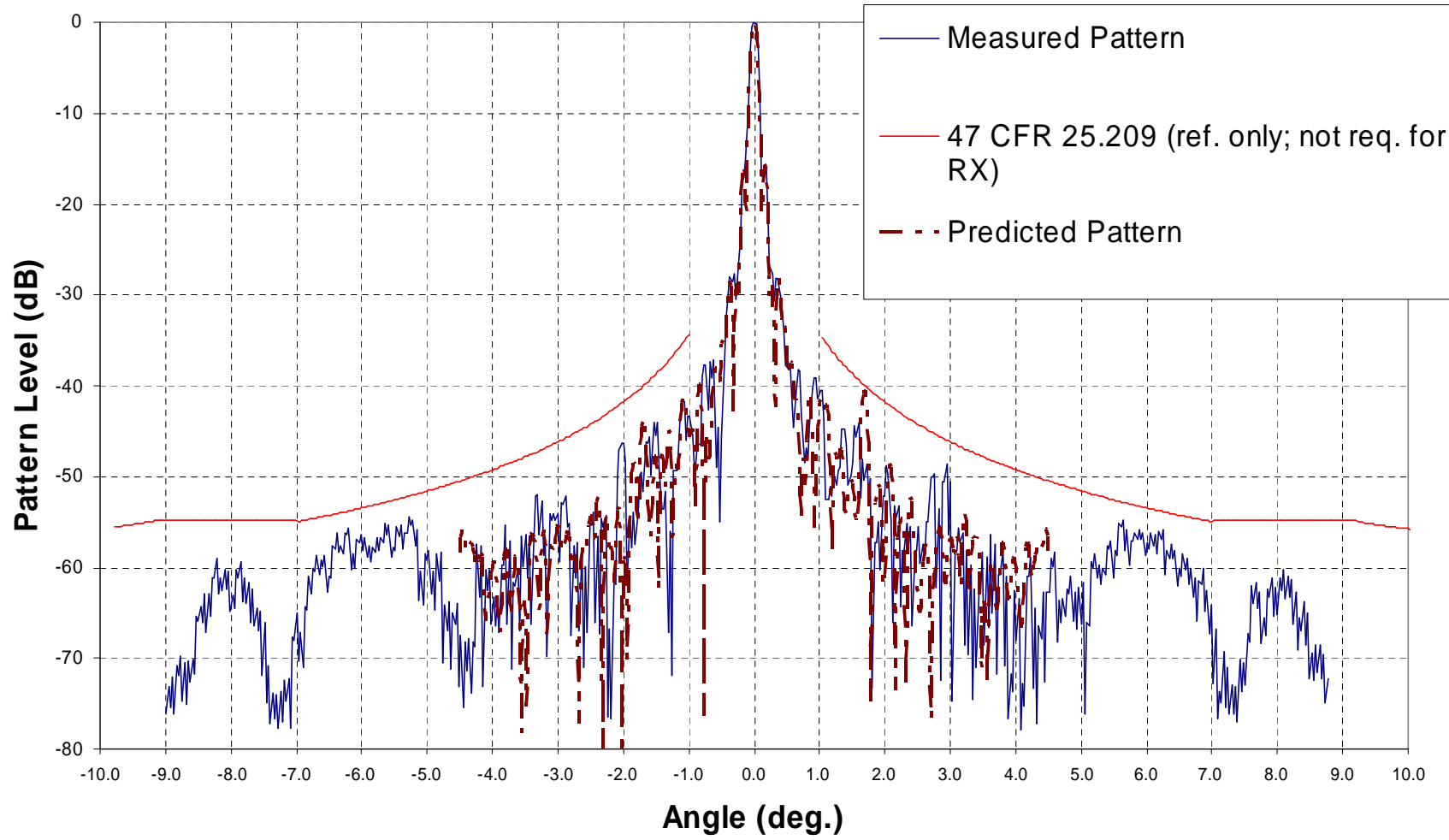
Comment: 5/22/06: Antenna focused at 29.35 GHz

### 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

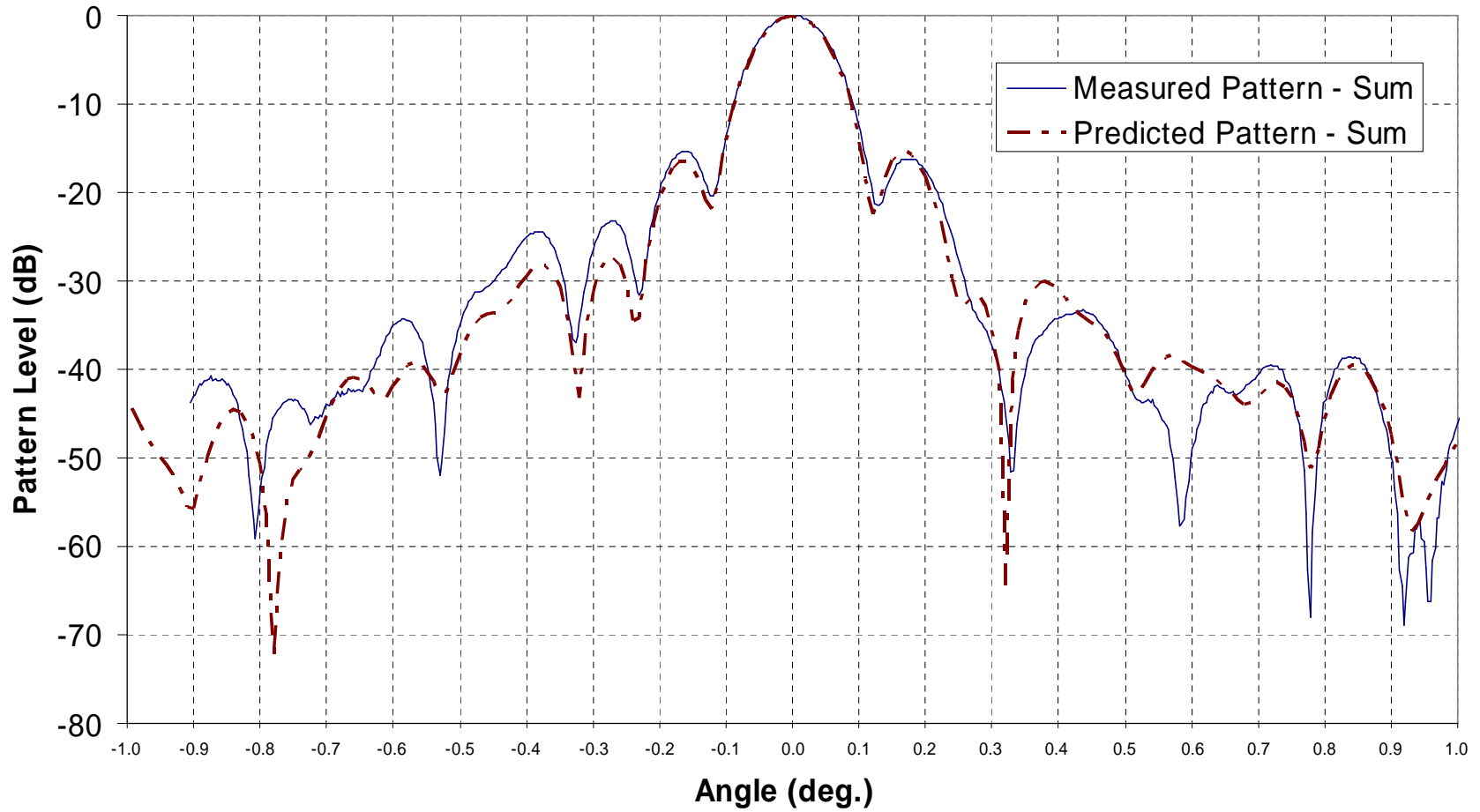
Comment: 5/22/06: Antenna focused at 29.35 GHz

### 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

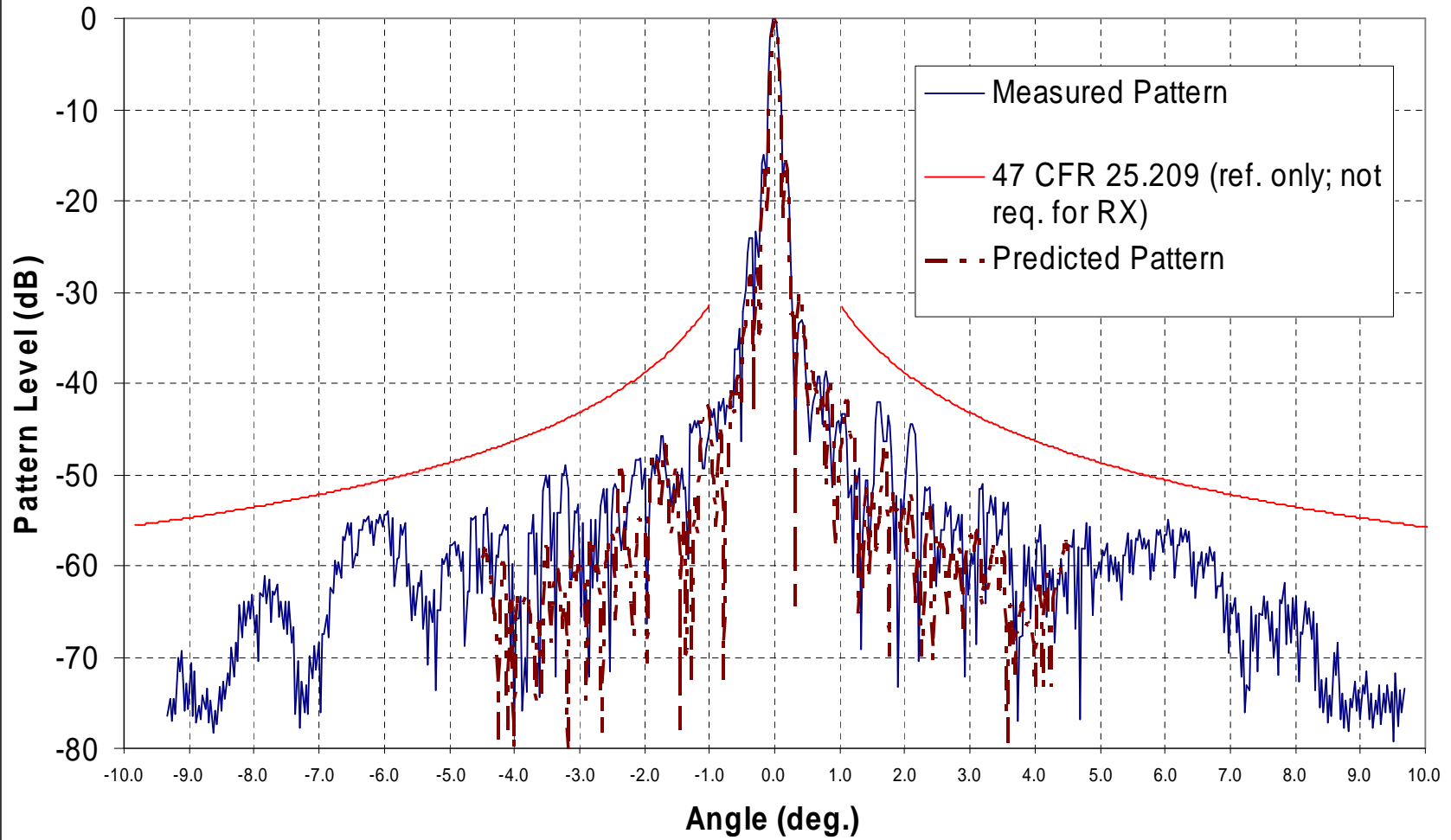
Comment: 5/22/06: Antenna focused at 29.35 GHz

### 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.)**