

***COBHAM***

**MODEL: ASK-2163A/AA**  
**CAVITY BACKED SPIRAL ANTENNA FOR**  
**PRECISION PHASE APPLICATIONS**

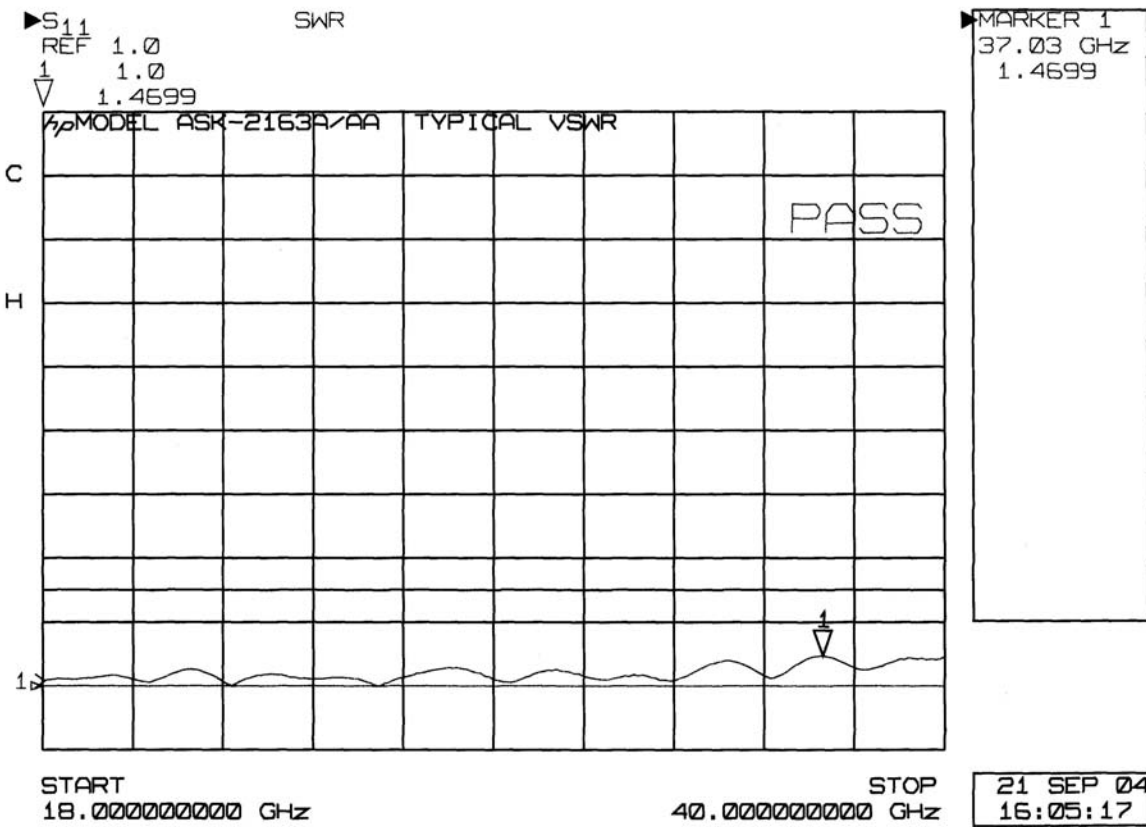
**TYPICAL DATA**

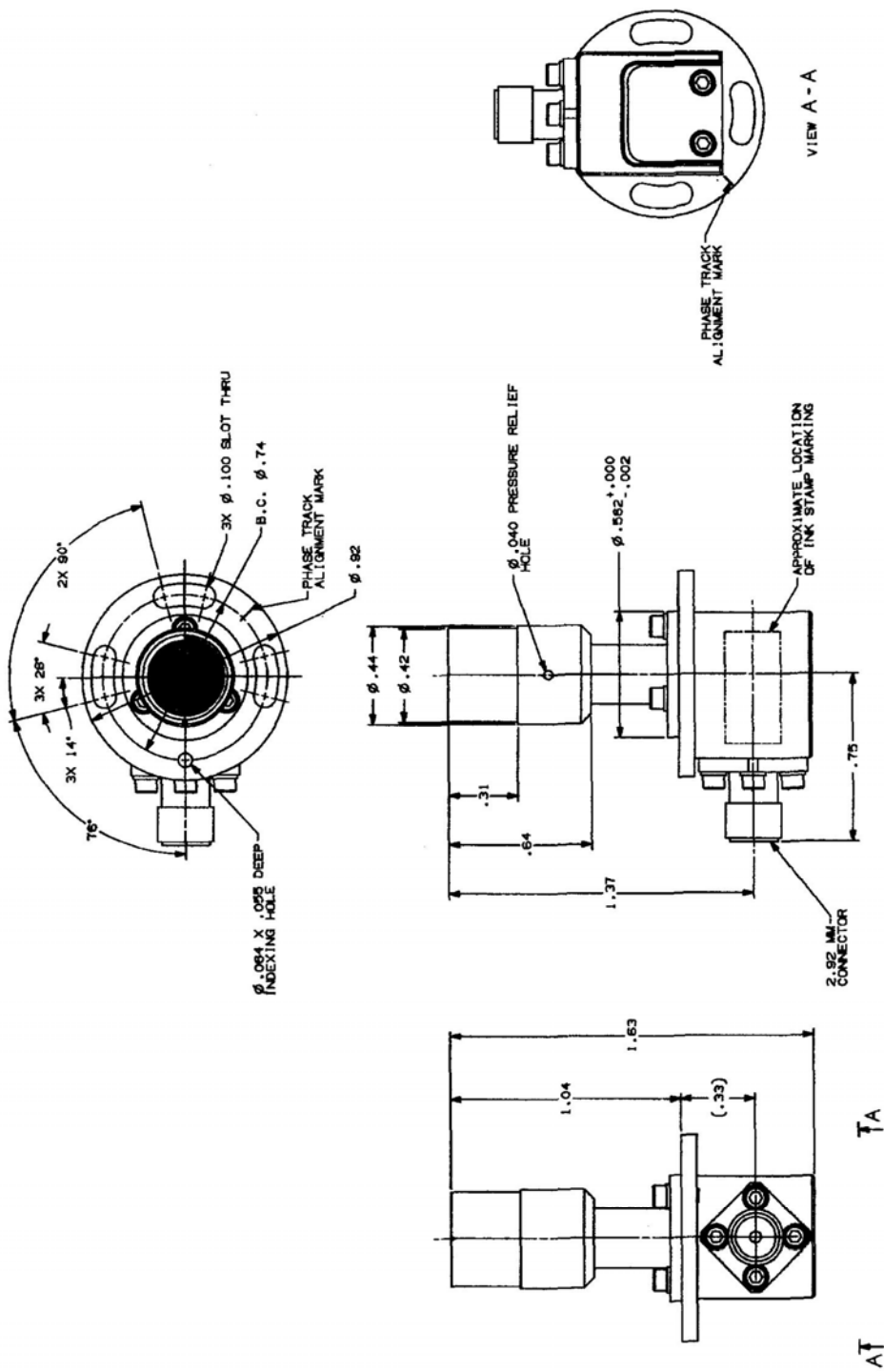
**FREQUENCY RANGE: 18 - 40 GHz.**

# CAVITY BACKED SPIRAL ANTENNA

## SPECIFICATIONS

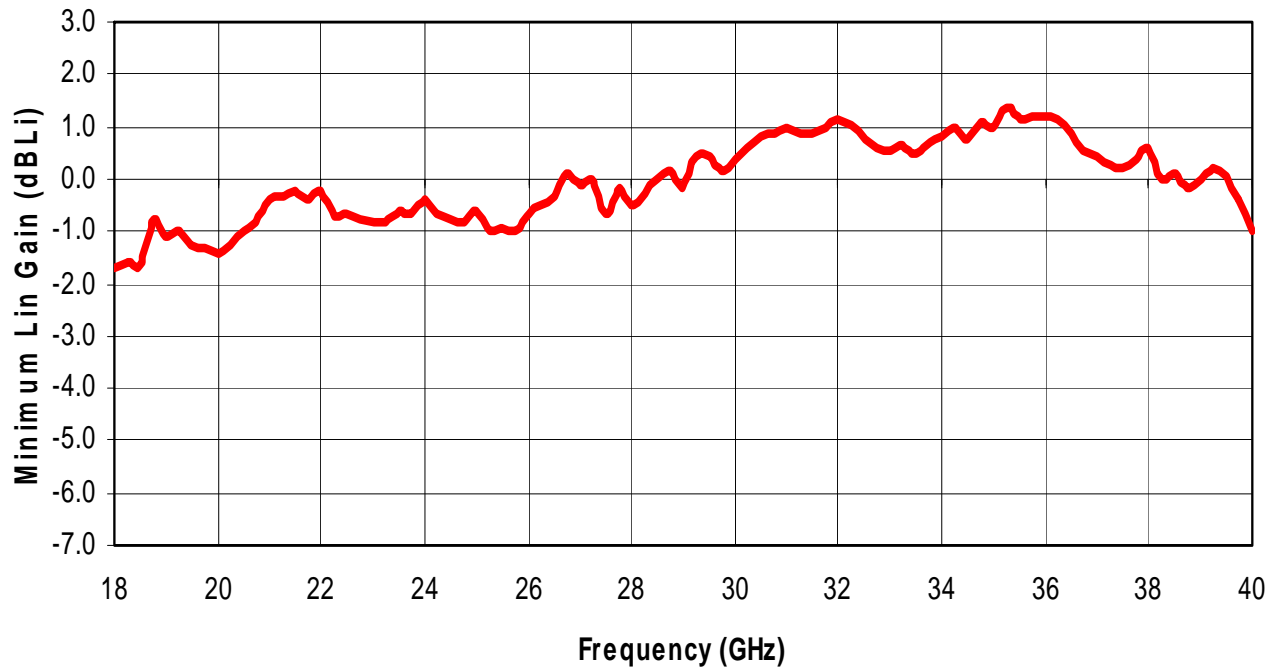
Model:	ASK-2163A/AA
Application:	Phase and Amplitude
Phase Tracking*:	Set of 4: +/- 15°, typical
(*Phase requirements, definition and array size are often application specific. Contact Cobham to discuss your particular requirement.)	
Frequency Range:	18.0 - 40.0 GHz.
Impedance:	50 Ohms
VSWR:	3:1 Max, Typical < 2.5:1
Polarization:	LHCP (A) or RHCP (AA)
Gain -Min. Linear, Typical:	-2.0 dBi @ 18.0 GHz. 0.0 dBi @ 29.0 GHz. -1.0 dBi @ 40.0 GHz.
Beamwidth: 3dB	70° Typical
10dB:	140° Typical
Axial Ratio: Typical	
Boresight::	2.0 dB
Within ±45°:	2.5 dB
Within ±60°:	3.0 dB
Within ±80°:	4.0 dB
Beam Squint:	±6° , Typical
Connector:	2.92 Millimeter (K)
Weight:	0.05 lbs.
Diameter:	0.42 Inch



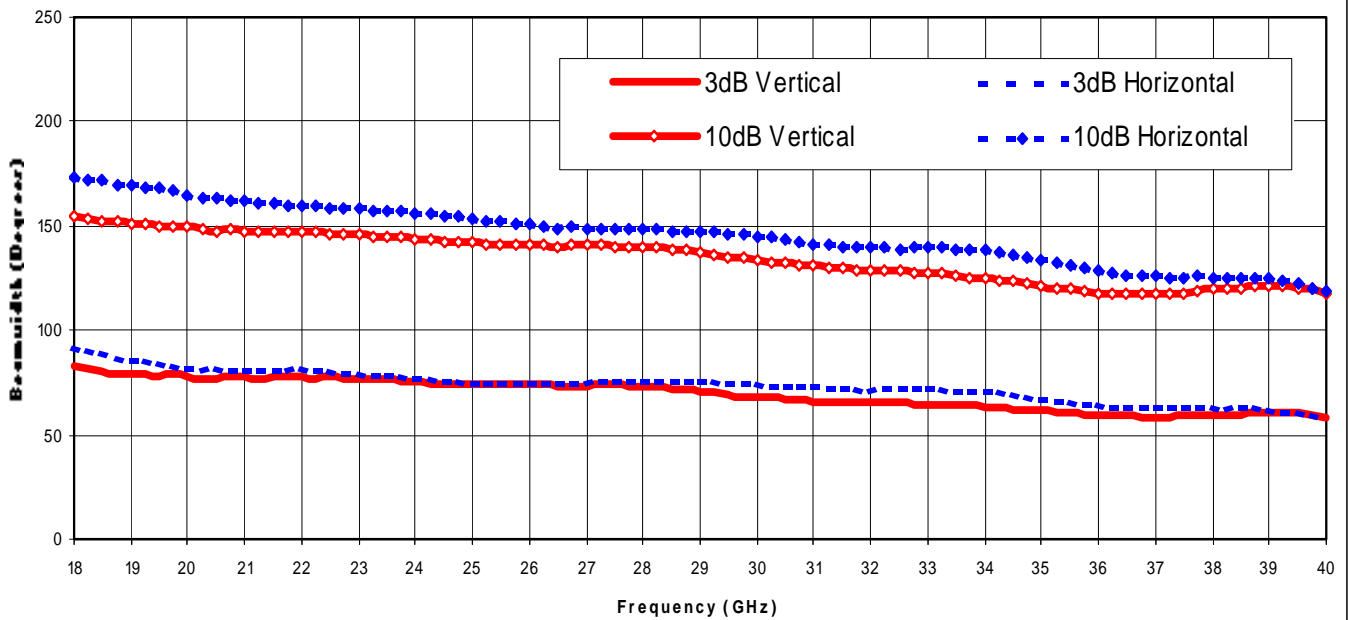


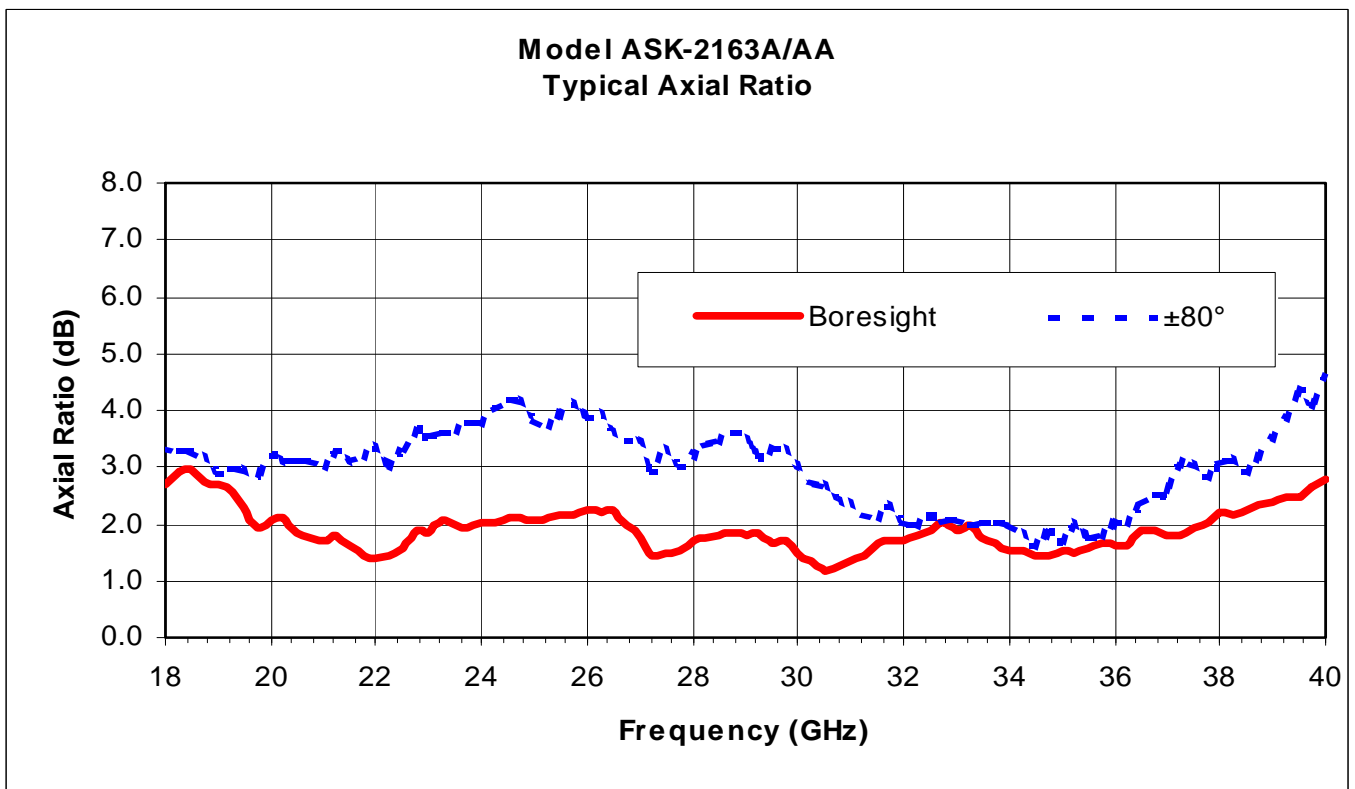
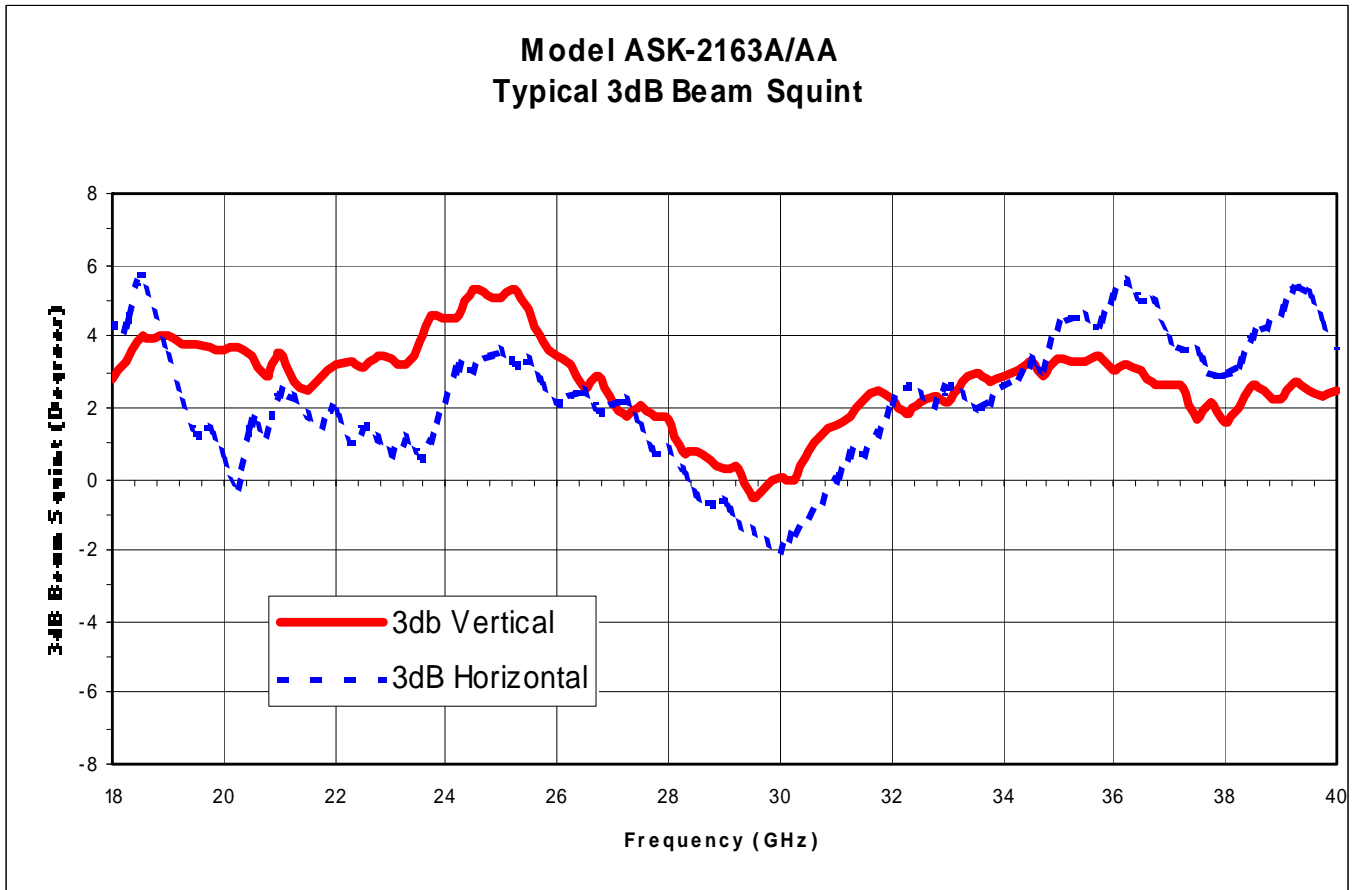
NOTES:  
 1. MAXIMUM WEIGHT SHALL BE .05 LBS.

**Model ASK-2163A/AA**  
**Typical Min Linear Boresight Gain**



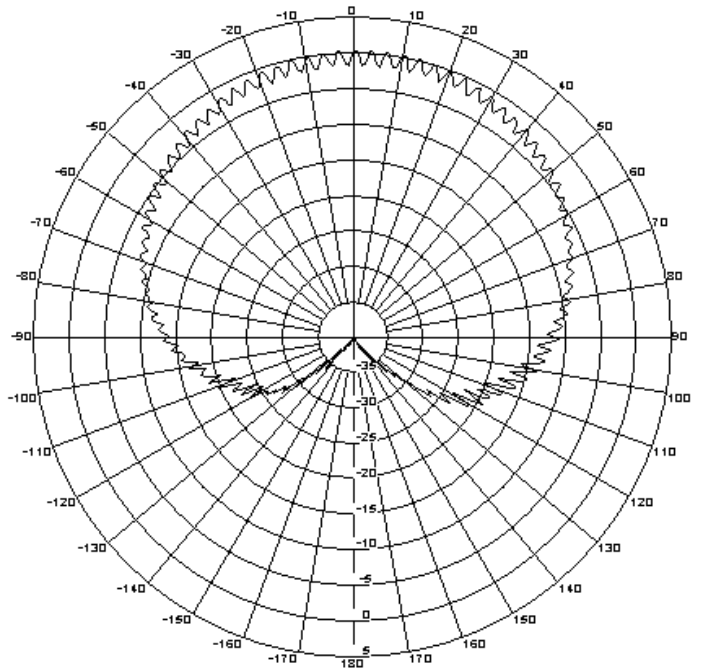
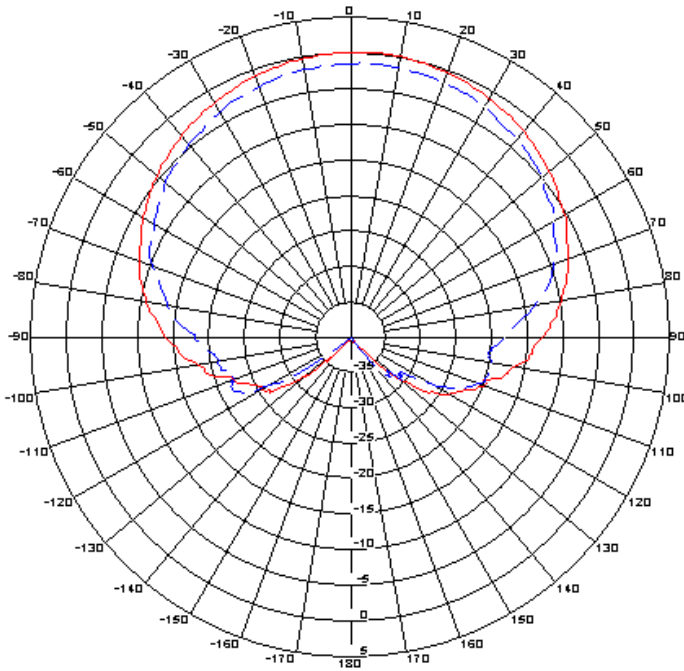
**Model ASK-2163A/AA**  
**Typical 3dB & 10dB Beamwidth**





**Vertical Polarization**

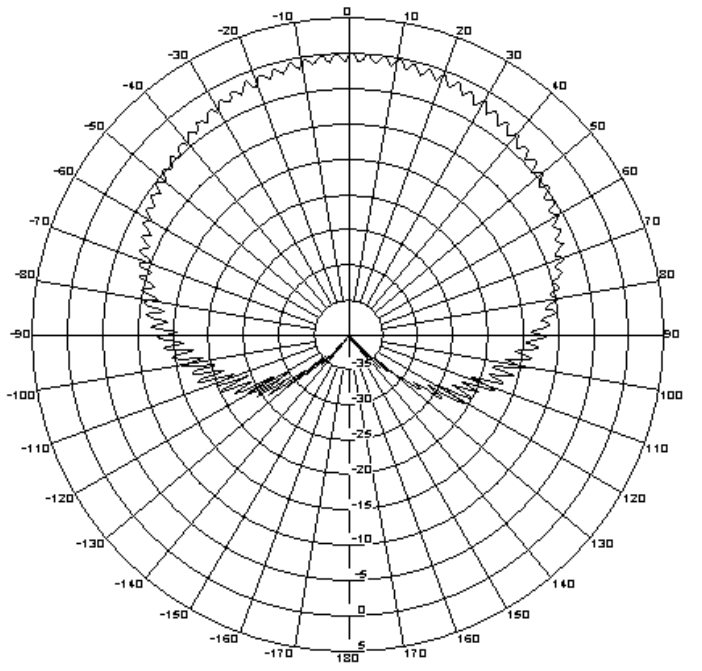
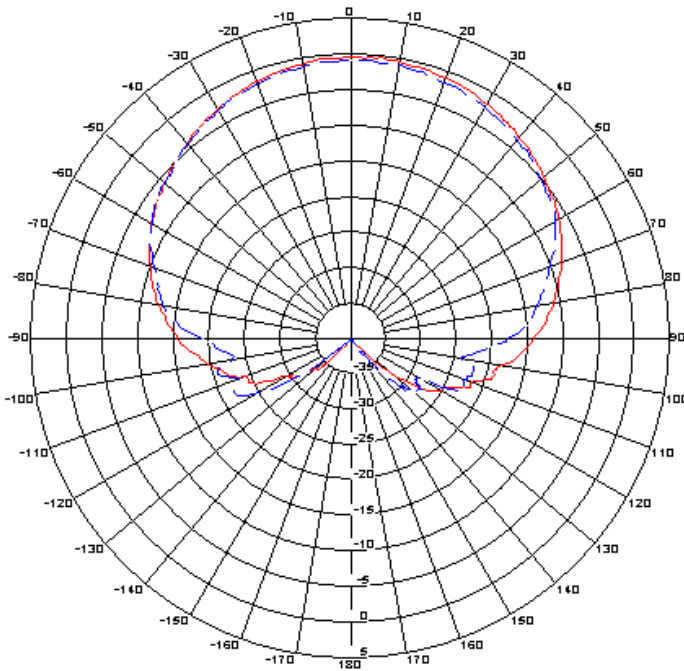
**Horizontal Polarization**



**LINEAR POLARIZATION**

18.0 GHz.

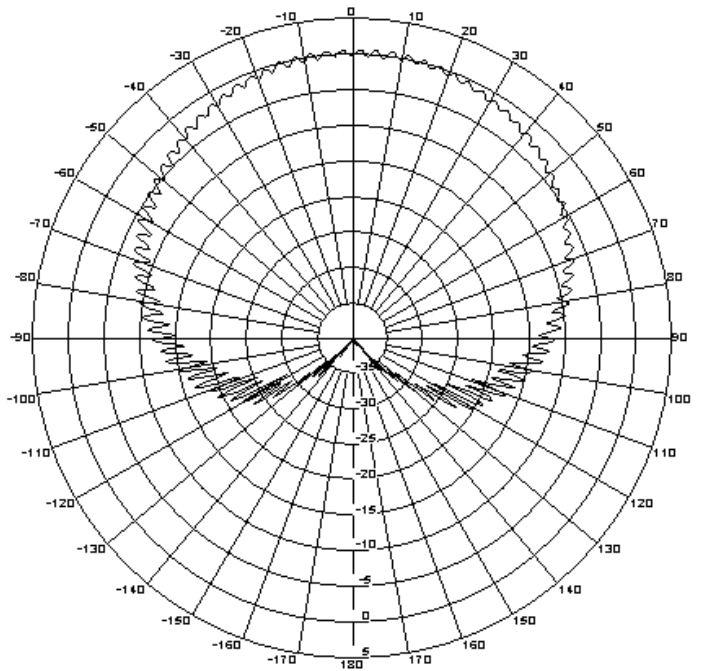
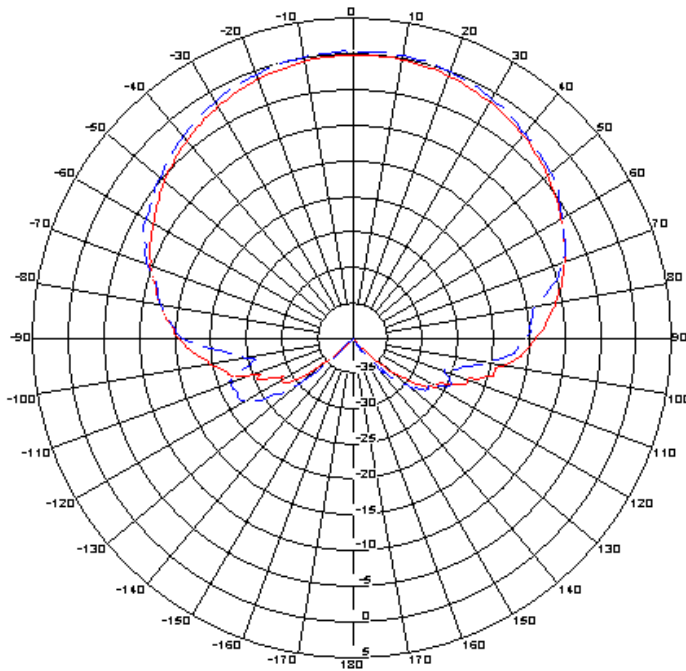
**ROTATING LINEAR  
POLARIZATION**



20.0 GHz.

**Vertical Polarization**

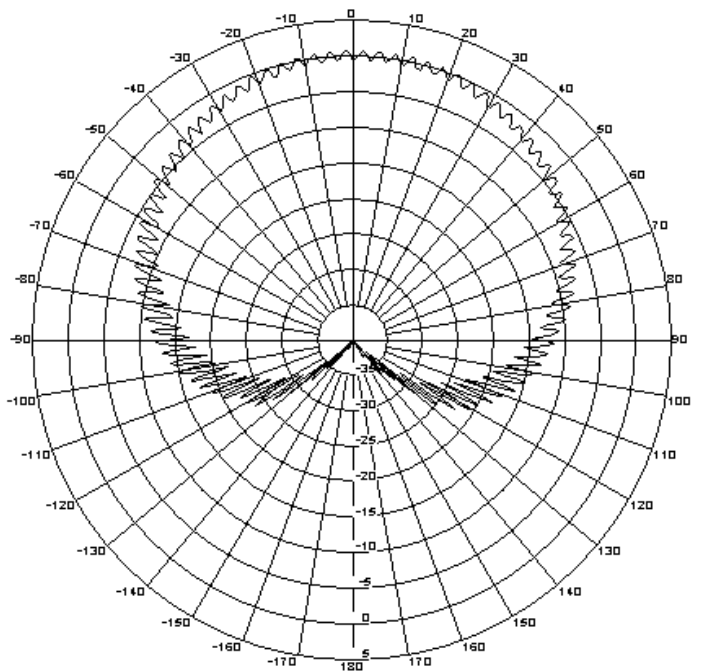
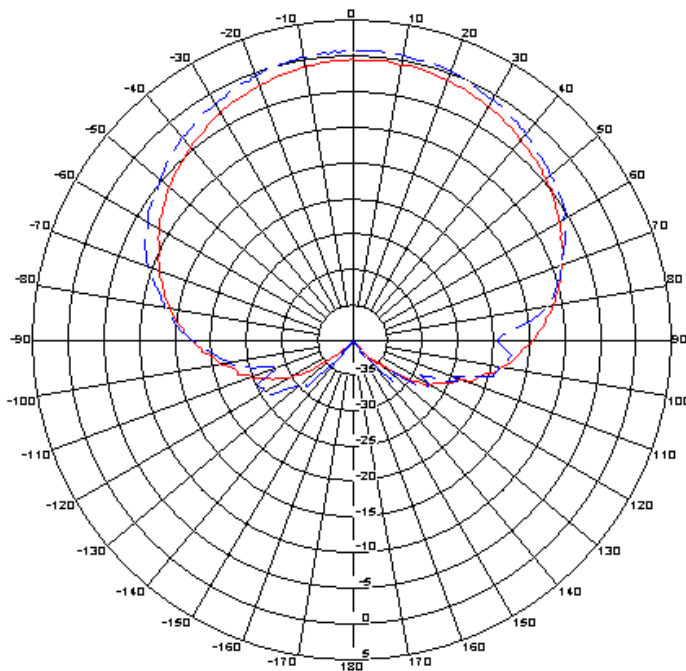
**Horizontal Polarization**



**LINEAR POLARIZATION**

22.0 GHz.

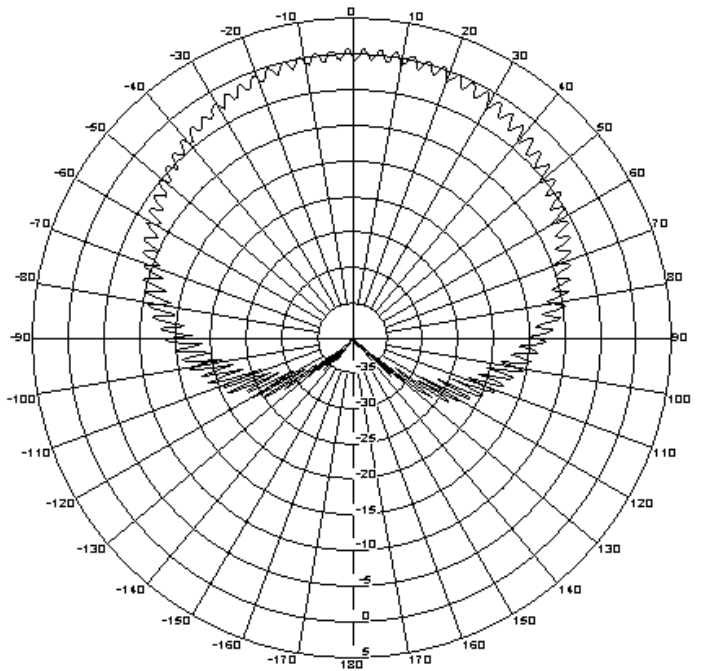
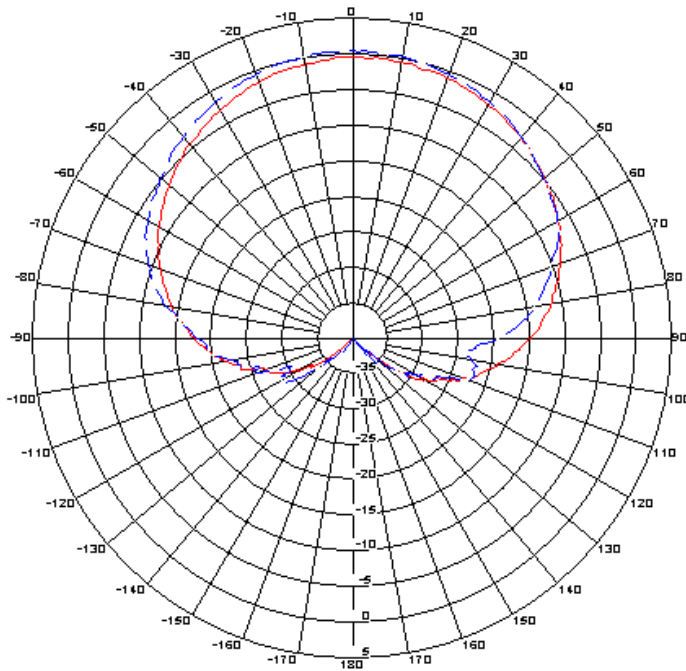
**ROTATING LINEAR  
POLARIZATION**



24.0 GHz.

**Vertical Polarization**

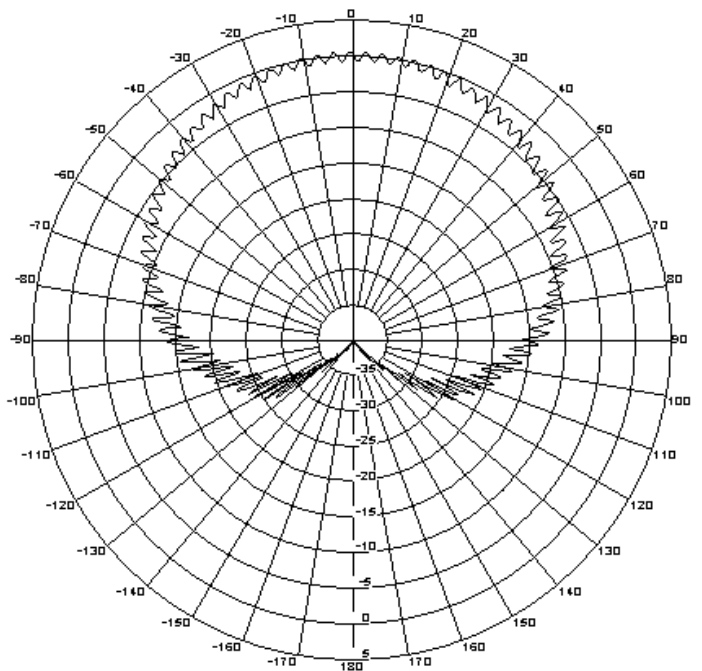
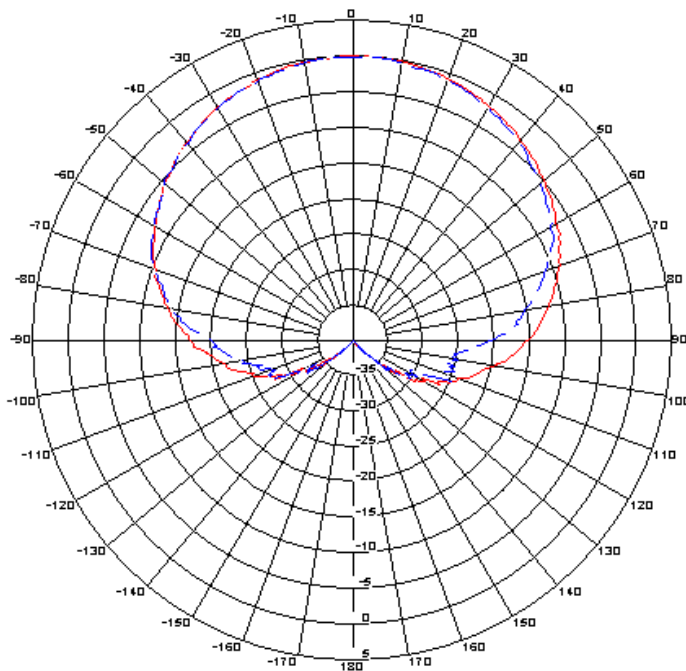
**Horizontal Polarization**



**LINEAR POLARIZATION**

26.0 GHz.

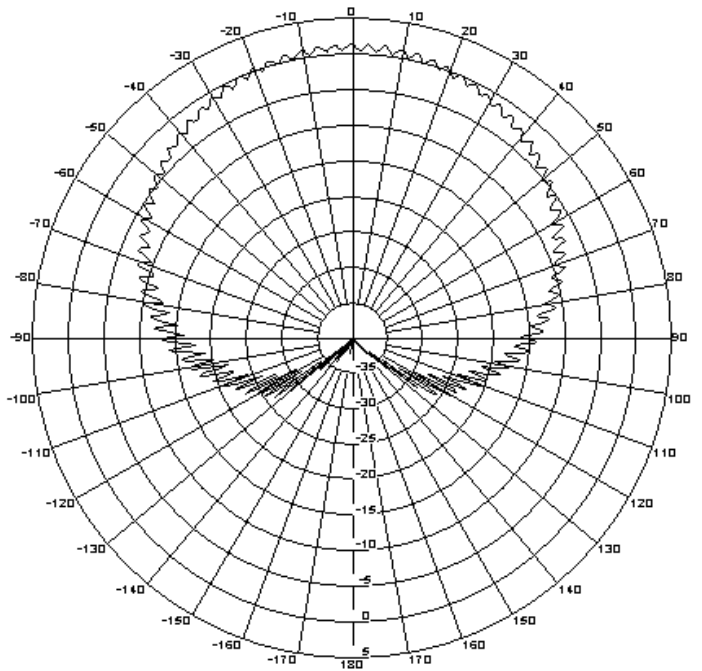
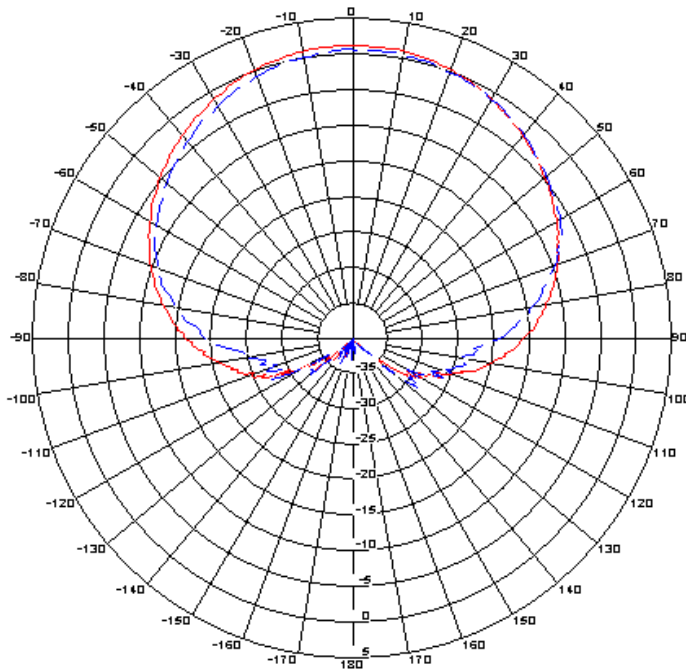
**ROTATING LINEAR POLARIZATION**



28.0 GHz.

**Vertical Polarization**

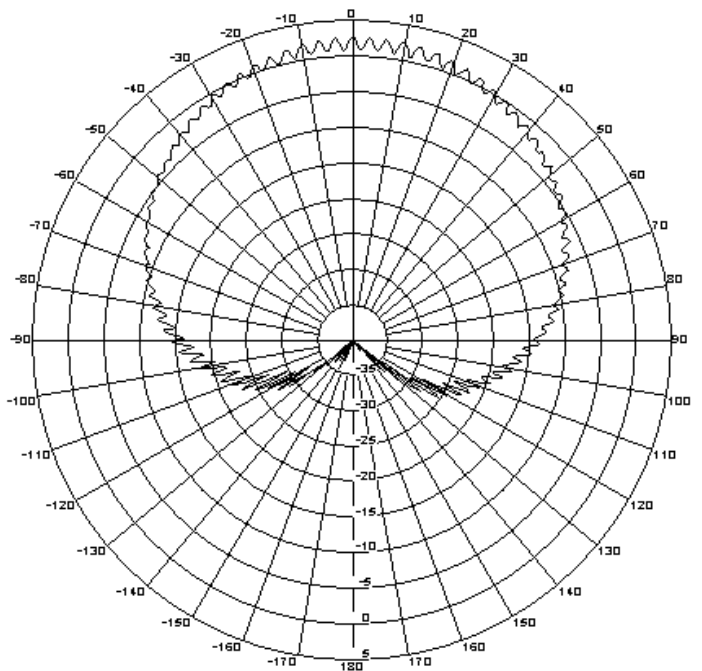
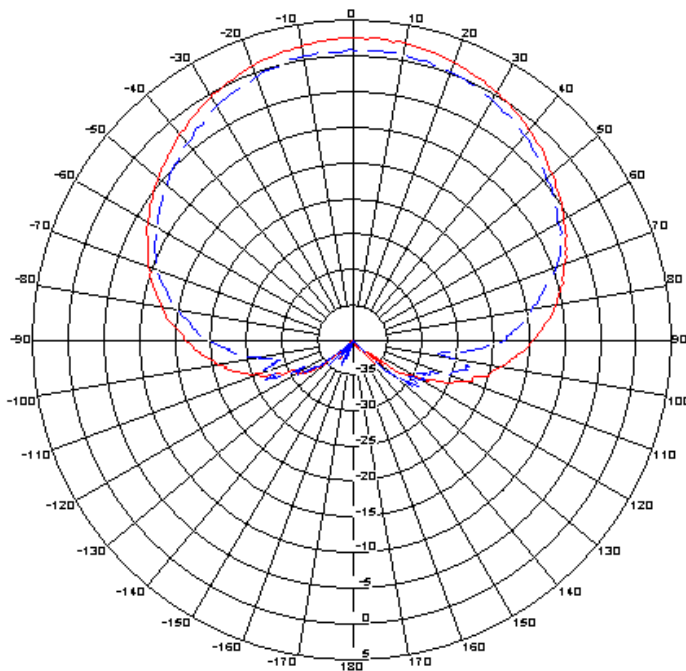
**Horizontal Polarization**



**LINEAR POLARIZATION**

30.0 GHz.

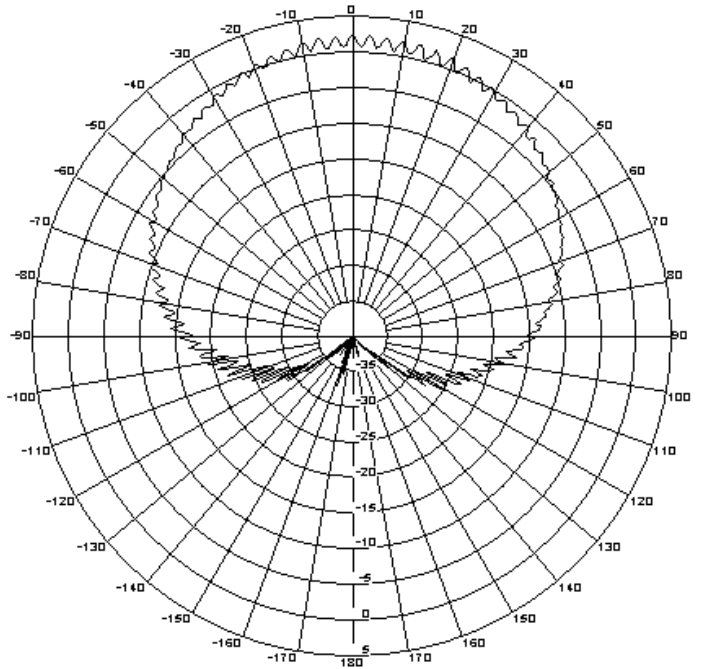
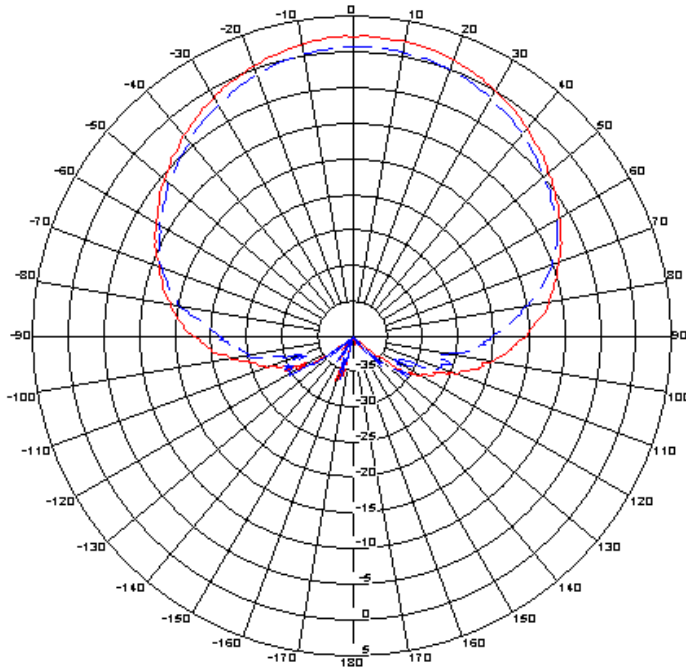
**ROTATING LINEAR  
POLARIZATION**



32.0 GHz.

**Vertical Polarization**

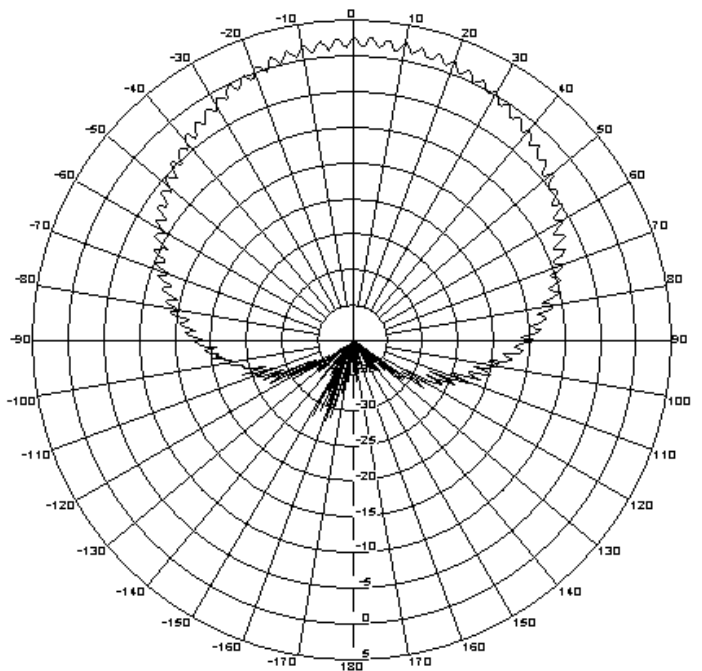
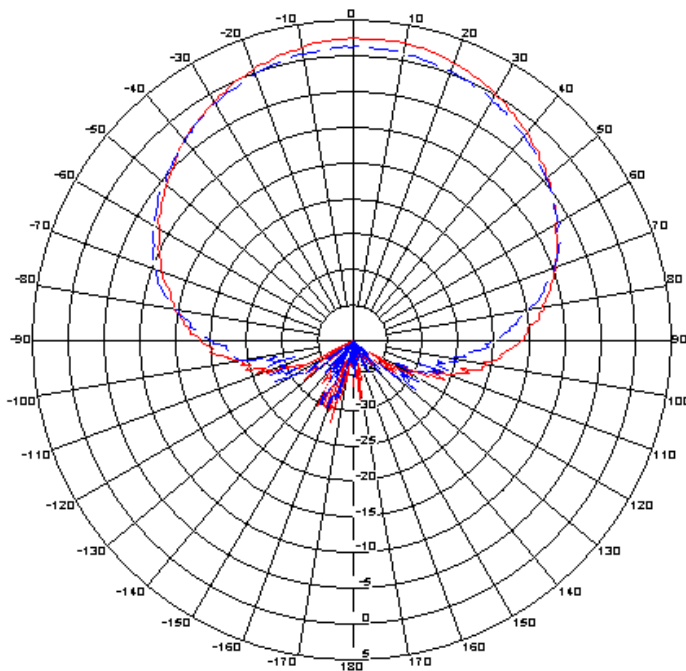
**Horizontal Polarization**



**LINEAR POLARIZATION**

34.0 GHz.

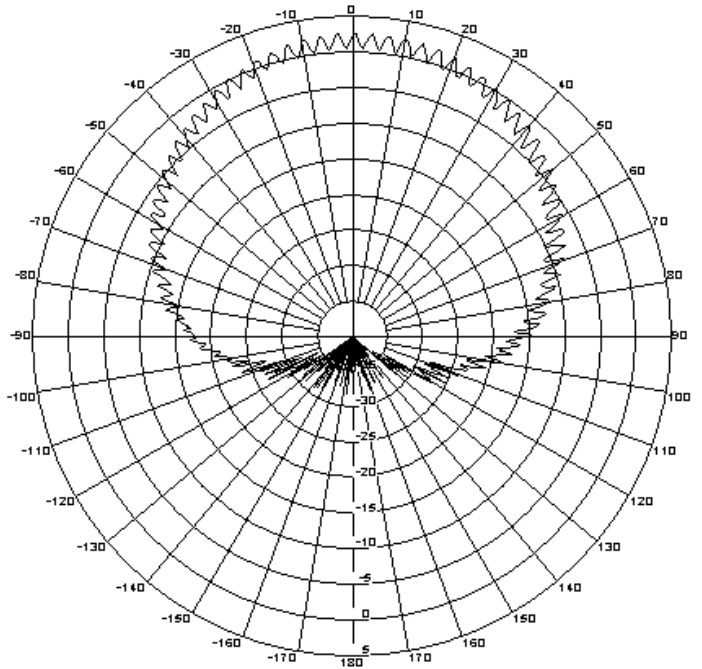
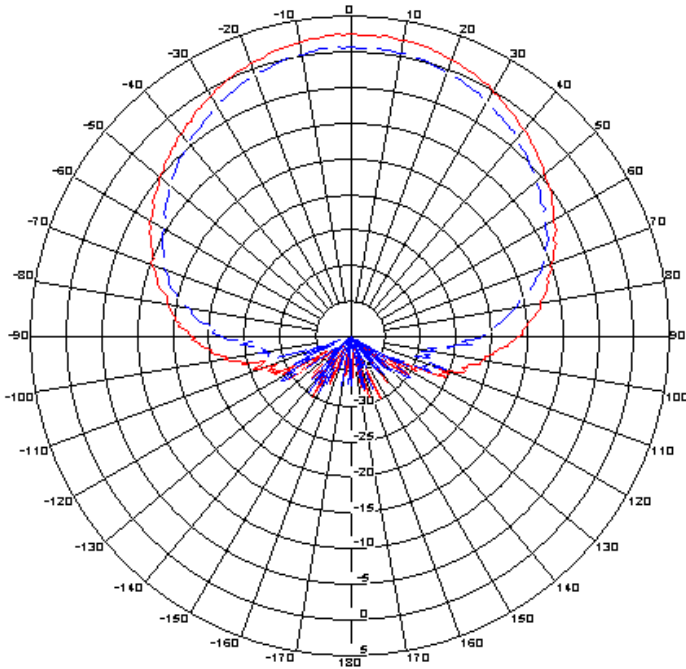
**ROTATING LINEAR POLARIZATION**



36.0 GHz.

**Vertical Polarization**

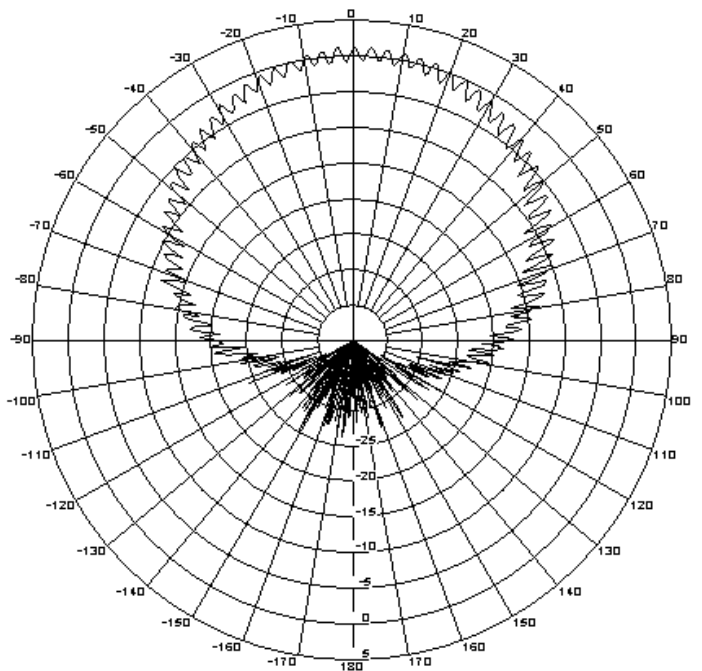
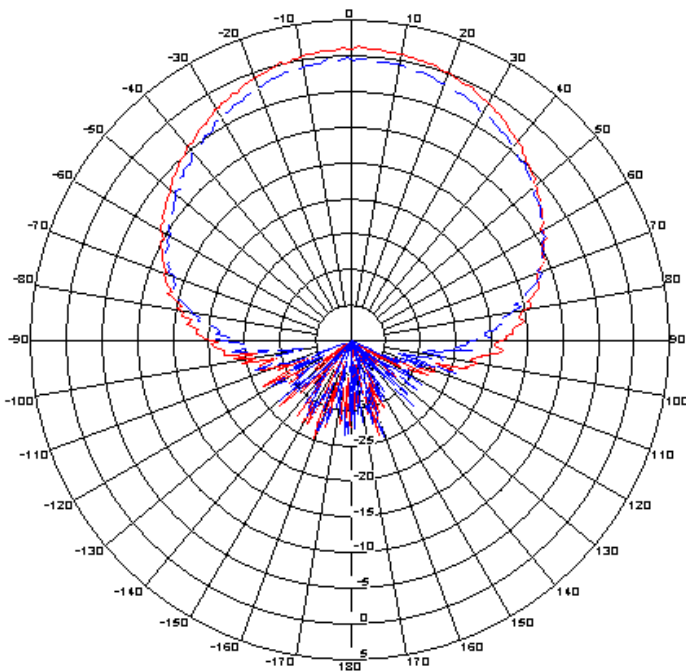
**Horizontal Polarization**



**LINEAR POLARIZATION**

38.0 GHz.

**ROTATING LINEAR POLARIZATION**



40.0 GHz.