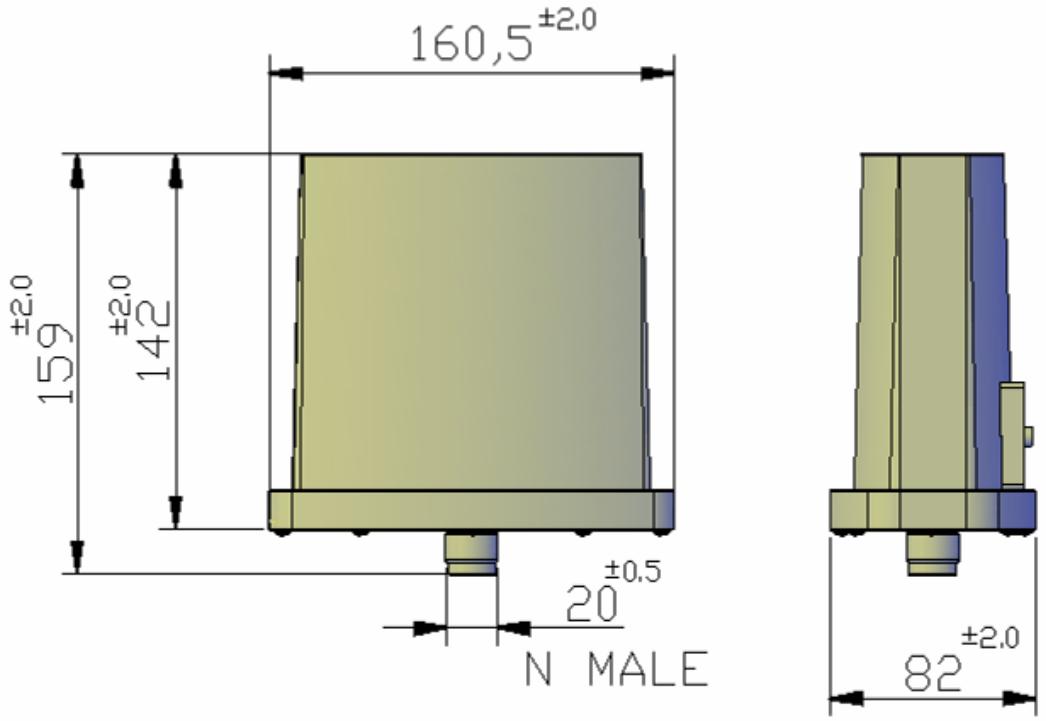
SPECIFICATION FOR APPROVAL

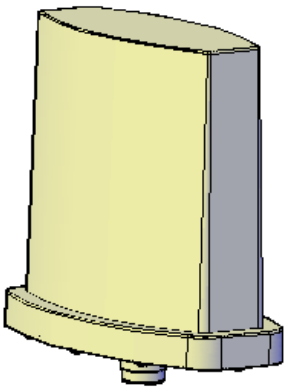
1. Antenna Specification & Overview

Electrical Specification	
Frequency Range	2.4~2.4835 / 5.1~5.835 GHz
VSWR	≤ 2.0
Impedance	50Ω
Gain	10 / 15 dBi
Polarization	Vertical
Power Handling	10 Watt
Beam Width	H:45°/ E: 43° H:25.4°/ E: 21.6°

Environmental & Mechanical	
Connector	N Male or N Female
Operation Temp	-30℃ ~ +60℃
Material	Radome: ABS
Dimension (L*W*H)	142 *160.5 *82 mm
Weight	290 ± 30 g
Color	WHITE

1.1 Antenna appearance





2. Testing

2.1 Test Setup

VSWR Measurement (S11) :Used Advance Network Analyzer With Harbour RG-142 Coaxial Cable : 750mm Length In Free Space.

2.1.1 VSWR

The table as below summarizes concern about Return loss measurement according to the frequency band is based on TOMTECH design. The detail be shown as appendix that is from Advance Network Analyze VSWR Performance

VSWR Performance			
Freq(MHz)	**2400**	**2450**	**2500**
Free space	1.272	1.251	1.774
Freq(MHz)	**5100**	**5500**	**5837**
Free space	1.541	1.365	1.866

2.2 Gain Measurement

2.2.1 Test Result

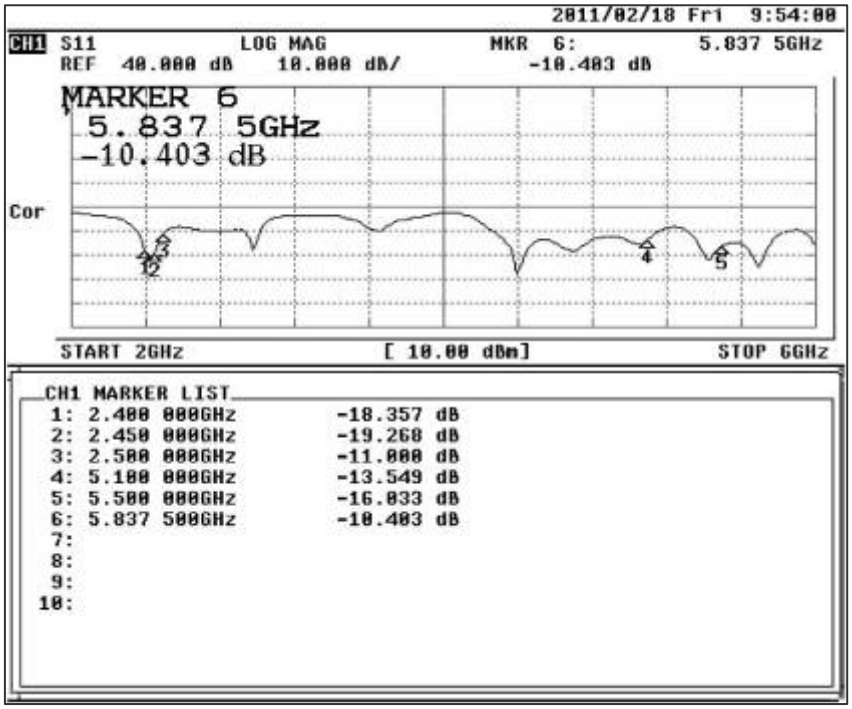
The peak gain is picked up as table list from Network analyzer in Chamber room, the completely gain plots also be shown as appendix.

Peak Gain / Beam width			
Freq(MHz)	**2400**	**2450**	**2500**
H-Plane Gain / Beam width	9.2 / 54.8°	10.21 / 45.8°	10.35 / 45.3°
E-Plane Gain / Beam width	8.9 / 47°	10.23 / 46.9°	10.25 / 47.9°
Freq(MHz)	**5100**	**5500**	**5800**
H-Plane Gain / Beam width	14.139 / 28.6°	14.41 / 27.8°	15.12 / 25.6°
E-Plane Gain / Beam width	14.033 / 25°	14.27 / 20.8°	15.06 / 20.1°

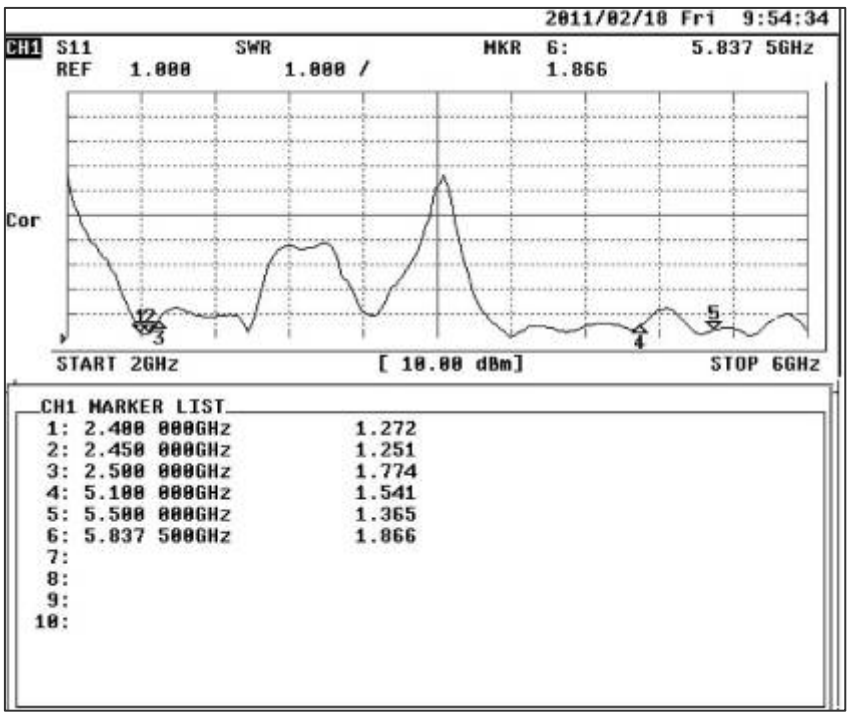
3. Appendix A

3.1 Return Loss & VSWR

Return Loss

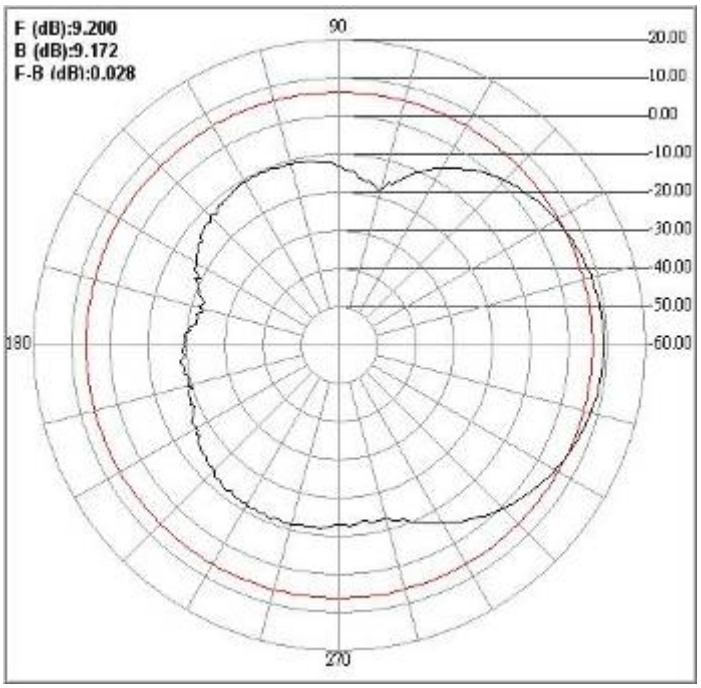


VSWR

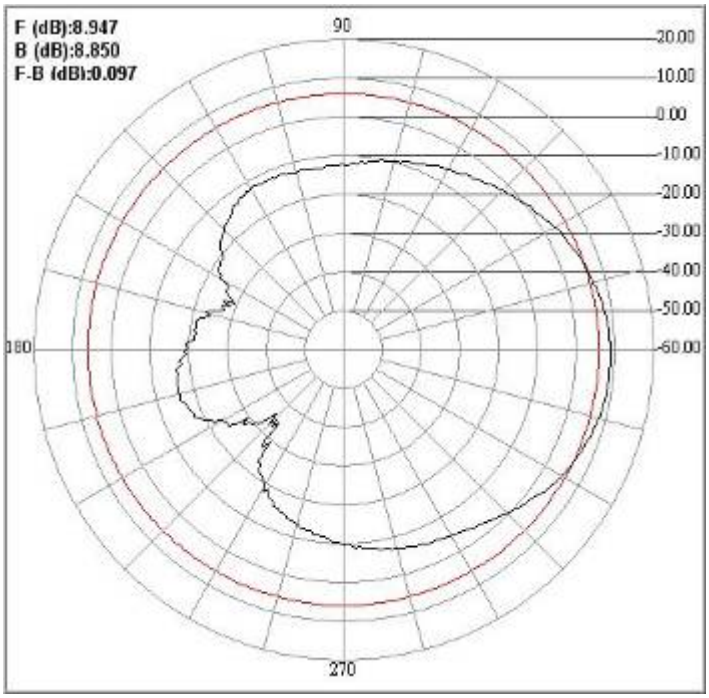


3.2 RADIATION PATTERN

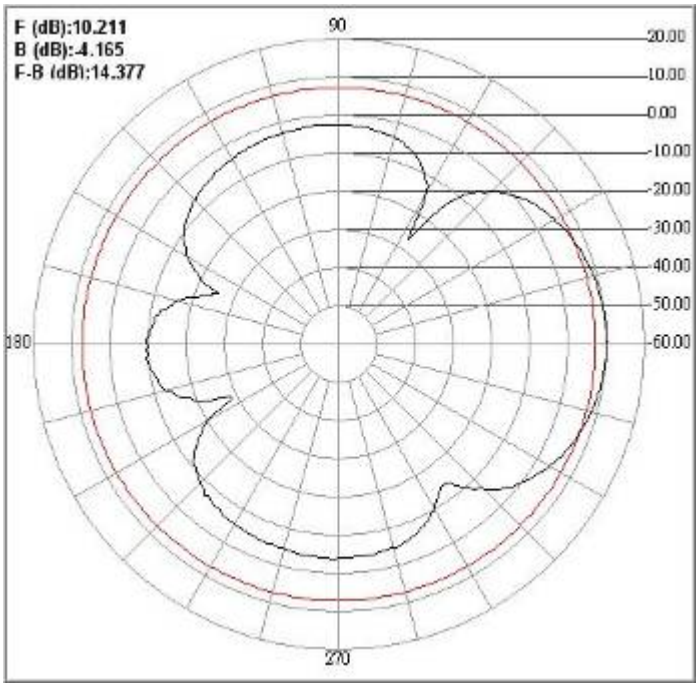
2400Mhz H-Plane



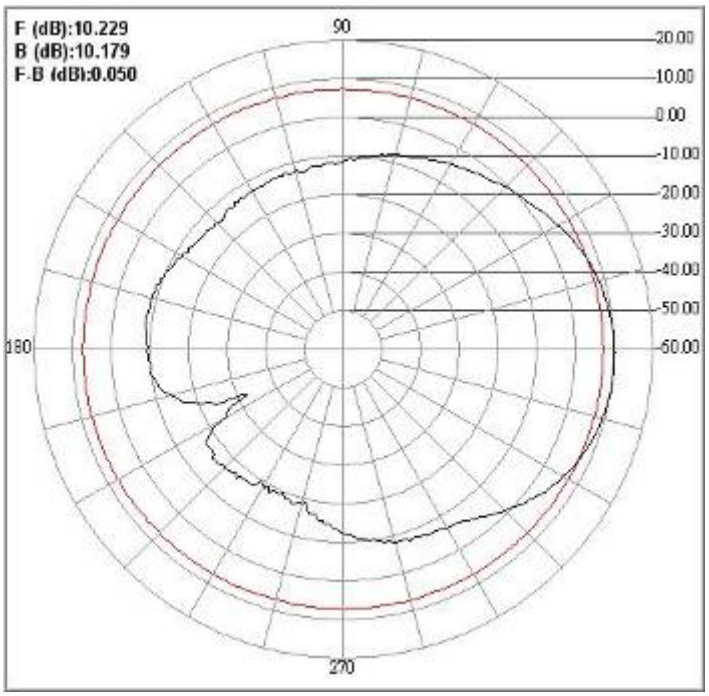
2400Mhz E-Plane



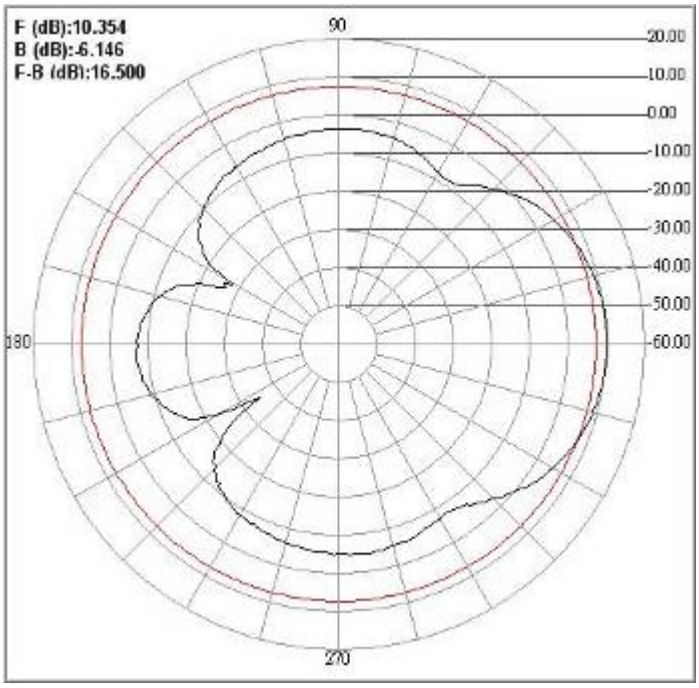
2450Mhz H-Plane



2450Mhz E-Plane



2500Mhz H-Plane



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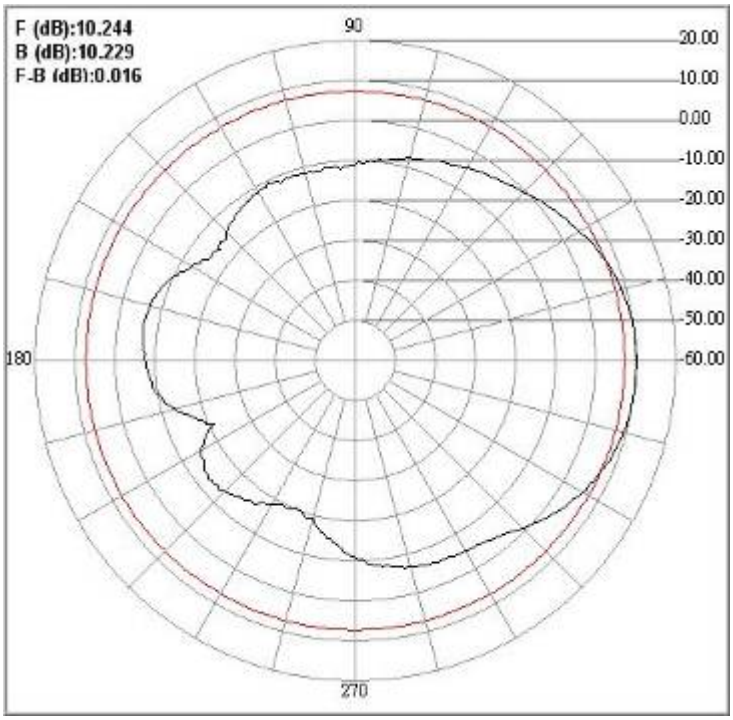
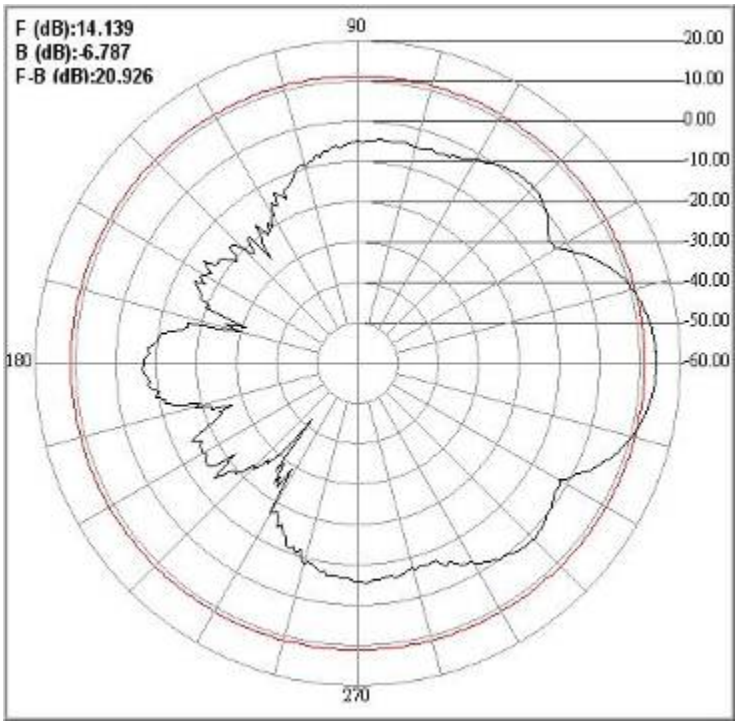


5100Mhz H-Plane



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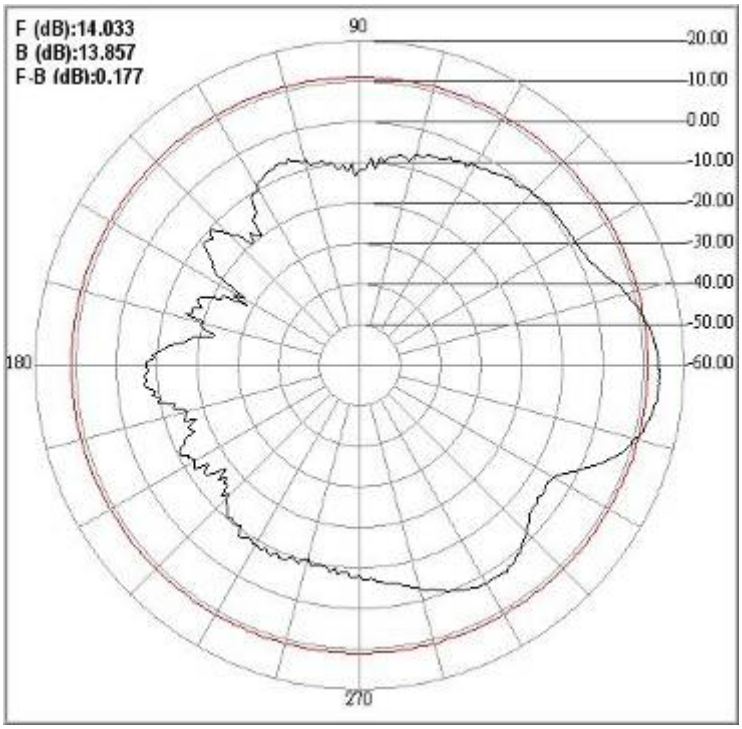
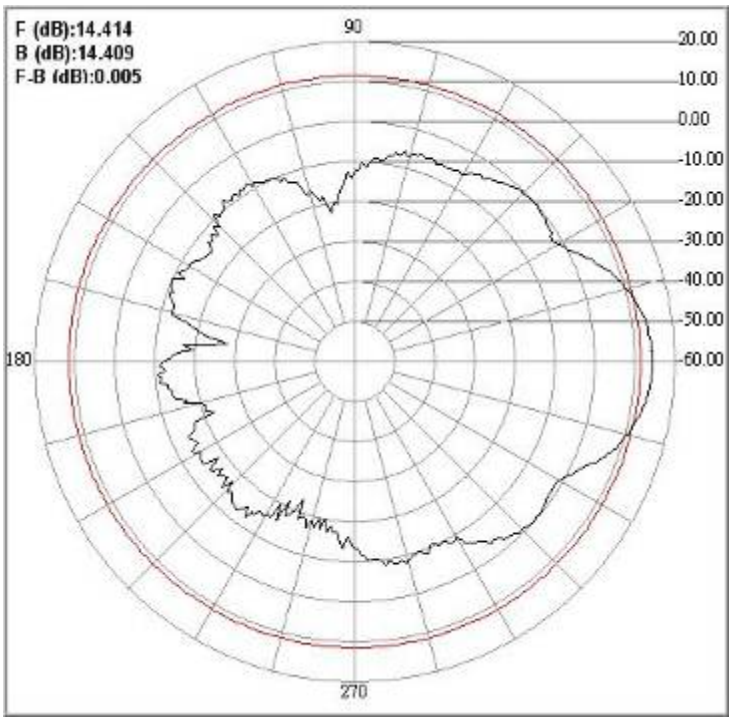
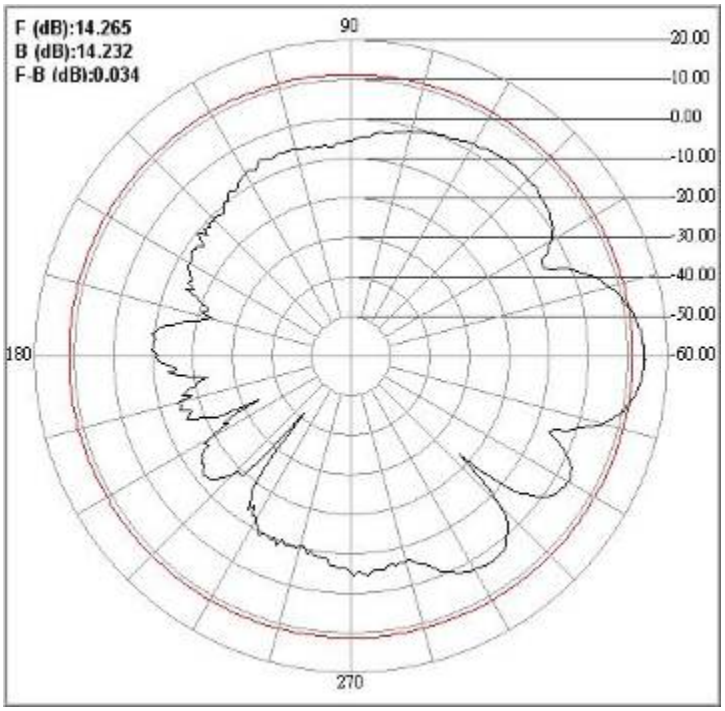


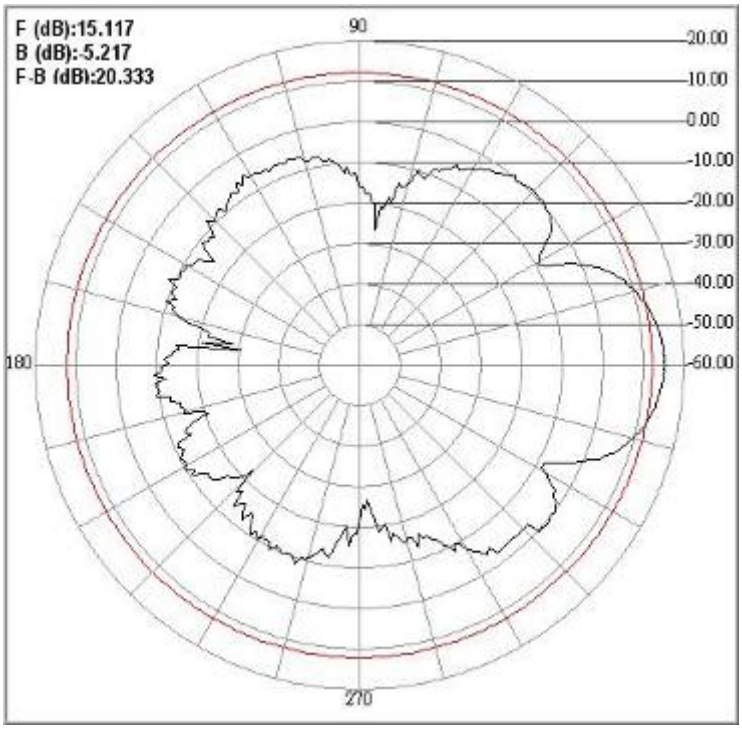
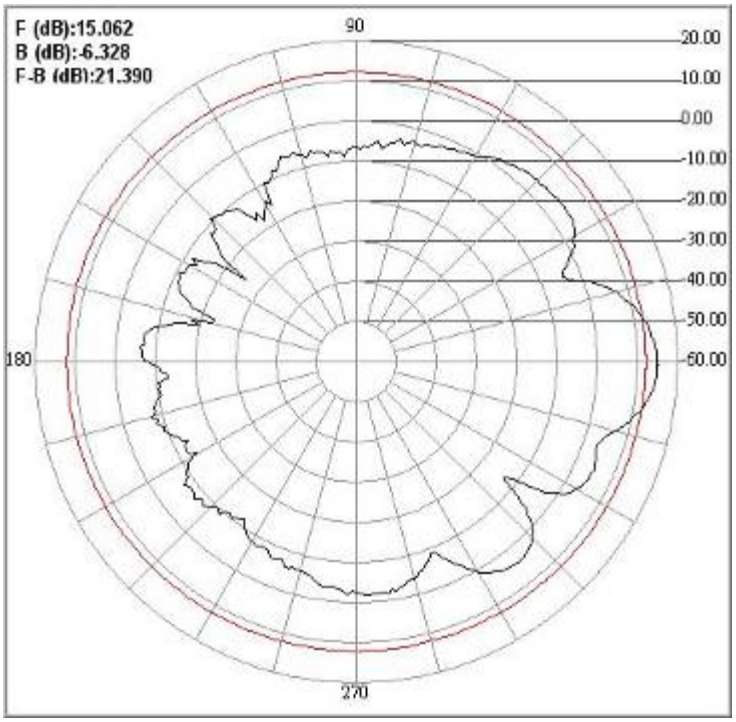
5500Mhz H-Plane



5500Mhz E-Plane



5800Mhz H-Plane



5800Mhz E-Plane