

# UWB Antenna Information

## ThinkPad T500 / W500 Series

### [ Amphenol antenna ]

<b>Platform</b>	
Platform owner	Lenovo(Japan) Limited
Platform name	ThinkPad T500 / W500 Series
Model name	T500, W500
ODM	N/A
<b>Antenna</b>	
Brand name	Amphenol SAA
Parts Number	LX-0984-11-000-R
<b>Transmitter Module</b>	
UWB Module	Model: 3480MPe-US FCC ID: V4EUWB3480MPe

## 1. Antenna Specification

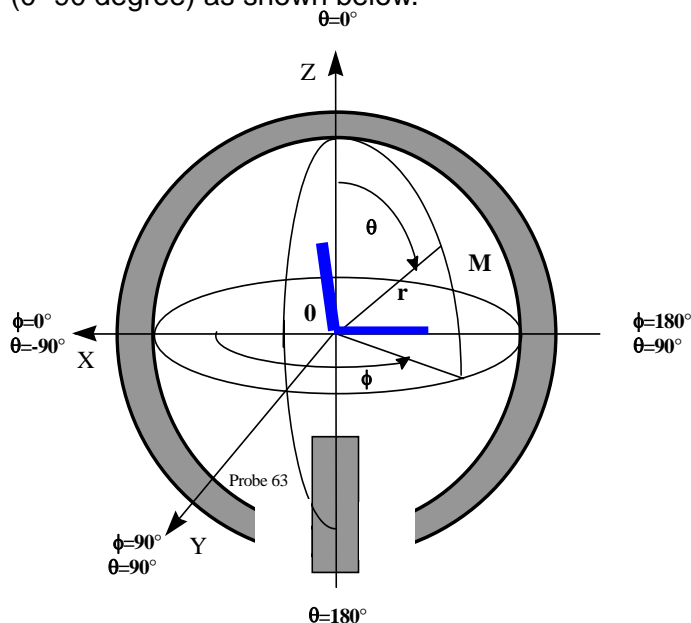
### Transmission Antenna assembly overview

Transmission Antenna assembly overview

Designator (P/N)	Manufacture	Antenna type	Cable type and length	Frequency (MHz)	Peak Gain (dBi)		
					Horizontal	Vertical	
LX-0984-11-000-R	Amphenol SAA	Planner Inverted F Antenna	50 ohm Coaxial. length: 475mm diameter: 1.37mm (Connector: 20351-111R-37)	US	3100	-2.95	-3.82
					3400	-1.24	-6.12
					3950	-5.17	-4.55
					4200	-2.53	-2.68
					4500	-1.71	-3.70
					4800	<b>-0.19</b>	-4.50
					6300	-6.88	-5.58
					6600	-6.37	-4.46
					7100	-6.03	-3.08
				7400	-6.67	<b>-1.96</b>	
				7700	-6.08	-7.76	
				8000	-4.33	-3.89	
				Japan	3400	-1.24	-6.12
					3950	-5.17	-4.55
					4200	-2.53	-2.68
					4500	-1.71	-3.70
					4800	<b>-0.19</b>	-4.50
					7250	-7.04	-8.28
7400	-6.67	<b>-1.96</b>					
7700	-6.08	-7.76					
8000	-4.33	-3.89					

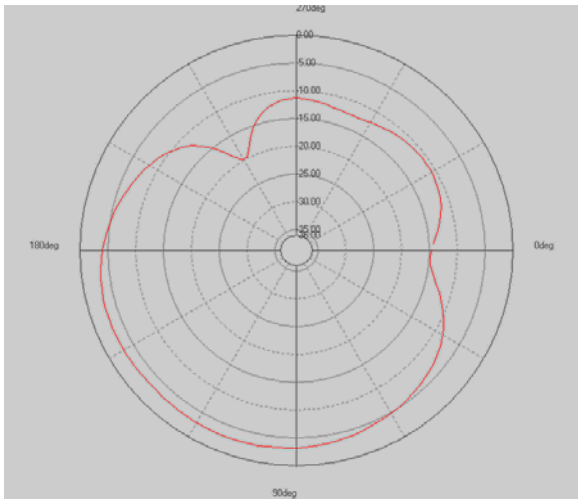
## 2. Antenna Gain Measuring Facility

Radiation characteristic of antenna is measured in regard to the rotation angle  $\theta^\circ$  (0~360degree), and the loft angle  $\varphi^\circ$  (0~90 degree) as shown below.

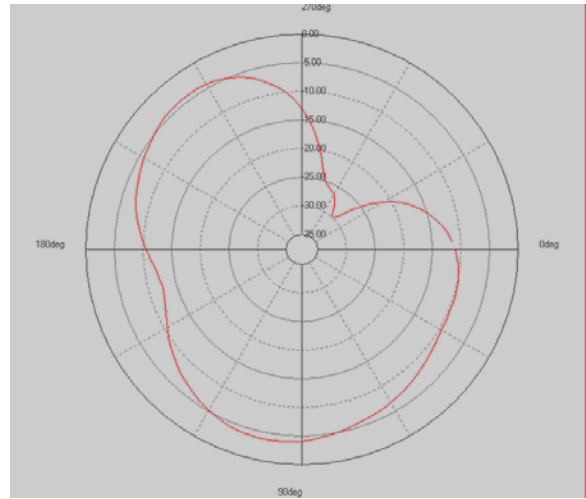


### 3. Antenna Radiation Characteristics

#### 3.1 US, Band Group-1 (3100-4800MHz)

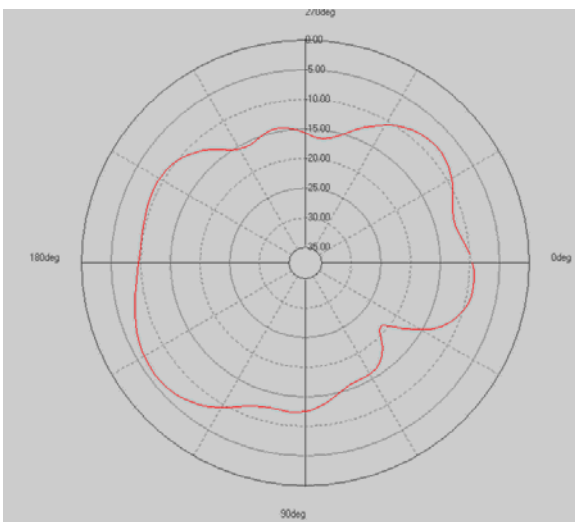


H-Pol

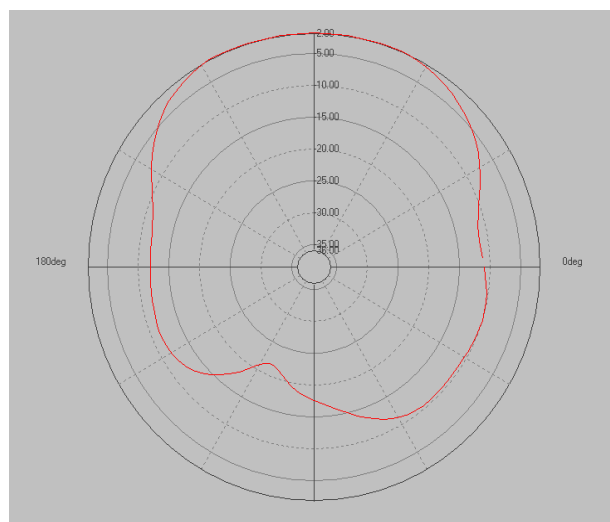


V-Pol

3100MHz		
Horizontal Peak	-2.95dBi	112.5deg
Vertical Peak	-3.82dBi	101.25deg

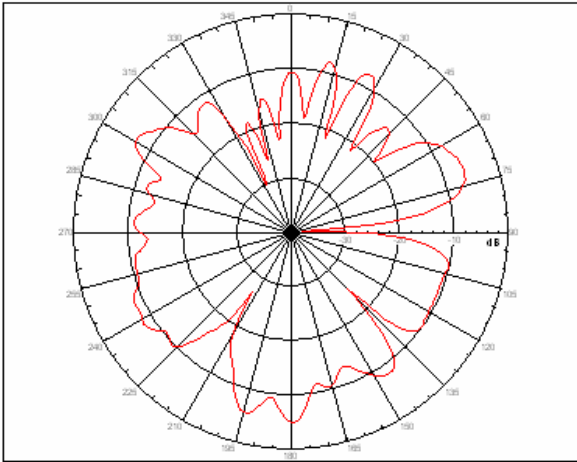


H-Pol

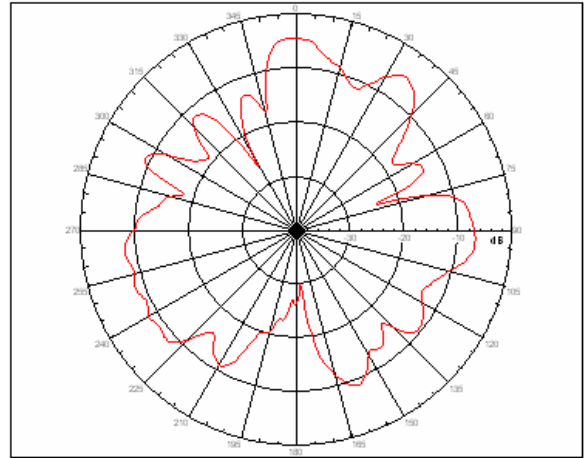


V-Pol

3400MHz		
Horizontal Peak	-1.24dBi	272.81deg
Vertical Peak	-6.12dBi	143.44deg

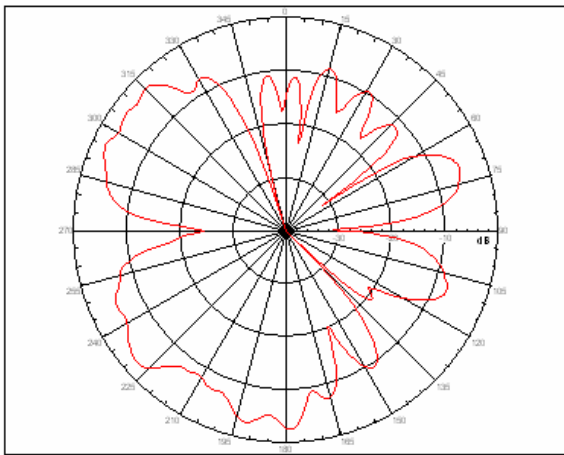


H-Pol

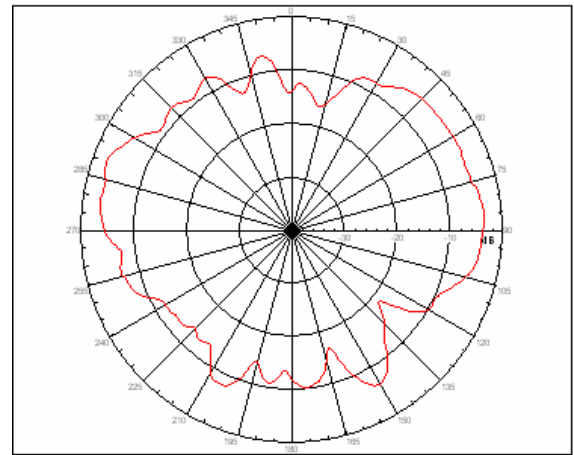


V-Pol

3950MHz		
Horizontal Peak	-5.17dBi	179deg
Vertical Peak	-4.55dBi	-1deg

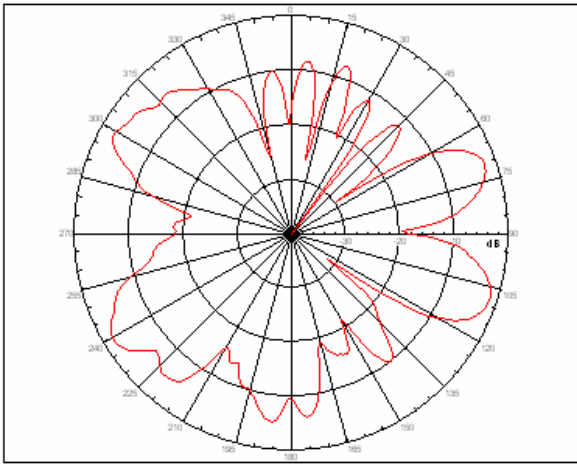


H-Pol

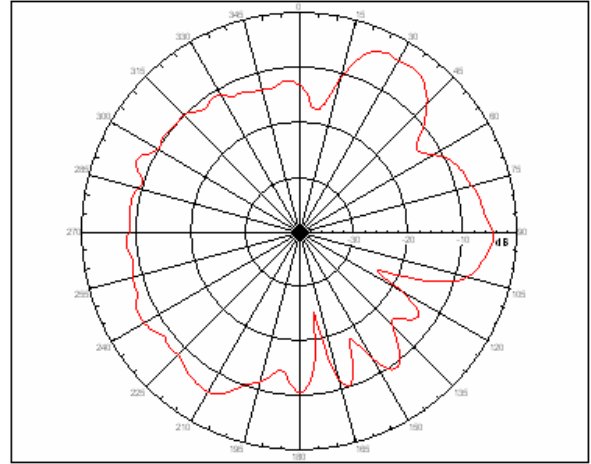


V-Pol

4200MHz		
Horizontal Peak	-2.53dBi	-45deg
Vertical Peak	-2.68dBi	-70deg

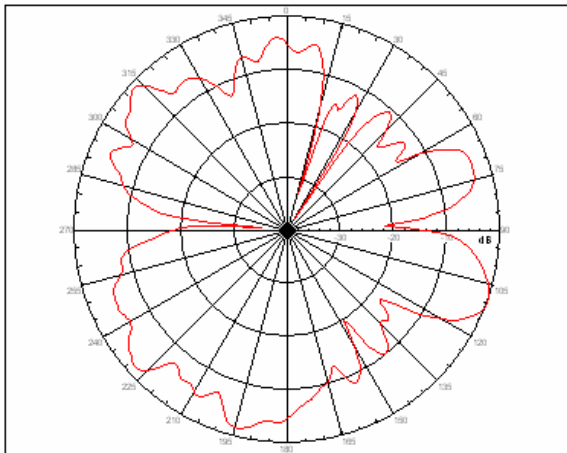


H-Pol

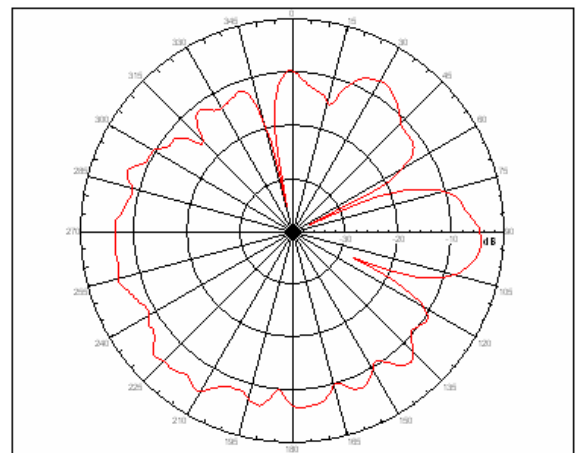


V-Pol

4500MHz		
Horizontal Peak	-1.71dBi	108deg
Vertical Peak	-3.70dBi	34deg



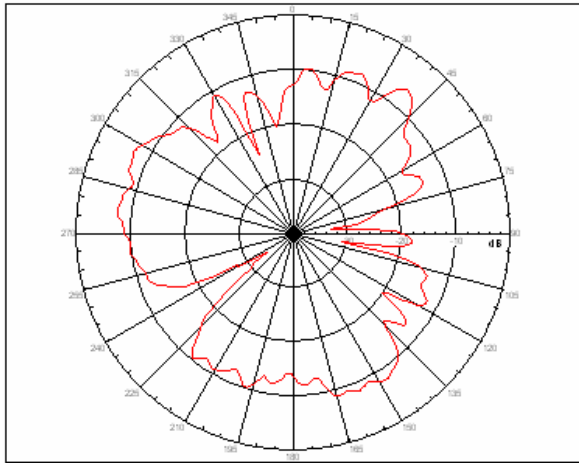
H-Pol



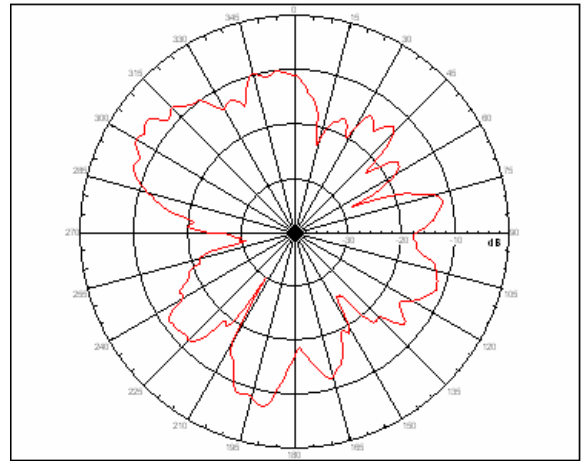
V-Pol

4800MHz		
Horizontal Peak	-0.19dBi	110deg
Vertical Peak	-4.50dBi	93deg

### 3.2 US, Band Group-3 (6300- 8000MHz)

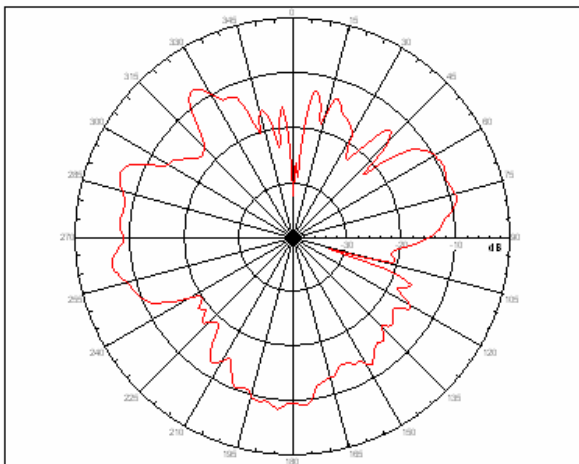


H-Pol

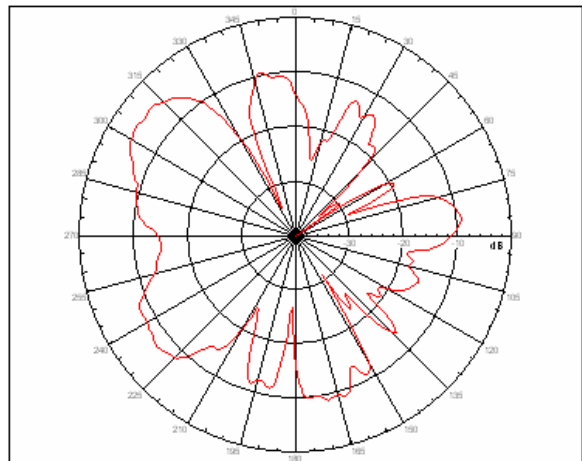


V-Pol

6300MHz		
Horizontal Peak	-6.88dBi	39deg
Vertical Peak	-5.58dBi	-53deg

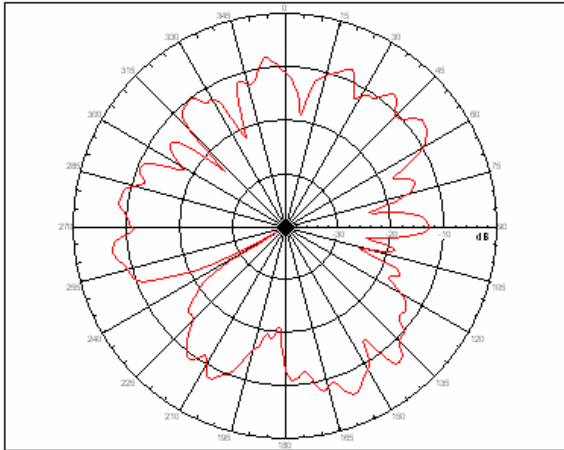


H-Pol

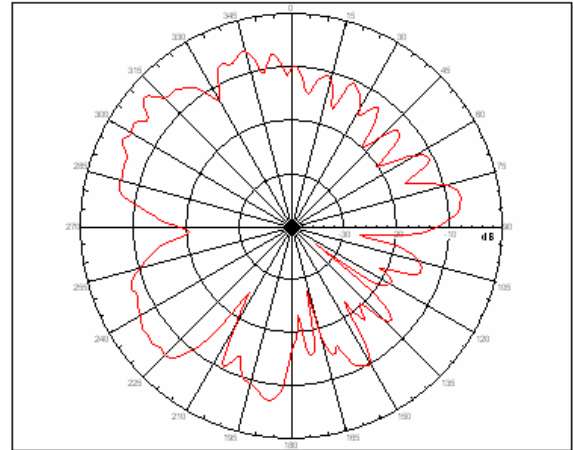


V-Pol

6600MHz		
Horizontal Peak	-6.37dBi	-70deg
Vertical Peak	-4.46dBi	-49deg

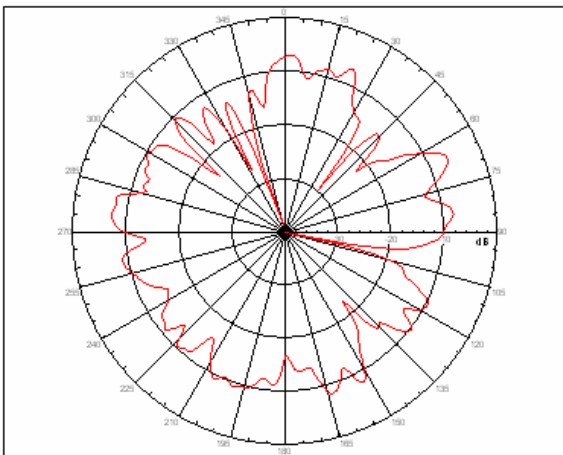


H-Pol

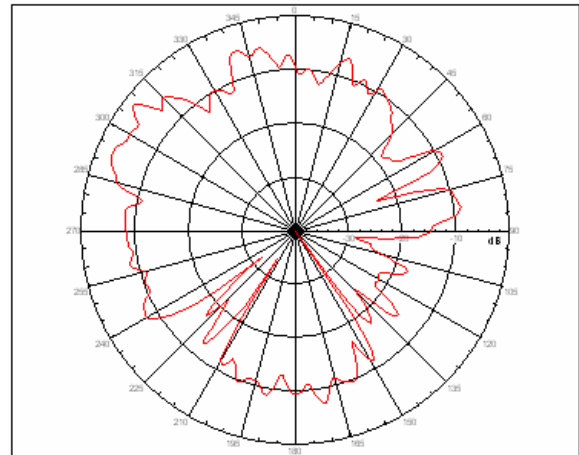


V-Pol

7100MHz		
Horizontal Peak	-6.03dBi	157deg
Vertical Peak	-3.08dBi	-49deg

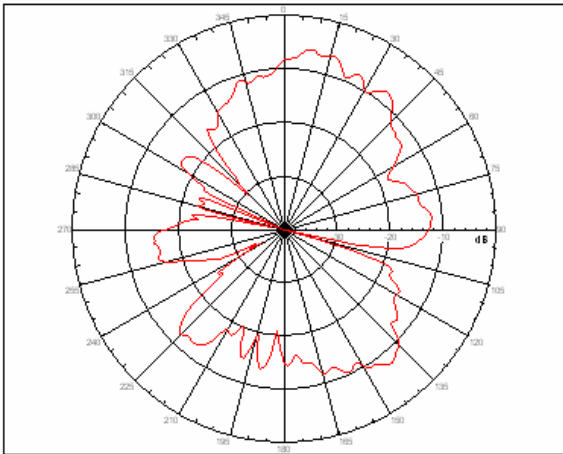


H-Pol

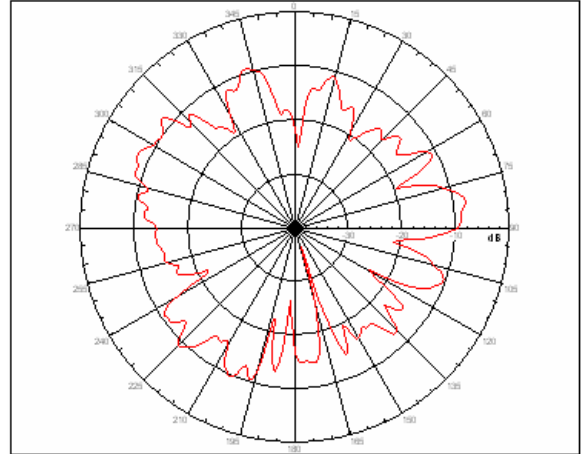


V-Pol

7400MHz		
Horizontal Peak	-6.67dBi	66deg
Vertical Peak	-1.96dBi	-52deg

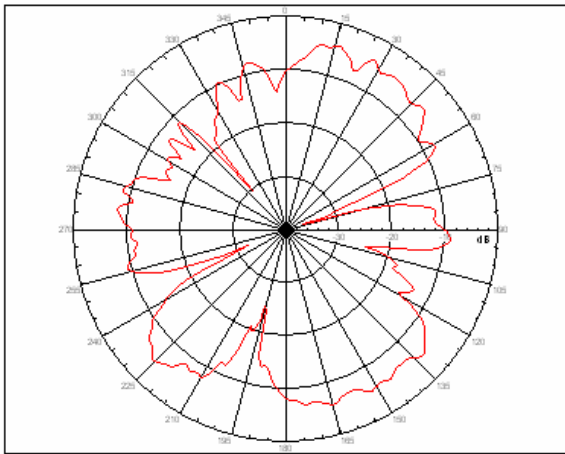


H-Pol

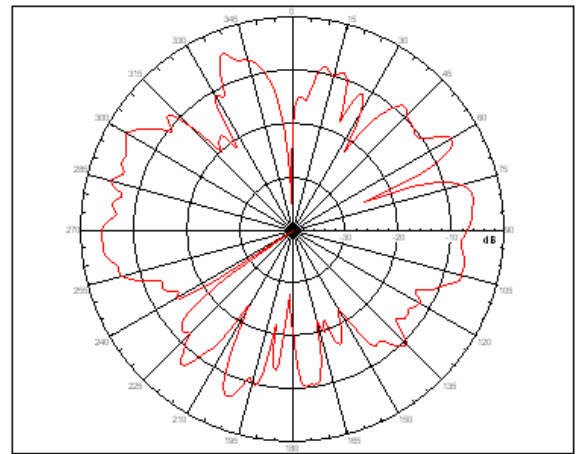


V-Pol

7700MHz		
Horizontal Peak	-6.08dBi	9deg
Vertical Peak	-7.76dBi	-65deg



H-Pol

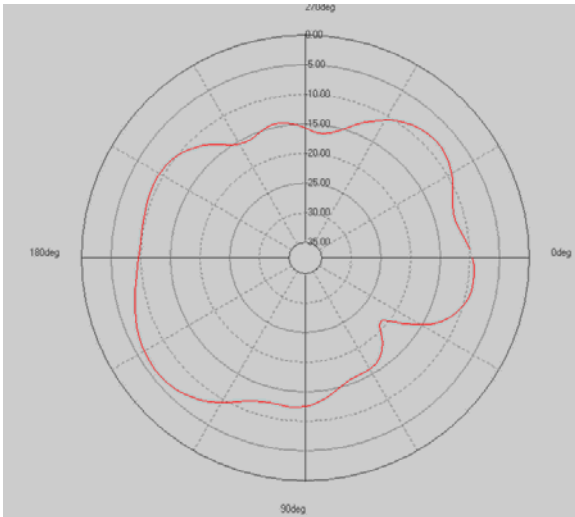


V-Pol

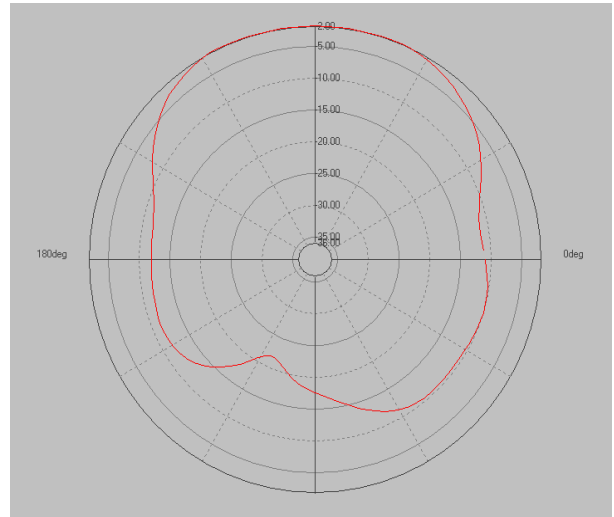
8000MHz		
Horizontal Peak	-4.33dBi	16deg
Vertical Peak	-3.89dBi	-60deg



### 3.3 Japan, Band Group-1 (3400- 4800MHz)

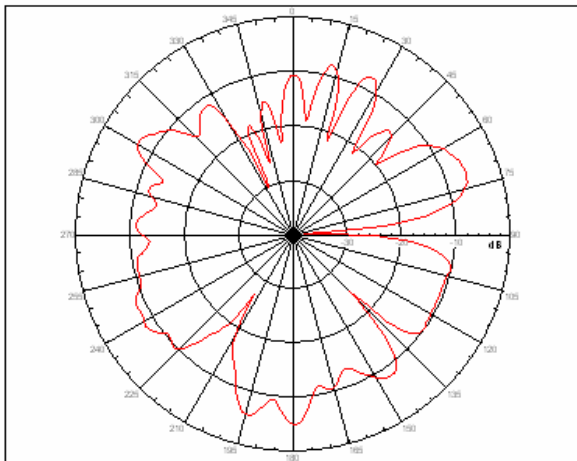


H-Pol

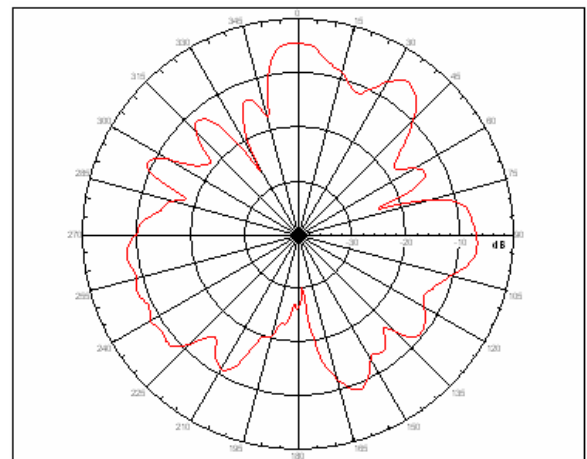


V-Pol

3400MHz		
Horizontal Peak	-1.24dBi	272.81deg
Vertical Peak	-6.12dBi	143.44deg

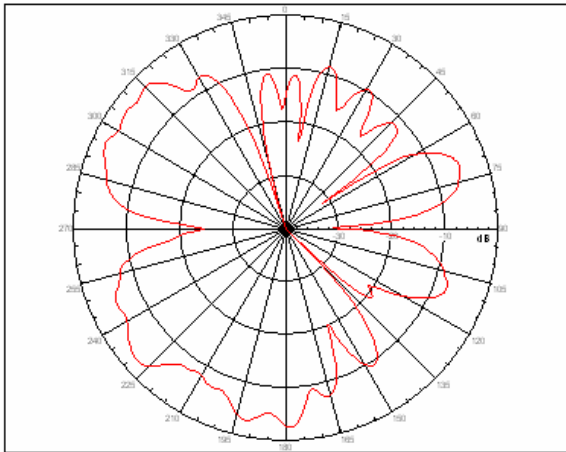


H-Pol

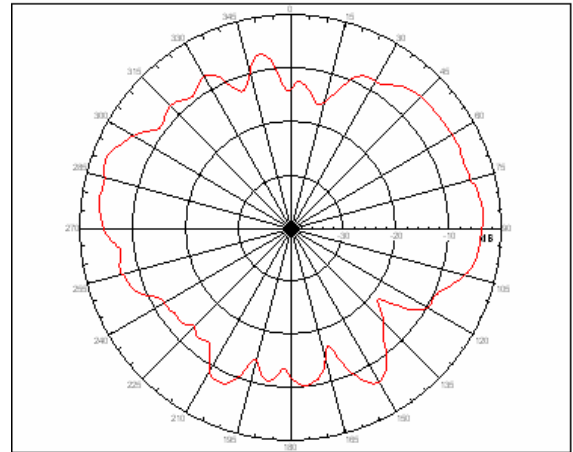


V-Pol

3950MHz		
Horizontal Peak	-5.17dBi	179deg
Vertical Peak	-4.55dBi	-1deg

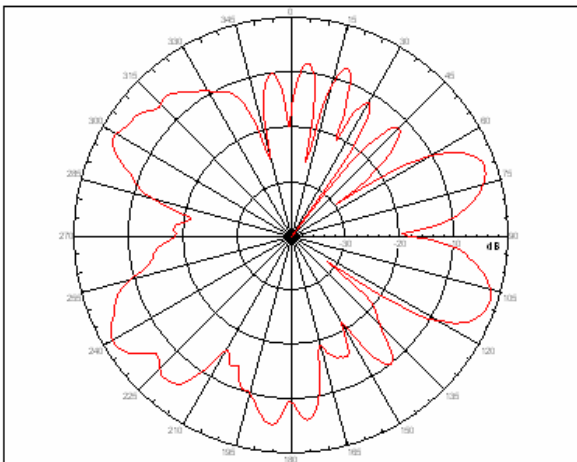


H-Pol

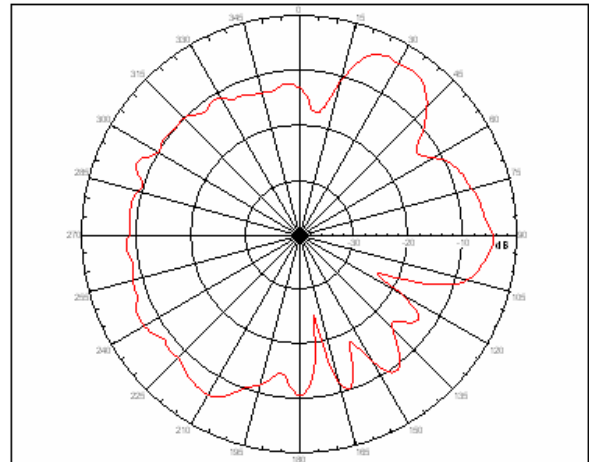


V-Po

4200MHz		
Horizontal Peak	-2.53dBi	-45deg
Vertical Peak	-2.68dBi	-70deg

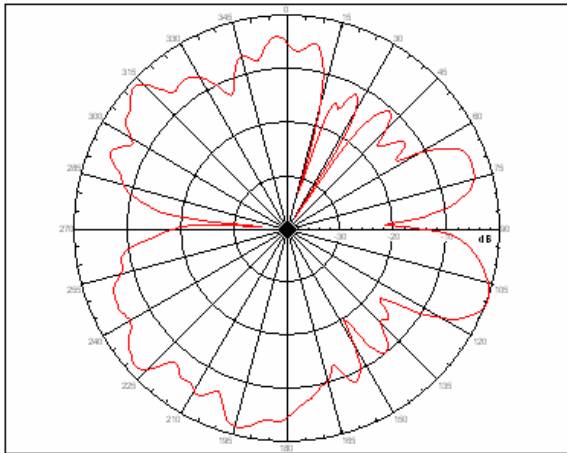


H-Pol

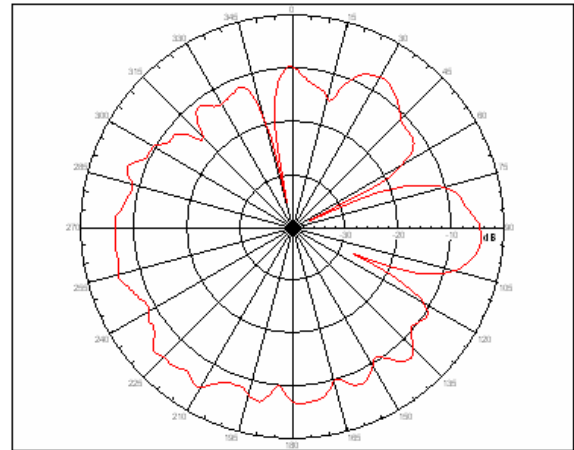


V-Pol

4500MHz		
Horizontal Peak	-1.71dBi	108deg
Vertical Peak	-3.70dBi	34deg



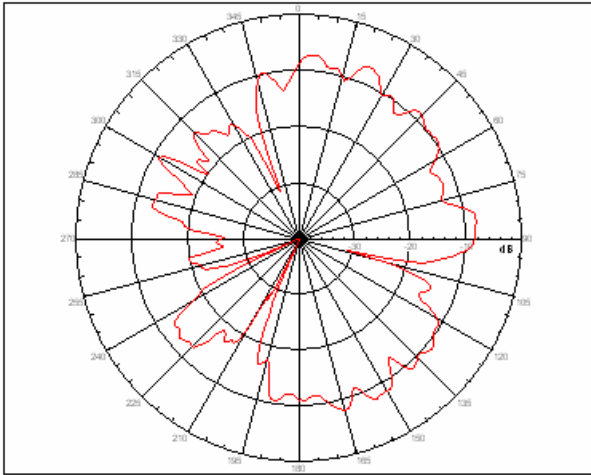
H-Pol



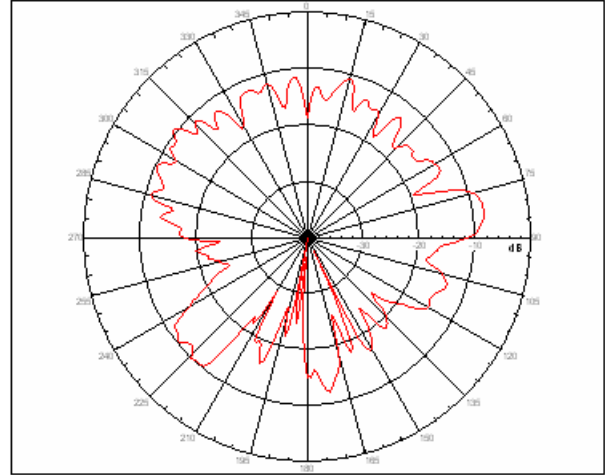
V-Pol

800MHz		
Horizontal Peak	-0.19dBi	110deg
Vertical Peak	-4.50dBi	93deg

### 3.4 Japan, Band Group-3 (7250- 8000MHz)

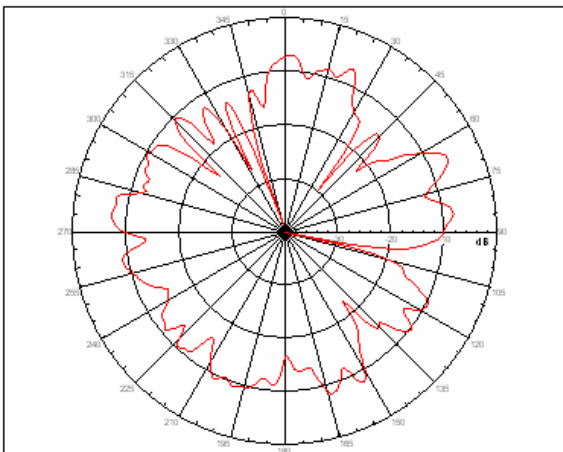


H-Pol

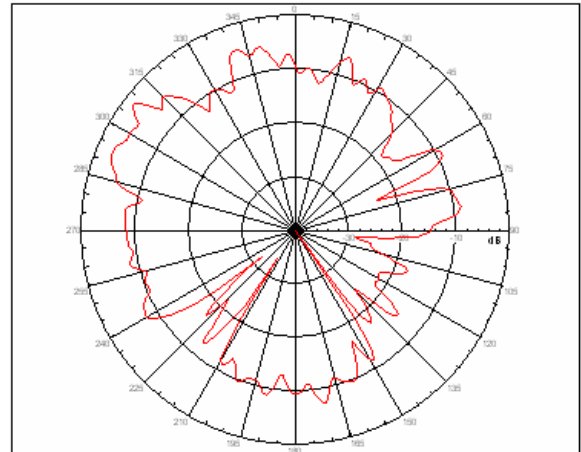


V-Pol

7250MHz		
Horizontal Peak	-7.04dBi	22deg
Vertical Peak	-8.28dBi	81deg

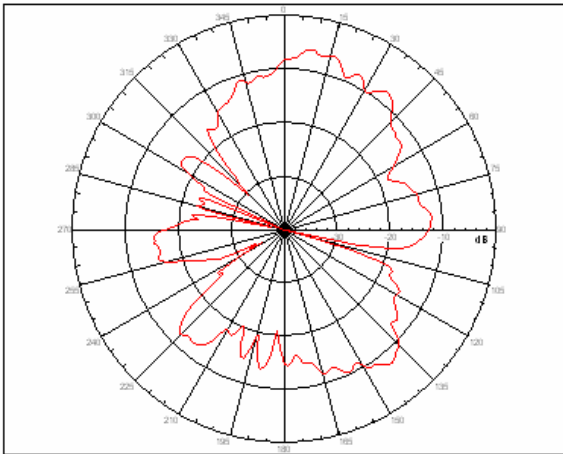


H-Pol

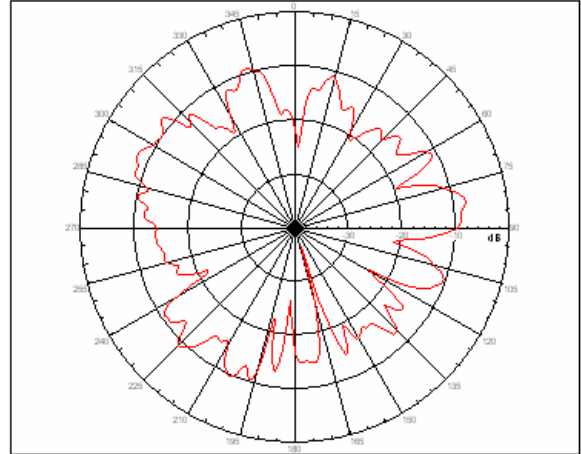


V-Pol

7400MHz		
Horizontal Peak	-6.67dBi	66deg
Vertical Peak	-1.96dBi	-52deg

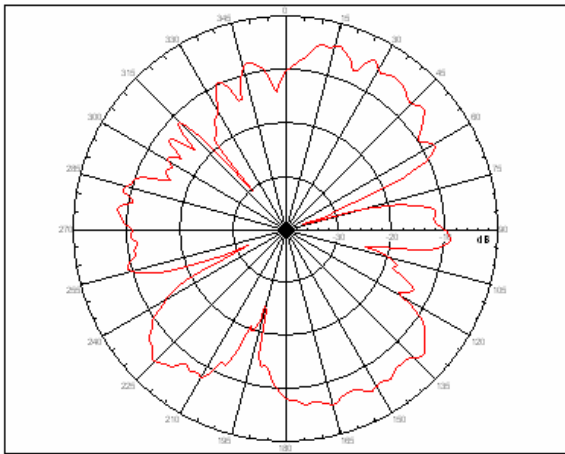


H-Pol

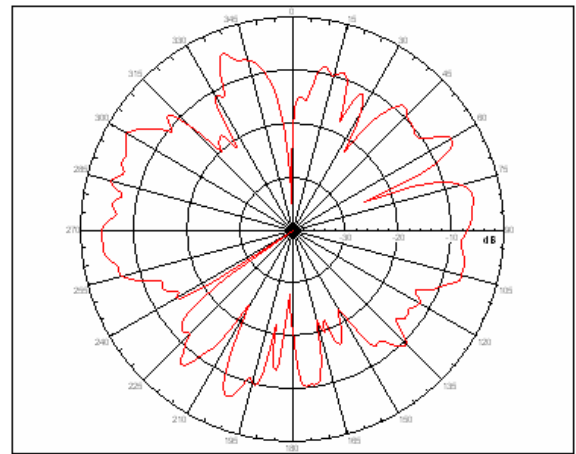


V-Pol

7700MHz		
Horizontal Peak	-6.08dBi	9deg
Vertical Peak	-7.76dBi	-65deg



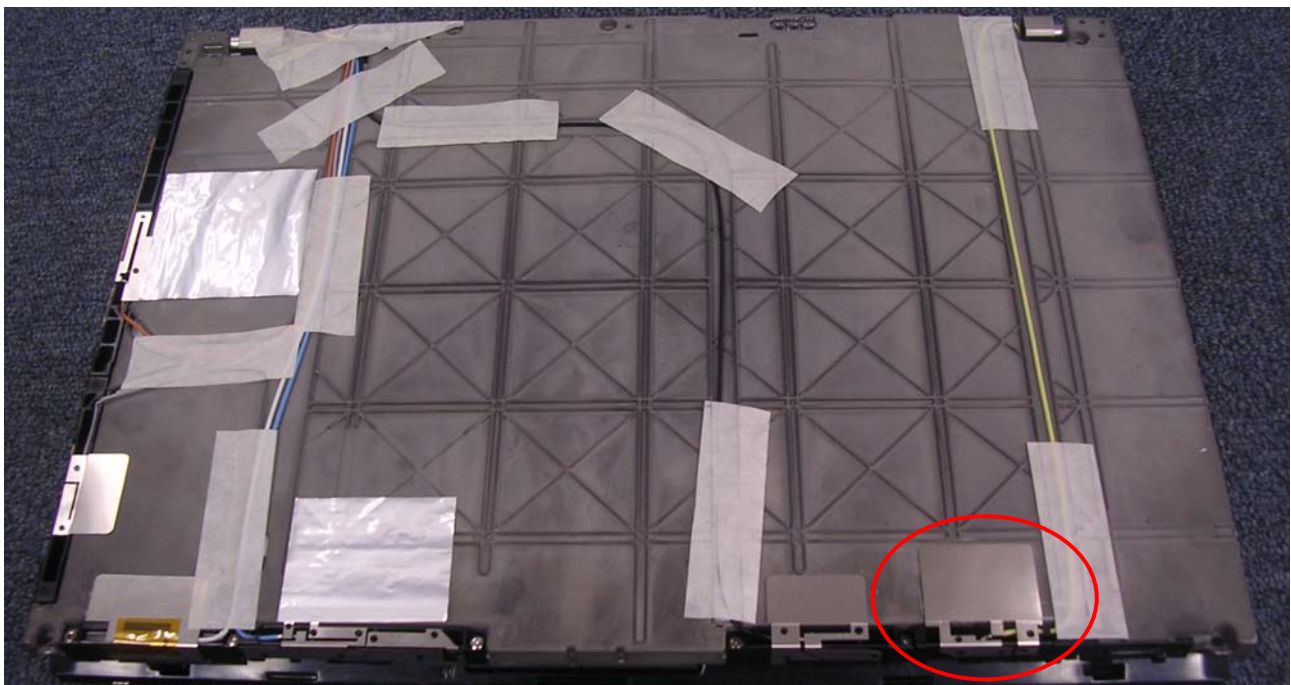
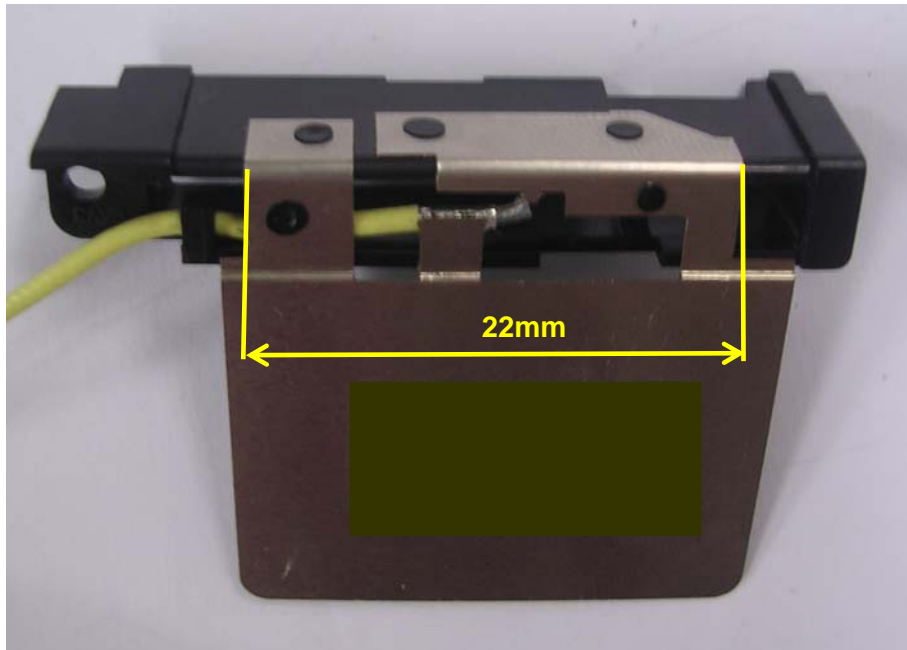
H-Pol



V-Pol

8000MHz		
Horizontal Peak	-4.33dBi	16deg
Vertical Peak	-3.89dBi	-60deg

#### 4. Exterior Photos of Antenna



UWB antenna

## 5. Antenna location



LCD rear view

