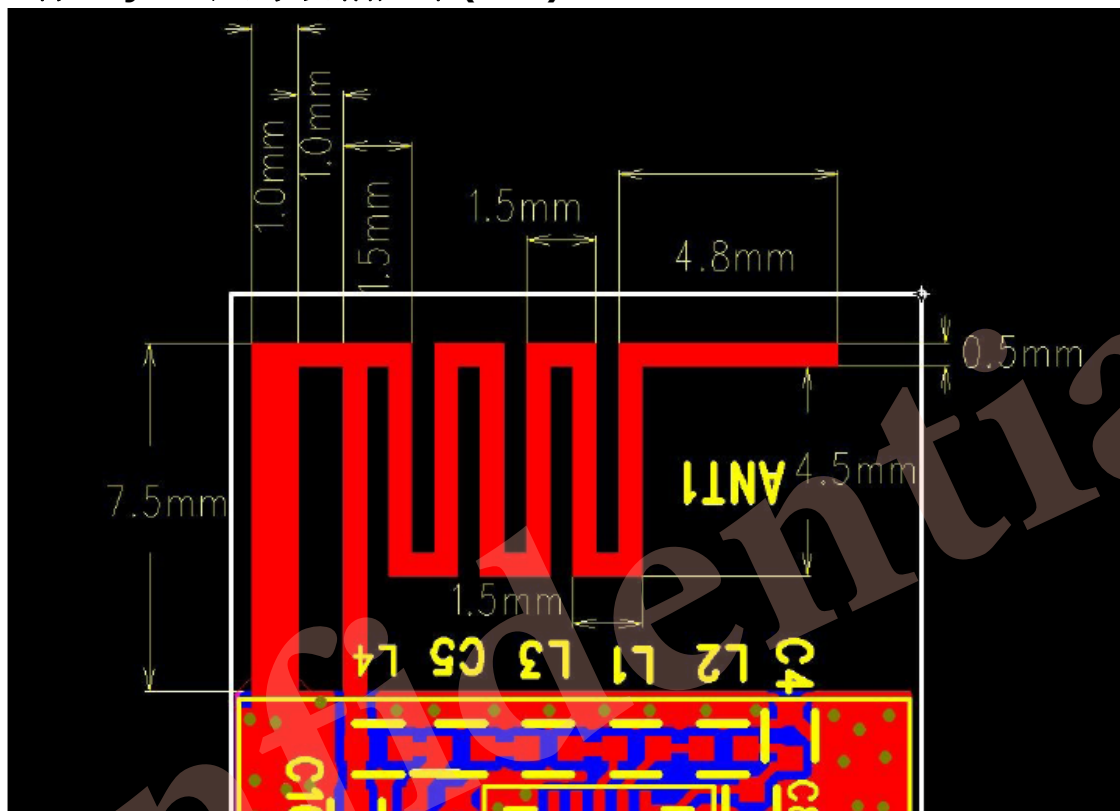


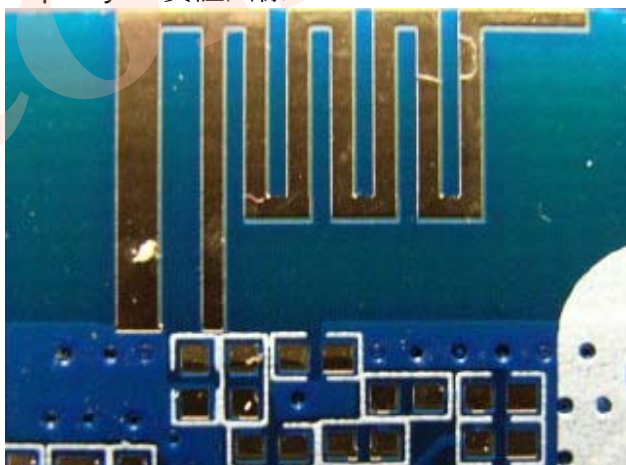
Type_2 Antenna Design Layout Guidelines & Pattern

1.天線Layout尺寸規格如下(mm):



(圖示一)

Top-Layer 實體圖樣



(圖示二)

2.PCB板設定如下:

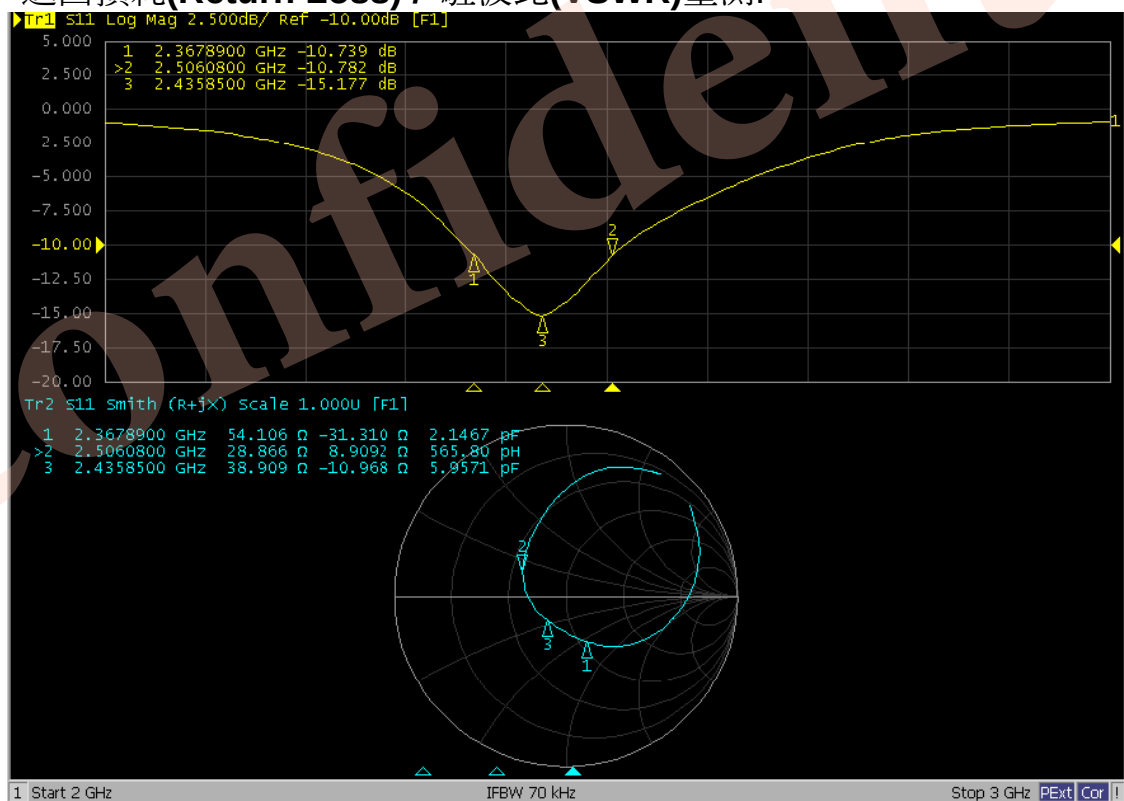
此天線型態適用於 **A. PCB板厚為_1.6mm**

B. PCB板材為_FR4

*如果PCB厚度與大小尺寸與上述規格不一致時,會因板厚及地(鋪銅)面積大小而影響天線特性. 此時可在Layout時以修改天線長度尺寸來做調適!!(如增加或是修減最末端4.8mm的尺寸)

3.天線量測及場形模擬結果如下:

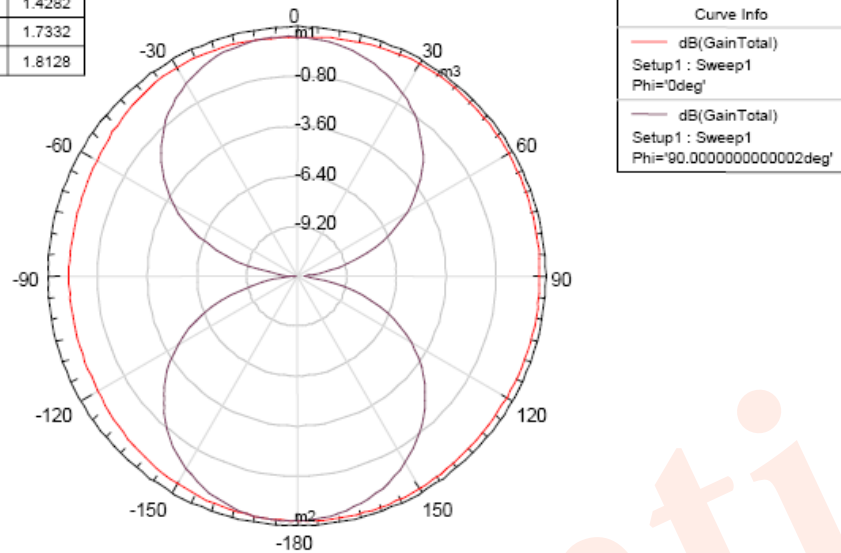
*返回損耗(Return Loss) / 駐波比(VSWR)量測:



(圖示三)

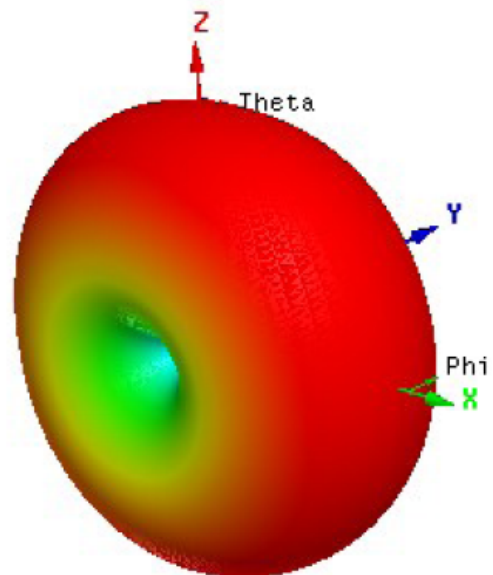
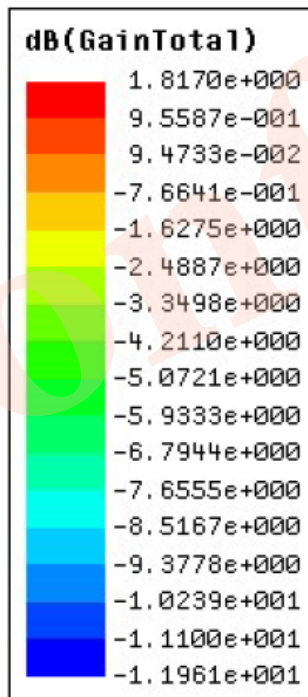
*2D場形模擬圖:

Name	Theta	Ang	Mag
m1	0.0000	0.0000	1.4282
m2	180.0000	180.0000	1.7332
m3	36.0000	36.0000	1.8128



(圖示四)

*3D場形模擬圖:



(圖示五)

由上面量測及模擬後可得知此款天線的增益約可達到1.5dBi左右.

4.天線實際場形(強)測試如下:

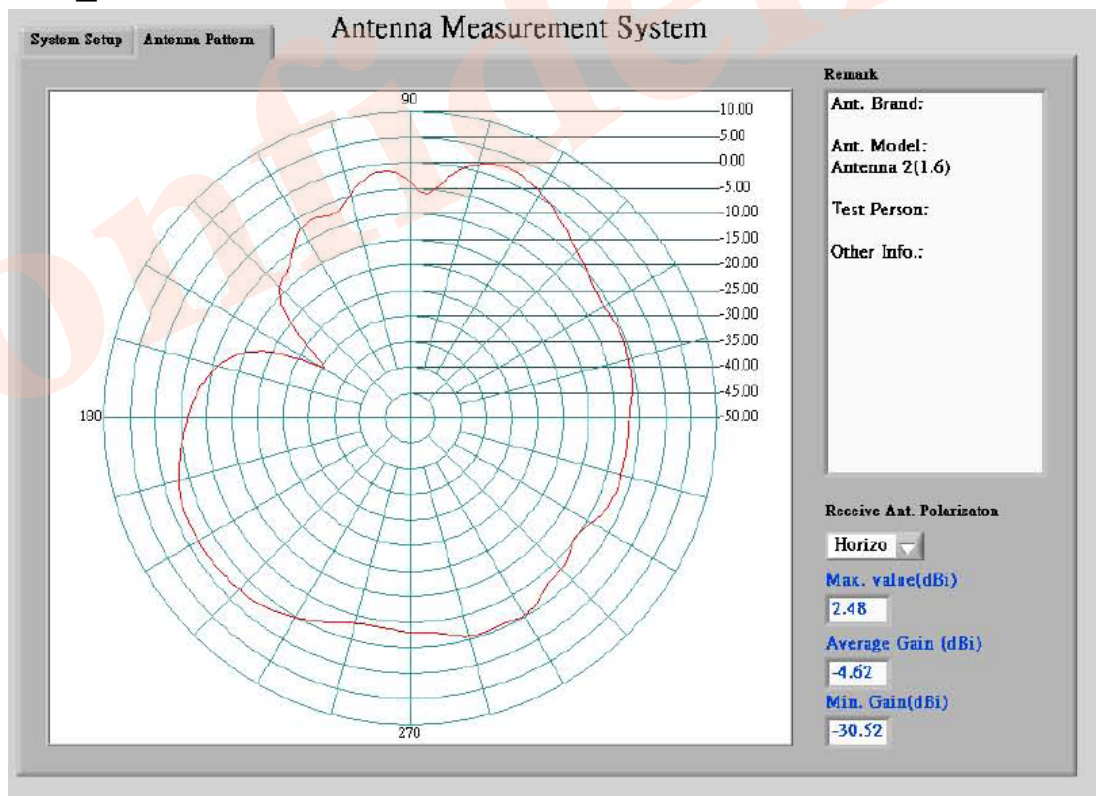
Summary

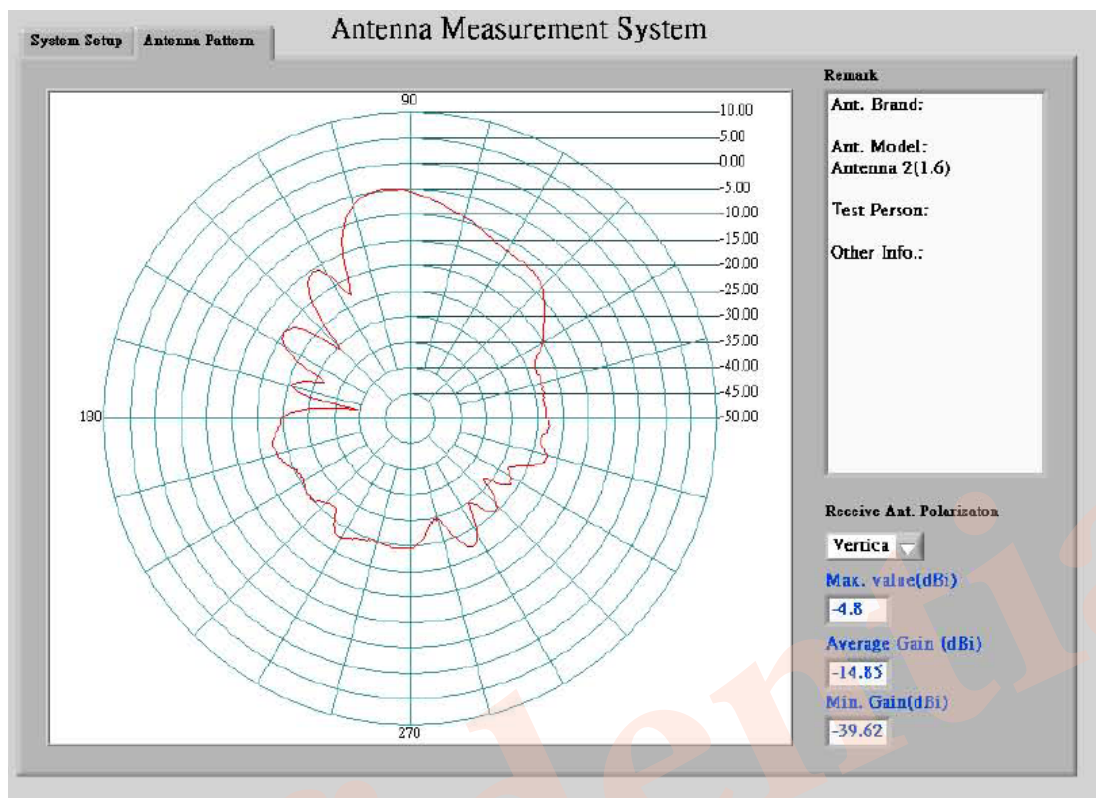
ITEM	SPEC.	
Antenna Type	Type_2_Single Wigggle Antenna	
Center Frequency	2400 MHz	2.48 dBi
	2450 MHz	2.82 dBi
	2500 MHz	3.7 dBi
Max. GAIN	3.7 dBi	
Mini. GAIN	- 48.85 dBi	
AVG GAIN	- 4.62 dBi	
DUT Polarization	Horizontal & Vertical	
TEST Output Power Level	10dBm	
Impedance	50 Ω	

(表一)

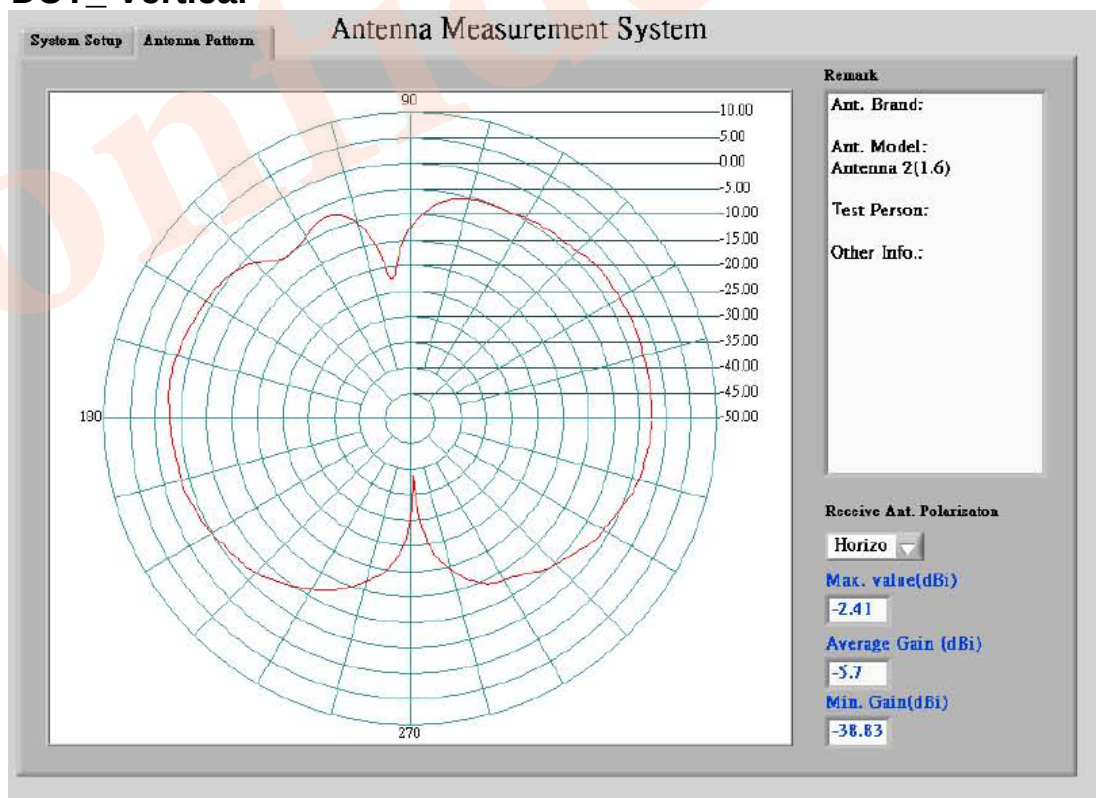
Center Frequency_2400MHz

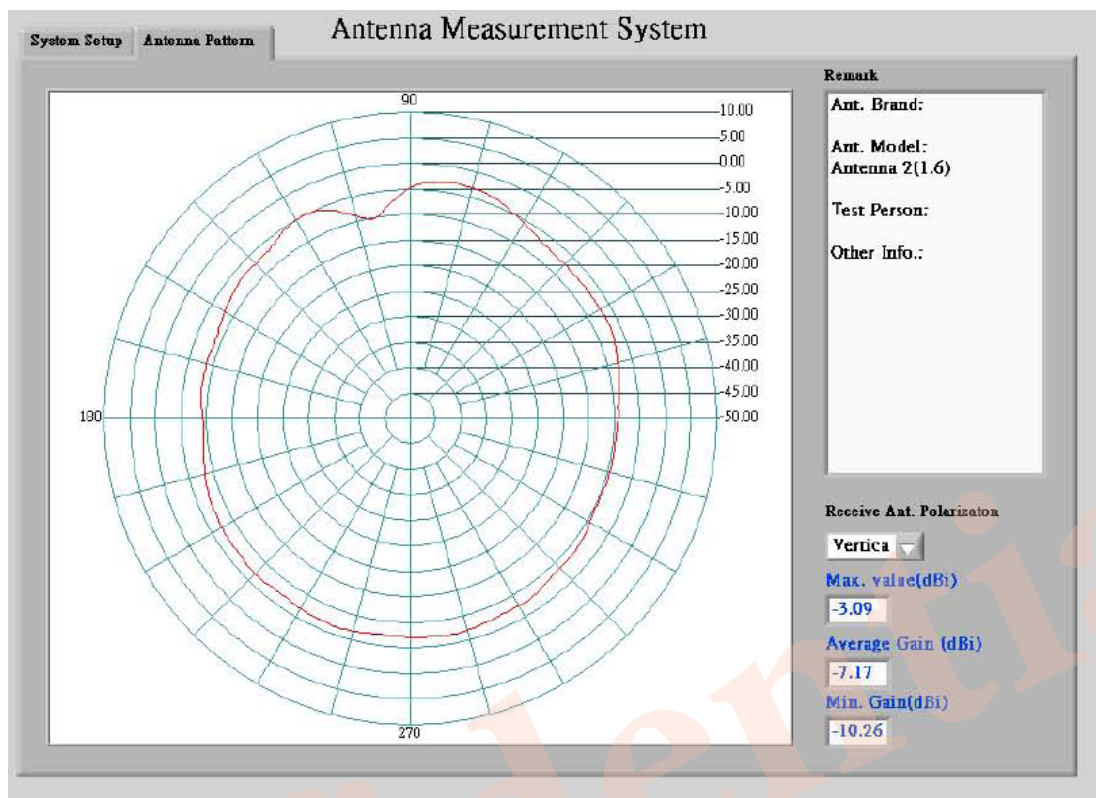
*DUT_ Horizontal





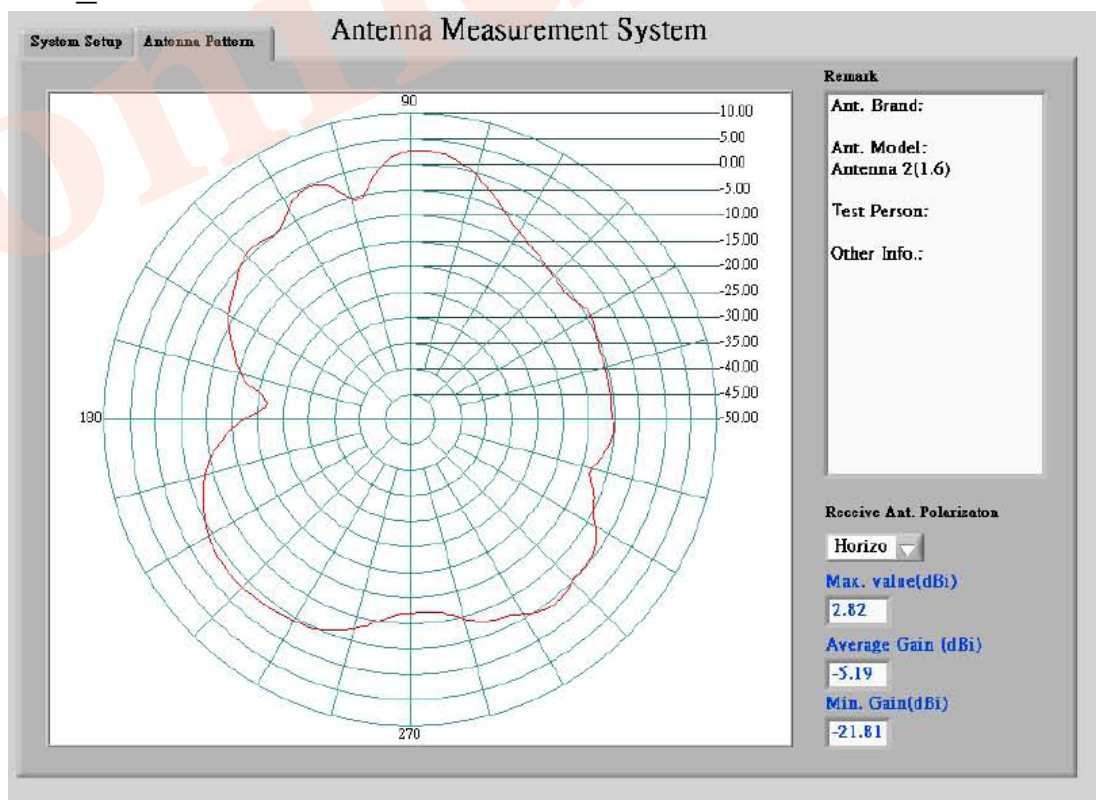
* DUT_Veritical

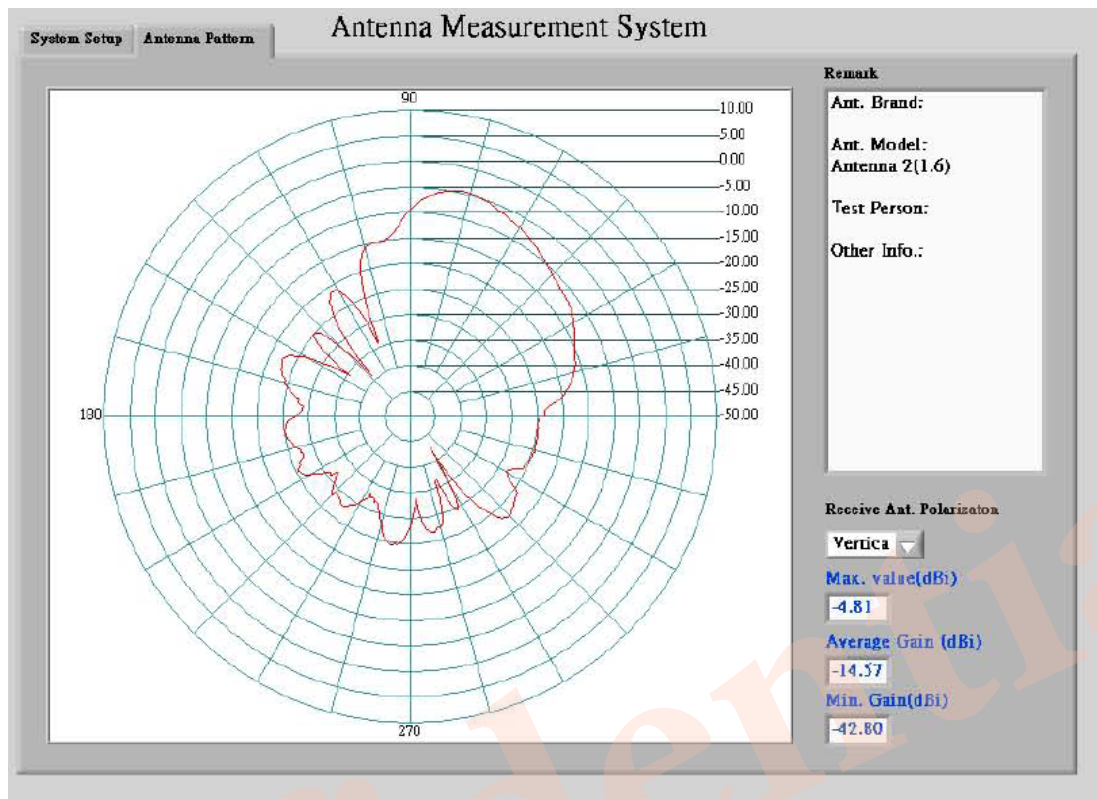




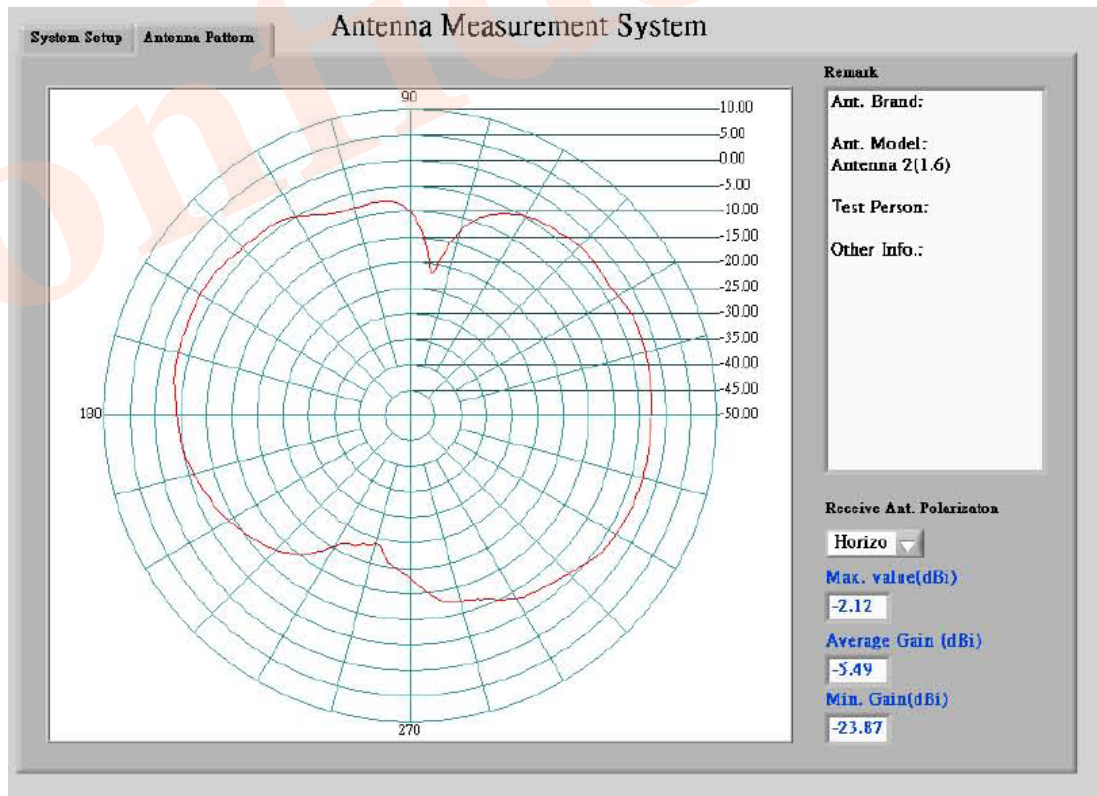
Center Frequency_2450MHz

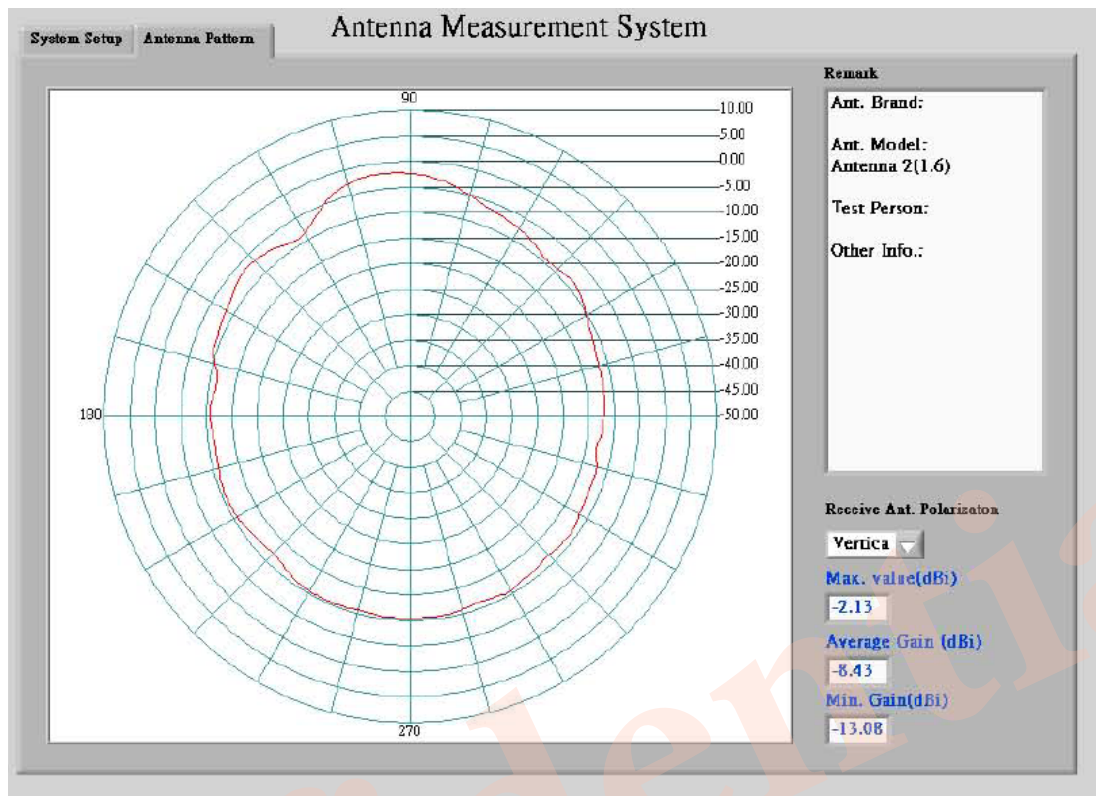
*DUT_ Horizontal





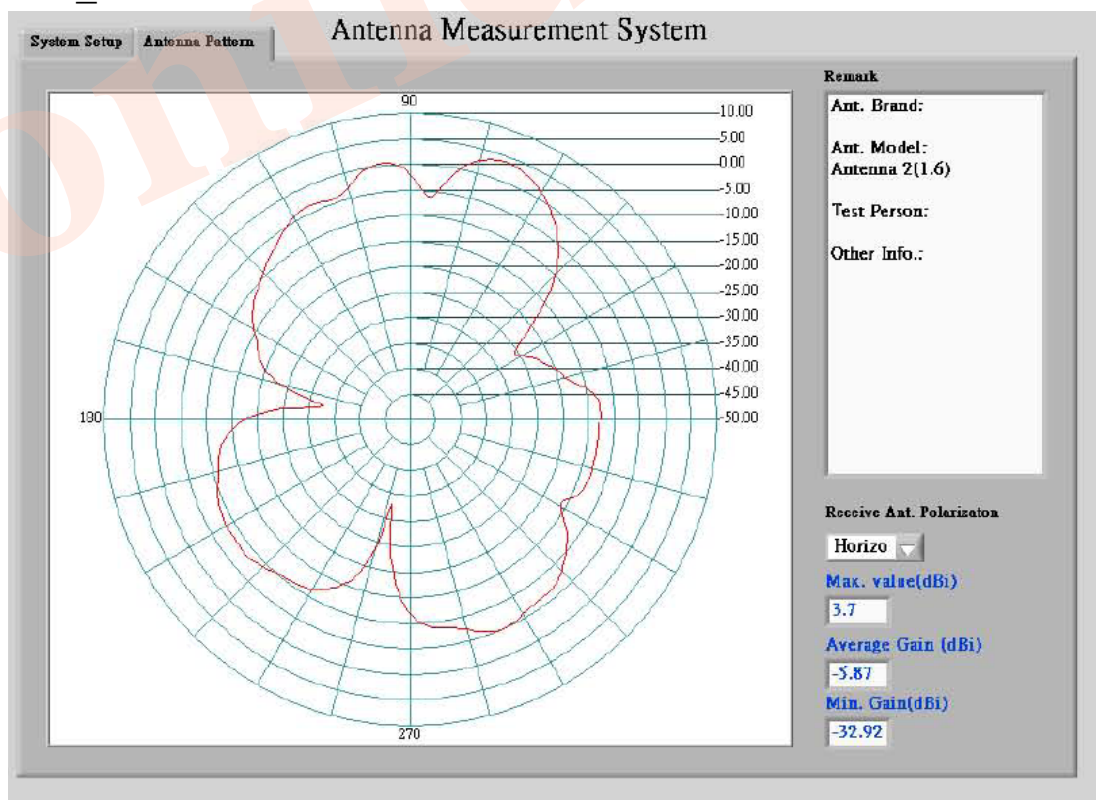
*DUT_Vertical

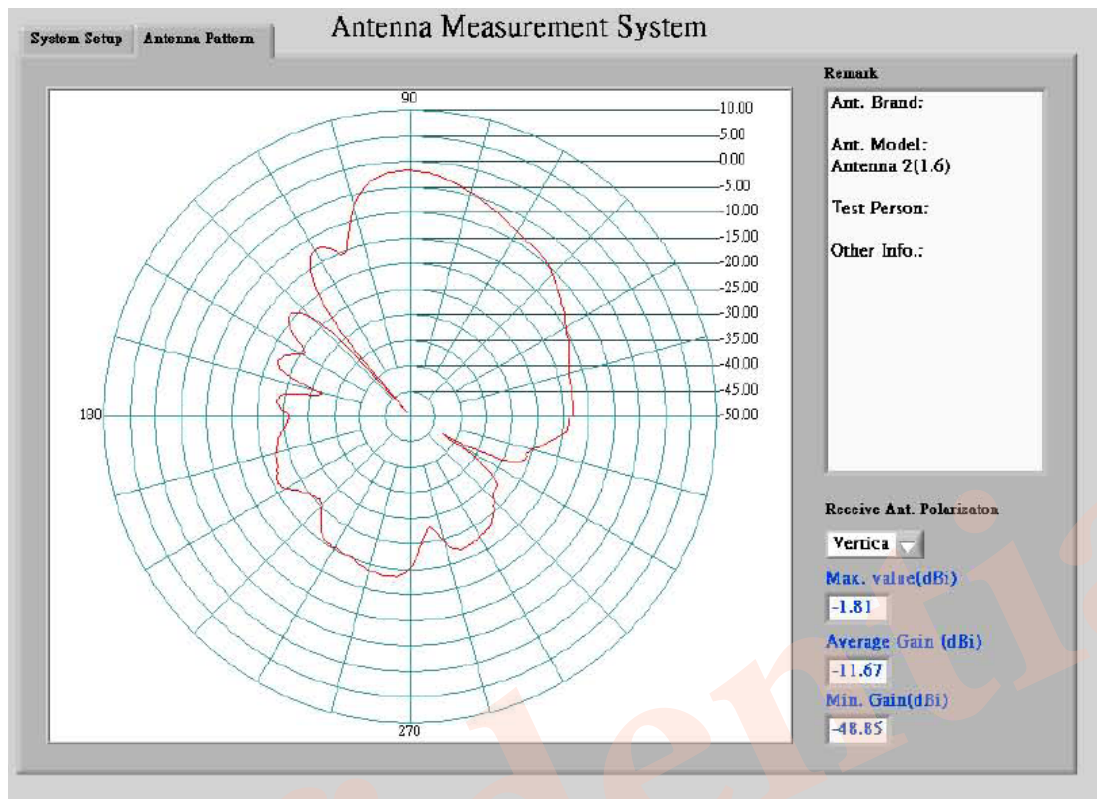




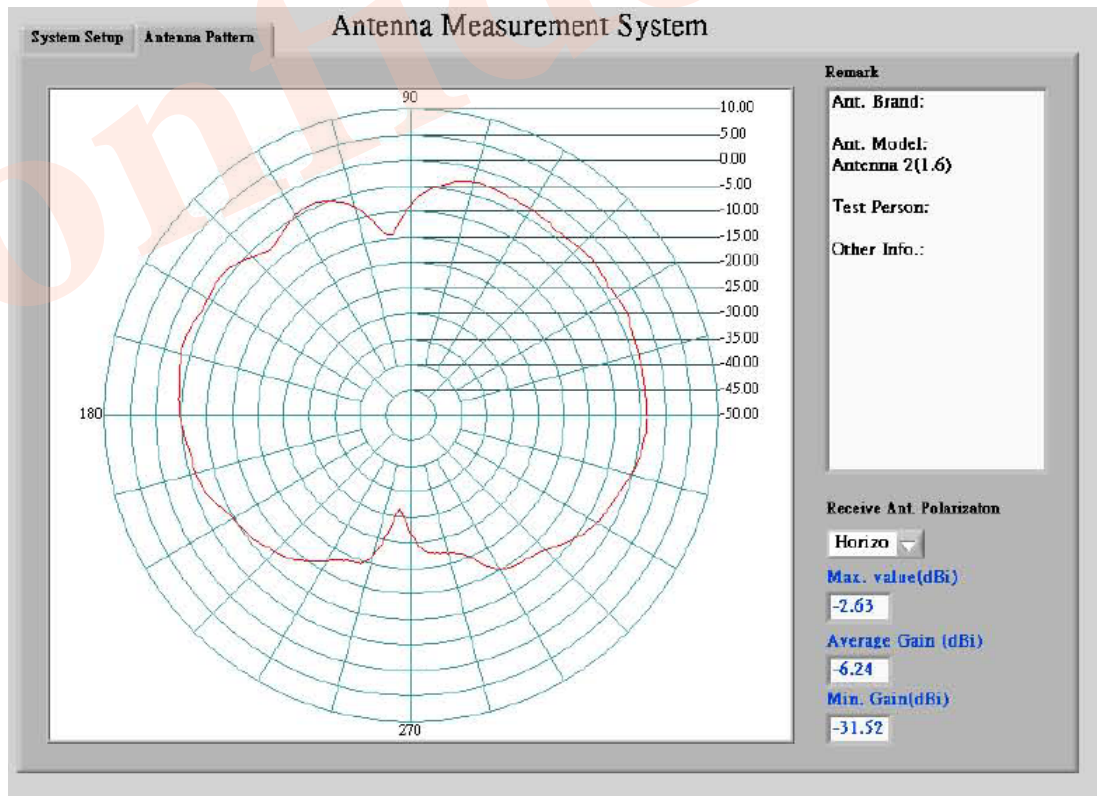
Center Frequency_2500MHz

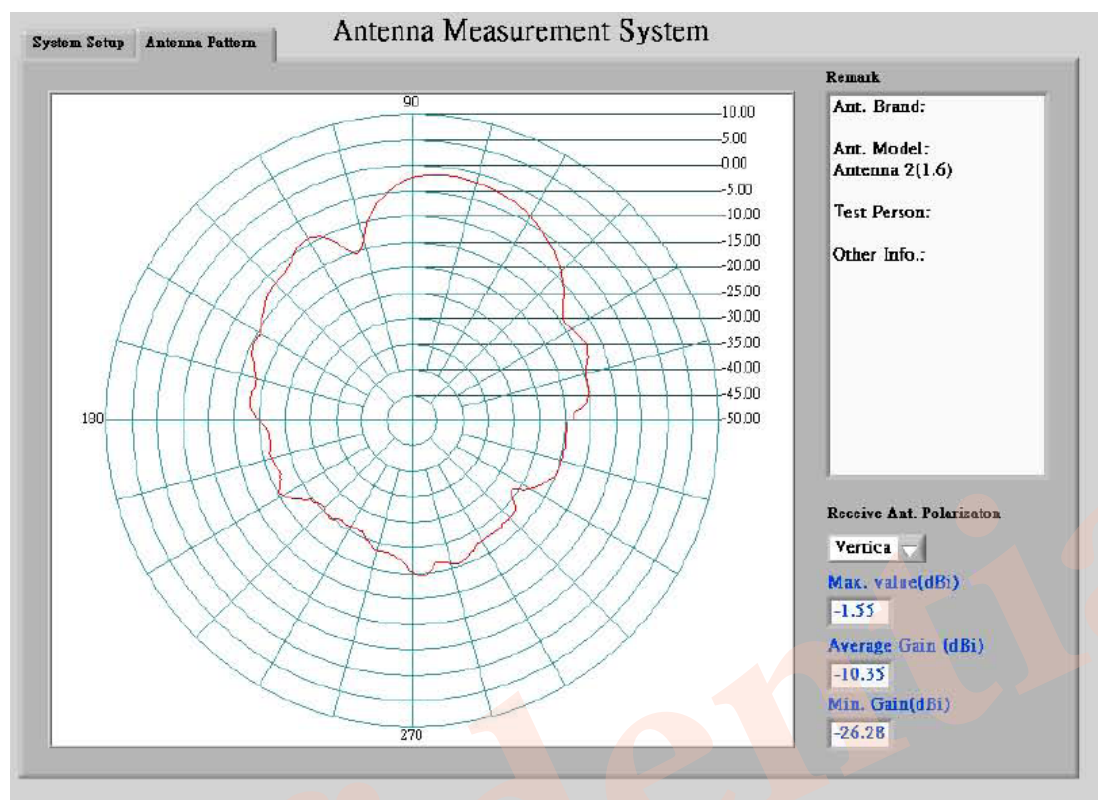
*DUT_ Horizontal





*DUT_Vertical





5.結論

經由上面的綜合量測後可得知此款天線的增益確實可達到1.5dBi以上其最大的增益甚至可以達到3.7dBi.