承　　認　　書
SPECIFICATION FOR APPROVAL

客　　戶 CUSTOMER	Hansong(NanJing)Technology Ltd
日　　期 DATE	2018-07-11
品　　名 DESCRIPTION	Antenna
客 戶 料 號 CUSTOMER P/N	45-2-000320
成 品 編 號 Model No	RC12WFI0288A1

Suzhou point positive electronic technology co.,ltd

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SPECIFICATION

1. Description	ANTENNA
2. Customer	Hansong(NanJing)Technology Ltd
3. Model No	RC12WFI0228A1
4. Part No	45-2-000320
5.Standard	WIFI
6.Antenna Profile	31.5mm (see Drawing)
7.Color	BLACK

8.Electrical Characteristics

Operating Frequency	2.4 ~5.8Ghz
Antenna Type	External PCB Antenna
Polarization Type	Omni-directional
Type of Radiation	vertical or horizontal
Peak Gain	2.4~5.8Ghz/2.8dBi Typica
Impedance	50Ω
V.S.W.R	2:1 Max

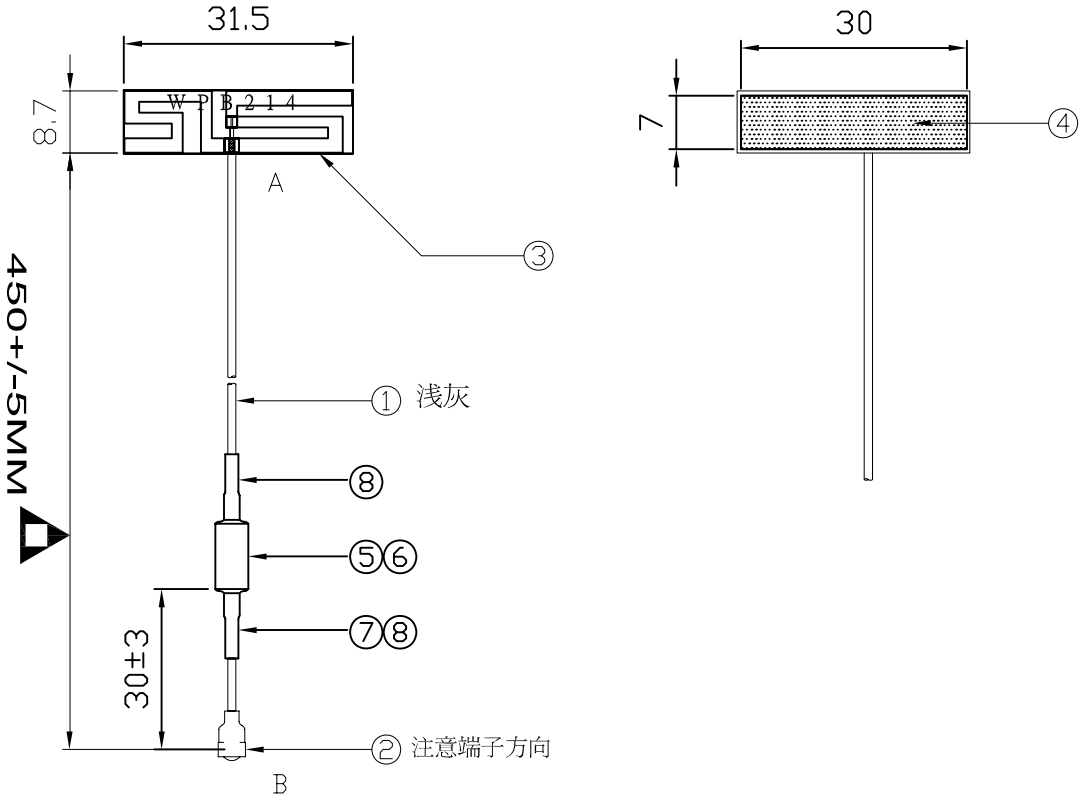
9.Mechanical Characteristics

Swivel	
Lead Length	L:450MM
Connector	MHF CON

10.Raw Material

Coaxial Cable	MINI1.13
Housing/Hinge	N/A

变更内容履历简述 REVISIONS DESCRIPTION	版次 REV.	年月日 DATE	變更切換方式	作成
1				
2				
3				



加工注意项：
1. 天線組立依據天線組立作業指導書規定製作。
依據QC管理工程圖，執行品質管制。

双面背胶

NO.	材料名稱	廠商	零件規格		顏色	切斷尺寸& 備註	用量
8	熱縮套管		CB 无卤套管 2.5 黑	HF	黑		2
7	熱縮套管		CB 无卤套管 1.5 黑	HF	黑		1
6	熱縮套管		CB 无卤套管 4.0 黑	HF	黑		1
5	铁粉芯		F5B RH 4*10*2	HF	黑		1
4	双面背胶		SONY G9000 7*30	HF			1
3	PCB		WPB214	HF	黑		1
2	MHF Connector		MHF-13-CON	HF	金		1
1	MINI 1.13 Coaxial Cable		MINI RG OD:1.13 浅灰	HF	浅灰		1

第3角法	圖面不用實測				部品番號	45-2-000320
單位: mm	作成	檢圖	確認	核准	品名	MINI 1.13 GY 2.4G-5.8G L:450MM
比例: FREE	Alei	Hellen	Roy	David	产品分类	■ A成品 □ B半成品 □ C样品
2018.07.11					公司番號	RC12WFI0288A1

OUTLINE SUMMARY

- Test Environment and Equipment
- Test Data of Antenna:

Test Result : Efficiency & Peak Gain

Test Result : 3D Radiation Pattern Test

TEST ENVIRONMENT AND EQUIPMENTS

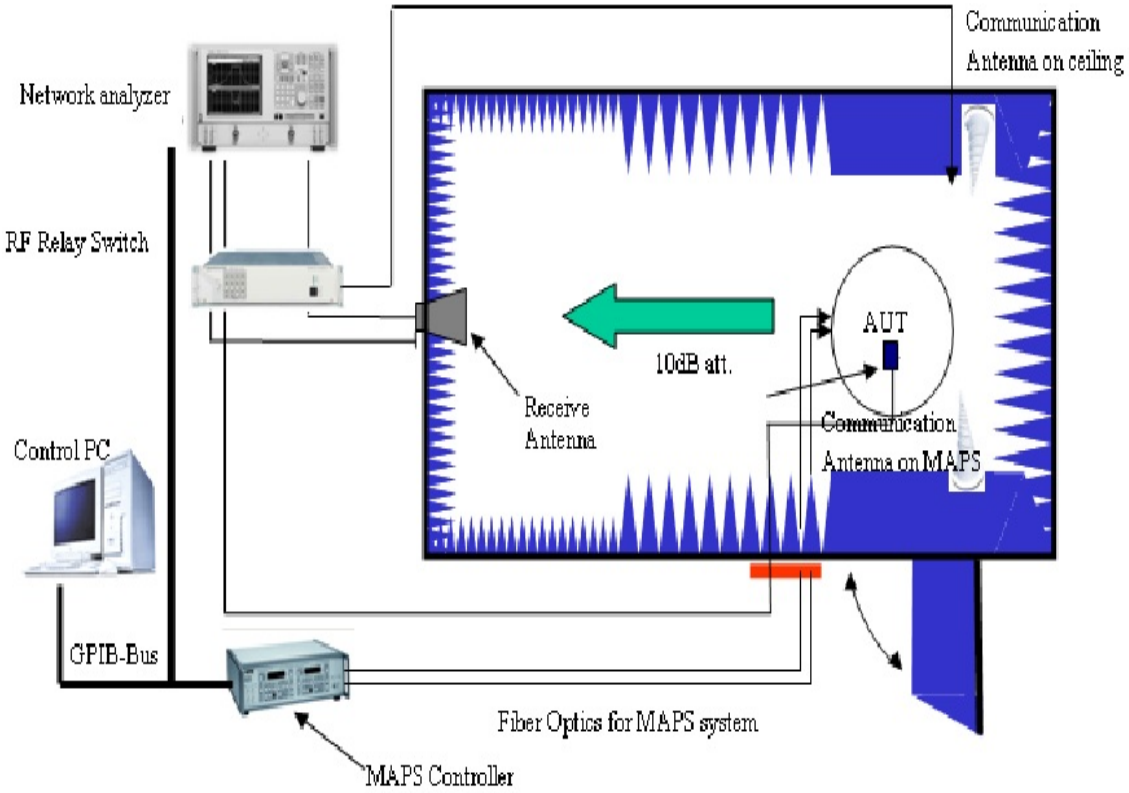
The Gain, Efficiency, Directivity and 3D Pattern

Shanghai EM-Testing Co., Ltd.
https://www.em-testing.com/

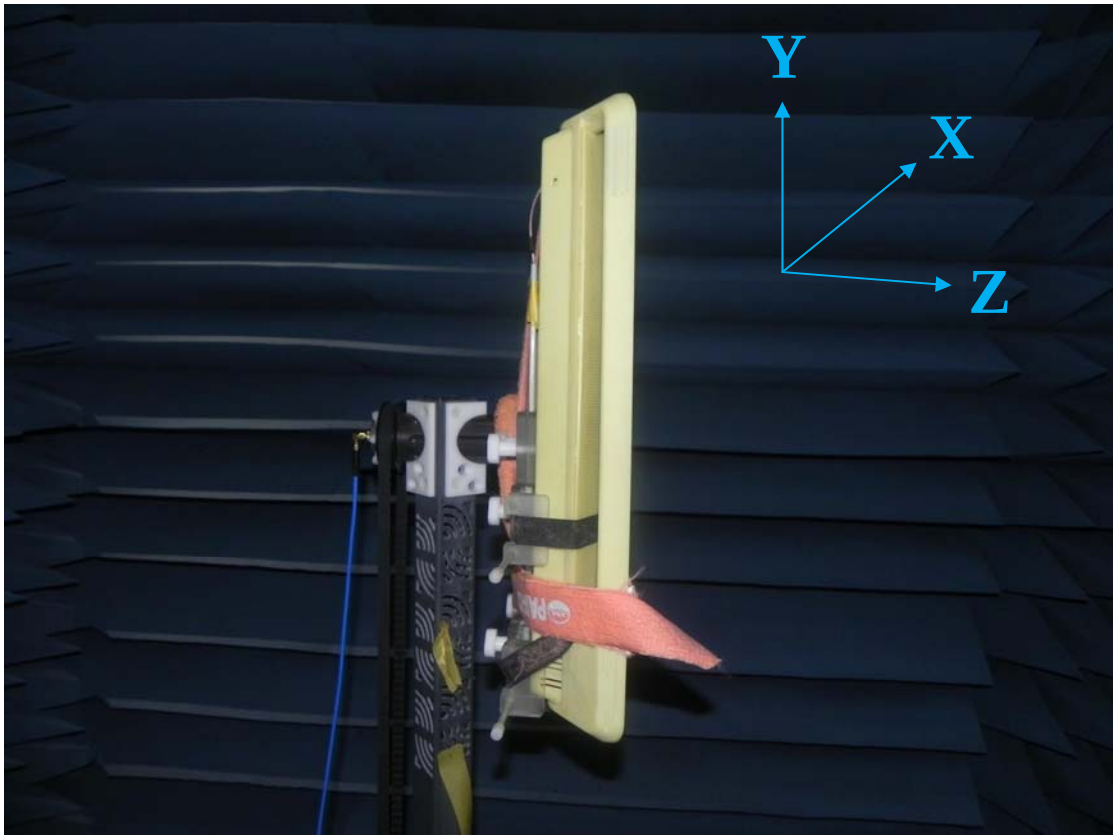
Frequency Range :

WLAN 802.11 a/b/g: 2.40~2.50 & 5.125~5.85 GHz
Bluetooth : 2.4~2.5GHz

Radiation Pattern Test System :



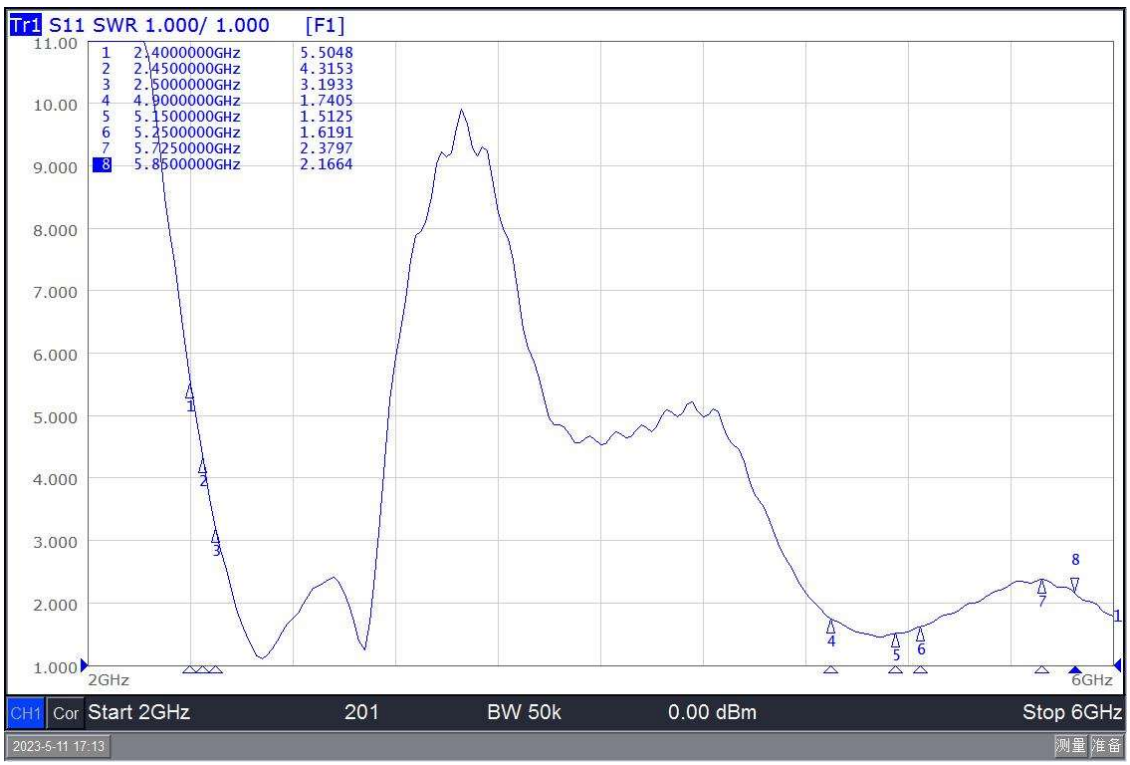
COORDINATE OF STRUCTURE:



Network analyzer (Naked test)

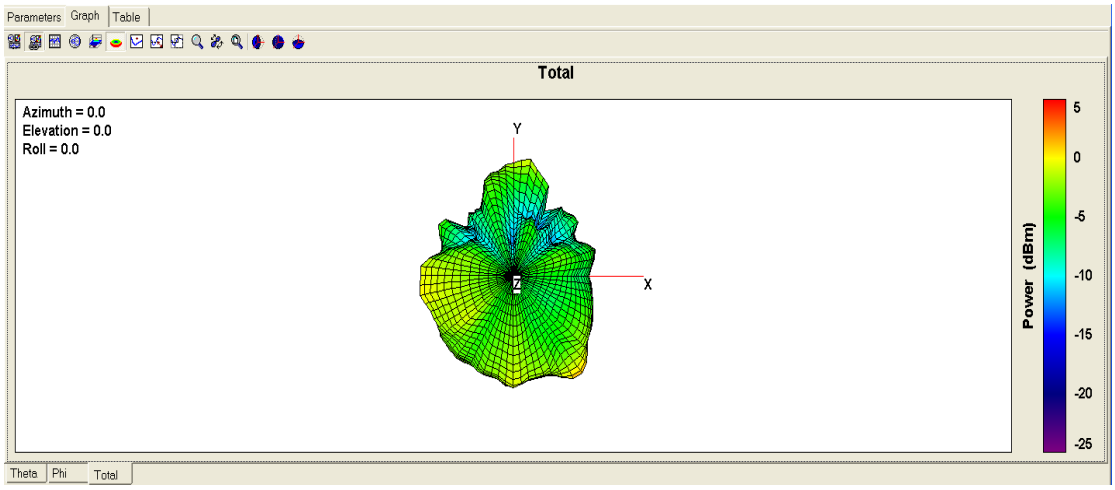
S11

Vswr

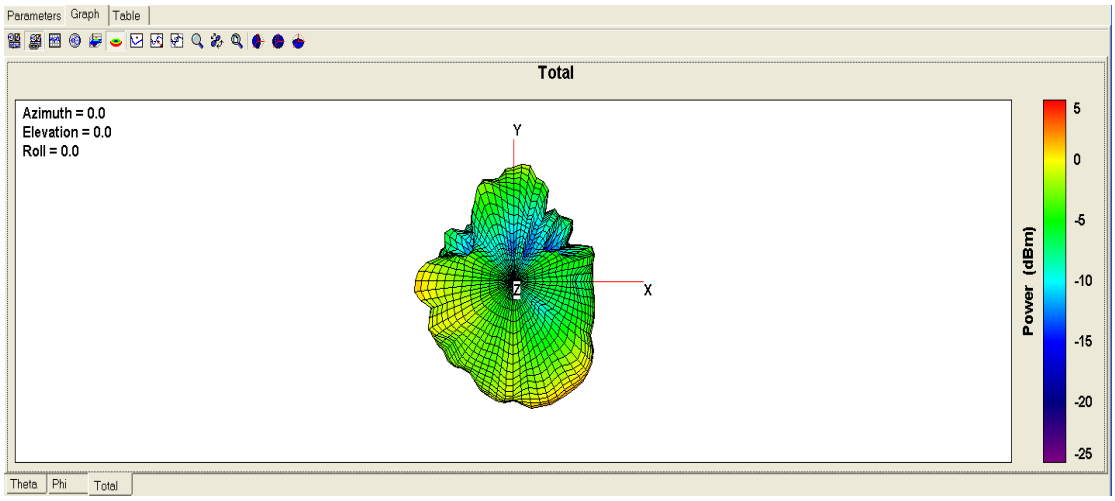


RADIATION PATTERN

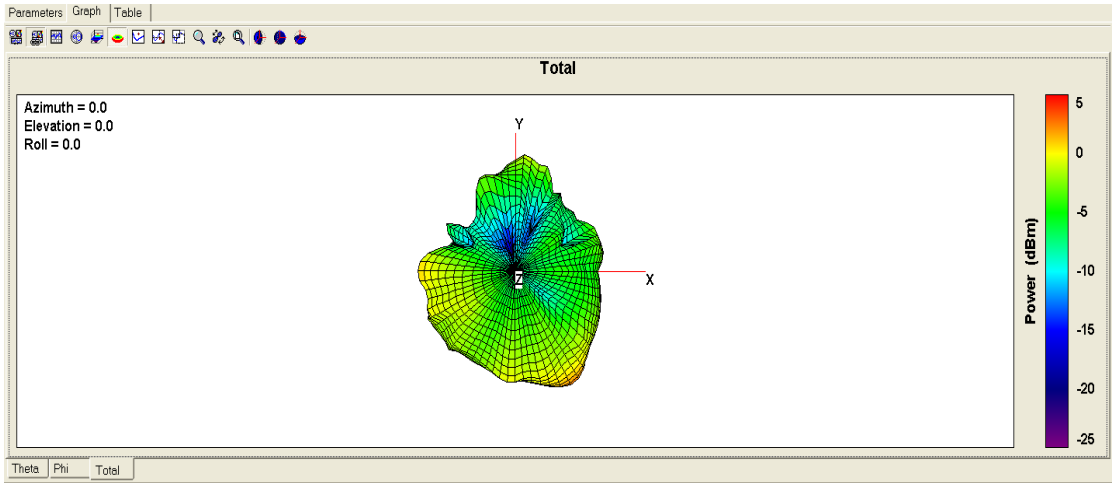
2.4G



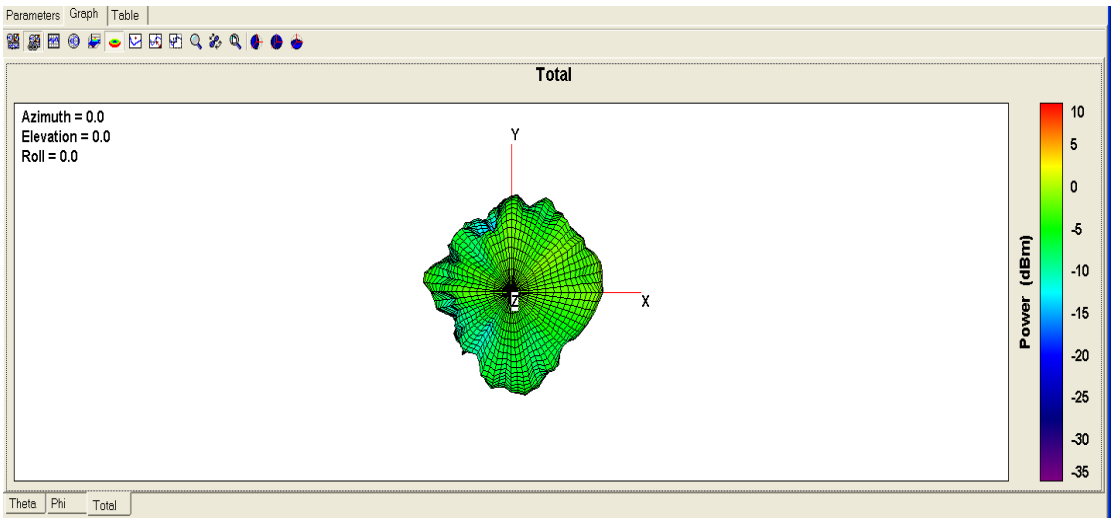
2.45G



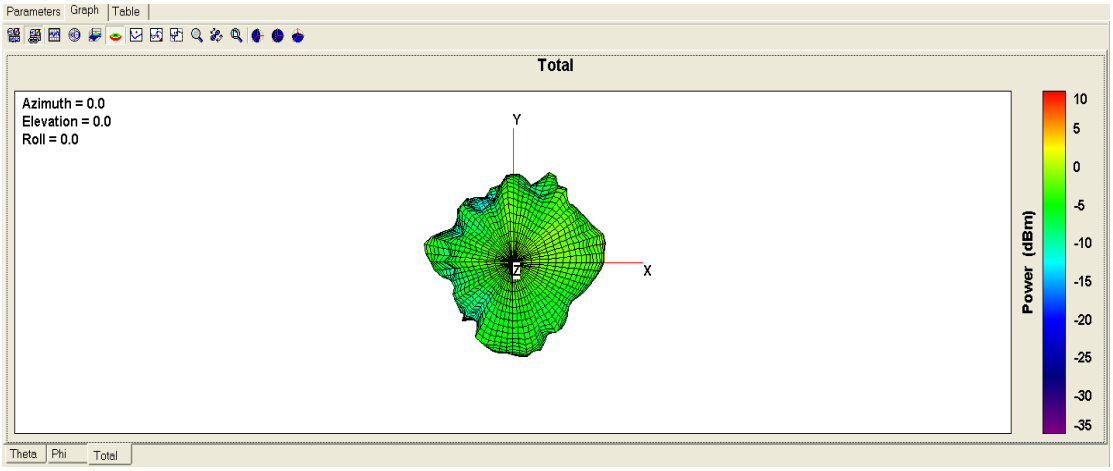
2.5G



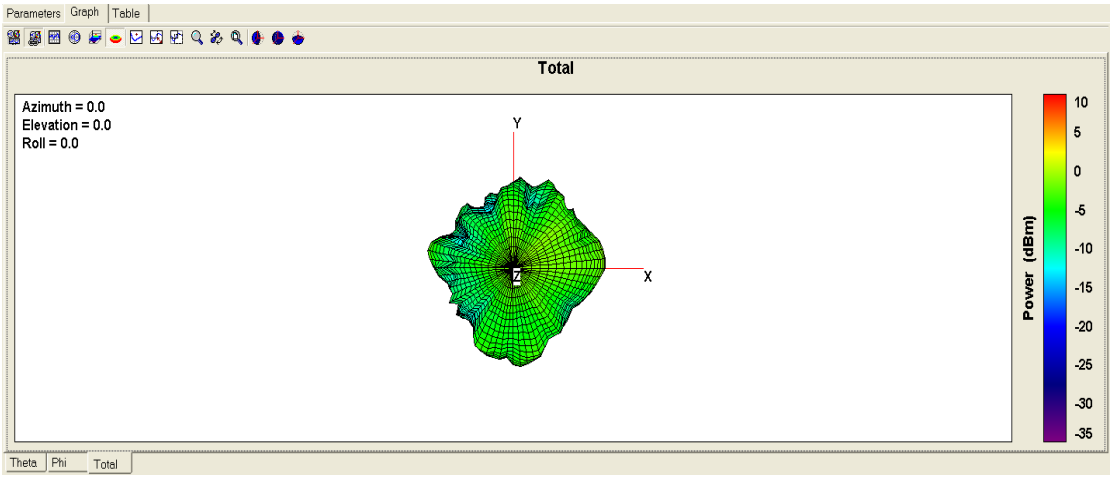
5.15G



5.25G



5.35G



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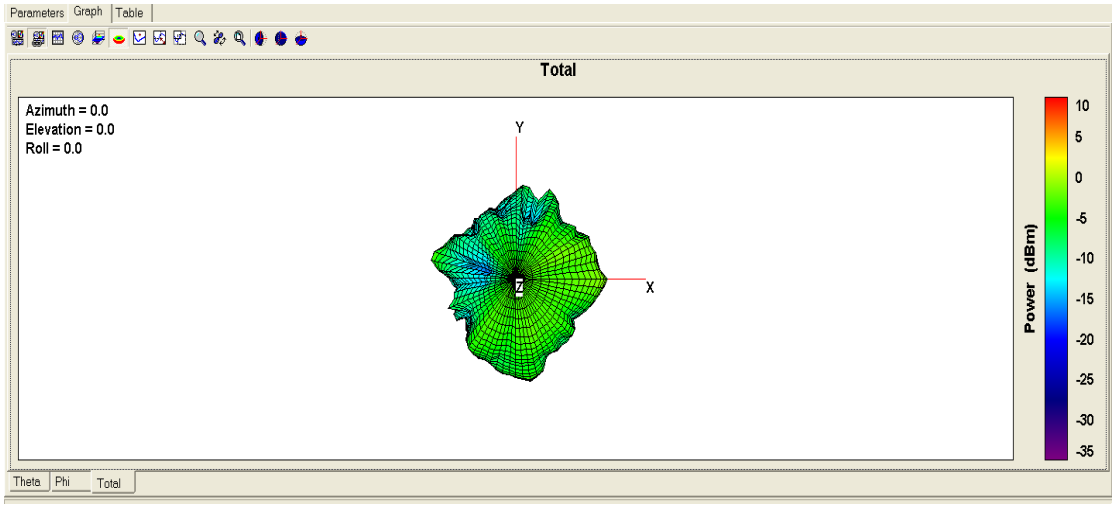
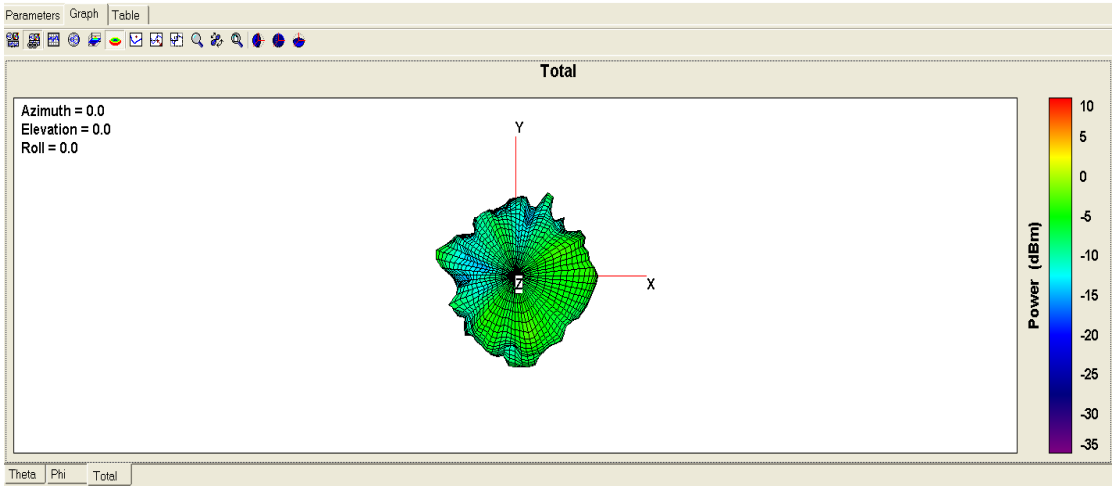
5.725G



5.85G



TOTAL	Point values(Mhz)	Efficiency (%)	Peak Gain (dBi)
	2400	48.52	2.09381
	2450	52.91	2.14324
	2500	54.57	2.34422
	5150	36.43	2.54406
	5250	39.47	2.59018
	5350	32.62	2.55269
	5725	34.94	2.53948
	5850	30.9	2.78974