

# Product Specs Summarize

## Electrical Performance:

1. Frequency Range: 2.4~2.5 GHz
2. Impedance: 50 Ohms nominal
3. VSWR: 1.92dB
4. Gain: 5dBi
5. Admitted power radiation: 1W
6. Radiation of Radiation: Toroidal
7. Radiation: Omni
8. Polarization: Vertical
9. Connector Type:SMA Fair Head Female Pin

## Mechanical properties:

1. Cable: RG-178, 50 Ohm
2. Operation temperature range: -20 ~ +70
3. Storage temperature range: -30 ~ +80
4. Color: Black



# Hua De Chang ELECTRONIC CO.,LTD

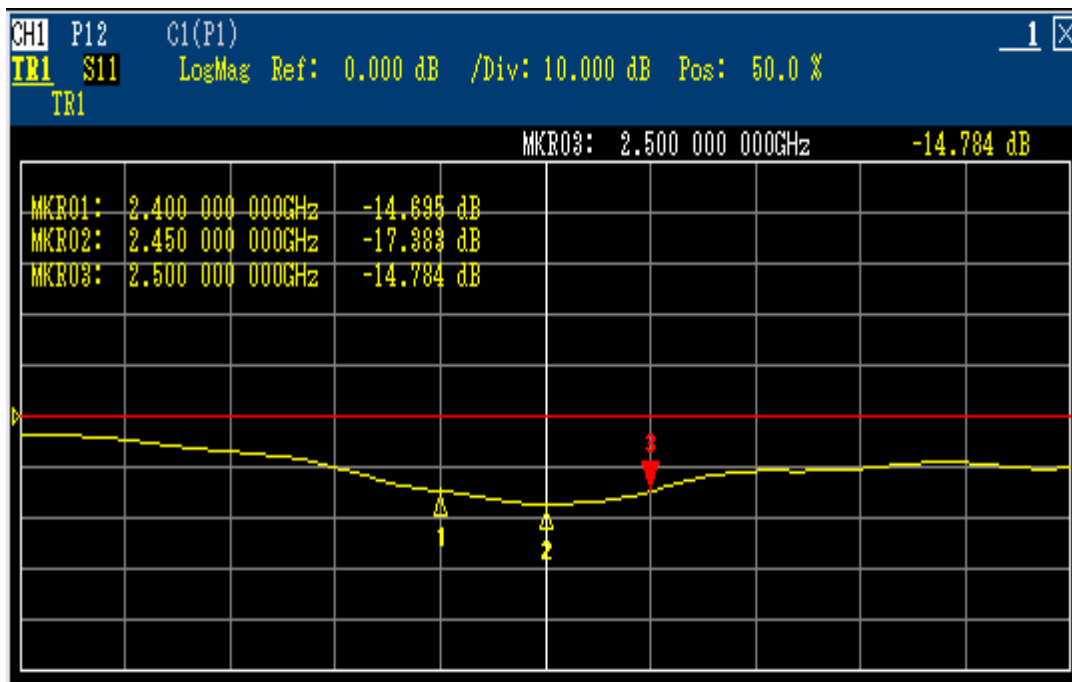
## Network Analyst Test Pattern

Material Num: H1-145151-000

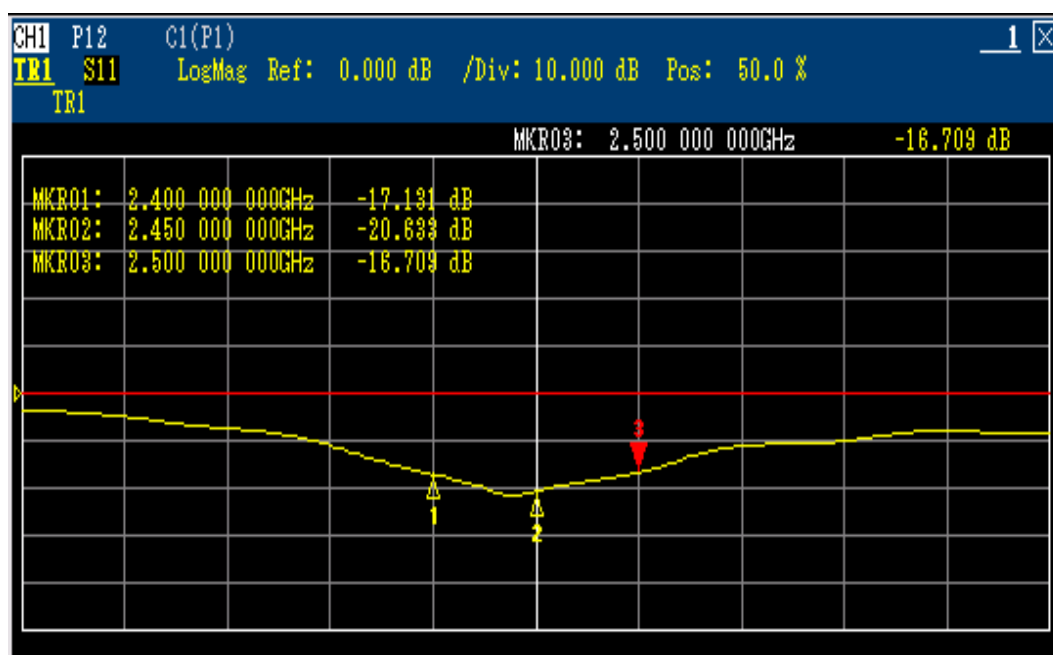
Product Appellation: 13ANTENNA 2.4G 5dBi SMA

Test Value: Retrun Loss

### 90 ° Test C h a r t



### 180 ° Text C h a r t

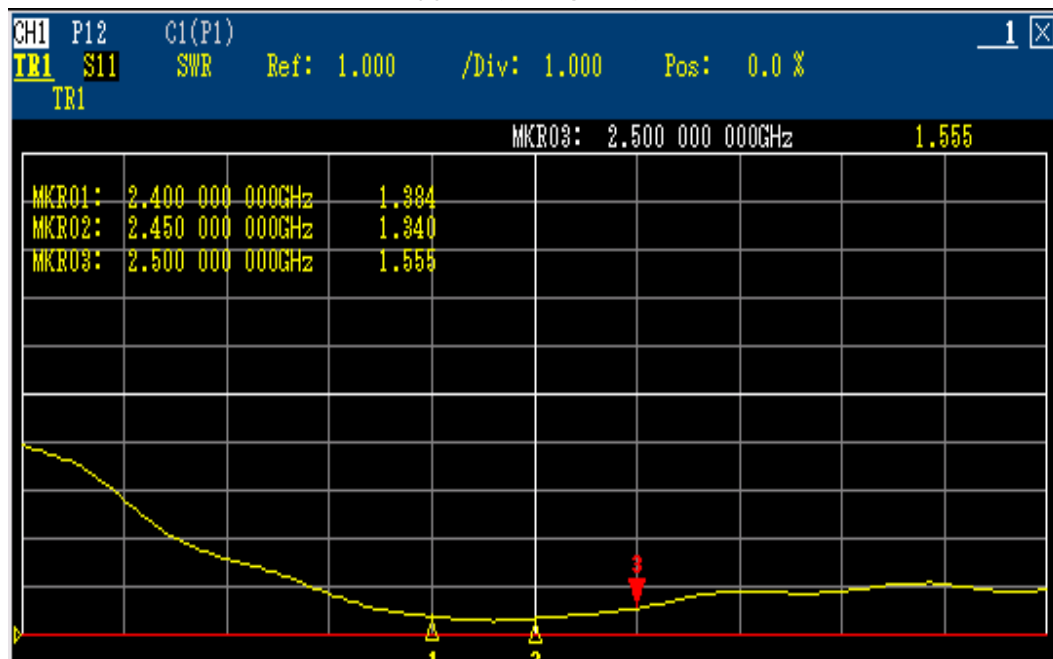


# Hua De Chang ELECTRONIC CO.,LTD

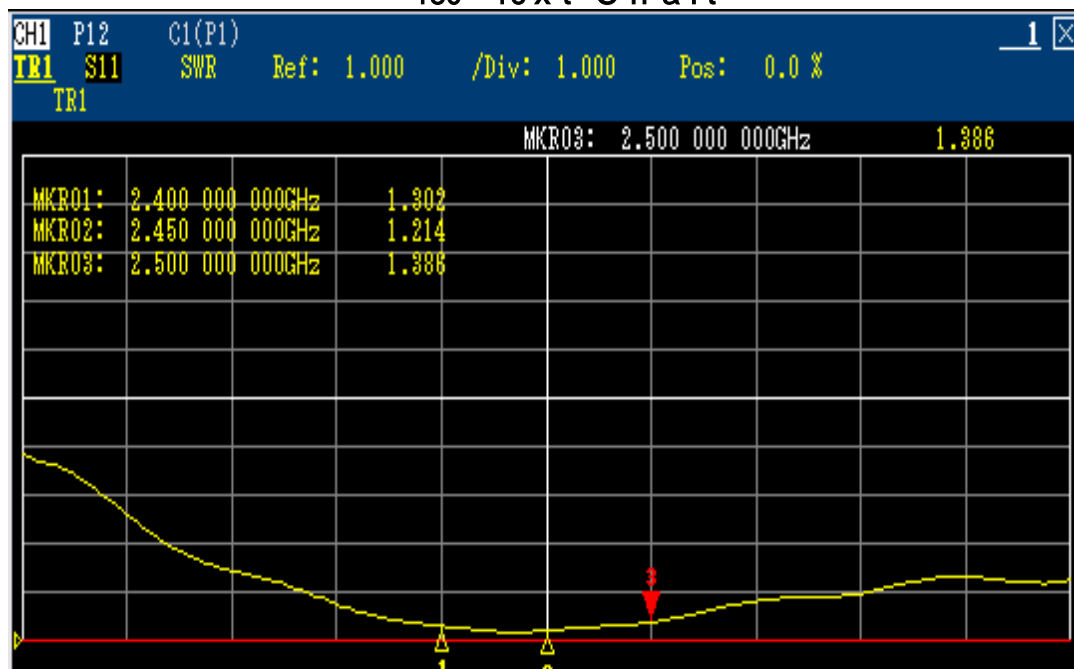
## Network Analyst Test Pattern

Material Num: H1-145151-000  
Product Appellation: 13ANTENNA 2.4G 5dBi SMA  
Test Value: VSWR

### 90 ° Test C h a r t



### 180 ° Test C h a r t

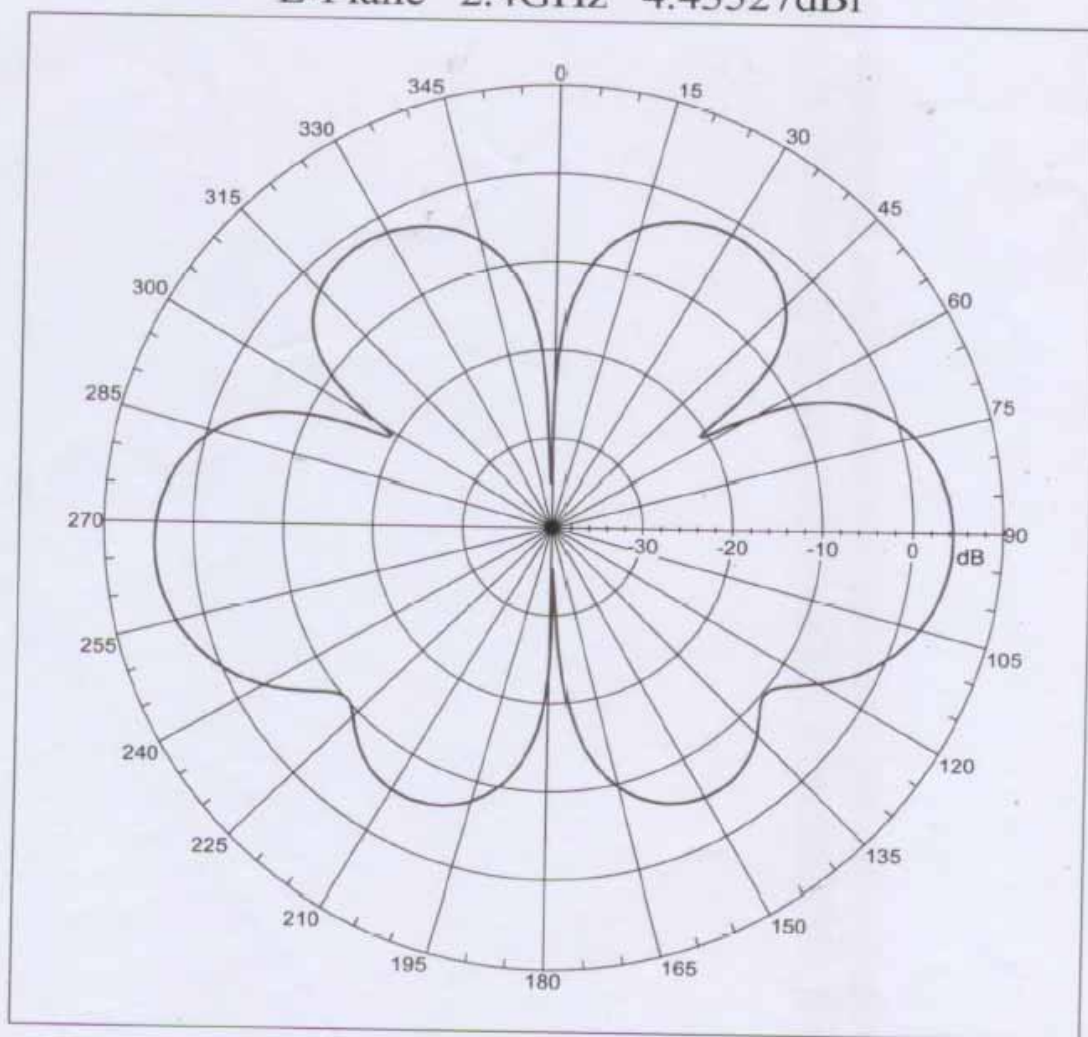


**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.  
Tel : 886-3-4643715 Fax : 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4~2.5GHz Antenna 5dBi**Test Item & Result :**

(3) Gain &amp; Pattern :

**E-Plane 2.4GHz 4.43527dBi**

Note : i) The value recorded is responsible to the sample only.  
ii) Any correction of the value above is invalid.

Page 3 of 8

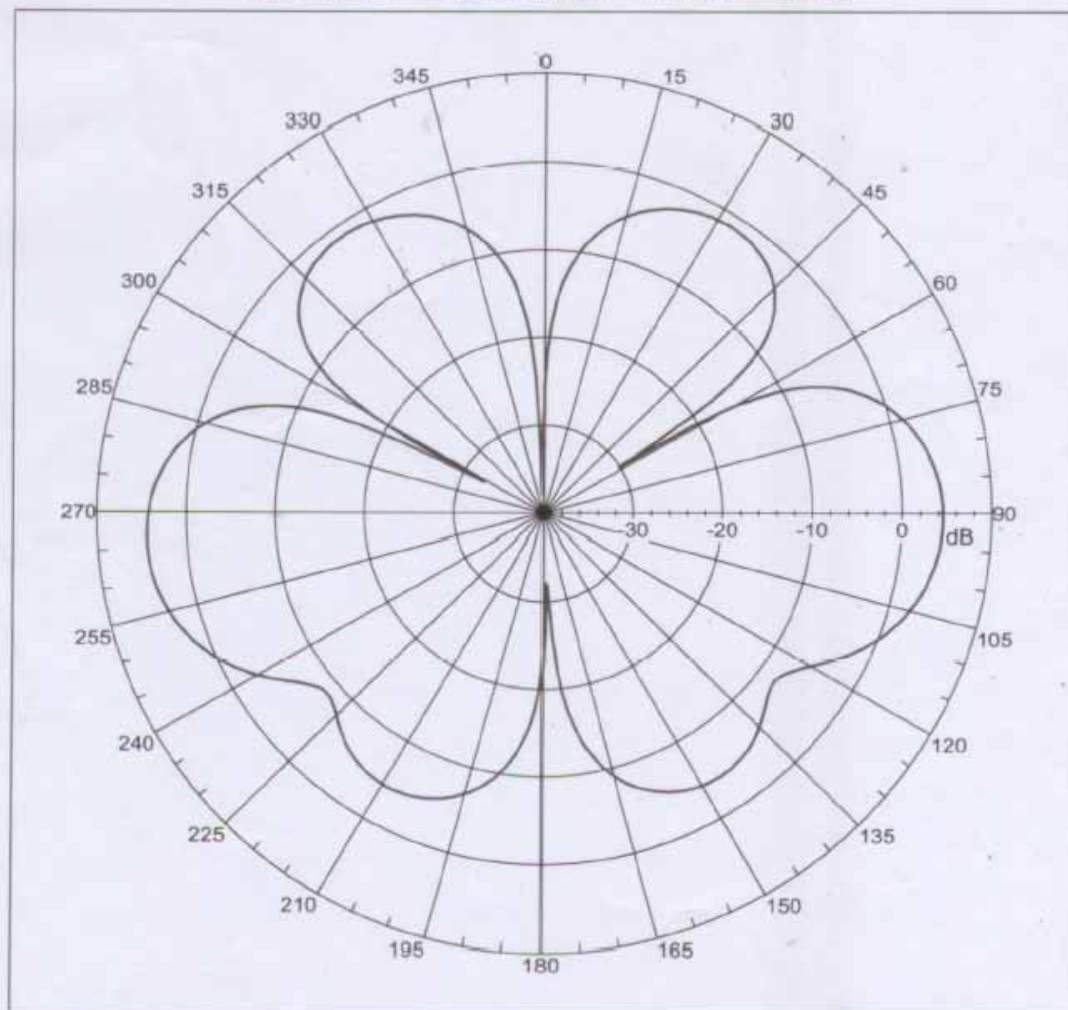
Nydia Lo

Lab. &amp; Products Certification Dept

**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.

Tel: 886-3-4643715 Fax: 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4~2.5GHz Antenna 5dBiTest Item & Result :**E-Plane 2.45GHz 4.54025dBi**

Page 4 of 8

Note : i) The value recorded is responsible to the sample only.

ii) Any correction of the value above is invalid.

Nydia Lo

Lab. &amp; Products Certification Dept.

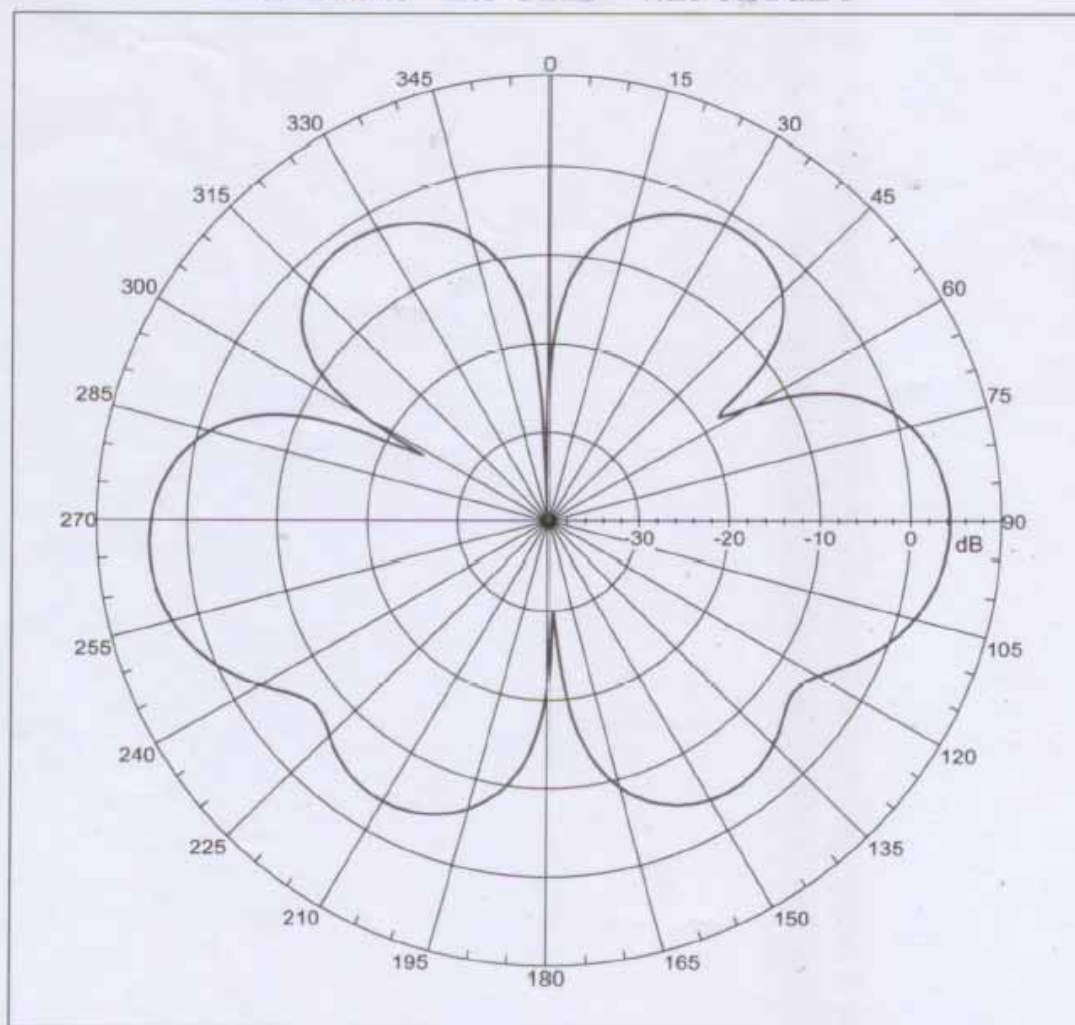
**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.

Tel : 886-3-4643715 Fax : 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4-2.5GHz Antenna 5dBiTest Item & Result :

E-Plane 2.5GHz 4.29021dBi



Page 5 of 8

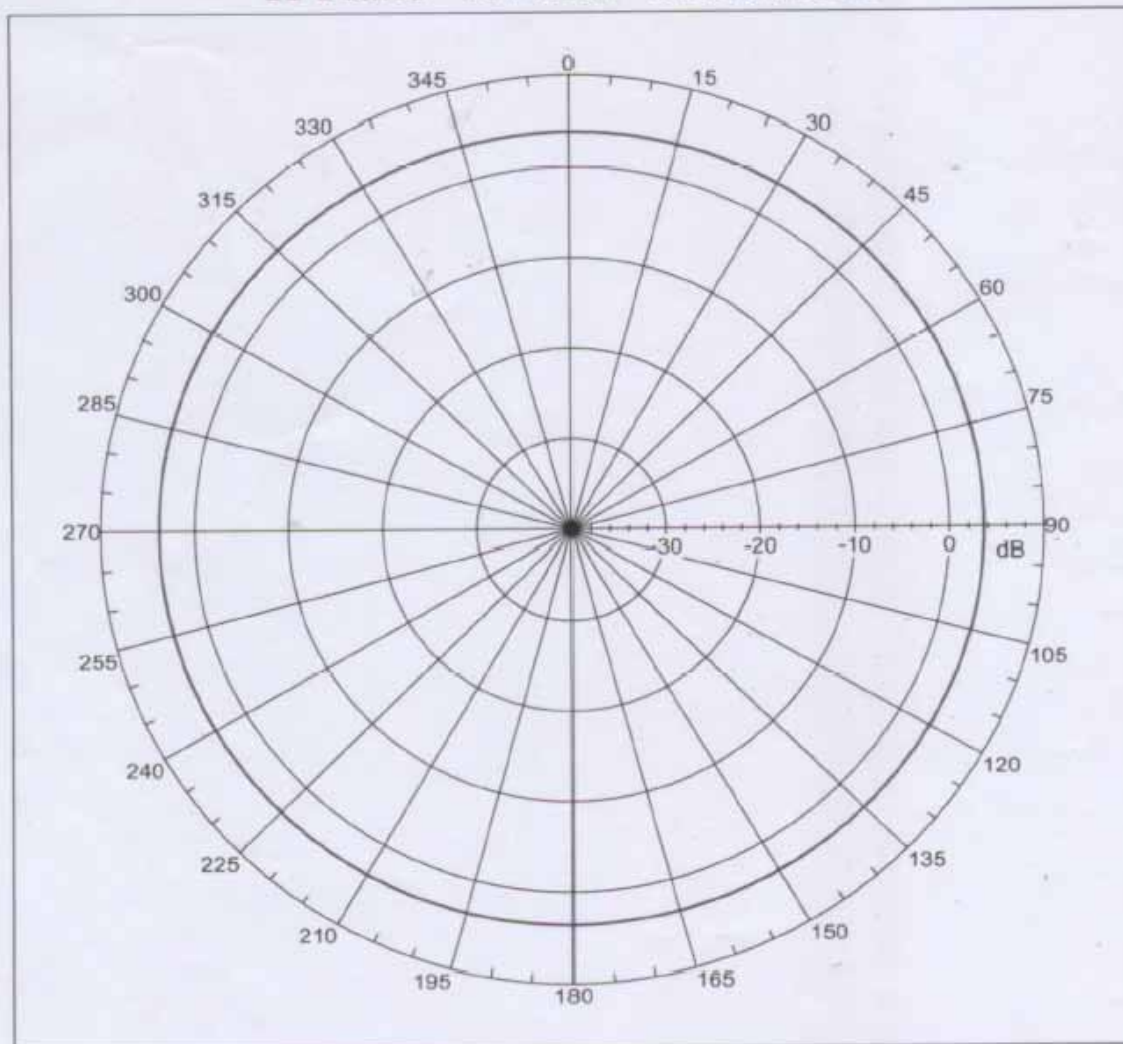
Note : i) The value recorded is responsible to the sample only.  
ii) Any correction of the value above is invalid.

Nydia'Lo  
Lab. & Products Certification Dept.



**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.  
Tel : 886-3-4643715 Fax : 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4~2.5GHz Antenna 5dBiTest Item & Result :**H-Plane 2.4GHz 3.89885dBi**

Page 6 of 8

Note : i) The value recorded is responsible to the sample only.  
ii) Any correction of the value above is invalid.

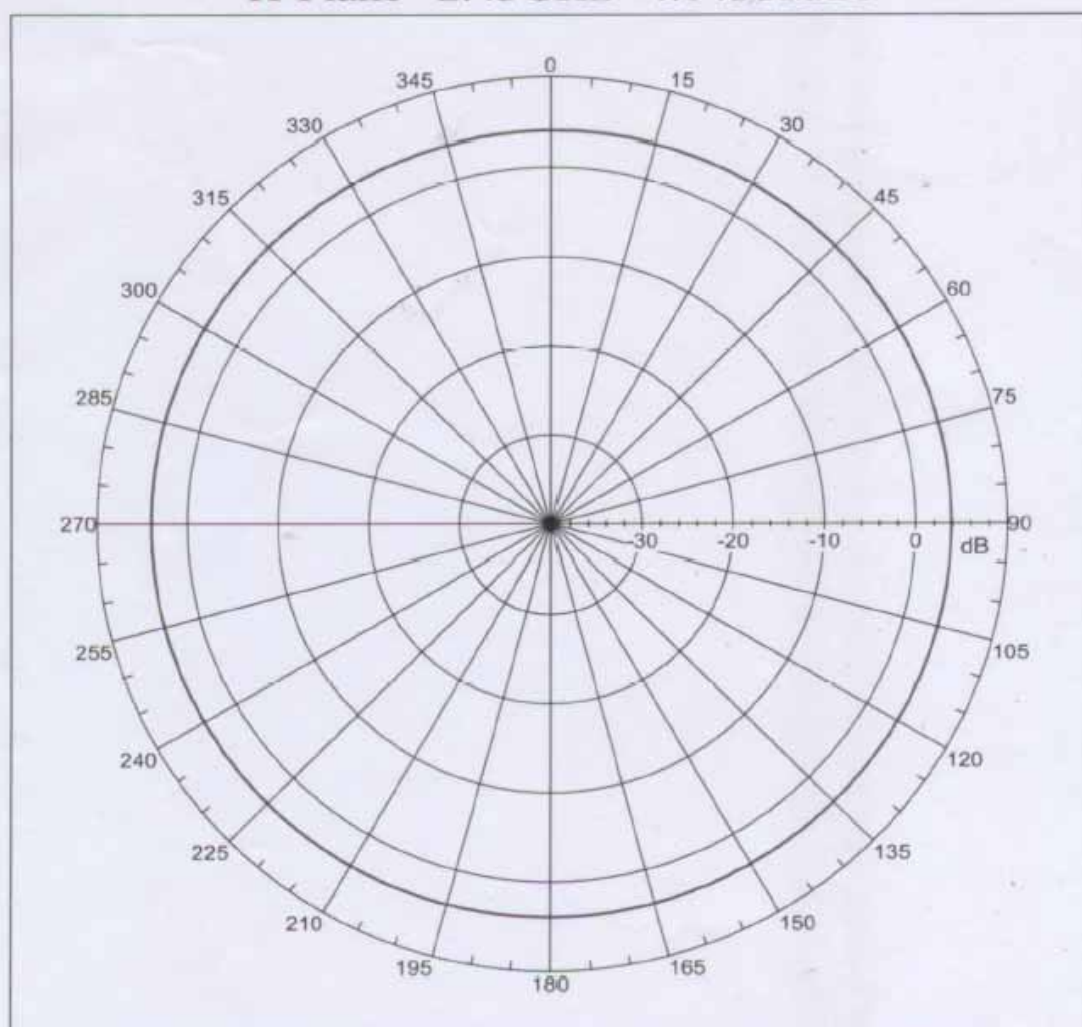
Nydia Lo  
Lab. & Products Certification Dept.



**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.

Tel : 886-3-4643715 Fax : 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4~2.5GHz Antenna 5dBiTest Item & Result :**H-Plane 2.45GHz 4.04368dBi**

Page 7 of 8

Note : i) The value recorded is responsible to the sample only.

ii) Any correction of the value above is invalid.

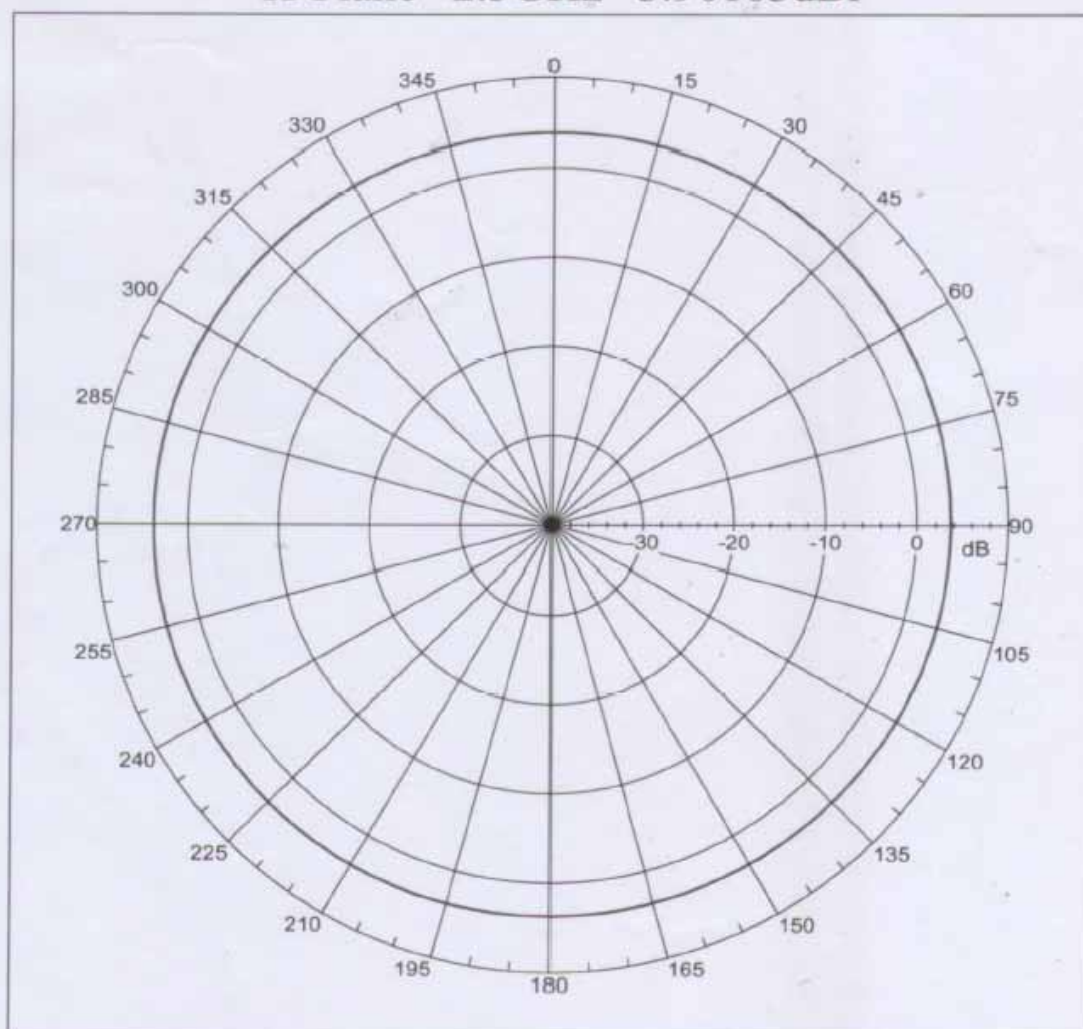
Nydia Lo

Lab. &amp; Products Certification Dept.

**FRE****FULL RISE ELECTRONIC CO., LTD.**

No. 26, Kao Ching Road, Yang Mei, Taoyuan, Taiwan, R.O.C.

Tel : 886-3-4643715 Fax : 886-3-4642460 www.fre.com.tw

**TEST REPORT**Description : 2.4~2.5GHz Antenna 5dBiTest Item & Result :**H-Plane 2.5GHz 3.90103dBi**

Page 8 of 8

Note : i) The value recorded is responsible to the sample only.

ii) Any correction of the value above is invalid.

Nydia Lo

Lab. &amp; Products Certification Dept.