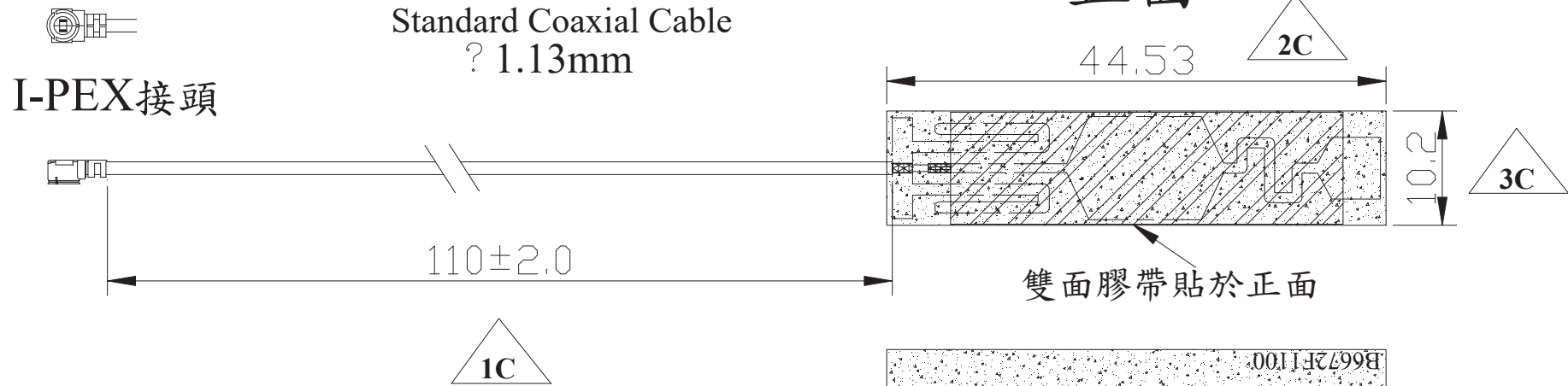


RoHS COMPLIANT

# FR-4單面板-0.6mm



- Frequency Rang :2.4~2.5GHz
- Impedance :50Ω
- V.S.W.R :≤ 1.6
- Radiation :Directional
- Gain :6.95 dBi
- Polarization :Vertical

背面

設計 DR. Wind-Kuo 2007/07/20	核准 APPD. Jerry 2007/07/20	容許公差 .XXX ±0.10 .XX ±0.25 .X ±0.38 X ±0.50 ANG ±3°	TOLERANCE	品名 ARTICLE 2.4GHz-PCB-天線		
版本說明 REVISION NOTE				圖號 DWG NO. 6672113031-110		
			單位 UNIT	比例 SCALE	張數 SHEET	版本 REV.
			mm	1/1	1/1	A

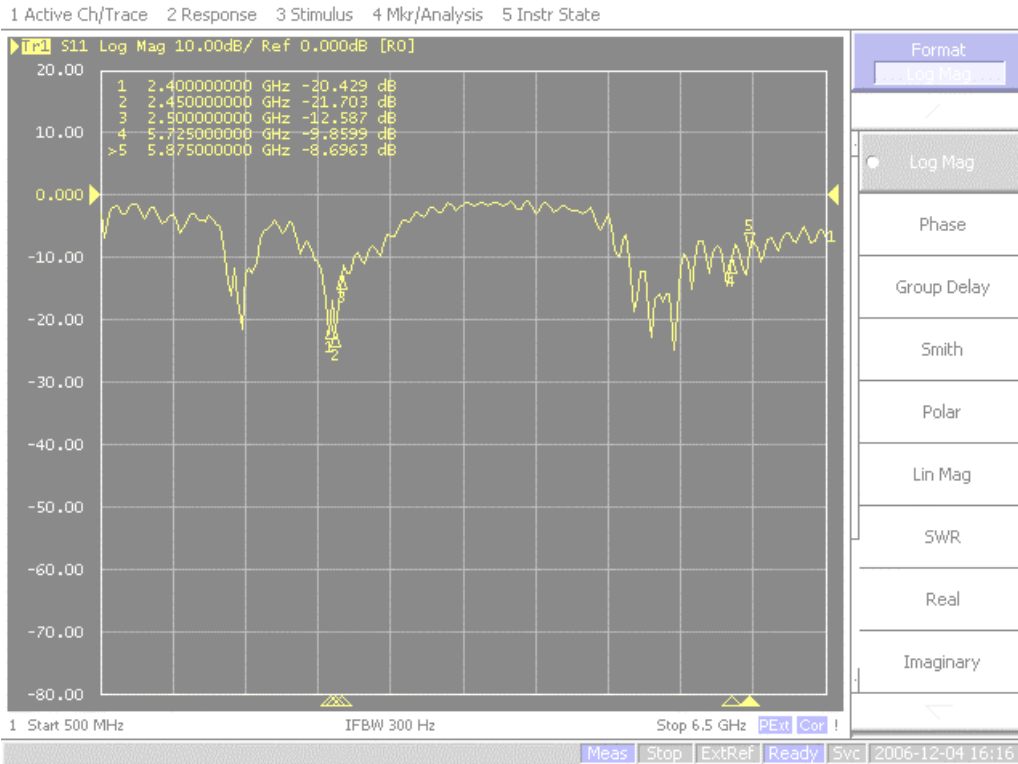
Brand / Model : 6672113031-110

Remark : 2450MHz

Tested by : Wind-Kuo

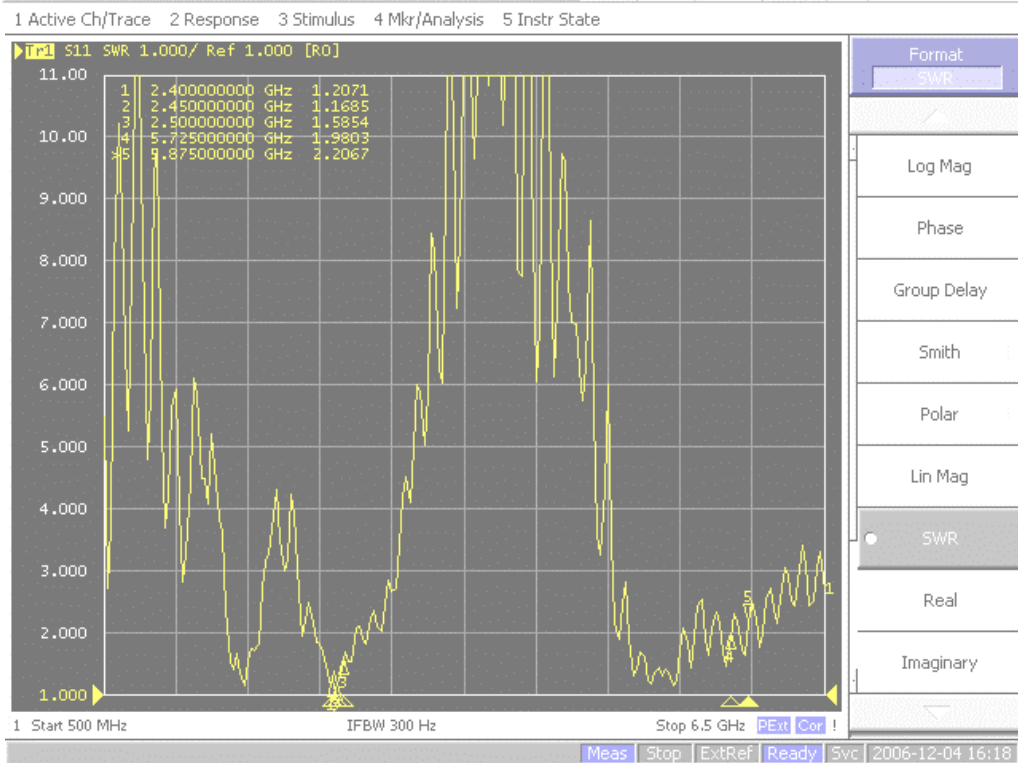
Date : 2006/12/04

Time : pm 04 : 17



**Return Loss**

- Format
- Log Mag
  - Phase
  - Group Delay
  - Smith
  - Polar
  - Lin Mag
  - SWR
  - Real
  - Imaginary



**VSWR**

- Format
- Log Mag
  - Phase
  - Group Delay
  - Smith
  - Polar
  - Lin Mag
  - SWR
  - Real
  - Imaginary

Brand / Model : 6672 PCB  
 Remark : 2400MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



-- : Max. deg

\*Unit : dBi

Frequency(MHz) : 2400.00

Pattern Field : E plane

Average Gain(dB) : -0.52dB

Maximum Gain(dB) : 5.16dB

Maximum Gain(degree) : -151.43

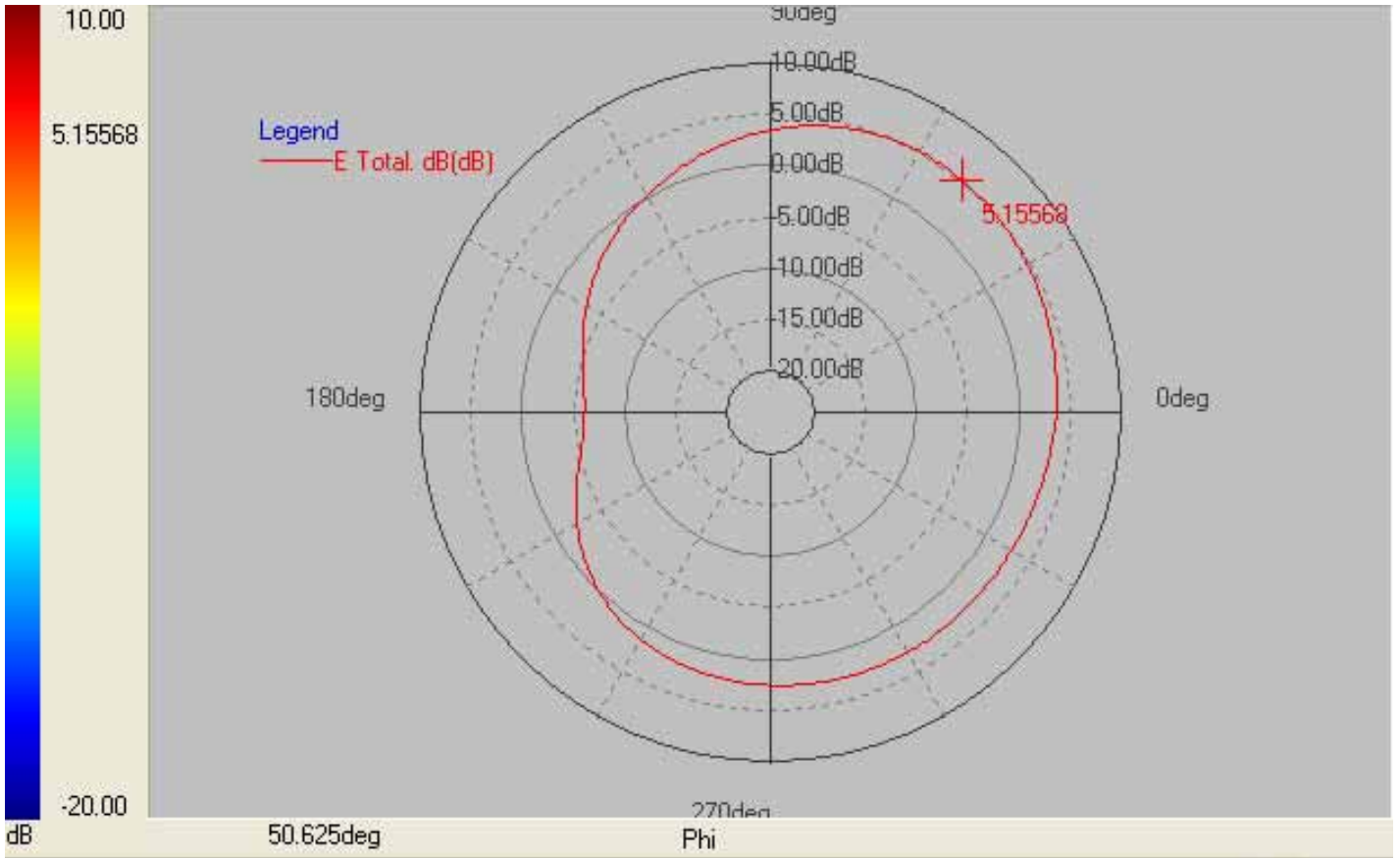
Minimum Gain(dB) : -9.11dB

Minimum Gain(degree) : 62.86

Brand / Model : 6672 PCB  
 Remark : 2400MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



E Total. dB	5.16 dB	50.62 deg	-6.07 dB	180.00 deg	----	1.74 dB	1.15	50.62 deg	5.16 dB	Maximum	Position	Mask
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[122] 1D view / Frequency=2400.00MHz

-- : Max. deg

\*Unit : dBi

Frequency(MHz) : **2400.00**

Pattern Field : **H plane**

Average Gain(dB) : **1.74dB**

Maximum Gain(dB) : **5.16dB**

Maximum Gain(degree) : **50.62**

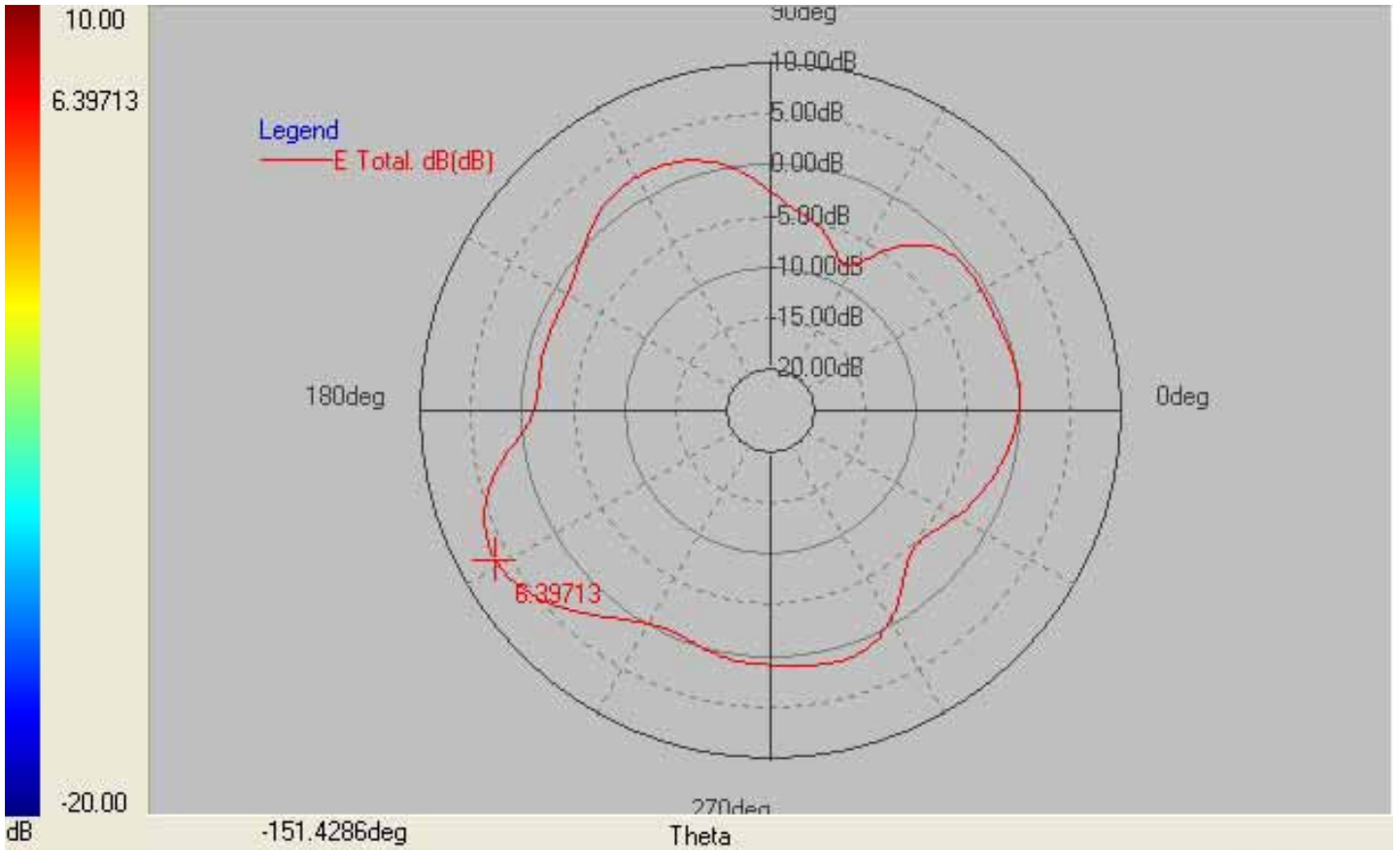
Minimum Gain(dB) : **-6.07dB**

Minimum Gain(degree) : **180.00**

Brand / Model : 6672 PCB  
 Remark : 2450MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



E Total. dB	6.40 dB	-151.43 deg	-8.35 dB	62.86 deg	31.93 deg	-0.03 dB	0.97	-151.43 deg	6.40 dB	Maximum	Position	Mask
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[111] 1D view / Frequency=2450.00MHz

-- : Max. deg

\*Unit : dBi

Frequency(MHz) : 2450.00

Pattern Field : E plane

Average Gain(dB) : -0.03dB

Maximum Gain(dB) : 6.40dB

Maximum Gain(degree) : -151.43

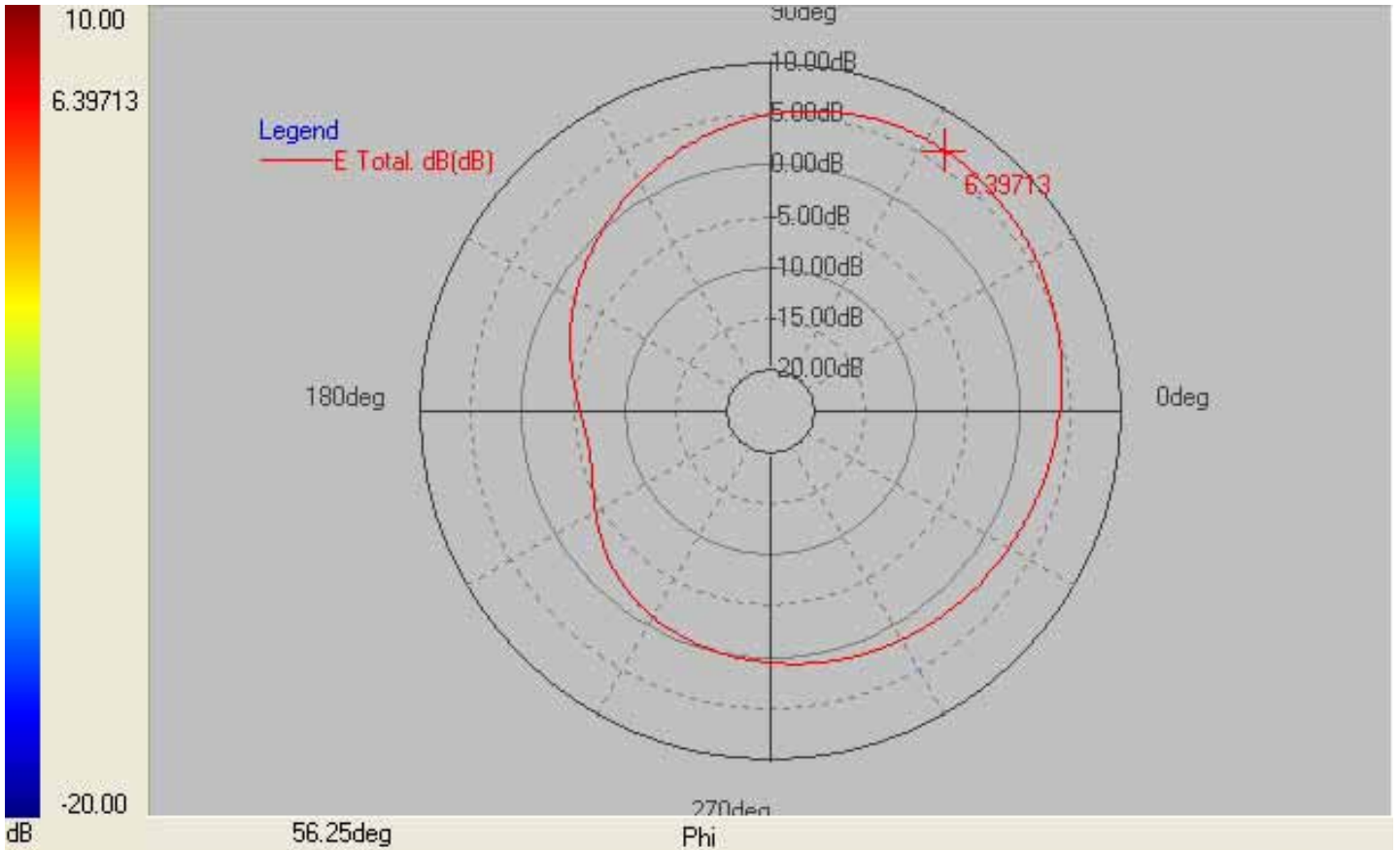
Minimum Gain(dB) : -8.35dB

Minimum Gain(degree) : 62.86

Brand / Model : 6672 PCB  
 Remark : 2450MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



E Total. dB	6.40 dB	56.25 deg	-6.14 dB	191.25 deg	----	1.86 dB	1.24	56.25 deg	6.40 dB	
										Maximum
										Position
										Mask

[124] 1D view / Frequency=2450.00MHz

-- : Max. deg

\*Unit : dBi

Frequency(MHz) : **2450.00**

Pattern Field : **H plane**

Average Gain(dB) : **1.86dB**

Maximum Gain(dB) : **6.40dB**

Maximum Gain(degree) : **56.25**

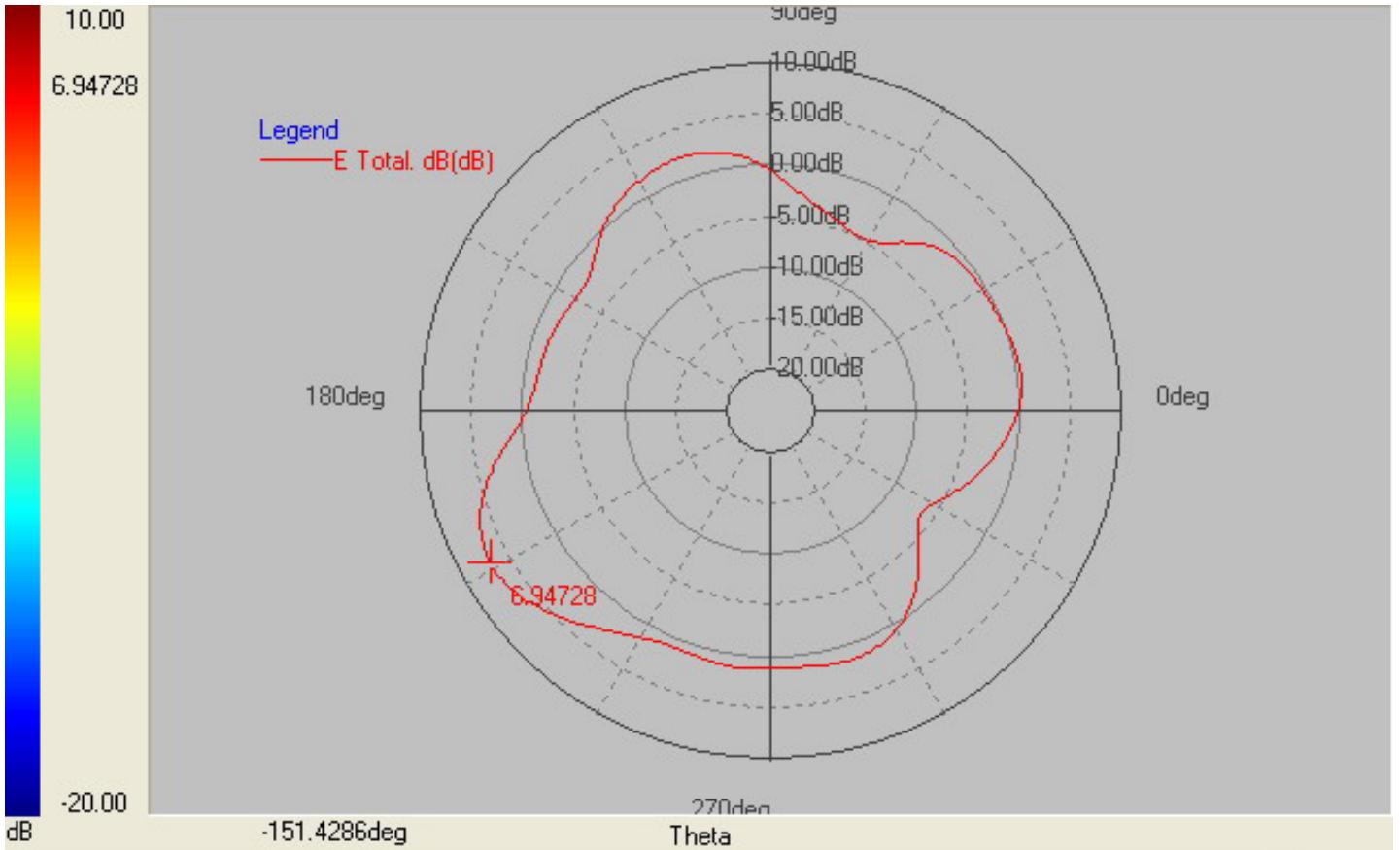
Minimum Gain(dB) : **-6.14dB**

Minimum Gain(degree) : **191.25**

Brand / Model : 6672 PCB  
 Remark : 2500MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



E Total. dB	6.95 dB	-151.43 deg	-6.46 dB	-34.29 deg	34.34 deg	0.36 dB	1.30	-151.43 deg	6.95 dB	Maximum	Position	Mask
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[113] 1D view / Frequency=2500.00MHz

-- : Max. deg

\*Unit : dBi

Frequency(MHz) : 2500.00

Pattern Field : E plane

Average Gain(dB) : 0.36dB

Maximum Gain(dB) : 6.95dB

Maximum Gain(degree) : -151.43

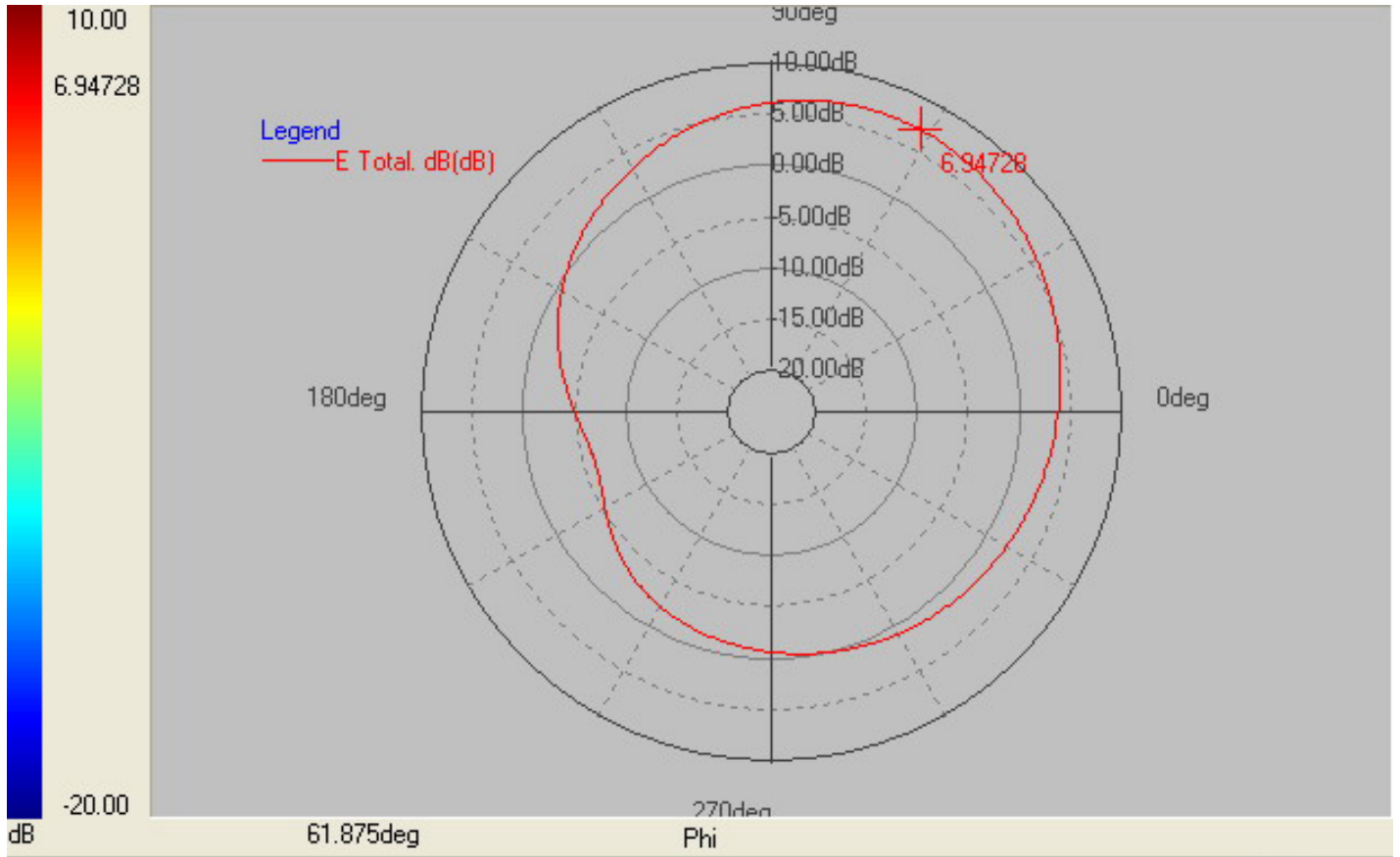
Minimum Gain(dB) : -6.46dB

Minimum Gain(degree) : -34.29

Brand / Model : 6672 PCB  
 Remark : 2500MHz(右-90度)  
 Tested by : Nick Dai

Date : 2007/04/30

Time : 下午 02 : 30



E Total. dB	6.95 dB	61.88 deg	-6.31 dB	196.88 deg	111.46 deg	2.07 dB	1.15	61.88 deg	6.95 dB	Maximum	Position	Mask
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[126] 1D view / Frequency=2500.00MHz

-- : Max. deg

\*Unit : dBi

Frequency(MHz) : **2500.00**

Pattern Field : **H plane**

Average Gain(dB) : **2.07dB**

Maximum Gain(dB) : **6.95dB**

Maximum Gain(degree) : **61.88**

Minimum Gain(dB) : **-6.31dB**

Minimum Gain(degree) : **196.88**





**802.11b-Tx-16dBm**

EIRP:2400MHz 20dBm

2450MHz 21dBm

2500MHz 22dBm

自由空間中兩點之訊號強度與距離對應表

波長(公尺)	發射功率 Watts	Tx 天線增益 dB	Tx 同軸線損失 dB	Rx 天線增益 dB	Rx 同軸線損失 dB
0.1224	0.039	1.8	1	2	1
<b>2450MHz 16dBm Cable loss</b>					
距離(公里)	訊號錶讀數	訊號強度 dBm	距離(公里)	訊號錶讀數	訊號強度 dBm
0.00	S9+60	-13	5.30	S5	-97
0.00	S9+50	-23	7.48		-100
0.00	S9+40	-33	10.57	S4	-103
0.01	S9+30	-43	14.93		-106
0.05	S9+20	-57	21.09	S3	-109
0.11	S9+10	-63	29.79		-112
0.33	S9	-73	42.08	S2	-115
0.47		-76	59.44		-118
0.67	S8	-79	83.97	S1	-121
0.94		-82	118.60		-124
1.33	S7	-85	167.53	Busy	-127
1.88		-88	236.65		-130
2.66	S6	-91	334.27	以下	-133
3.75		-94	472.17		-136

-63dBm 強度之半徑約 0.11km=110m, -73dBm 強度之半徑約 0.33km=330m



**802.11g-Tx-12dBm**

EIRP:2400MHz 16dBm

2450MHz 17dBm

2500MHz 18dBm

自由空間中兩點之訊號強度與距離對應表

波長(公尺)	發射功率 Watts	Tx 天線增益 dB	Tx 同軸線損失 dB	Rx 天線增益 dB	Rx 同軸線損失 dB
0.1224	0.016	1.8	1	2	1
<b>2450MHz 12dBm Cable loss</b>					
距離(公里)	訊號錶讀數	訊號強度 dBm	距離(公里)	訊號錶讀數	訊號強度 dBm
0.00	S9+60	-13	3.39	S5	-97
0.00	S9+50	-23	4.79		-100
0.00	S9+40	-33	6.77	S4	-103
0.01	S9+30	-43	9.56		-106
0.03	S9+20	-57	13.51	S3	-109
0.07	S9+10	-63	19.08		-112
0.21	S9	-73	26.95	S2	-115
0.30		-76	38.07		-118
0.43	S8	-79	53.78	S1	-121
0.60		-82	75.97		-124
0.85	S7	-85	107.31	Busy	-127
1.20		-88	151.58		-130
1.70	S6	-91	214.11	以下	-133
2.40		-94	302.43		-136

-63dBm 強度之半徑約 0.07km=70m, -73dBm 強度之半徑約 0.21km=210m