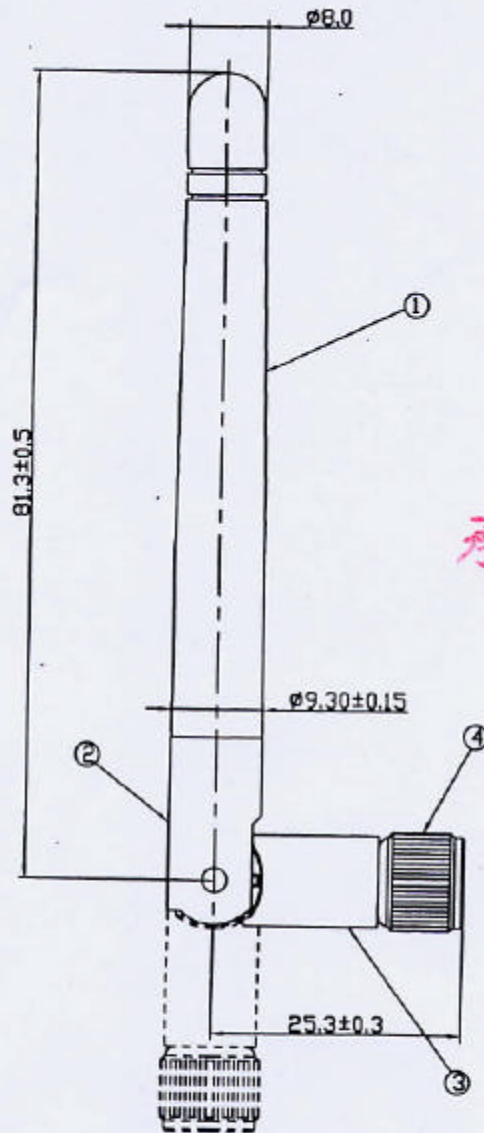
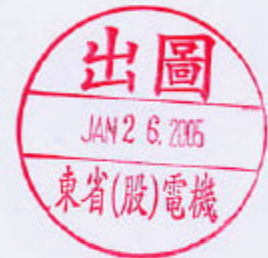


製品整理號碼

TT98024



承認圖



NOTE: ANTENNA 2.4G+R-SMA, GRAY

角度公差	±3'						
100以上	±0.8	4	CONN.	1			R-SMA
50-100以下	±0.5	3	BASE	1	PC+ABS	GRAY	
5-50以下	±0.3	2	UPPER	1	PC+ABS	GRAY	
5以下	±0.2	1	BOOT	1	TPU	GRAY	
未指定容許差之公差	符號		名稱	數量	材質	處理	關連仕様
			投影法	單位	尺度	製品名圖名圖號	
			三角法	mm	/	ANTB98-024	
			承認	檢認	設計	製品圖	
			王	楊		C94M0101 <input type="checkbox"/>	
記號	來	歷	年月日	氏名	水巡	忠嶽	惠蘭

東省電機股份有限公司

<h1>SPECIFICATION</h1>	APVD	CHKD	DSGD
	廖水巡 2005.01.26	王忠嶽 2005.01.25	楊惠籃 2005.01.25
PRODUCT CODE: TT98024			

## 1. General:

### 1.1 Scope

This specification is applied for fixed 1/2 Dipole antenna.  
(Type 2.4GHz external standard dipole antenna.)

### 1.2 Operating Temperature

-10 +75

### 1.3 Storage Temperature

-20 +75

### 1.4 Test conditions

Standard test conditions should be from 5 to 35 in temperature  
, 45 to 85%RH and 860 to 1060 hpa in barometric pressure. Should  
conducted at  $20 \pm 2$  ,  $65 \pm 5\%$  RH and 860 to 1060 hpa.

## 2. Appearances, structures and dimensions:

### 2.1 Appearances

Finished on each part should be good, functionally free from rust,  
Crack and scratch.

### 2.2 Structures and dimensions

They are produced according to the drawing of individual product.

## 3. Electrical performance:

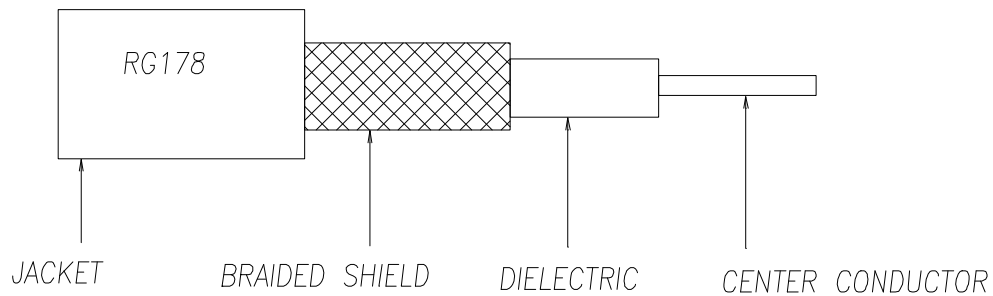
	Property	Test conditions	Performance
3.1	VSWR	Proving the suitable test ,according to customer' s request and all the necessary condition of the set.	< 2.0
	Frequency Range		2400-2500MHz
3.2	Impedance		$50 \pm 2$ ohms
3.3	Directional		Omni
3.4	Antenna gain		0.6~2.0 dBi
3.5	Tolerance power		1w

## 4. Material specification:

Item	Material	Characteristic
Cover	Thermal Plastic Elastomer	Hardness:65 (Gray)
Wire	RG178 Coaxial Cable	Tint Brown

## 5.Coaxial Cable Charcterictic:

### 5.1.Mechanical characterisitcs



Center conductor	Material	SCCS
	Composition(N/M)	7/0.08mm
	O.D.	0.30mm
Dielectric	Material	PTFE
	O.D.	0.83Min
Braided Shield	Material	SPC
	Coverage	85%Min
	Strands	0.06mm
Jacket	Material	FEP
	O.D.	1.89mm

### 5.2. Electric data

Item	Specification	Unit
Capacitance	85	PF/M
Impedance	$50 \pm 2$	
Attenuation	3.5(3GHz)	Db/M

<b>6.Weather ability:</b>			
	Property	Test condition	Performance
6.1	Dry heat proof	After leaving 96 hours at temperature $75 \pm 2$ ,leave 1 hour in a normal ambient condition and measure. Clean the appearance before test.	There shall be no detects on cover broken or antenna drop out, satisfy item-3.
6.2	Cold proof	After leaving 96 hours at temperature $-30 \pm 2$ ,leave 1 hour in a normal ambient condition and measure. Clean the appearance before test.	There shall be no detects on cover broken or antenna drop out, satisfy item-3.
6.3	Damp heat proof	After leaving 96 hours at temperature $40 \pm 3$ and 90 to 95%RH,leave 1 hour in a normal ambient condition and measure. Clean the appearance before test.	There shall be no detects on cover broken or antenna drop out, satisfy item-3.

**7.Sample dependability(O.C Standard ):**

According to MIL-STD-105D  
(About 1/200 pcs ungainly to repeal one lot in all quantity.)

**8.Measurement instrument:**

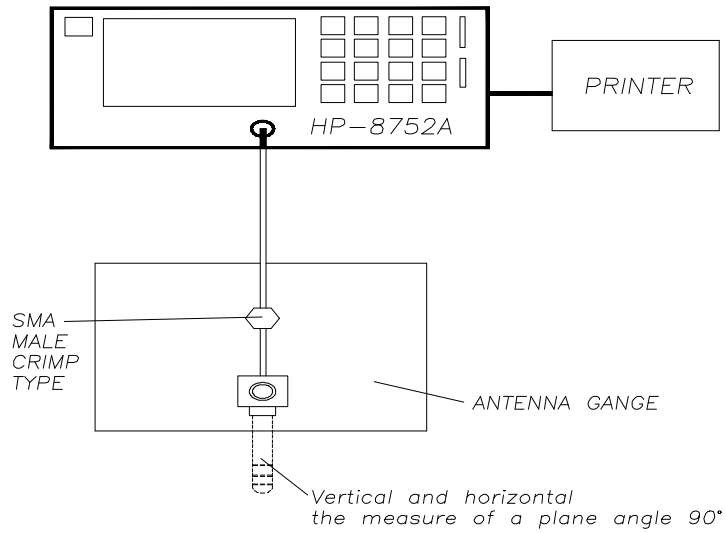
- 8.1 PC SIZE: PC-9801FA (NEC)
- 8.2 Room size: 400cm (W)X350cm(H)X630cm(L)
- 8.3 Net work analyzer:  
  - Test equipment on electrical functions
  - Equipment by Hewlett Packard, Network Analyzer HP-8752A
  - by Advantest, Network Analyzer R3767CG

**9.Packing Instructions:**

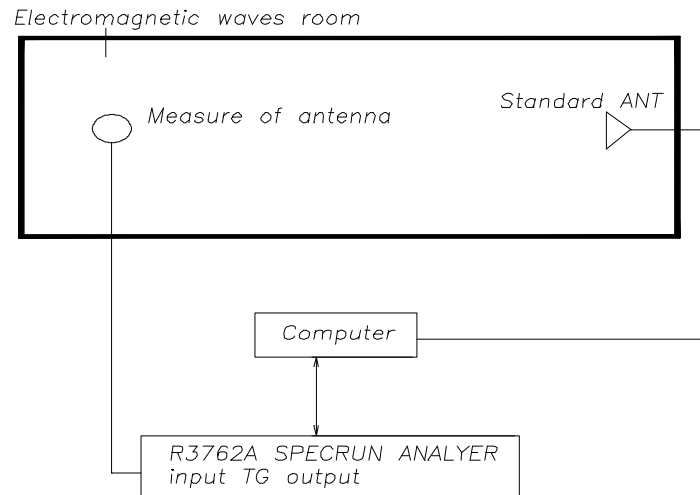
- One parcel bag contain = 15 pcs
- One middle box contain = 14 parcel bags (15 pcs x 14 parcel bags =210 pcs)
- One master carton contains =3 middle boxs (3x middle boxs = 630 pcs)

# Measurement Condition Diagram

## (1).Electrical Performance Measurement:

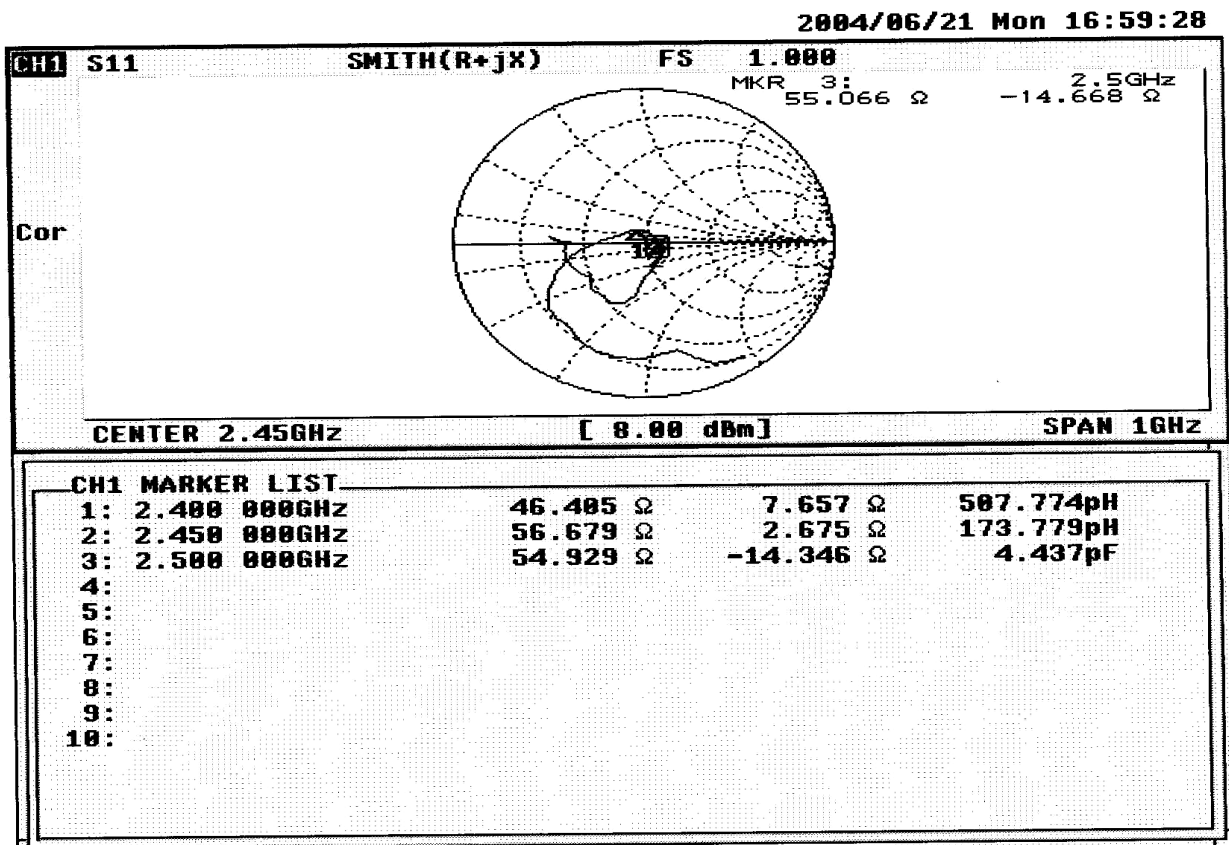
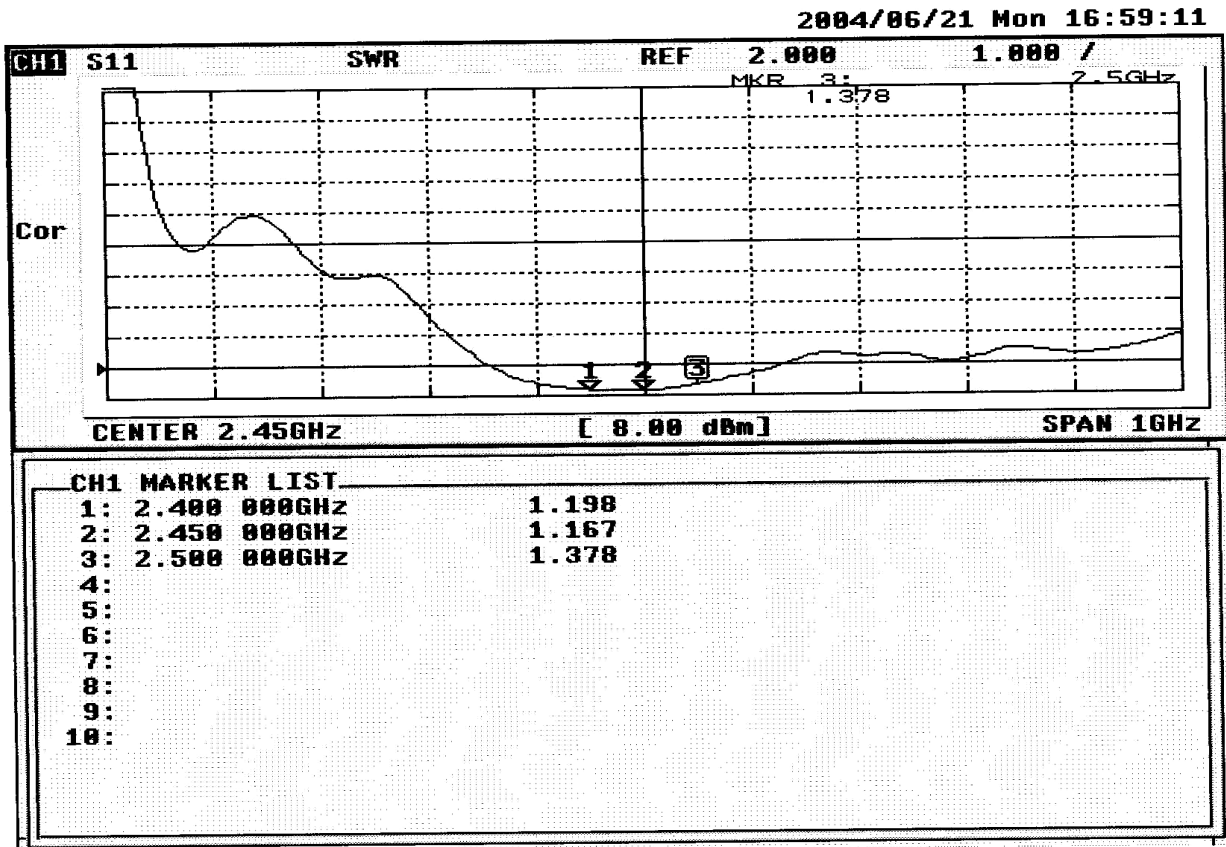


## (2).Radiation Pattern Measurement:



# Performance Data Sheet

## (1).Electrical Performance Data:



# Performance Data Sheet

## (2).Vertical-Plane Radiation Pattern Data:

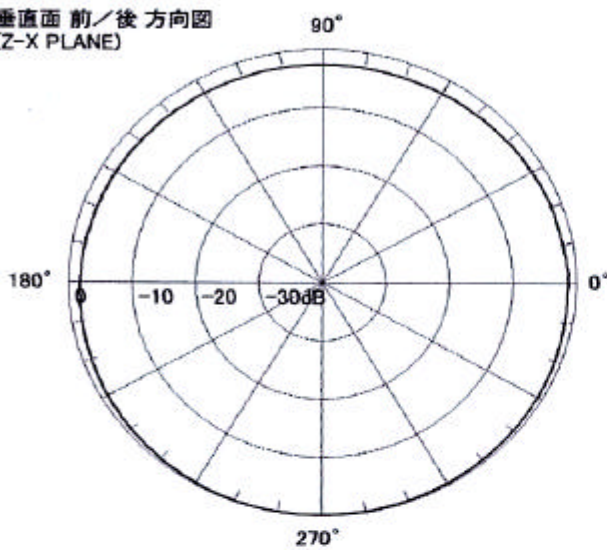
### 天線指向性／增益

2004年6月21日

天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: H-Pattern  
測定頻率 : 2400 MHz  
標準天線電平 : -50.6 dBm  
天線增益 : -0.1 dBd ( 2.0 dBi )  
平均增益 : -1.4 dBd

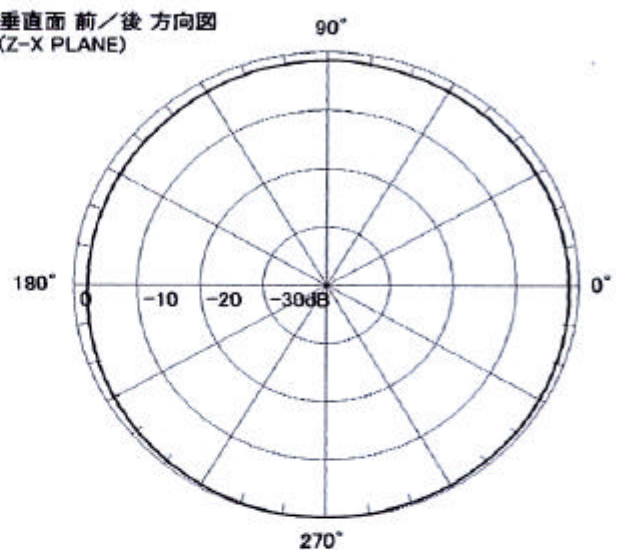
天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: H-Pattern  
測定頻率 : 2450 MHz  
標準天線電平 : -51.2 dBm  
天線增益 : -0.2 dBd ( 2.0 dBi )  
平均增益 : -1.3 dBd

垂直面前／後方向圖  
(Z-X PLANE)



FILE NAME = 0406211631.dat

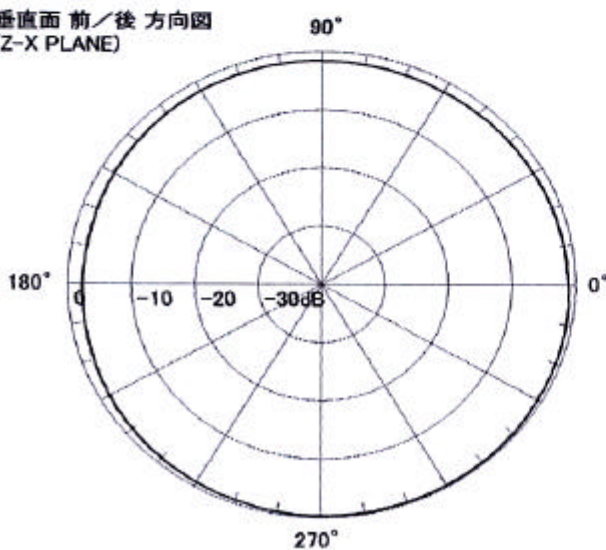
垂直面前／後方向圖  
(Z-X PLANE)



FILE NAME = 0406211632.dat

天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: H-Pattern  
測定頻率 : 2500 MHz  
標準天線電平 : -52.6 dBm  
天線增益 : -0.3 dBd ( 1.9 dBi )  
平均增益 : -1.3 dBd

垂直面前／後方向圖  
(Z-X PLANE)



FILE NAME = 0406211633.dat



# Performance Data Sheet

## (3). Horizontal-Plane Radiation Pattern Data:

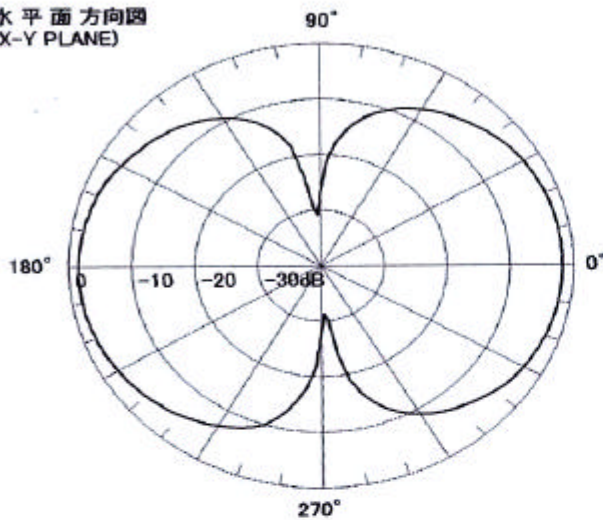
2004年6月21日

### 天線指向性／增益

天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: E-Pattern  
測定頻率 : 2400 MHz  
標準天線電平 : -50.6 dBm  
天線增益 : -1.6 dBd ( 0.6 dBi )  
平均增益 : -4.8 dBd

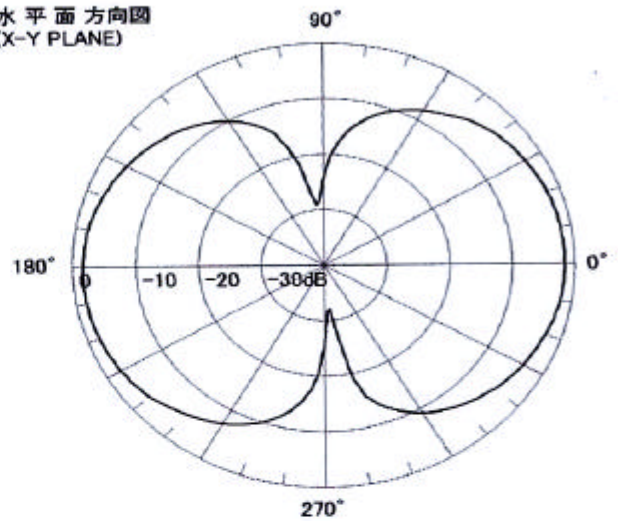
天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: E-Pattern  
測定頻率 : 2450 MHz  
標準天線電平 : -51.2 dBm  
天線增益 : -1.5 dBd ( 0.6 dBi )  
平均增益 : -4.9 dBd

水平面方向圖  
(X-Y PLANE)



FILE NAME = 0406211623.dat

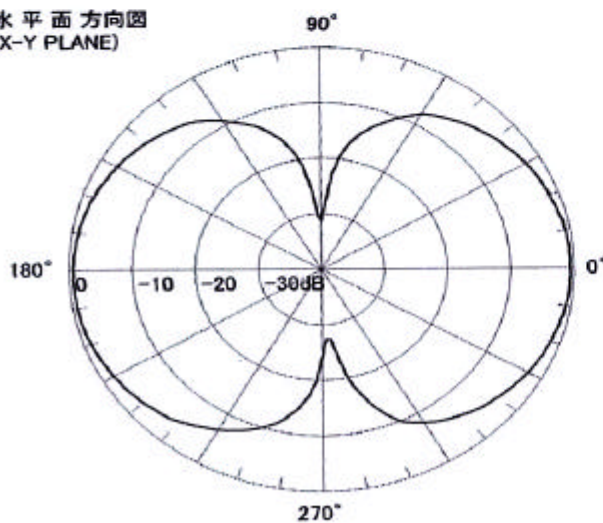
水平面方向圖  
(X-Y PLANE)



FILE NAME = 0406211624.dat

天線名稱 : Unitcation WLAN 2.4GHz Antenna  
: 2400-2500MHz  
: E-Pattern  
測定頻率 : 2500 MHz  
標準天線電平 : -52.6 dBm  
天線增益 : -0.6 dBd ( 1.6 dBi )  
平均增益 : -4.0 dBd

水平面方向圖  
(X-Y PLANE)



FILE NAME = 0406211625.dat