



權億科技股份有限公司
Master Wave Technology Co., Ltd.

承認書

APPROVAL SHEET

Customers: 啟碁科技股份有限公司


Customer Model No.:

Master Wave Model No.: 98151MRSX004-220

Product Description: 8151 Replacement Ant.

Issue Date: 2009/2/10

REV.: 00

客戶承認用印 Customer Approved		權億承認用印 Confirmation Signature	
			
核准 Approve	主管 Chief	承辦 Responsible	
Hero	Hero	S. Y. Liu	

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Antenna Total Solution Provider



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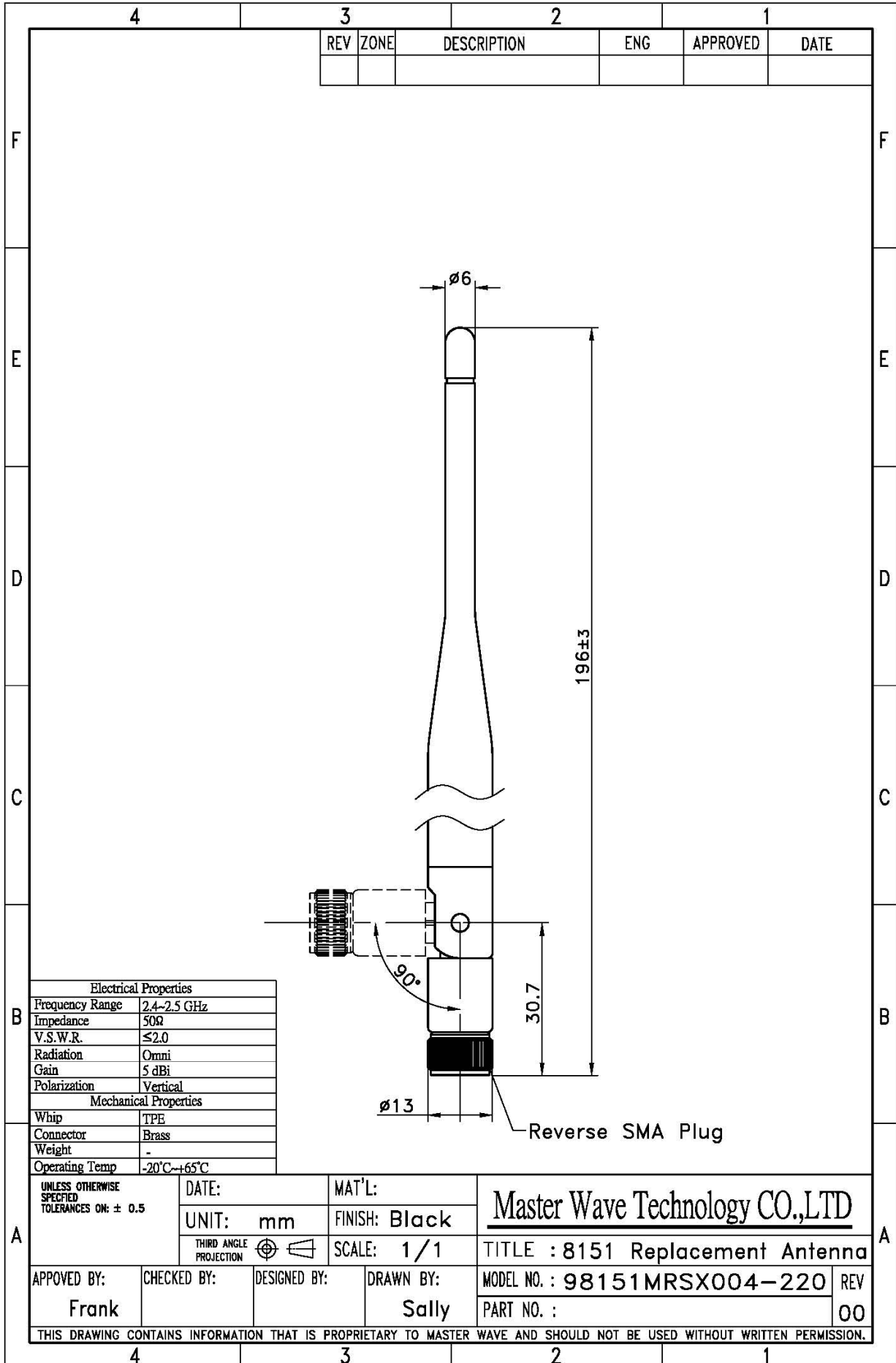
- Connector
-

4. Packing

- PE Bag
- Carton

Modification History:

REV.	Date	Content
00	2009/2/10	





Electrical Properties

Type	Replacement Antenna
Frequency range	2.4~2.5 GHz
Impedance	50 Ohms
VSWR	≤ 2.0

Mechanical Properties

Material	TPE
Connector	Reverse SMA Plug
Dimension(L*W*H)	196* \varnothing 13.0



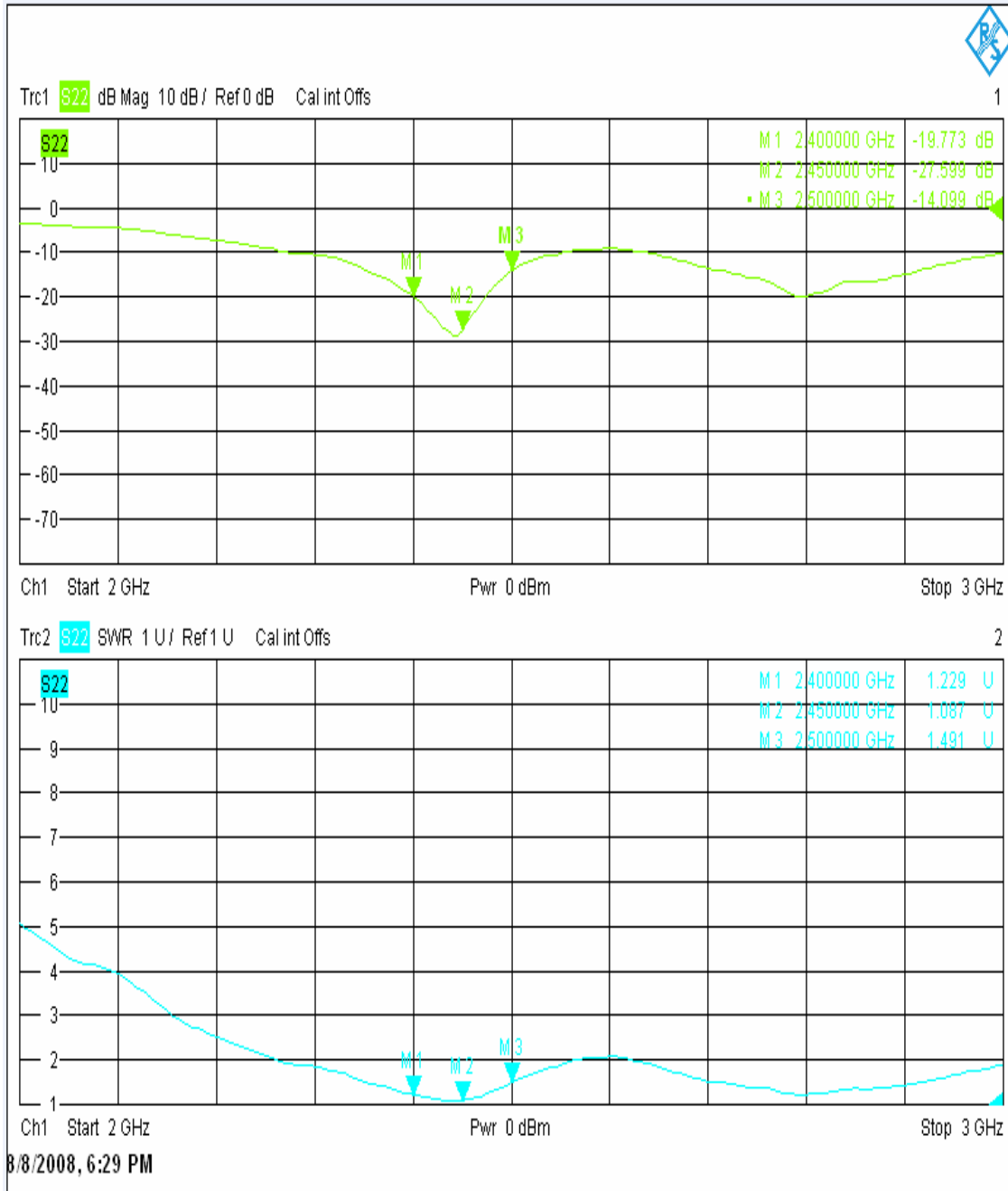
Connector

SMA

Electrical Properties	Impedance	50 ohm
	Frequency Range	0~6 GHz
	V.S.W.R	≤ 1.5
	Working Voltage	$\leq 250V_{rms}$
	Dielectric Withstanding	$\leq 670 V_{rms}$
	Voltage Insulation Resistance	≥ 2000 Megohms
	Contact Resistance	Center contact: 3.0 Milliohms (Max.) Outer contact: 2.0 Milliohms (Max.)
	Recommended coupling nut torque	4.0 in. lbs. ~ 8.8in. lbs.
	Coupling nut retention force	≥ 50 lbs.
	Contact captivation axial	≥ 5 lbs.
	Durability (mating)	≥ 500 cycles
Environmental Ratings	Operating Temperature	-65°C ~ +165°C
	Thermal shock	MIL-STD-202,METHOD 107,Condition B
	Corrosion	MIL-STD-202,METHOD 101,Condition B
	Shock	MIL-STD-202,METHOD 213,Condition I
	Vibration	MIL-STD-202,METHOD 204,Condition D
	Moisture Resistance	MIL-STD-202,METHOD 106
Material Specifications	Material Data	Material
	Body	Brass
	Center Contact	Phosphor Bronze
	Insulator	Teflon or Delrin

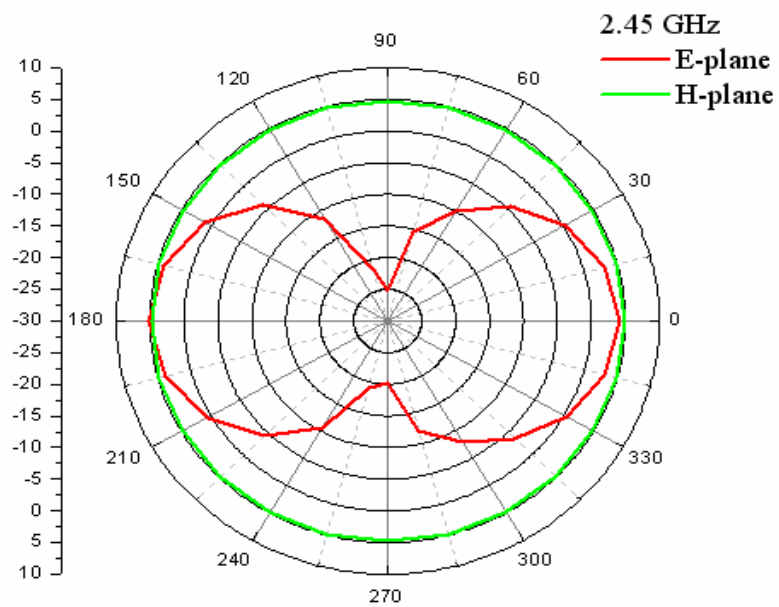
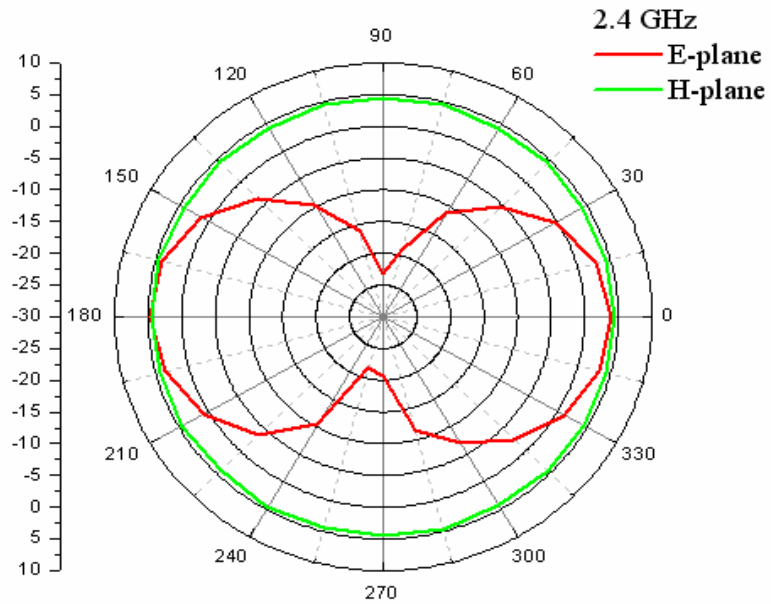


Electrical Test



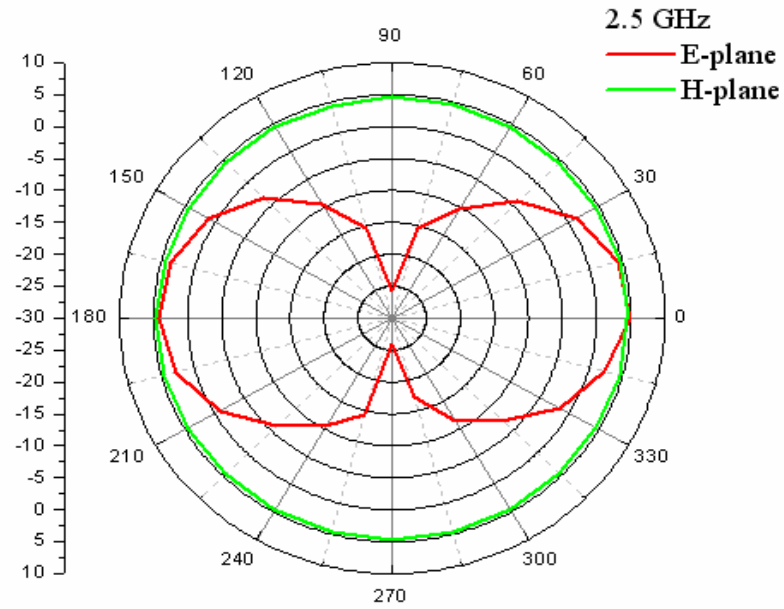


Pattern Test





Pattern Test



AP20-050-MIMO-19

MIMO Directional Antenna

Technical Sheet

Specifications

Model	AP20-050-MIMO-19
Freq.Range-MHz	5125-6100
Bandwidth-MHz	975
Gain-dBi	19(Vertical)
	16(dual slant)
Hor.Beamwidth-°	22(Vertical)
	20(dual slant)
Ver.Beamwidth-°	14(Vertical)
	19(dual slant)
VSWR	≤1.8
Isolation-dB	≥25
F/B Ratio-dB	≥25
Max.power-W	10
Impedance-Ω	50
Polarization	±45° and vertical
Connector	3×N-type female
Dimensions-mm	305×305×12
Weight-Kg	0.8(without clamps)
Mounting	pole

Applications

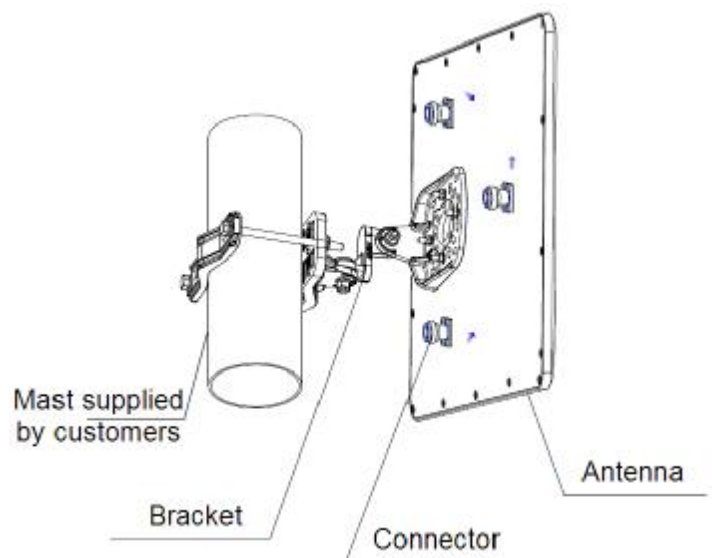
- I 5.8GHz WLAN system
- I 5.8GHz UNII/ISM system
- I Point to point or point to multipoint

Features

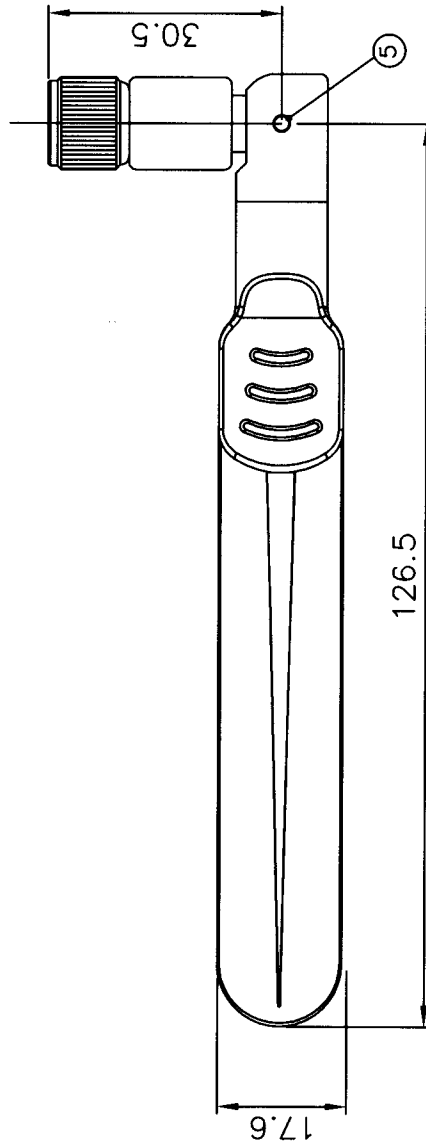
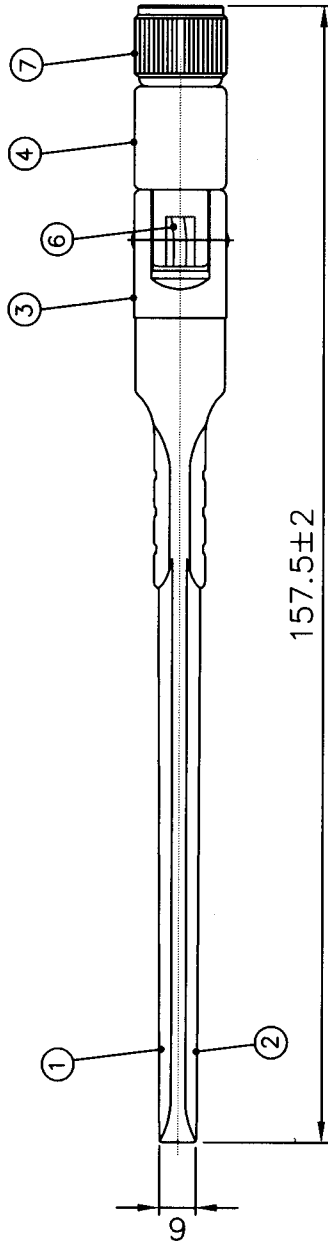
- I Broad band, 5.1/5.5/5.8/6.1GHz
- I Triple polarization
- I MIMO application
- I High gain, Low VSWR
- I Strong corrosion resistance ability



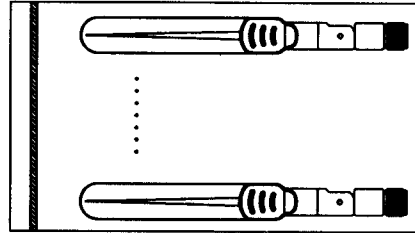
Installation sketch



REV	DATE	DESCRIPTION
X1	6/24-2005	New Issue
X2	7/4-2005	Modify all



PE Bag
Shrink Line



Packing : 10 pcs/bag

NO	DESCRIPTION	QTY	REMARK
7	Connector	1	SMA Plug Straight Reverse
6	Cable	1	RG-178 Cable
5	Rivet	1	POM ; Black
4	Antenna Base	1	PBT Color : Black
3	Antenna Base	1	PC+ABS , Color : Black
2	Antenna Housing(S)	1	PC+ABS , Color : Black
1	Antenna Housing(M)	1	PC+ABS , Color : Black

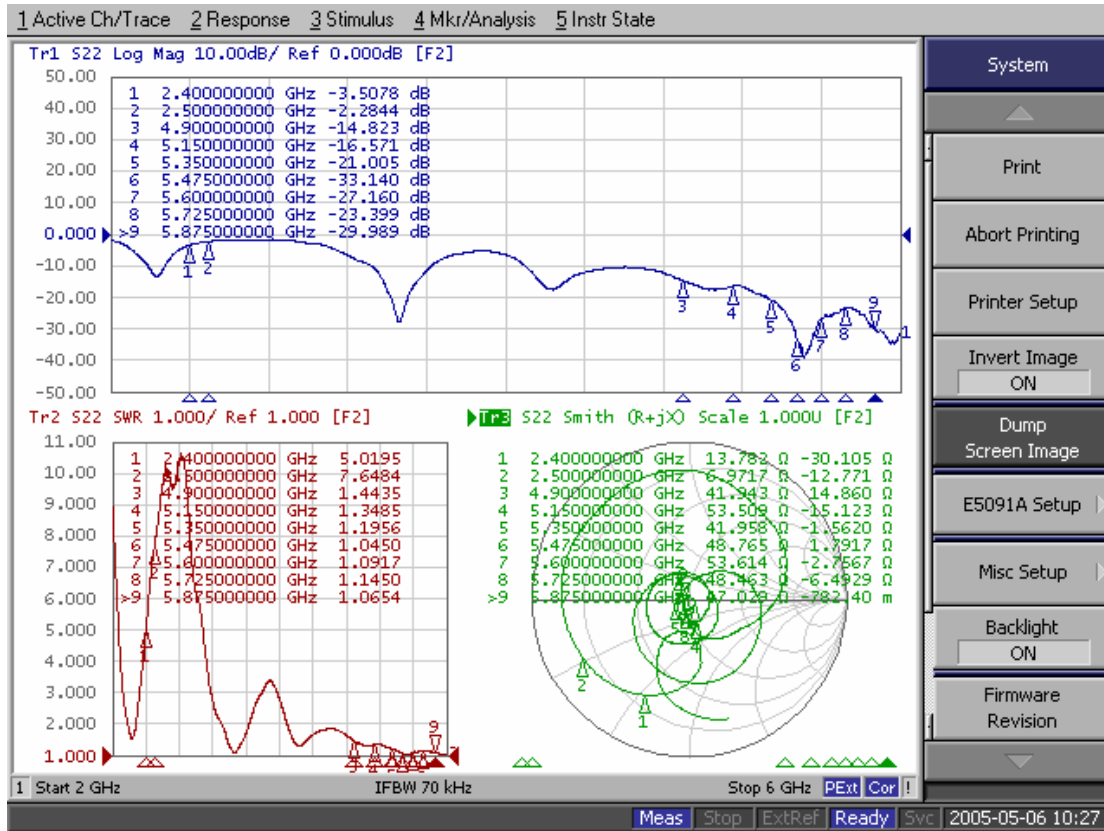
CUSTOMER:	Fire tide
PART NO :	
PARTNAME:	RF Antenna Assembly
W.Y/PNO :	C812-510012-A
REV	UNIT FILE :
X2	m/m SHEET :
	1/1

Wha Yu
INDUSTRIAL CO.,LTD.
講裕實業股份有限公司

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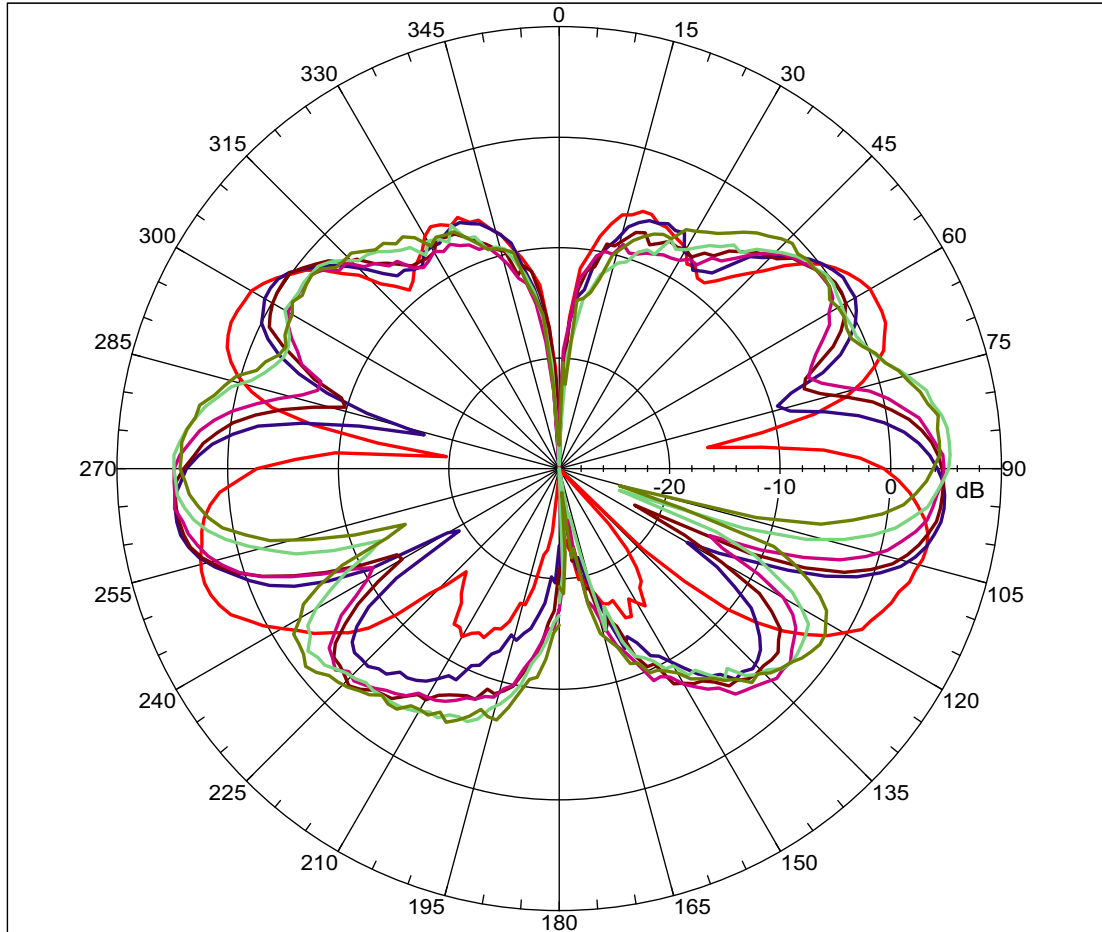
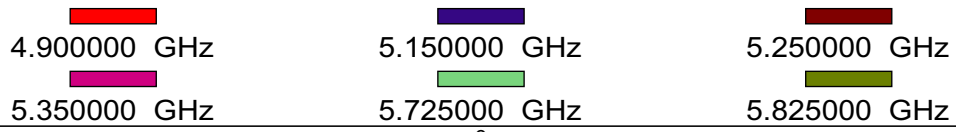
CUSTOMER'S SIGNATURE

RF Antenna Assembly
P/NO :C812-510012-A SPEC : 5GHz





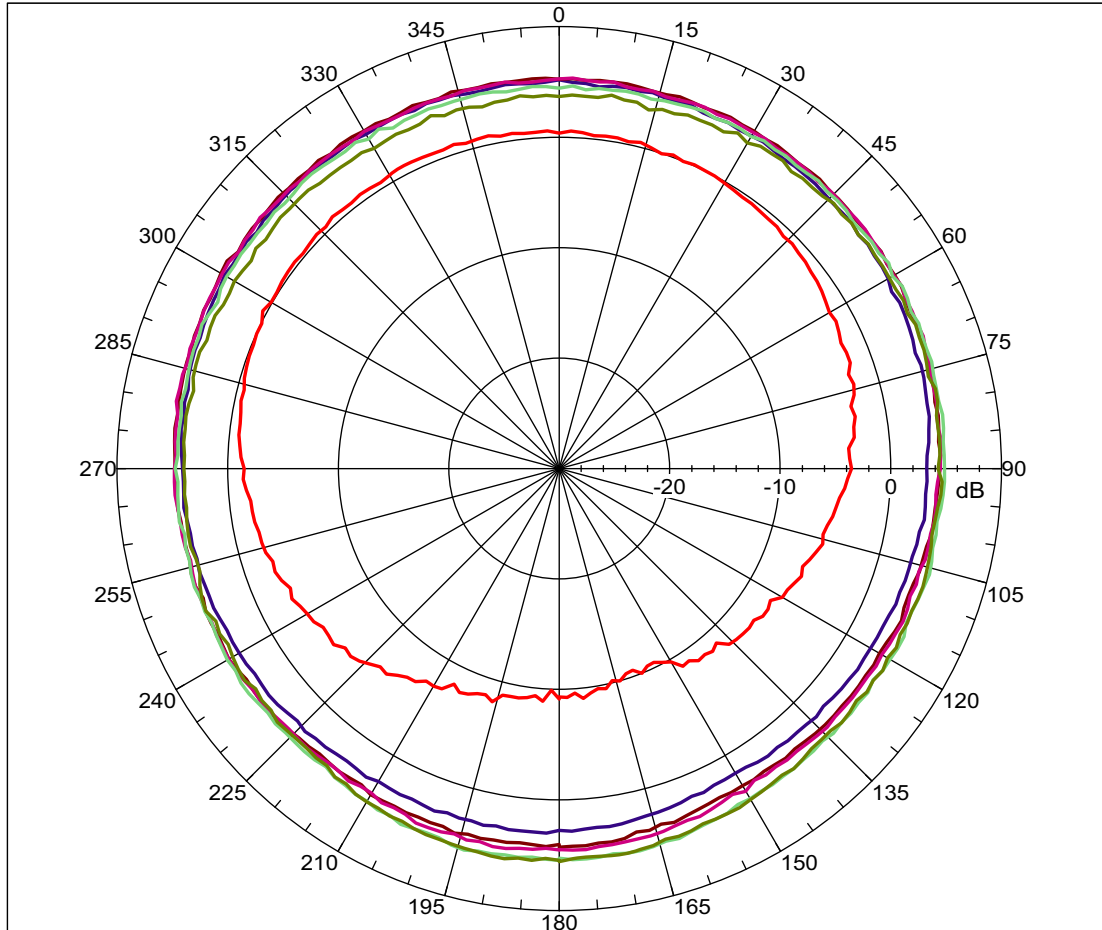
Far-field amplitude of C812-510012-A.nsi





Far-field amplitude of C812-510012-A.nsi

4.900000 GHz 5.150000 GHz 5.250000 GHz
5.350000 GHz 5.725000 GHz 5.825000 GHz



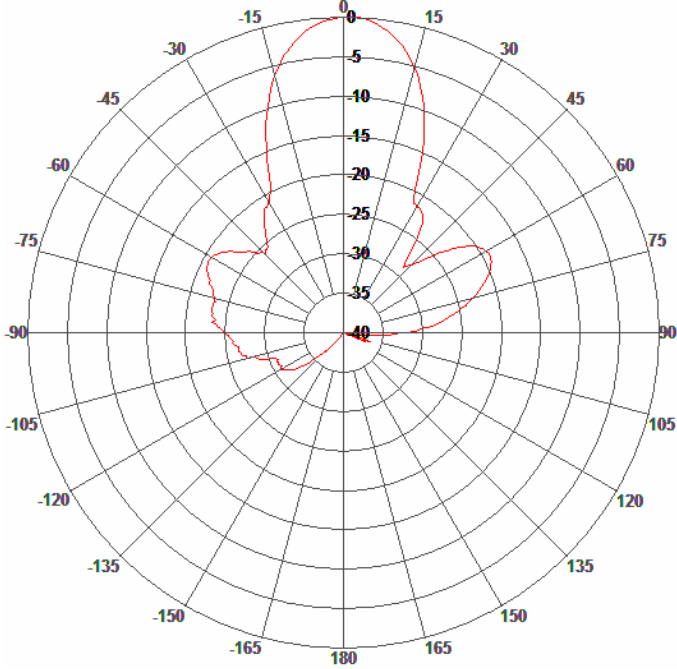
**5.125–6.1 GHz Triple Polarization MIMO Subscriber Antenna
MA-WA55-TPMIMO**

Radiations Patterns

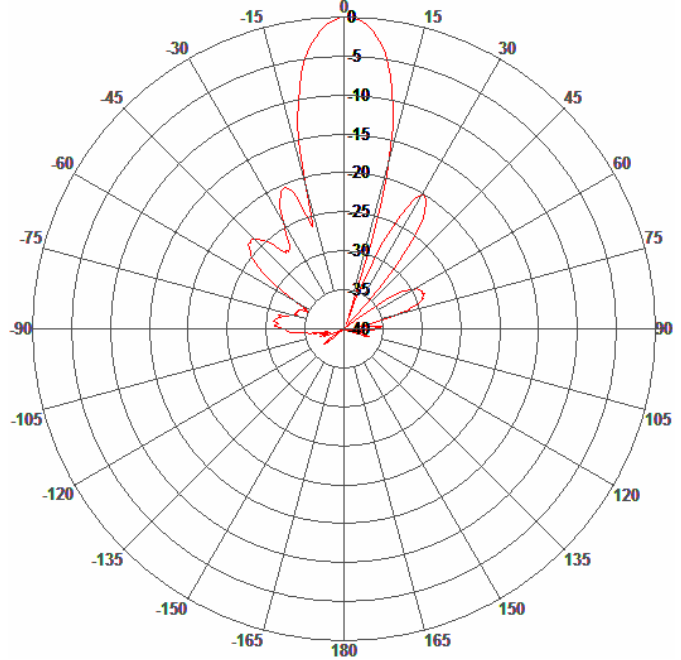
Frequency 5500 MHz
Gain, typ. Vertical 19 dBi Slant 17.5 dBi

Vertical Polarization

Azimuth Pattern

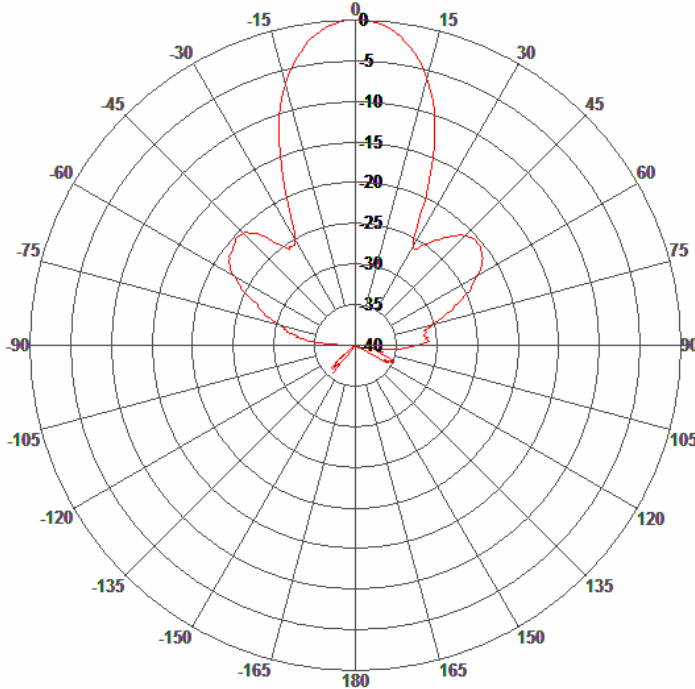


Elevation Pattern

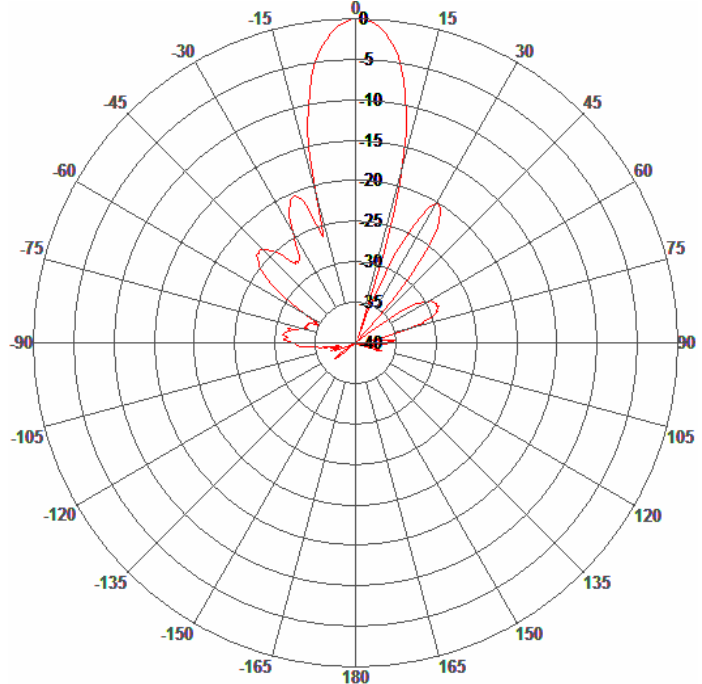


Slant $\pm 45^\circ$ Polarization

Azimuth Pattern



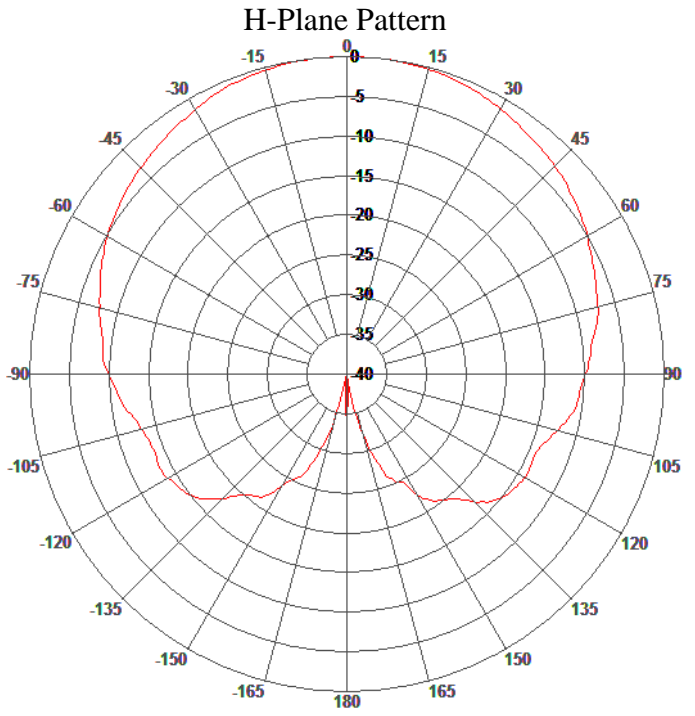
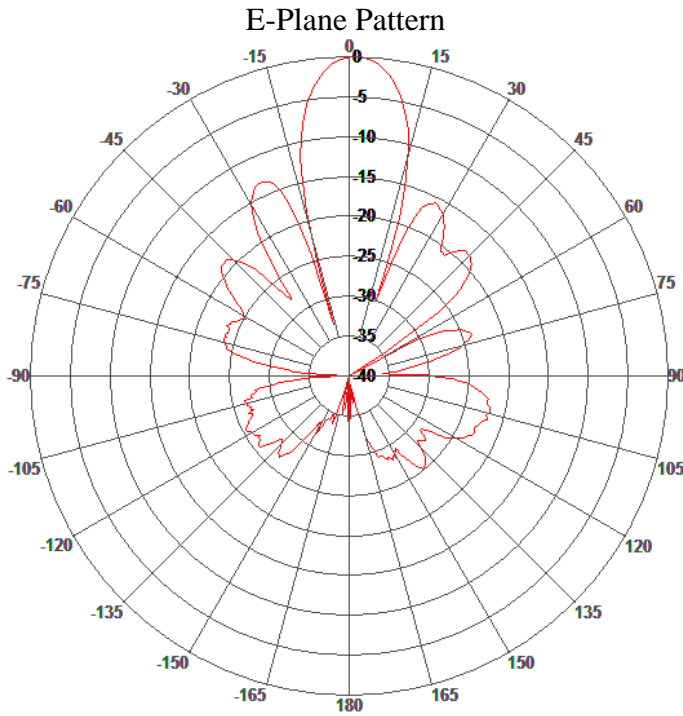
Elevation Pattern



**2.3-2.7 GHz Base Station Antenna, 90°
MA-WD24-13MIMO**

Radiations Patterns

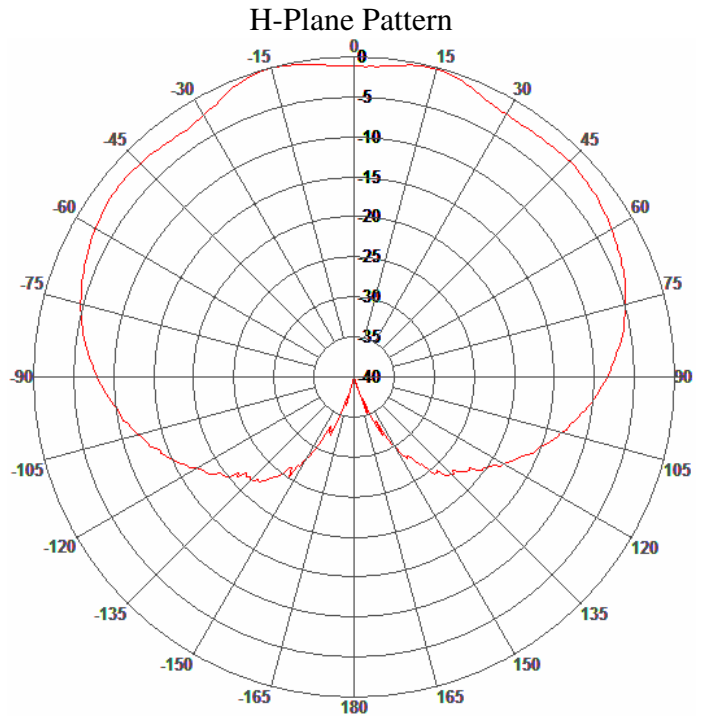
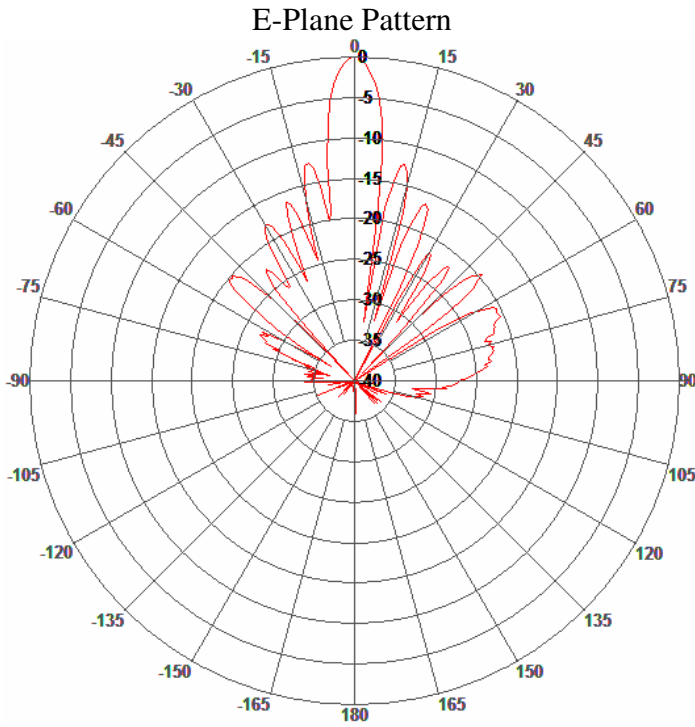
Frequency 2550 MHz
Gain, typ. 13 dBi



**4.9-6.1 GHz MIMO Base Station Antenna, 90°
MA-WD55-16MIMO**

Radiations Patterns

Frequency 5800 MHz
Gain, typ. 16 dBi



4.9 - 5.875 GHz MIMO Omni – Directional Base Station Antenna

MA-WO55-MIMONHFT9

Radiations Patterns

Frequency 5500 MHz
Gain, typ. 9 dBi

