

INTRODUCTION

1. GENERAL DESCRIPTION

Model No	Part No
MP-54M-3	25x25 LNA PATCH

2. Drawing

Frequency	GPS : 1575.42±1.023 MHz GLONASS : 1602±5 MHz
V.S.W.R	1.5 max
Gain at Zenith	GPS : -2.5dBi GLONASS : -1.5dBi
Impedance	50 Ohm
LNA Gain	27dBi

Material:	Treatment:	Unit: mm	Symbol	TITLE	25x25x4 LNA PATCH
Drawer: 陳俊斌	Design: 陳俊斌	Ver: A	Scale 1:1	Model NO	
	Aprov: 蔡文華	File NO: QR0402		Drawing NO	100-22045-0213
	Tolerance: X=±0.5 Y=±0.2 XX=±0.1 XXX=±0.05				

1. Test content :

Patch Antenna in housing pattern measurement

2. Test project :

S11 Return Loss 、 Impedance 、 Antenna Gain 、
Radiation Pattern

3. Test setting :

Network Analyzer : Agilent E5071B

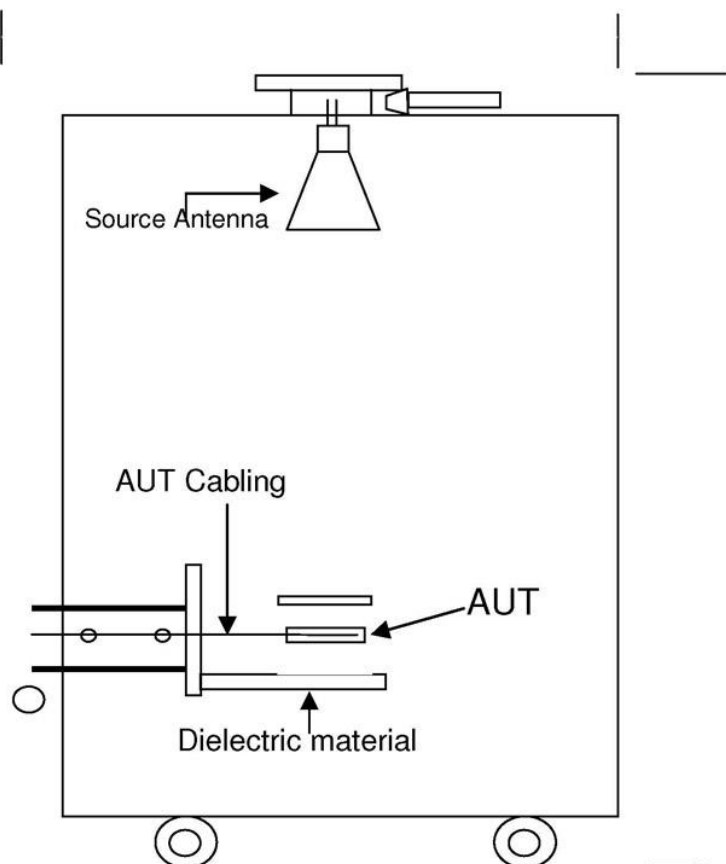
Source Antenna : TRC Horn Antenna

Test Frequency : 1575MHz 、 1602MHz

4. Test environment :

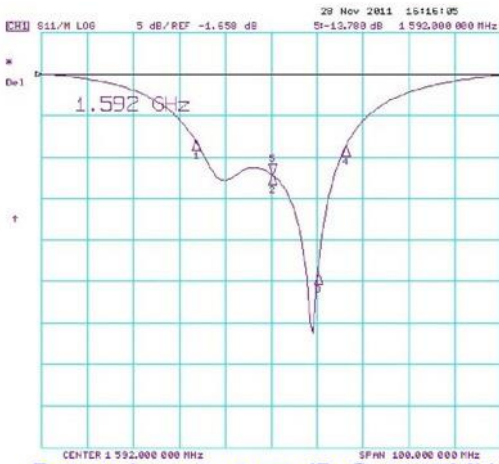
Room temperature : 25°C Humidity : 40%

5. Test schematic drawing of setting :

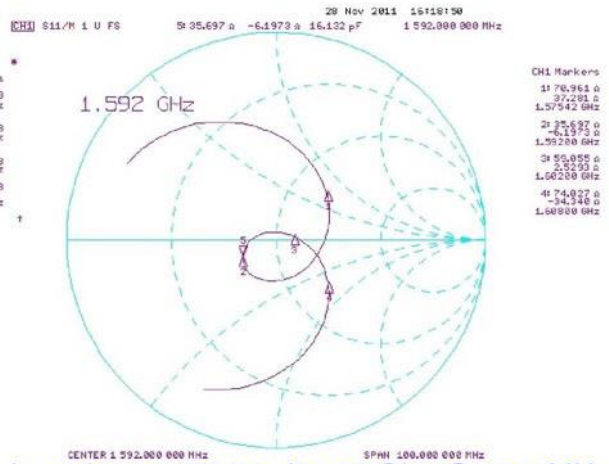


6. Test Data :

DA25 in GNS XXX housing S11 Return Loss & Smith Chart Measure



Return Loss : -9.73 dB @ 1575MHz
Return Loss : -25.79 dB @ 1602MHz

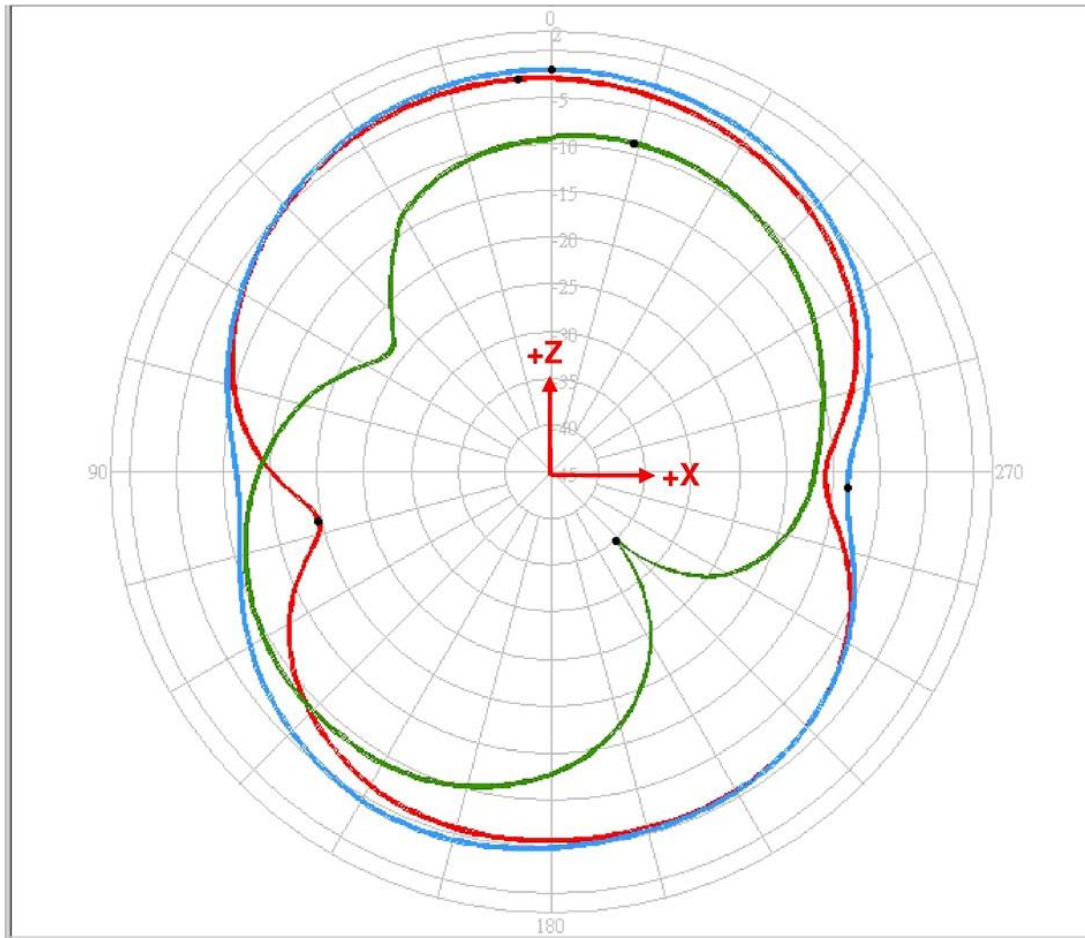


Impedance : 70.96 +j37.28 Ohm @ 1575MHz
Impedance : 59.05 +j2.52 Ohm @ 1602MHz



VSWR : 1.98 @ 1575MHz
VSWR : 1.11 @ 1602MHz

XZ-Plane 1575.42MHz Horizontal & Vertical & V+H

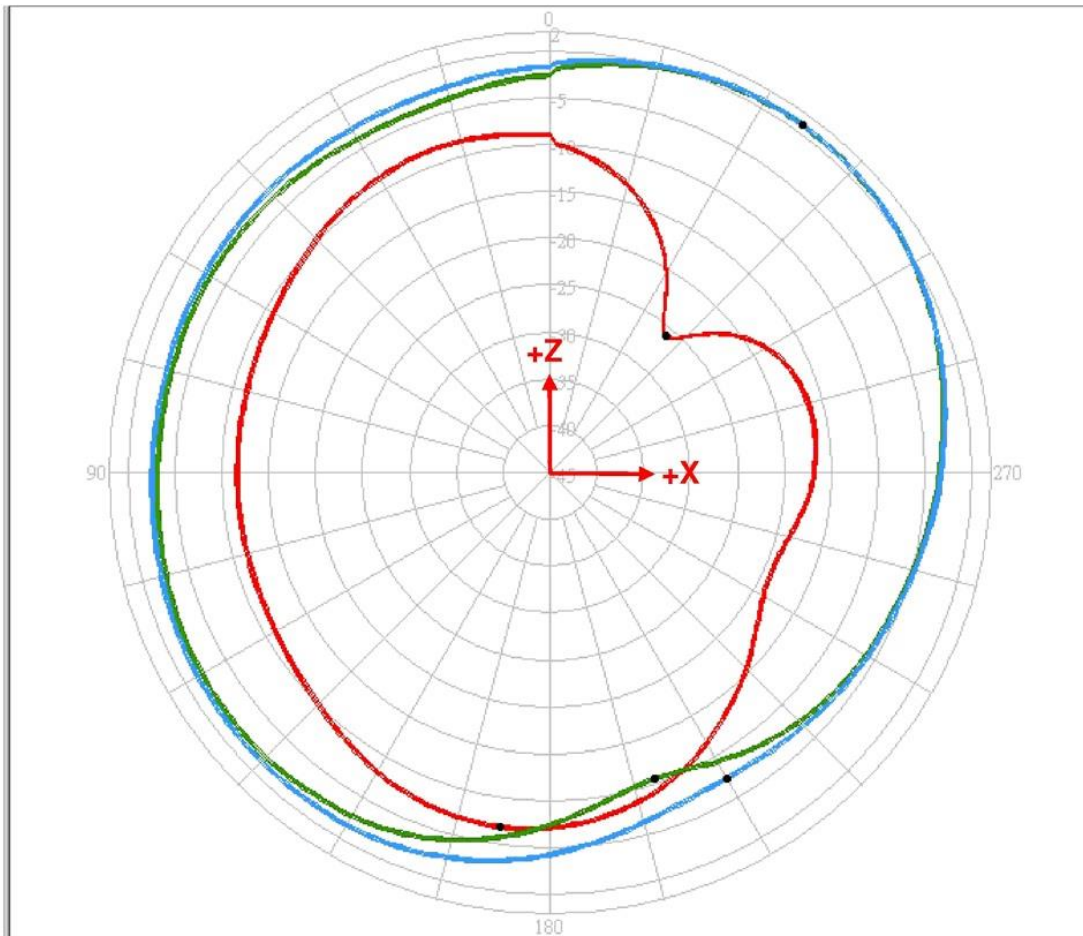


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	GNS XXX	XZ	1575.42	-2.95 / 5.00	-19.65 / 102.00	-6.56	Ver.	2011/11/2
2	GNS XXX	XZ	1575.42	-8.87 / 346.00	-34.94 / 223.00	-12.41	Hor.	2011/11/2
3	GNS XXX	XZ	1575.42	-2.09 / 0.00	-13.40 / 267.00	-5.55	V+H	2011/11/2

1575MHz	Peak Gain	Zenith Gain
Ver.	-2.95	-2.96
Hor.	-8.87	-9.54
V+H	-2.09	-2.09

(dBi)

XZ-Plane 1602MHz Horizontal & Vertical & V+H

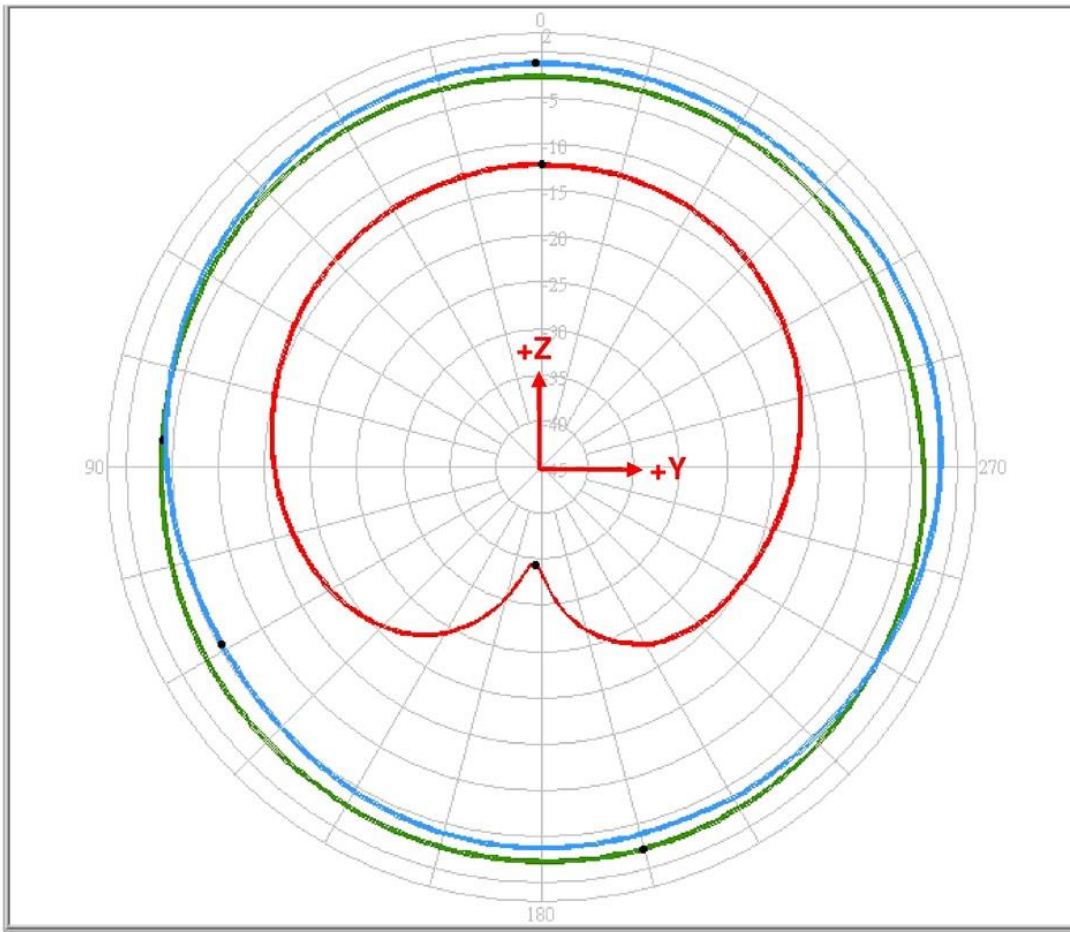


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	GNS XXX	XZ	1602.00	-6.88 / 172.00	-25.88 / 320.00	-11.06	Ver.	2011/11/2
2	GNS XXX	XZ	1602.00	0.76 / 324.00	-10.53 / 199.00	-2.87	Hor.	2011/11/2
3	GNS XXX	XZ	1602.00	0.77 / 324.00	-7.40 / 210.00	-2.26	V+H	2011/11/2

1602MHz	Peak Gain	Zenith Gain
Ver.	-6.88	-8.98
Hor.	0.76	-2.68
V+H	0.77	-1.76

(dBi)

YZ-Plane 1575.42MHz Horizontal & Vertical & V+H

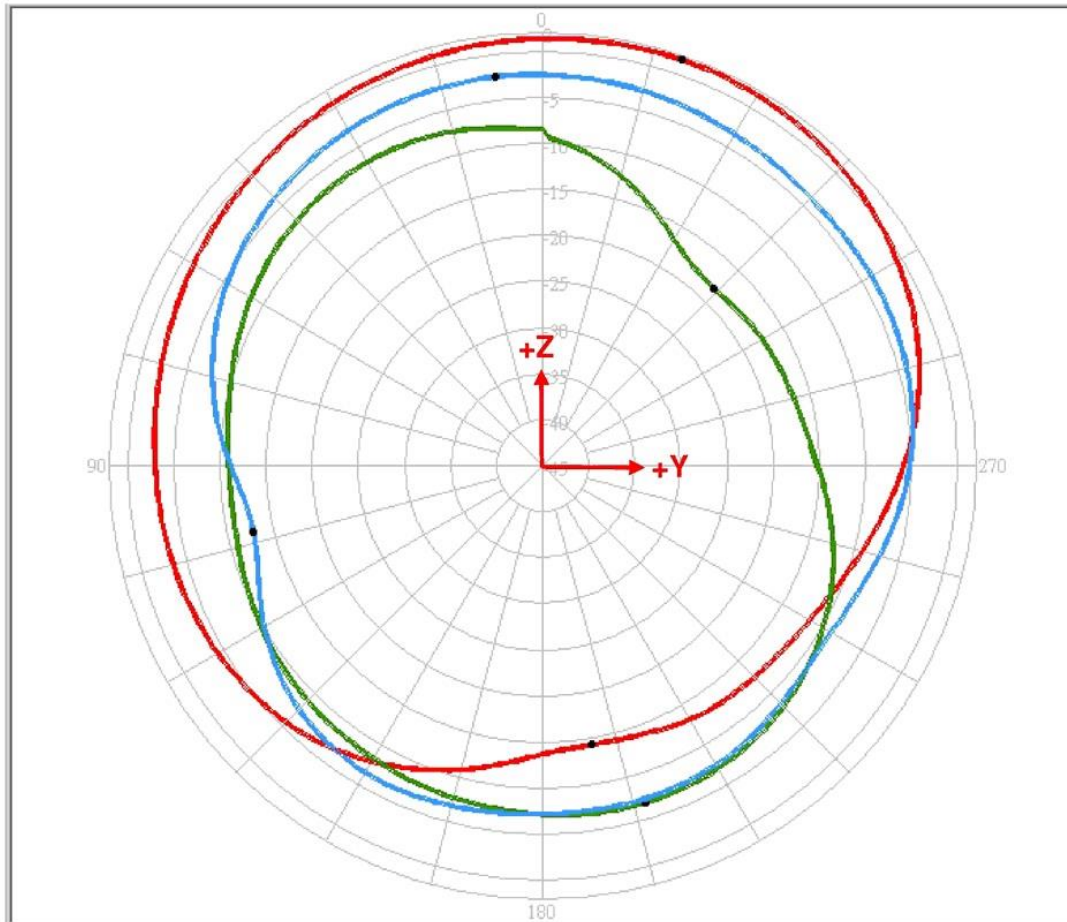


Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	GNS XXX	YZ	1575.42	-12.24 / 0.00	-34.40 / 176.00	-15.83	Ver.	2011/11/2
2	GNS XXX	YZ	1575.42	-2.25 / 195.00	-3.87 / 86.00	-3.06	Hor.	2011/11/2
3	GNS XXX	YZ	1575.42	-1.32 / 1.00	-5.47 / 119.00	-2.83	V+H	2011/11/2

1575MHz	Peak Gain	Zenith Gain
Ver.	-12.24	-12.24
Hor.	-2.25	-2.72
V+H	-1.32	-1.32

(dBi)

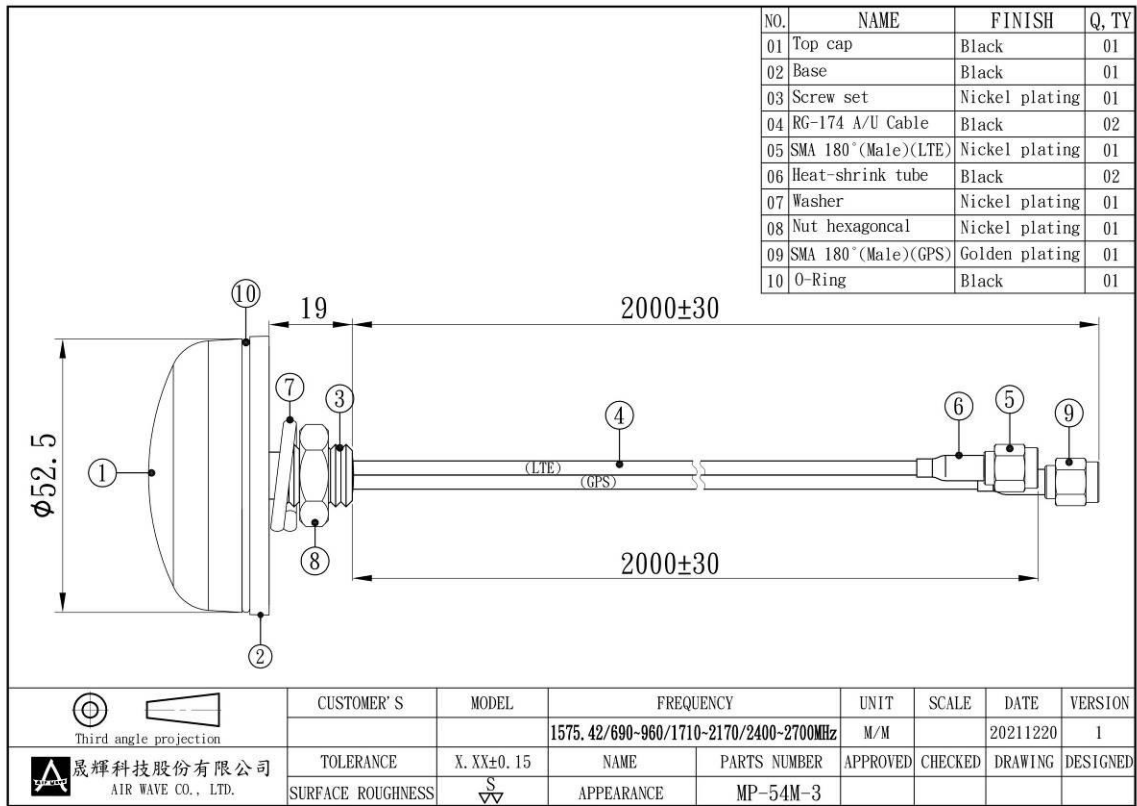
YZ-Plane 1602MHz Horizontal & Vertical & V+H



Pattern	Model No.	Test Mode	Freq(MHz)	Max Gain(dBi)	Min Gain(dBi)	Avg. Gain(dBi)	Source Polar.	Date
1	GNS XXX	YZ	1602.00	1.54 / 341.00	-14.31 / 190.00	-2.40	Ver.	2011/11/2
2	GNS XXX	YZ	1602.00	-6.79 / 197.00	-18.25 / 316.00	-9.46	Hor.	2011/11/2
3	GNS XXX	YZ	1602.00	-2.50 / 7.00	-12.81 / 103.00	-5.49	V+H	2011/11/2

1602MHz	Peak Gain	Zenith Gain
Ver.	1.54	1.37
Hor.	-6.79	-8.52
V+H	-2.50	-2.52

(dBi)

Appearance


Frequency

