

SPEC NO.	SP03BE15750-0960	ISSUED DATE	2015/03/26	PUBLISHED BY
PRODUCT NAME	GPS AND GLONASS Antenna/ GNA-77E	VERSION	d01	
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SPECIFICATION

SPEC NO. : SP03BE15750-0960
 PART NO. : 03V01500IVA0100
 PRODUCT NAME : GPS AND GLONASS Antenna/ GNA-77E
 DESCRIPTION : 2.5~5.5V/28dB/5M/RG-174/FAKRA C(M)
RoHS Compliant Product

REVISION STATUS

VERSION	DATE	PAGE	REVISION DESCRIPTION	PREPARED	CHECKED	APPROVED
d01	2015/03/26	Whole	new	黄敏慎	黄敏慎	吴靖文

Prepared By	Checked By	Approved By
黄敏慎	黄敏慎	吴靖文

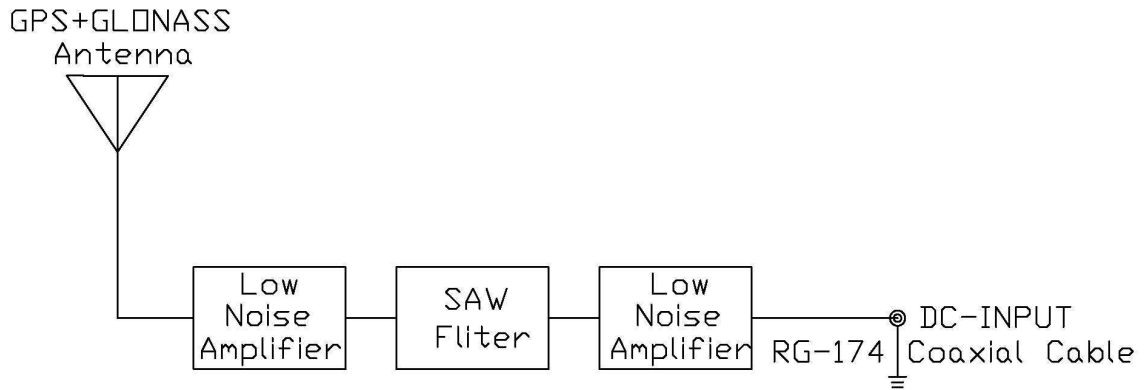


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SPECIFICATION FOR GPS AND GLONASS ANTENNA WITH LOW NOISE AMPLIFIER.

1.0 SYSTEM:

This antenna specification covers the GPS (L1 Band) and GLONASS.



2.0 GENERAL

2.1 ENVIRONMENTAL CONDITIONS

2.1.1	Operation Temperature	- 40°C to + 85°C
2.1.2	Storage Temperature	- 40°C to + 85°C
2.1.3	Relative Humidity	40% to 95%

2.2 ELECTRICAL SPECIFICATIONS

2.2.1	Input Voltage	Min:2.5V	Typ:3.0V	Max:5.5V
2.2.2	Current Consumption	Typ:10mA	Max:15mA	at 3.0V

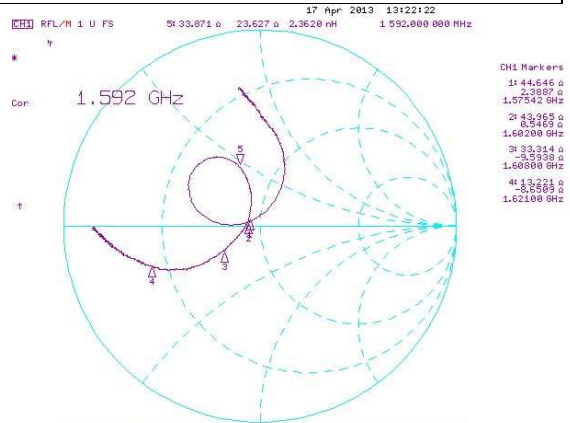
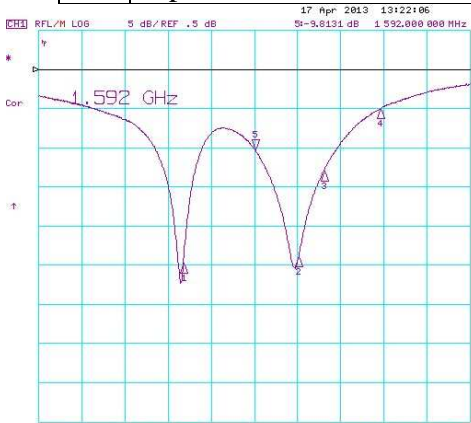
2.3 MECHANICAL SPECIFICATIONS

2.3.1	RF Cable	RG-174 Coaxial cable, ϕ 2.7mm, Color: Black Length:5meter \pm 5cm
2.3.2	RF Connector	FAKRA C(M)

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3.0 ANTENNA

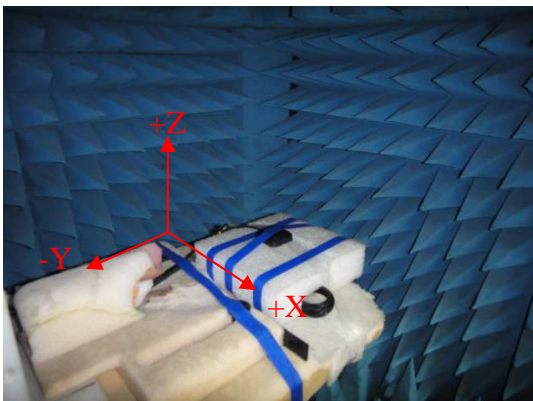
3.1	Dimensions	25*25*4mm
3.2	Frequency Range	1,575.42±1.045MHz For GPS 1,602±8MHz For GLONASS
3.3	VSWR	2.0 (max.)
3.4	Impedance	500hm



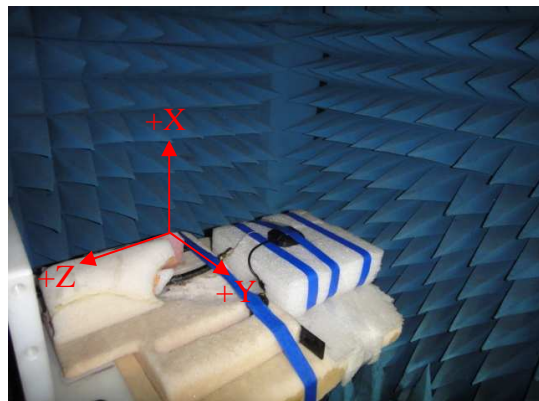
Frequency	Return Loss	Impedance	VSWR
1575 MHz	-24.34(dB)	44.64 + j02.38	1.13
1602 MHz	-23.46(dB)	43.96 + j00.54	1.15

Radiation Patterns

XZ-Plane

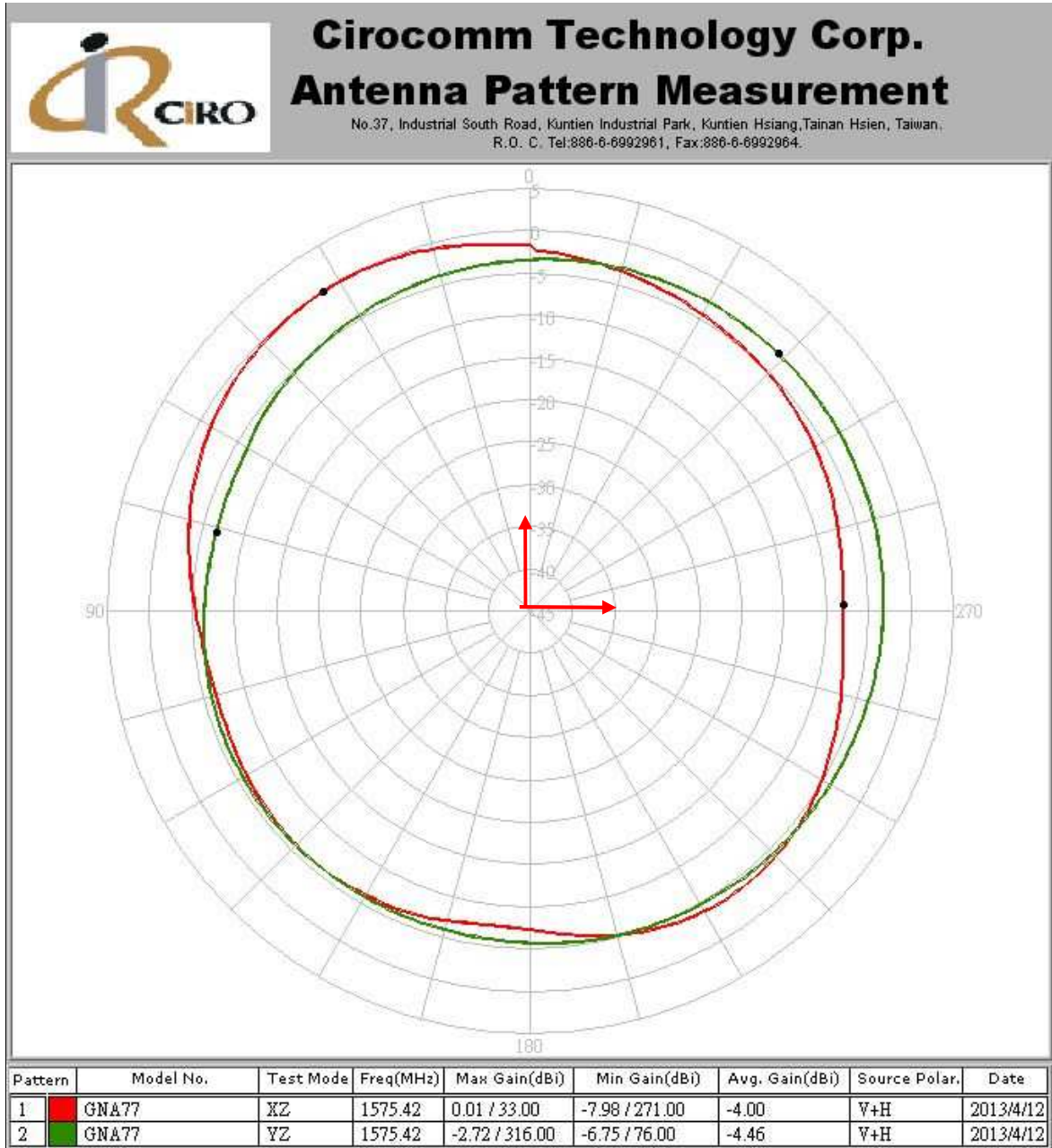


YZ-Plane



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Gain Pattern Value(1575.42MHz) :



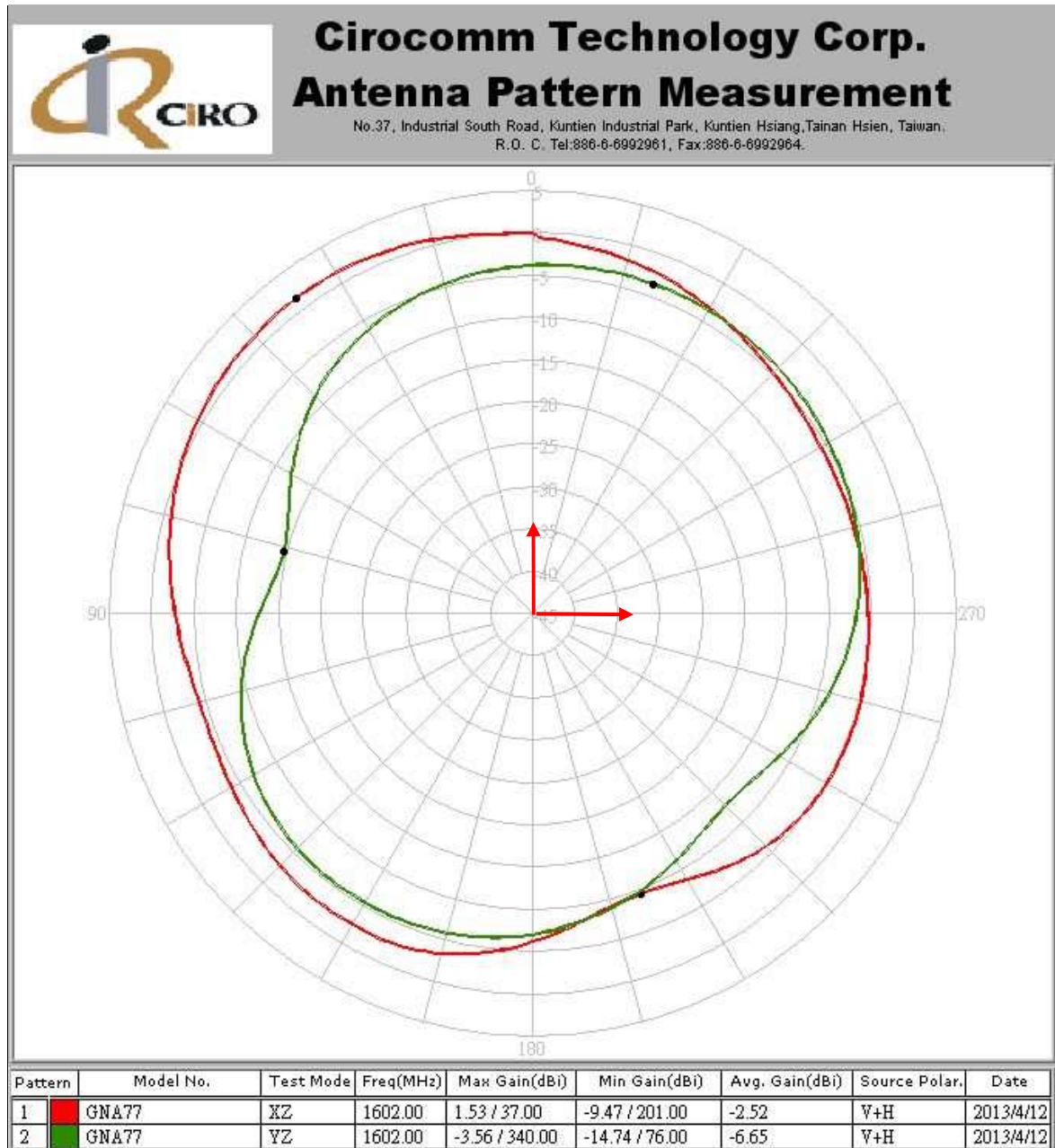
1575.42MHz	Peak Gain	Zenith Gain
XZ	0.01	-1.73
YZ	-2.72	-3.51

(dBi)



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Gain Pattern Value(1602MHz) :



1602MHz	Peak Gain	Zenith Gain
XZ	1.53	-0.07
YZ	-3.56	-3.88

(dBi)



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4.0 LNA

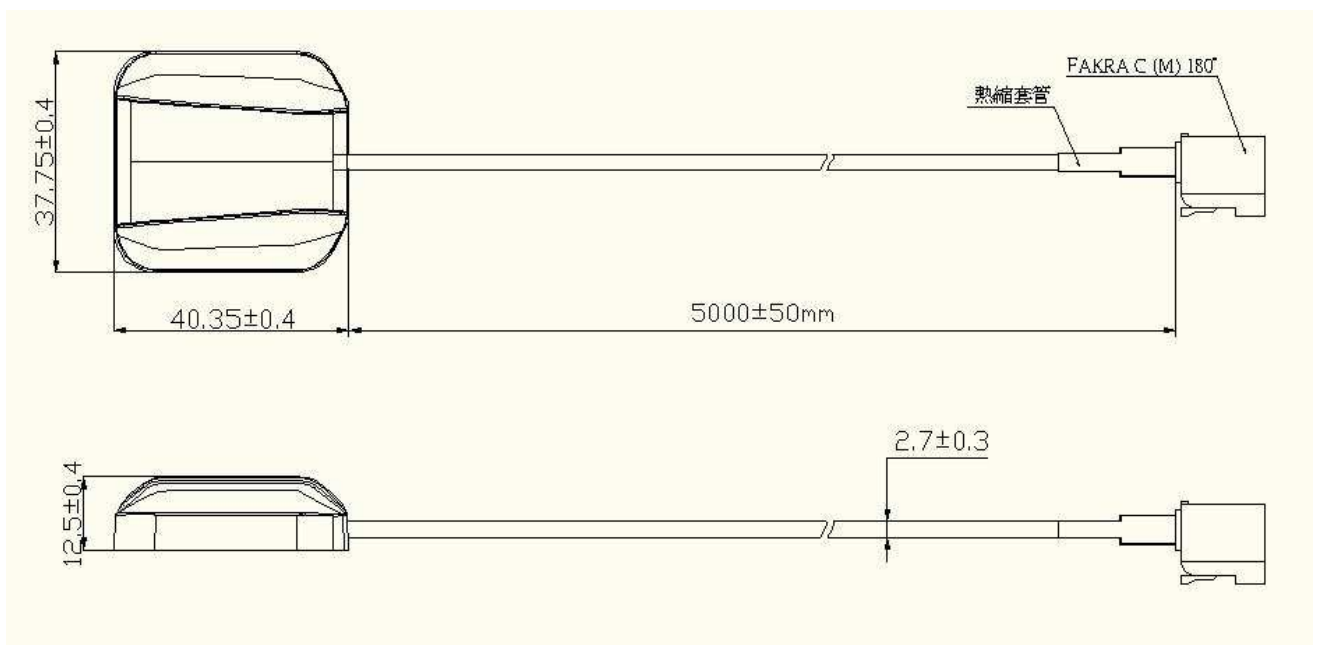
4.1	Frequency Range	1,575.42±1.023MHz For GPS 1,602±8MHz For GLONASS
4.2	Noise Figuer	1.6dB typ.(+25°C)
4.3	Gain	28dB typ.
4.4	Output VSWR	2.0 max.
4.5	Output Impedance	50 Ohm

5.0 GPS/ GLONASS Antenna Specifications (Through Antenna, LNA and Cable Assembly)

5.1	Frequency Range	1,575.42±1.024MHz, 1,602±8MHz
5.2	Gain at 3.0V	28dBic,typ @Zenith – Cable Loss(Note:1)
5.3	Output VSWR	2.0 max.
5.4	Output Impedance	50 Ohm

Note:1 Cable Loss = Max.(-1.4dB/meter)

6.0 Outline



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7.0 Package

7.1 Unit Package(Sketch map)



7.2 100 Units/Carton

