

SPEC NO.	SP03B115750-0970	ISSUED DATE	2010/1/5	PUBLISHED BY
PRODUCT NAME	GNA-100	VERSION	d01	
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SPECIFICATION

SPEC NO. : SP03B115750-0970
PART NO. : 0310150423W0100
PRODUCT NAME : GNA-100
DESCRIPTION : 5V/23dB/3M/SMA 180°
RoHS Compliant Product

REVISION STATUS

VERSION	DATE	PAGE	REVISION DESCRIPTION	PREPARED	CHECKED	APPROVED
d01	2010/1/5	Whole	New Issued	張啟學	張啟學	吳靖文

Prepared By	Checked By	Approved By
張啟學	張啟學	吳靖文

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SPECIFICATION FOR GPS ANTENNA WITH LOW NOISE AMPLIFIER

1.0 SYSTEM:

This antenna system consists of two functional blocks, the LNA portion and the patch antenna.

2.0 GENERAL

2.1 ENVIRONMENTAL CONDITIONS

2.1.1	Operation Temperature	- 20°C to + 65°C
2.1.2	Storage Temperature	- 30°C to + 75°C
2.1.3	Relative Humidity	40% to 95%

2.2 ELECTRICAL SPECIFICATIONS

2.2.1	Input Voltage	Min:2.7 V	Typ: 5.0V	Max:6V
2.2.2	Current Consumption	At 5.0 V	Typ: 20mA	Max: 25mA

2.3 CABLE & CONNECTOR

2.3.1	RF Cable	RF Coaxial Cable, ϕ 2.7± 0.2mm, L =3M+/- 5 cm
2.3.2	RF Connector	SMA 180°

3.0 ANTENNA

3.1	Antenna Dimensions	40mm*40mm*6.5mm
3.1	Frequency Range	1575.42 ± 10 MHz. 1602±8 MHz.
3.2	GAIN	1575.42MHZ: + 4 dBic Typ. @zenith(ϕ 150mm Ground) 1602MHZ: + 2.5 dBic Typ. @zenith(ϕ 150mm Ground)
3.3	Polaration	RHCP
3.4	Axial Ratio	3dBic(at Elevation 90° -Zenith)

4.0 LNA and FILTER

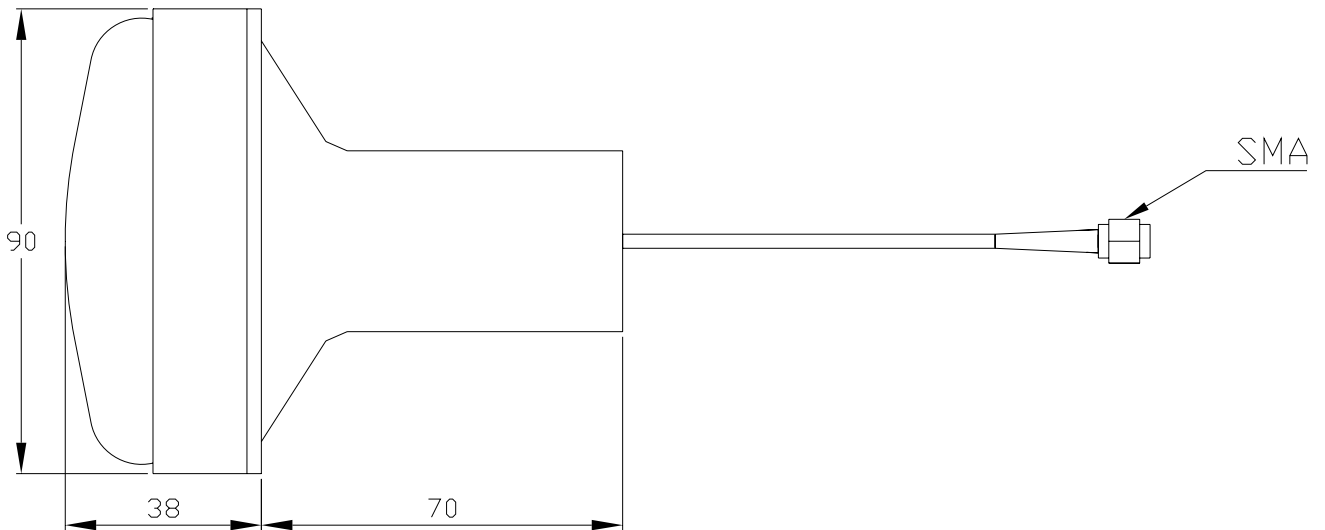
4.1	Frequency Range	1575.42 ± 10 MHz 1602±8 MHz.
4.2	Gain(without Cable)	1575.42MHZ: 21 dB Min. 23 dB Typ.(+ 25 °C± 5°C) 1602MHZ: 21 dB Min.23 dB Typ.(+ 25 °C± 5°C)
4.3	Noise Figure	2.0 dB Typ. (+ 25 °C ± 5°C) 2.6 dB Max. (+ 85 °C)
4.4	Output Impedance	50Ω
4.5	Output VSWR	2.0 Max
4.6	Out Band Rejection	1587.5 ±140MHz 15dB Min

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5.0 TOTAL SPECIFICATIONS (Through Antenna, LNA, Cable and Connector)

5.1	Frequency Range	1575.42 ± 10 MHz. 1602±8 MHz.
5.2	Gain	At 90° 1575.42MHZ: 27± 3dBic 1602MHZ: 25.5± 3dBic
5.3	Output Impedance	50 Ω
5.4	Output VSWR	2.0 Max

6.0 OUTLINE



Unit:mm