



# SPECIFICATION

SPEC NO.	:	SP034015750-270
PART NO.	:	034015231EM0300
PRODUCT NAME	:	GBSA-901
DESCRIPTION	:	3V/25dB/30mm/ I-PEX/ MMCX(F) ROHS Compliant Product

## 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: 3.0V	Max:3.3V
2.2.2	Current Consumption	At 3.0 V	Typ: 12mA	Max: 15mA

#### 2.3 CABLE & CONNECTOR

2.3.1	RF Cable	RF Coaxial Cable, $\phi$ 1.13 $\pm$ 0.1mm, L =30 +/- 1.5 mm
2.3.2	RF Connector	I- PEX ( F )
2.3.3	External Antenna connector with Electrical Switch	MMCX(F)

### 3.0 ANTENNA

3.1	Antenna Dimensions	13mm*13mm*4mm
3.2	Frequency Range	1575.42 $\pm$ 1.023 MHz.
3.3	<b>GAIN</b>	- 1.5 dBi Typ. @zenith(50mm*50mm Grand)
3.4	Polaration	RHCP
3.5	Axialration	Max 4.0dB@zenith

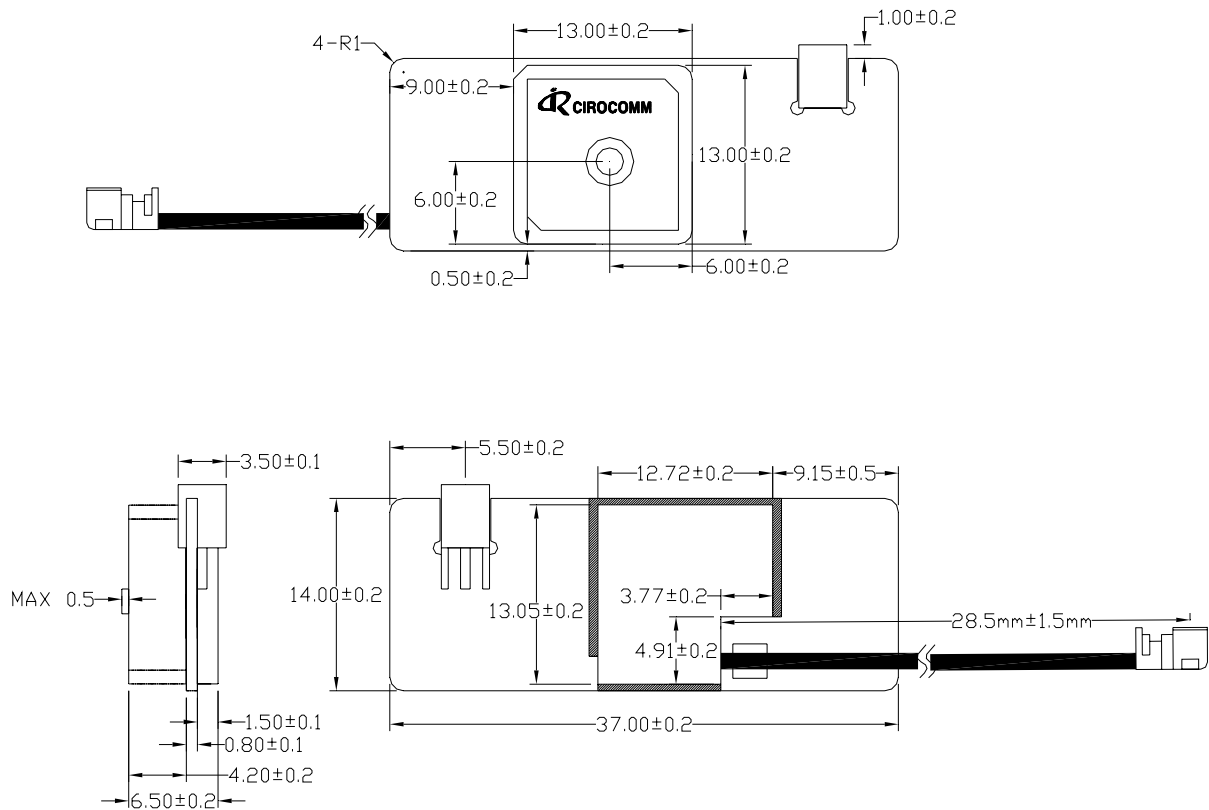
## 4.0 LNA

4.1	Frequency Range	1575.42 ± 1.023 MHz
4.2	MMIC Gain	23dB Min. 25 dB Typ.( + 25 °C ± 5°C)
4.3	Noise Figure	1.4 dB Typ. ( + 25 °C ± 5°C) 1.8 dB Max. ( + 85 °C)
4.4	Output Impedance	50Ω
4.5	Output VSWR	2.0 Max

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

5.1	Frequency Range	1575.42 ± 1.023MHz
5.2	Gain	At 90° 23.5± 4dBi
5.3	Output Impedance	50Ω
5.4	Output VSWR	2.0 Max

## 6.0 OUTLINE



Unit:mm