

**KNCTEK EXTERNAL GPS ANTENNA  
KANT-3001 Specification**

Version 1.1  
2011/12/20

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**KANT-3001 Specification**

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## **Revision History**

1. 2011-04-10 : Initiated Version 1.0
2. 2011-12-20 : Updated Version 1.1 for detailed specification.

## Introduction

Knctek's KANT-3001 Antenna is designed for external antenna mode to have excellent bandwidth signal and perform to receive GPS satellite signals.

We are proudly introducing this GPS antenna to satisfy our customer with best performance.

## 1. Application

This specification apply to GPS Antenna

## 2. Condition of using antenna

Stick it to use external magnetic of Antenna head

## 3. Electrical characteristic & performance

### 3-1. Ceramic Patch Antenna

Item	Specifications
Center Frequency	1594 MHz +/- 3MHz
Polarization	RHCP
Gain @Zenith	+3 dBi typical
@ 10° Elevation	- 1 dBi typical
Temperature coefficient	20 ppm/°C max(-40 to + 85 °C)
Input/Output Impedance	50Ω

### 3-2. GPS Active Antenna

Item	Specifications
Frequency	1575.42 MHz +/- 3.0MHz
VSWR	2.0 : 1 (MAX)
Gain	30 +/- 2dB (30dB : Typical).
Impedance	50 Ohm
Noise Figure	0.5dB (Typical), 2.0dB (MAX)
Band Attenuation	Fo + 50MHz 20dB (MIN)
	Fo - 50MHz 20dB (MIN)
Voltage	DC 3.0 to 5.0V
Current	15[mA] (Typical), 25[mA] (MAX)

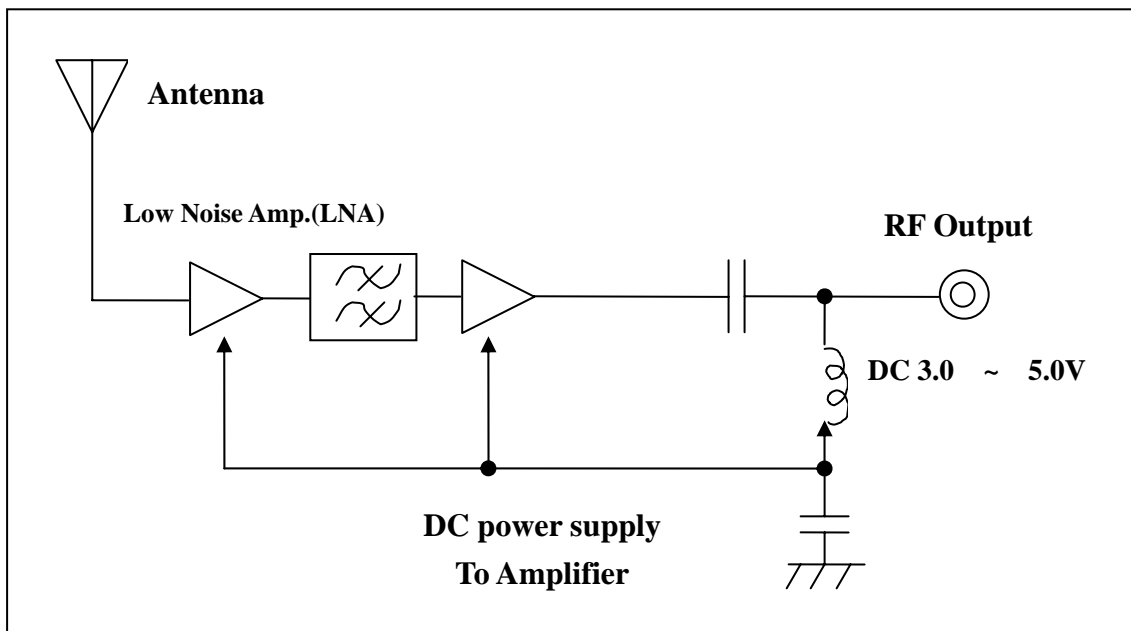
**4. Mechanical Specification**

Cable ( to GPS)	RG-174 , 3M as default or per Request
Connector ( to GPS)	SMA as default or per Request
Mount Type	Magnetic
Case Material	PC/ABS

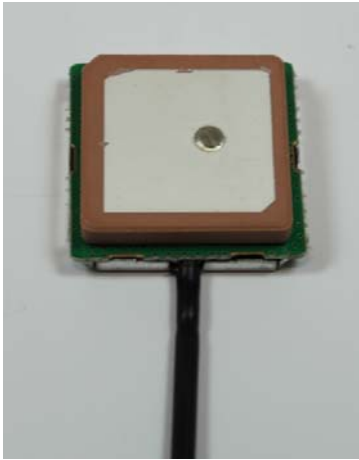
**5. Environmental Specification**

Operating Temp.	-30°C ~ +80°C
Storage Temp.	-40°C ~ +90°C
Relativity Humidity	20% to 95% RH

**6. Schematic diagram**



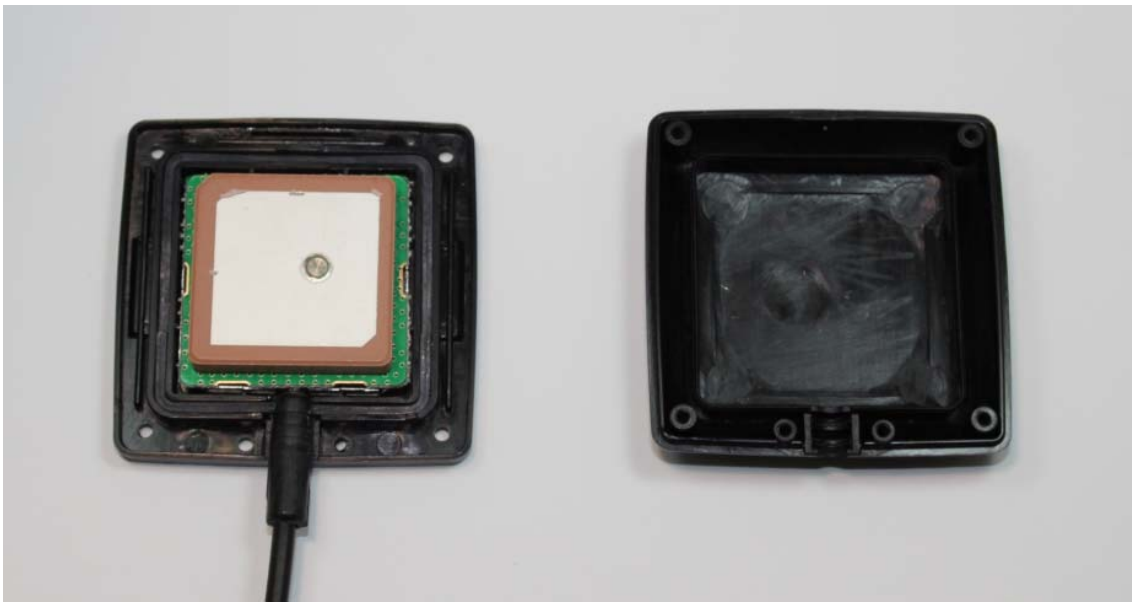
**7. Product Looks**



**( LNA PCB Ass'y 28X28)**



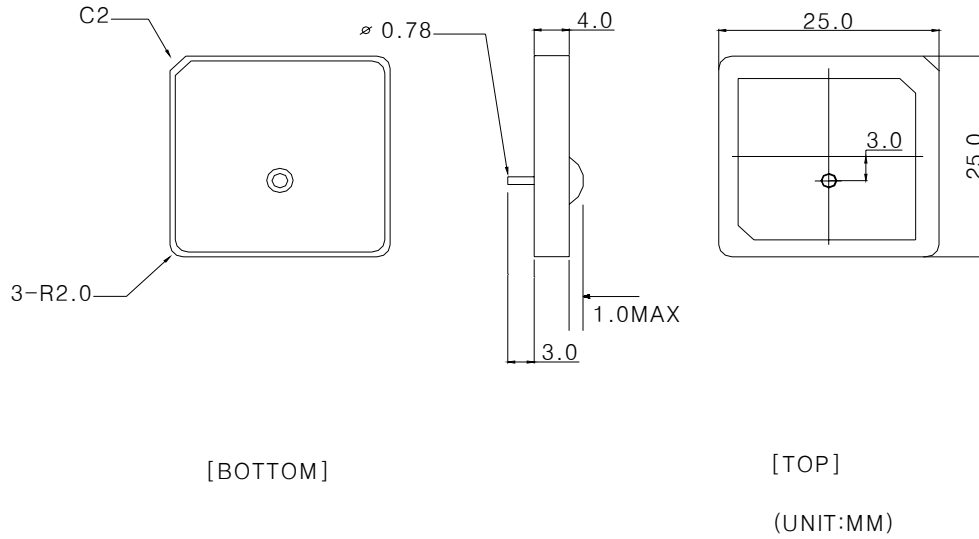
**( GPS Antenna Case)**



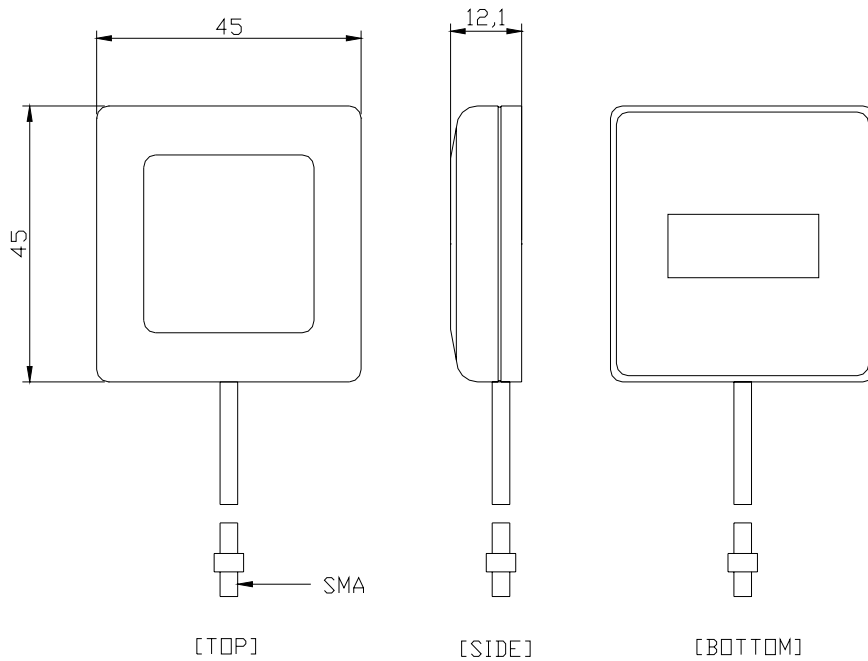
**( GPS Active Antenna Inside View\_Water Resistant Rubber)**

**8. Dimensions**

**8-1. GPS Patch Antenna**

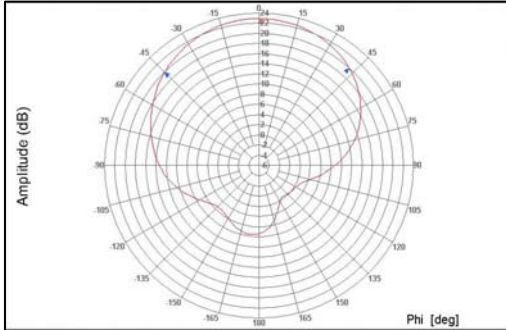


**8-2. GPS Active Antenna**

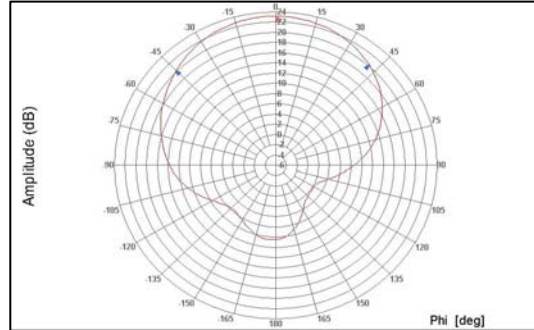


**9. Directivity Chart**

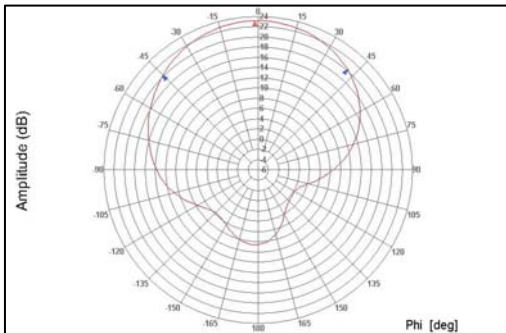
S/N : 1011201 [30.3 dB]



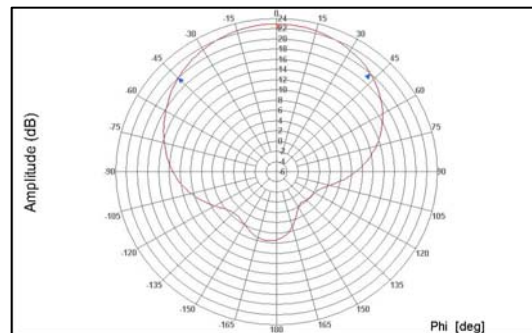
S/N : 1011202 [29.1 dB]



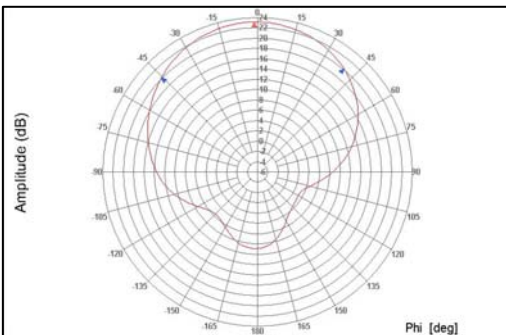
S/N : 1011203 [29.2 dB]



S/N : 1011204 [30.3 dB]



S/N : 1011205 [29.5 dB]





10. GPS Active Antenna Radiation Pattern

