

# GPS Antenna

## GPS-ANT380

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WONDE PROUD

*GPS Antenna with Low Noise Amplifier*



### General Description

The Wonde Proud GPS-Ant380 is a small, light weight, portable, and ready to use high quality GPS antenna. The GPS-Ant380 is waterproof and has a magnetic base making it ideal for vehicle mounted applications. Being an active antenna incorporates an LNA (low noise amplifier) which gives it far superior performance to passive equivalents.

For best performance, the antenna must be placed on a metal surface, such as the roof of a vehicle, so that a ground plane is formed.

### Key Features

- ◆ Low noise figure
- ◆ Fully waterproof
- ◆ Ultra low power consumption
- ◆ Compact construction
- ◆ Excellent temperature stability
- ◆ Magnetic mount base

### Specifications

#### **Antenna**

Frequency range	1,575.42±1.023MHz
Gain	90: 3.0 dBi min. 20: -5.0 dBi min. (mounted on the 70mmx 70mm square ground plane)
Polarization	RHCP
Axial ratio	90: 3dB typical
Azimuth coverage	360 degrees
Elevation coverage	0 degree to 90 degrees

#### **LNA**

Frequency range	1,575.42±1.023MHz
Gain	28±3db (+25°C) 28±5db (-40°C to 85°C)
Noise figure	1.5dB max (+25°C) 2.5dB max. (+85°C)
Out of band rejection	$f_o=1,575.42\text{MHz}$ $f_o\pm 50\text{MHz}$ 25db typical $f_o\pm 100\text{MHz}$ 35db typical
Reverse isolation	50dB typical
Output impedance	50Ω
Output VSWR	2.0max

## Overall specifications (through antenna, LNA, cable and connector)

Frequency range	1,575.42±1.023MHz
Gain	25±3dBi (25°C±5°C) 25±5dBi (-40°C to 85°C) (Mounted on the 70mmx70mm square ground plane) including cable loss
Output impedance	50Ω
VSWR	2.0max
Compression@ L1	-5dBm@LNA input

## General

### A. Environmental conditions

Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +100°C
Relative humidity	20% to 95%

### B. Electrical specifications

Input voltage	2.5~4.5V
Power consumption	7mA typical@ 3.0v
Output connector	FME SMA
Cable	2m RG174/U (std.) 3m (optional)
Optional connector	FME MCX / SMB / SMC

### C. Mechanical specifications

Dimension	L:43mm W:33mm H:13.3mm
Weight	23.0g

### D. Others

Recommended storage condition	Temperature -20°C to 45°C Humidity 80% max
Waterproof	100% waterproof
Plastic color	Black