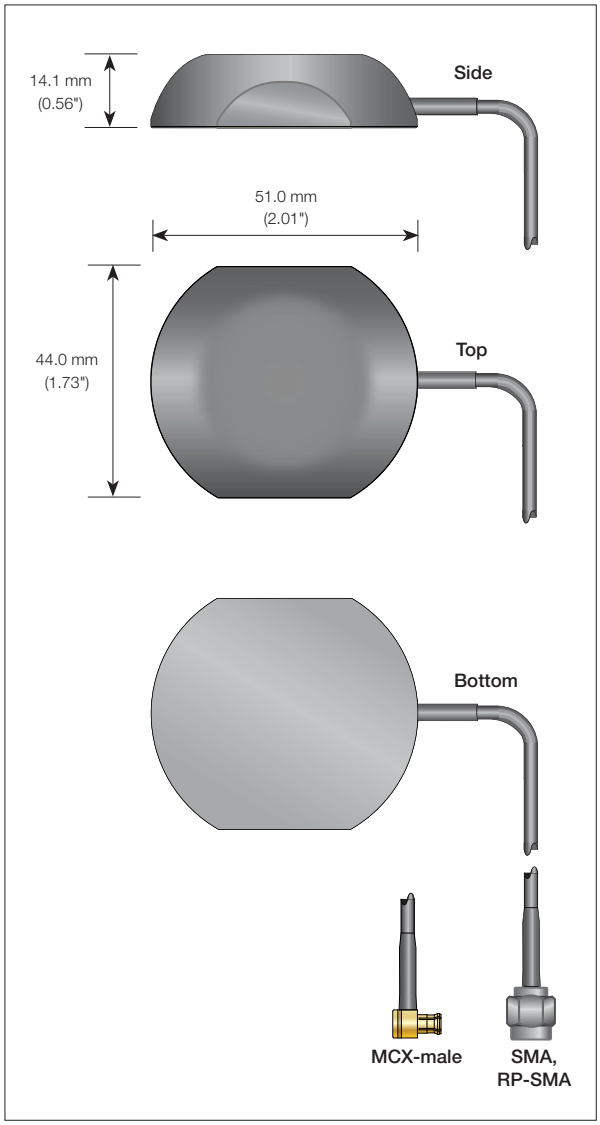
ANT-GPS-UC-xxx

Data Sheet

Product Description

UC Series GPS antennas deliver high-gain, low-noise performance in a rugged and cosmetically attractive package. They feature a wide operating temperature and low current consumption. The antennas attach via a standard SMA, Part 15 compliant RP-SMA or MCX connector.



Features

- Compact
- High-gain, low-noise design
- Low current consumption
- Wide operating temperature
- Fully weatherized / waterproof
- Rugged & damage-resistant
- Magnetic mount

Electrical Specifications

Center Frequency:	1575.42MHz
Bandwidth:	2MHz minimum
Impedance:	50-ohms
VSWR:	1.5 max.
Peak Gain:	3.0dBi
Ant. Gain 90°:	3.0dBi
Polarization:	RHCP
Axial Ratio 90°:	3.0dB max.
System Gain:	30dB typ. @ 5V, 25°C*
	26dB typ. @ 3V, 25°C*
Noise Figure:	2.0dB max.
Input Voltage:	3.0–5.0VDC
Power Consumption:	20mA max. @ 25°C
Oper. Temp. Range:	–35°C to +85°C
Mounting:	Magnetic
Cable:	RG-174
Cable Length:	197" +/–6" (5m +/-150mm)
Connector:	SMA, RP-SMA or
	MCX male

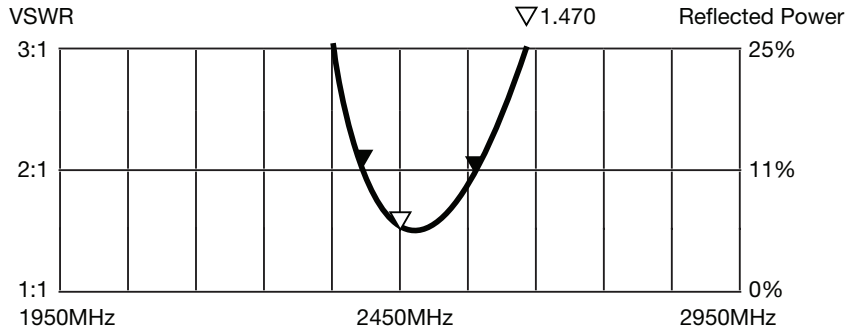
*not including cable loss

Ordering Information

ANT-GPS-UC-SMA (with SMA connector)
ANT-GPS-UC-RPS (with RP-SMA connector)
ANT-GPS-UC-MCX (with MCX connector)

Revised 1/23/14

VSWR Graph



What is VSWR?

The Voltage Standing Wave Ratio (VSWR) is a measurement of how well an antenna is matched to a source impedance, typically 50-ohms. It is calculated by measuring the voltage wave that is headed toward the load versus the voltage wave that is reflected back from the load. A perfect match will have a VSWR of 1:1. The higher the first number, the worse the match, and the more inefficient the system. Since a perfect match cannot ever be obtained, some benchmark for performance needs to be set. In the case of antenna VSWR, this is usually 2:1. At this point, 88.9% of the energy sent to the antenna by the transmitter is radiated into free space and 11.1% is either reflected back into the source or lost as heat on the structure of the antenna. In the other direction, 88.9% of the energy recovered by the antenna is transferred into the receiver. As a side note, since the ":1" is always implied, many data sheets will remove it and just display the first number.

How to Read a VSWR Graph

VSWR is usually displayed graphically versus frequency. The lowest point on the graph is the antenna's operational center frequency. In most cases, this will be different than the designed center frequency due to fabrication tolerances. The VSWR at that point denotes how close to 50-ohms the antenna gets. Linx specifies the recommended bandwidth as the range where the typical antenna VSWR is less than 2:1.