# Antenna - For Rugged Applications

Since the first GPS satellite was launched by the Department of Defense in 1978, the radio navigation system has grown to 24 operational satellites in six circular orbits 20,200 km (10,900 nm) above the earth.

GPS provides two levels of service -- Standard Position Service (SPS) for general public use and Precise Position Service (PPS) for Department of Defense use. SPS accuracy is intentionally degraded to protect national security interests. The process called Selective Availability (SA), controls the availability of the systems full capabilities. The SPS accuracy specifications include the effects of SA. GPS provides accuracies for position. The accuracy is with respect to geographic, or geodetic coordinates of the earth, regardless of time of day or weather conditions. SPS coverage is continuous and worldwide but is limited to using only 6 satellites at a time.

GPS operates on two frequencies defined as L1, 1575.42 and L2, 1227.6 MHz. GPS antennas are typically available in active or passive type. Active antennas have the amplifier built into the antenna; passive antennas rely on the receiver to provide the amplification. GPS is still a changing technology. Watch http://www.antenex.com for more product developments.



## Technical Data - Product Features & Information

Right Hand Circular

360°

0° - 90°

27 dB typical

- VSWR:
- Polarization:
- Azimuth Coverage:
- Elevation Coverage:
- LNA Gain (GPS Band): Cellular Filtering:
- -24 dB 1575.42 MHz **Operating Frequency:**
- 2:1 Typical@1575.42 MHz
  - Operating Temperature:
    - Antenna Description:
    - Impedance: Operating Voltage:

  - Antenna Height:

### **Ordering Guide** - Clear, Easy & Sensible!

GPSU15GBNC - GPSx™ utility antenna, magentic base, BNC Male.

GPSU	Antenna Style	GPSU = Utility GPS Discadoo Housing GPSM = Micro GPS MAVG = Marine GPS
15	Frequency	1575.42 MHz, Standard GPS frequency.
G	Mount Style	Blank = Self Adhesive Mount G = Magnetic Mount
BNC	Connector Style	BNC = BNC Male, MCX = MCX Straight Male SMA = SMA Threaded Male, SMB = SMB Snap-in Female TNC = TNC Female

Model	Connector Style	Cable Typ
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#### UTILITY GPS ANTENNA SELF ADHESIVE BASE

GPSU15BNC GPSU15MCX	BNC MCX	14' RG174/U 14' RG174/U
GPSU15SMA GPSU15SMB	SMA	14' RG174/U 14' RG174/U
GPSU15TNC	TNC	14' RG174/U

#### UTILITY GPS ANTENNA MAGNETIC BASE

GPSU15GBNC	BNC	14' RG174/U
GPSU15GMCX	MCX	14' RG174/U
GPSU15GSMA	SMA	14' RG174/U
GPSU15GSMB	SMB	14' RG174/U
GPSU15GTNC	TNC	14' RG174/U

#### MICRO GPS ANTENNA MAGNETIC BASE

BNC	16' RG174/U
MCX	16' RG174/U
SMA	16' RG174/U
SMB	16' RG174/U
TNC	16' RG174/U
	MCX SMA SMB

#### MARINE GPS ANTENNA MARINE BASE

MAG15BNC BNC MAG15TNC TNC actors Availabl

20' RG58/U 20' RG58/U



-40° to 85° C Active Ceramic 50 ohms 5.0 Vdc +/- .20 Vdc @ .25ma current GPSU = 5/8" GPSM = 27/8"

MAG15 = 9/16"

# **ANTENNA**



The new **ANTENEX®** Panel antenna is both aesthetically pleasing and technically compliant in the ISM marketplace. This antenna provides the high gain required for error free data transmissions for indoor or outdoor applications. In the typical office environment, the PANEL antenna virtually disappears into the wall. For outdoor applications, mounting the antenna in low wind locations such as under building fascia is fast and efficient. Fed with an "N" connector for best performance and easy termination, this performer will provide years of service.

### Technical Data -Product Features & Information

Frequency Range:	2.4-2.5 GHz. ISM
VSWR:	<1.5:1
Maximum Power:	50 watts
Gain:	14.1 dBi
Impedance:	50 ohms
Connector:	"N" female
Polarization:	Vertical
Beamwidth:	30°
Dimensions:	9 1/2 X 8 5/8

Model

**Connector Style** 

**ISM PANEL ANTENNA** PAN240014N Ν