

**ANTENNAPLUS**



**PRODUCT CATALOG**

## We're not just the new kids on the block

Antenna Plus has been developing innovative antenna solutions since 1991. We have carved out the top quality spot for mobile solutions in the government, public safety, field service, AVL and road warrior markets. We have also developed superior performing antennas for telemetry and the new communicating kiosk/vending market.



Today, we produce antennas for cellular, PCS, GPS, WiFi, and most private radio frequencies – and can combine many of these together into one unit to make for a simple and easy-to-install solution. As an option, we embed the Trimble GPS receivers into the antennas to offer a full, two-way GPS experience for customers involved with AVL and Mapping solutions. For customers needing superior WiFi performance, we offer a WiFi Modem & Antenna that will extend the reach of your WiFi network to the vehicle with maximum speeds.



## Overcoming the Challenge of Shielding

People who must use their laptop and wireless data modem in the car experience a reduction in performance. The metal and glass from the vehicle shields the modem from getting back to the cell site. This can impair the signal strength by as much as 20% or 10 dBi. By using our antennas, we get the signal out of the vehicle, elevate it on the roof, and then apply a 3 dB gain in our patented design to give you the greatest reach to the communication network. This increases the geographical area where you can still work and also results in faster data throughput speeds as your quality of connection to the wireless network is better.

## Making the Best Antennas

Antenna Plus has worked very hard to be the top quality antenna manufacturer. We were the first company to design and patent low profile antennas that are now seen on most police and field service vehicles. The benefit of this form factor is a very long product life. Our antennas survive car washes, being swept by tree branches, and all environmental conditions. Each of our communicating frequency antennas has an omnidirectional 3 dBi gain – we believe this is the best for mobile solutions. Antenna Plus builds all of our products at our factory in the USA under the close scrutiny of our cofounder. This attention to detail ensures that each antenna that ships meets our stringent quality standards.



## Introducing Our Latest Product: The AP-NAVIGATOR 4x™

**NEW**

The AP-Navigator 4x is the newest member of our GPS enabled line. This is the perfect solution for the power user of a rugged laptop and docking station. The AP-Navigator 4x solves the problem of how to get superior performance from Cellular, GPS and WiFi. Since only 2 of these 3 technologies can pass through to a docking station where an external antenna is connected for superior coverage, the AP-Navigator 4x can look after the third technology - GPS. With this new innovation, we have built in a Trimble 12-channel GPS receiver, GPS antenna, Cellular and WiFi antenna to enable power users who need all three technologies to work at their best. The AP-Navigator 4x can be configured with 700, 800, or 900 MHz private radio in place of the cellular antenna.



## Antenna Plus Products

The goal for all of our antennas is to provide a superior connection to the wireless networks. This means you will realize a greater wireless footprint and faster wireless data throughput speeds. Ultimately, users can access their information where they need to without problems. And, with our quality construction, you will realize the longest product life possible as our antennas live through all of the tough environmental conditions of temperature, vibration, moisture, and even abuse from car washes.

### AP-Navigator Family

This product line includes a 12-Channel Trimble GPS Receiver as well as your choice of a variety of communication antennas. We can add a Cellular antenna, 700 MHz antenna and even a WiFi antenna.

- ✓ All-in-One GPS/AVL Hardware Solution for mapping solutions plus all of your communication Antennas
- ✓ Only one hole to drill – simple installation.
- ✓ Best reach to your cellular and WiFi networks with our 3 dB gain external antennas.
- ✓ Solves the problem of how to do all three wireless technologies with rugged laptops and docking stations.



Your GPS hardware and all of your communication antennas are in the one low profile housing. This is very simple to install and best of all, you will be surprised at the great price!

The Navigator can connect to wireless PC cards and/or docking stations when the wireless pass-throughs have been enabled. It can be mounted using our permanent adhesive or magnetic mount.

### Combination Antennas for Cellular, GPS and WiFi

With this family of products, you can connect to any cellular data modem, GPS receiver, or WiFi modem. This includes wireless PC cards, trunk mount modems and Rugged Laptops with embedded wireless and a docking station. We can provide just cellular, or we can combine any of the needed technologies into one low profile housing. Mounting choices for most of these antennas include: permanent adhesive, magnetic, threaded bolt or NMO.



### WiFi Modem & Antenna

For people who demand the best performing WiFi in the vehicle, this product builds in an 802.11 b/g modem and high gain antenna – placed inside our antenna housing. This results in the farthest reaching WiFi with the fastest data throughput speeds. This unit mounts using our permanent adhesive or magnetic mount.

### Private Radio Antennas

Antenna Plus makes top performing antennas for UHF and SMR network technologies as well as cellular for EMEA and Asia Pac areas. These include antennas and GPS combination antennas for 300, 400, 700, 800, 900, and 1800 MHz networks. Mounting choices for most of these antennas include: permanent adhesive, magnetic, threaded bolt or NMO.



Product	Cellular Antenna	GPS Antenna	Trimble GPS Receiver	WiFi Antenna	700 MHz Antenna	WiFi Modem	Best Suited With
AP-Navigator 4x	X	X	X	X			Rugged Laptops with embedded cellular & WiFi, MARs*
AP-Navigator 700		X	X	X	X		Rugged Laptops with Docking Station
AP-Navigator Cell	X	X	X				Wireless Cards
AP-Navigator WiFi		X	X	X			Rugged Laptops
AP-Hockey Puck	X						Wireless cards, external modems, MAR's
Tri-Mode	X	X					External modems with cellular and GPS
Quad Mode	X	X		X			MAR's, External modems with Cell/GPS/WiFi
Cellular/WiFi	X			X			MAR's, Rugged Laptops with Docking Station
WiFi				X			Rugged Laptops with Docking Station
GPS		X					GPS receivers, Rugged Laptops with Docking Station
Mobile-WiFi				X		X	Vehicles needing superior WiFi
Mobile -WiFi Cell	X			X		X	Vehicles needing superior WiFi
Mobile-WiFi GPS		X		X		X	Vehicles needing superior WiFi

\* MAR = Mobile Access Router

\*\* Antenna Plus also makes antennas for UHF, SMR, private radio and cellular for EMEA and Asia Pac including frequencies in the 300, 400, 700, 800, 900 and 1800 MHz bands.

## Technical Specifications for Cellular, GPS, WiFi and GPS Receiver

### Antenna Specifications (all bands)

VSWR at resonant point..... 1.5:1 or less  
 Nominal Impedance ..... 50 Ohms  
 Gain ..... 3 dBi  
 Radiation Pattern ..... Omnidirectional  
 Polarization ..... Vertical

### GPS Receiver

Protocols..... TAIP, TSIP and NMEA

### GPS Antenna Specifications

Center Frequency..... 1575.42 MHz  
 Gain..... 30 dB min.  
 Polarization..... R.H.C.P.  
Right Hand Circular Polarization  
 Noise Figure..... 2.0 max.  
 Aerial Ratio..... 3 dB max.  
 Bandwidth..... 2 MHz min.  
 VSWR..... 2.0 max.  
 Output Impedance..... 50 Ohms  
 Voltage..... 3-5 Volts  
 Current ..... 15 mA (max)



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