

AP-NAVIGATOR® - 6n ANTENNA

AP-NAV-CWG



Complete AVL Solution and Now with LTE Technology



Available colors: Black or White

Solves the Problem of How to do All 3 Wireless Technologies with embedded wireless inside Rugged Computers with only 2 RF pass throughs.

Now, you can embed the Cellular and WiFi in your Rugged Computer, and then utilize the AP-Navigator® 6n to provide the GPS and all of your external antennas.

Very Simple Install – only one unit for everything

All of your antennas and the GPS receiver are in our low profile housing. You will only need to drill one hole and feed the cable assembly once. If you ever need to move this to another vehicle, the take out and re-install will take minutes. Keep all your antennas and GPS system even after you upgrade your laptop or vehicle.

Mapping and Automatic Vehicle Location Technologies

The AP-Navigator® 6n is a full 2 way communicating GPS receiver, able to provide 10 foot accuracy. GPS protocols include TSIP, TAIP, TRCM, and NMEA. This means that every AVL software and Internet Mapping solution will work with this GPS receiver.

Bigger Wireless Cellular & WiFi Footprint and Faster Data Speeds for all 802.11 (a b g & n ac) revisions and 5 GHz frequencies.

The AP-Navigator® 6n provides up to 25% more wireless coverage, depending on the geography you travel in. Better reception translates to faster speeds. The data gets through the first time, correctly.

Long Product Life — Low Profile Design

The AP-Navigator® 6n has a low profile design. It withstands all of the natural elements, car washes, and being swept by tree branches.

Connects to All Major Brands of Wireless Data Cards with external antenna ports for Cellular and LTE; and other legacy modems with antenna ports.

Docking Stations: Havis LEDCO, Gamber Johnson, Panasonic, PMT, Kodiak, First Mobile Technologies.

Wireless Trunk and Mobile Access Routers from: Sierra Wireless, AirLink, Sixnet, Utility Associates, Junxion, Cisco MAR, In Motion and many others.



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ANTENNAPLUS
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AP-NAVIGATOR[®] - 6n

GPS Receiver

Key Features

- 12-channel simultaneous operation
- Ultra-low power consumption: less than 132 mW (44 mA) @ 3.0 V
- Dual sensitivity modes with automatic switching
- Aided BPS through TSIP
- Trimble GPS Engine

Performance Specifications

General L1 (1575.42 MHz) frequency, C/A code, 12 channel, continuous tracking receiver

Update Rate TSIP @ 1Hz; NMEA @ 1 Hz; TAIP @ 1 Hz

Accuracy Horizontal: < 2.5 meters (50%), < 5 meters (90%)
Altitude: < 5 meters (50%), < 8 meters (90%)
Velocity: 0.06 m/sec
PPS(static): +60 nanoseconds

Acquisition (Autonomous Operation in Standard Sensitivity Mode)

Re acquisition: < 2 sec. (90%)
Hot Start: < 3 sec. (50%), < 8 sec (90%)
Warm Start: < 35 sec. (50%), < 40 sec (90%)
Cold Start: < 38 sec. (50%). < 60 sec (90%)
(Cold start requires no initialization, Warm start implies last position, time and almanac are saved by backup power.)
(Hot start implies ephemeris is also saved.)

Optional (COCOM) Limits

Altitude: 18,000 m
Velocity: 515 m/s
Either limit may be exceeded but not both

Interface Characteristics

Connector USB
Protocols TSIP, TAIP, NMEA 0183 v3.0, TRCM SC-104
NMEA Messages GGA, VTG, GLL, ZDA, GSA, GSV and RMC
Messages selectable by TSIP command
Selection stored in flash memory

Electrical Characteristics

Prime Power +2.7 VDC to 3.3 VDC (3.3 V typ.)
Power Consumption less than 132 mW (44 mA) @ 3.0 V
Backup Power +2.7 VDC to +3.3 VDC (3.0V typ.)
Ripple Noise Max 50 mV, peak to peak from 1Hz to 1 MHz

Environmental Specifications

Operating Temperature -40°C to +85°C
Storage Temperature -55°C to + 105°C
Vibration 0.008 g²/Hz 5 Hz to 20 Hz
0.05 g²/Hz 20Hz to 100 Hz
-3 dBi/octave 100Hz to 900Hz
Operating Humidity 5% to 95% R.H. Non-condensing, at +60°C

Antennas

Electrical Specifications

Frequencies:

Cellular/LTE = 824-896 MHz; 1850-1995 MHz;
698-798 MHz; 1710-1770 MHz;
2110-2170 MHz; 2570-2620 MHz
WiFi= 2.4 & 5 GHz
GPS=1575.42 MHz
802.11(a b g & n ac)=4.9-5.8 GHz

VSWR: 1.5:1 or less at resonant point

Peak Gain Cellular: 3.0 dBi

Peak Gain WiFi: 4.0 dBi

Radiation Pattern:

OMNI Directional
Hemispherical (GPS)

Polarization:

Vertical

Mechanical Specifications

Radome:

Glass Filled Polypropylene

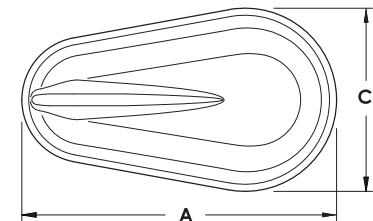
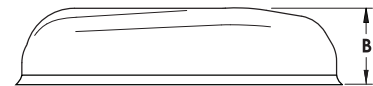
Cable Length:

15 feet (4.5 m) (Adhesive and Bolt Mount)
10 feet (3 m) (Magnetic Mount)

Connectors:

All RF Connectors Available

Dimensions



A	7.475 in (190 mm)
A	6.938 in (176 mm) Antenna Without Gasket
B	2.000 in (051 mm)
C	4.625 in (117 mm)
C	4.063 in (103 mm) Antenna Without Gasket