



Dual Band 900 & GPS

Also available in black or grey!



Single Band GPS

Surface Mount GPS Antenna (Pat. Pnd.)

GPS Only & Dual Band 900 MHz/GPS

- Mounts easily to roof, trunk or bulkhead
- High performance GPS with 26 dB active amplifier
- Secure & low profile less than 1" high, mounts to 5/8" hole
- Single band GPS & Dual Band 900/GPS models for AVL applications

These antenna are tough all around performers. The surface mount dual and single band antennas are very low profile, perfect for any vehicle, cargo trailers and more.

Models include a single band GPS only version, as well as several dual band 900 MHz & GPS antennas. The dual band versions allow multiband operation for a variety of AVL applications. Models are available for Cellular, CDPD, and other private networks. Separate cabling is provided for the GPS and 900 MHz interface.

The design uses a 5/8" feed thru for securing to the vehicle. Access to the underside of the body surface is required to complete the installation. The antennas are outfitted with 15 feet of RG-174 cable with SMB or SMA connectors for the GPS interface. The 800/900 band cable is 15 feet of RG-58 with a TNC connector. Other cable lengths and connectors may be available.

GPS performance is 26 dB, with 5 dBi antenna gain. The GPS circuit has a low noise figure (2.0 dB max) with excellent filter characteristics. Power for the GPS amplifier (+3.3 or +5 VDC) and RF output is achieved through the same coax cable.

For the dual band model, cellular performance is provided by a low profile, yet high efficiency airdielectric radiating element. This maintains effective radiation across the desired frequency range, with omnidirectional coverage. Unity gain performance is maintained.

The antennas are enclosed in a weatherproof polycarbonate radome, and supplied with all mounting hardware and sealing gasket. The single band radome is 2.5" in diameter, the dual band is 4.5".

Model Numbers

Model	Description
SM-1575	Surface mount GPS with amplifier
SM-900/1575	Surface mount Cellular/CDPD & GPS
SM-837/1575	Surface mount Low SMR & GPS
SM-925/1575	Surface mount High SMR/GSM & GPS

Specify GPS connectors & 800/900 band connectors at time of order. Also specify amplifier bias voltage (3.3 VDC or 5 VDC) at time of order. Consult factory for other options and configurations.

Specifications

Frequency:

GPS	1575.42 +/- 2 MHz
Cellular/CDPD	824-894 MHz
Low SMR	804-870 MHz
High SMR/GSM	870-960 MHz

Cellular Gain:

Unity

GPS Gain:

26 dB, 5 dBi Antenna

VSWR:

2:1 max over range

Noise Figure:

2.0 dB max, 1.7 dB typical

Operating Temp:

-30° to +80° C

Nominal Impedance:

50 ohms

Maximum Power:

20 Watts (800/900 MHz Band)

Amplifier Bias:

+3.3 or +5 VDC +/- 10% (GPS)

Current Drain:

20 mA max

Cable:

GPS	RG-174, 15 feet, exits at bottom
Cellular/SMR	RG-58, 15 feet, exits at bottom

Case:

2.5" diameter x .75" H for GPS
4.5" diameter x .95" H for dual band

Case Material:

Polycarbonate

Mounting:

SM-Dual Band	5/8" diameter, 3/8" long shaft
SM Single(GPS)	5/8" diameter, 3/4" long shaft

Hardware:

Nut, lockwasher and gasket included

Connector:

SMB plug or SMA for GPS, TNC for 900 MHz bands. Consult factory for other configurations and connectors.