



1/4 wave models with GPS



SM-220/1575 Dual Band

Now Available, Mag Mount UHF/GPS!

Surface Mount GPS Antennas (Pat.Pnd.) Dual Band in VHF or UHF with GPS

- VHF models operate on popular frequencies, including 220 MHz band with 26 dB GPS gain
- UHF model is available for 450 MHz Band and provides 26 dB active GPS gain
- High efficiency whip is 9 inches max (23 cm) on 220 MHz or UHF band.
- Hole mount design insures a strong secure installation

For VHF or UHF tracking applications, these are the antennas of choice. These dual band configurations combine the VHF/UHF antenna along with the GPS satellite antenna into one neat package. This saves on space, looks and installation time without sacrificing performance. The desired frequency for VHF/UHF must be specified at time of order.

These antennas can be mounted to a vehicle's metal surface or any bulkhead through a 3/4" hole (19 mm). The antennas provide completely independent dual band operation. A loaded quarterwave whip keeps the VHF 220 band operation down to a minimal size. Both models integrate a durable spring to protect from the inevitable hit from an overhead obstruction.

GPS performance is 26 dB, with 5 dBi antenna gain. The GPS circuitry has a low noise figure (2.0 dB max) with excellent filter characteristics. No interaction occurs between the bands. The DC power required for the GPS amplifier (3.3 or +5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The GPS cable/interface is 15 feet of RG-174 cable (4.5 meters) and SMB or SMA connector. The band models are outfitted with either a BNC or N connector and 15 feet of RG-58 (4.5 meters). Other connectors and configurations are available upon request.

The antennas are enclosed in a weatherproof polycarbonate radome. Everything needed for installation is included.

Model Numbers

Model	Description
SM-150/1575	VHF Band & GPS Antenna
SM-220/1575	220 MHz Band & GPS Antenna
SM-450/1575	UHF Band & GPS Antenna
MAG-450/1575	Mag Mount UHF band/GPS antenna

Please specify connectors required and frequency at time of order.

Specifications

Frequency:	VHF Model 130-170 MHz, factory set 220 VHF Model 220-224 MHz, factory set UHF Model 450-470 MHz, factory set GPS, all Models 1575.42 +/- 2 MHz	VHF or UHF Cable: RG-58, 15 feet (4.5 meters)
VHF or UHF gain: Unity		Case Material: Polycarbonate
VSWR: 2:1 max over range		Dimensions:
GPS Gain: 26 dB Amplifier, 5 dBi Antenna		220 MHz Model 8 1/2" height (216 mm)
Noise Figure: 2.0 dB max, 1.7 dB typical		UHF Model 9" height (229 mm)
Operating Temp: -30° to +80° C		VHF Model 18" at lowest freq. (457 mm)
Nominal Impedance: 50 ohms		Base Dimension: 1" H x 2 5/8" D (25mm x 67 mm)
Maximum Power: 30 Watts on VHF or UHF		Stud Mounting: 3/4" dia x 1/2" long (19mm x 13mm) for 3/16" thick (4.7 mm) surface
Amplifier Bias: Dual 3.3/5 VDC +/-10%		Whip Material: 304 Stainless Steel
Current: 20 mA max, 10 mA typical		Cable Attachment: Integral to device, bottom exit
GPS Cable: RG-174, 15 feet (4.5 meters)		GPS Connector: SMB or SMA (specify)
		VHF/UHF Connector: BNC or N (specify); N male supplied loose for installation