



SM3 Dual Band



SM1 Dual Band



New Truck Mirror Mount Option!

## High Gain Surface Mount GPS Antennas (Pat.Pnd.)

### Dual Band Cellular/GPS or SMR/GPS

- Available for Body/Surface Mount applications
- High Performance dual band operates on Cellular with 27 dB active GPS gain
- High Gain 5 dBi and medium gain 3 dBi models operate on 800/900 MHz bands
- Ground plane independent, performs equally well on fiberglass or metal

These higher gain models extend Mobile Mark's existing GPS products by offering increased 900 MHz performance without the need for a groundplane. Operating in GPS as well as cellular, this product can be mounted to a vehicle's surface or any bulkhead through a 3/4" hole.

The antenna provides completely independent dual band operation. These designs provide either a collinear 14" whip; or a low profile monopole whip. The whips can even be interchanged without effecting GPS sensitivity.

GPS performance is 27 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. Power for the GPS amplifier (+5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are outfitted with 15 feet of RG-174 cable and SMB plug (or SMA) connectors for the GPS inter-

face. The cellular cable is 15 feet of RG-58 with a TNC connector. 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
SM1-900/1575	3 dBi Cellular/CDPD & GPS
SM1-837/1575	3 dBi Lowband SMR & GPS
SM1-925/1575	3 dBi Highband SMR & GPS
SM3-900/1575	5 dBi Cellular/CDPD & GPS
SM3-837/1575	5 dBi Lowband SMR & GPS
SM3-925/1575	5 dBi Highband SMR & GPS

Please specify SMB or SMA connector for GPS. Please consult factory for other configurations or options.

#### Specifications

##### Frequency:

Cellular	824-894 MHz
Lowband SMR	806-870 MHz
Highband SMR	890-960 MHz
GPS	1575.42 +/- 2 MHz

##### Cellular/SMR Gain:

See above

##### GPS Gain:

27 dB Amplifier, 5 dBi Antenna

##### VSWR:

2:1 max over range

##### Noise Figure:

2.0 dB max, 1.7 dB typical

##### Operating Temp:

-40° to +85° C

##### Nominal Impedance:

50 ohms

##### Maximum Power:

10 Watts for 800/900 MHz

##### Amplifier Bias:

+5 VDC +/-10% (GPS)

##### Current Drain:

20 mA max

##### Cable:

GPS	RG-174, 15 feet
Cellular/SMR	RG-58, 15 feet

##### Case Material:

Polycarbonate

##### Dimensions:

14 1/2" overall height  
(6 1/4" with 3 dBi whip).

##### Mounting:

Base alone is 1" H x 2 5/8" D  
3/4" diameter feed thru, 3/4" long thread for up to 1/2" thick surface

##### Cellular Whip:

304 Stainless Steel

##### Cable Attachment:

Integral to device, bottom exit

##### Connector :

TNC Cellular/SMR, SMB or SMA on GPS. Consult factory for other configurations.