SM3 Dual Band

Mirror Mount

New Trunk Lid Mount

SMF Dual Band with Flex whip

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 26 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 **our range of** existing GPS products by offering increased 900 MHz performance without the need for a groundplane. Operating on GPS as well as cellular, this product can be mounted to a vehicle's surface or any bulkhead through a 3/4" (19 mm) hole.

The antenna provides completely independent dual band operation. These designs provide either a colinear 14 1/2" whip (37 cm); or a lower profile whip. The SMF whip is a flexible rubber duck style. The whips can even be interchanged without affecting GPS sensitivity.

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. Power for the GPS amplifier (3.3 VDC or 5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are outfitted with 15 feet (4.5 meters) of RG-174 cable and SMB plug (or SMA) connectors for the GPS interface. The standard cellular/900 band cable is 15 feet (4.5 meters) 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
SMF-900/1575	3 dBi 850 Cellular & GPS
SMF-837/1575	3 dBi Nextel/Low SMR & GPS
SMF-925/1575	3 dBi High SMR/EU GSM/ISM & GPS
SM3-900/1575	5 dBi 850 Cellular & GPS
SM3-837/1575	5 dBi Nextel/Low SMR & GPS
SM3-925/1575	5 dBi High SMR/EU GSM/ISM & GPS
SM-MM	Mirror Mount option for SMF/SM3
SM-TM	Trunk Lid Mount option for SMF/SM3

Please specify connectors at time of order. Note: All models are dual voltage 3.3/5 VDC.

Specifications

Frequency:	
Cellular	824-894 MHz
Nextel/Low SMR	806-870 MHz
High SMR/ISM	870-960 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:	Dual 3.3/5 VDC +/-10%
Current:	20 mA max, 10 mA typical
Cable:	
GPS	RG-174, 15 feet (4.5 meters)
Cellular/SMR	RG-58, 15 feet (4.5 meters)
Case Material:	Polycarbonate
Dimensions:	14 1/2" height (37 cm) on SM3 6" Flex whip (15 cm) on SMF Base alone is 1" H x 2 5/8" D (25 mm x 67 mm)
Stud Mounting:	3/4" dia.(19mm), 1/2"long (13mm) mounts to 3/16" surface (4.7 mm)
Cellular Whip:	304 SS or Flex Speedo
Cable Attachment:	Integral to device, bottom exit
Connector:	TNC Cellular/SMR, SMB or SMA on GPS. Consult factory for other configurations.