



# Surface Mount GPS Antenna (Pat.Pnd.)

## MultiBand for 800 - 6000 MHz & GPS



MultiBand with GPS  
3 separate coaxes



New!  
Magnet Mount  
Version  
(model MGW)

Mounts easily to roof, trunk or bulkhead

MultiBand covers all popular worldwide frequency systems from 800 MHz - 6 GHz

3 Separate RF coax feeds, for Comm channel (800-2.7 GHz), 2.4/5 GHz & GPS

High performance GPS with 26 dB active amplifier

For maximum communications capability and ultimate versatility, this is the antenna of choice. This Wide Band antenna provides high performance operation on all cellular bands, all PCS bands and 2.4 GHz 802.11 bands along with GPS. An optional version can operate dual band on 2.4 & 5 GHz for 802.11 a/b/g. Three separate RF feeds allow communication with the voice/data channel, the WiFi radio, as well as GPS. The antennas can be mounted to any vehicle, cargo container or trailer.

The design uses a 3/4" feed thru (19 mm) for securing to the vehicle. Access to the underside of the body surface is required to complete the installation. Note, for best performance, the antenna should be mounted on a metal surface/groundplane.

For the GPS interface, the antennas are typically outfitted with 15 feet of RG-174 cable (4.5 meters). The communications channel cables are 15 feet of low loss RF-195. All connectors are male unless requested otherwise.

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.

The antennas are enclosed in a 4.2"D x 3.2"H weather-proof polycarbonate radome (107 mm x 81 mm), and supplied with all mounting hardware and sealing gasket. The radome color is white.

### Antenna Model Configurator

**SMW-UMB** Cable 1 = 800 - 2.7 GHz  
Cable 2 = 2.4 GHz (WiFi)  
No GPS

**SMW-E15-1575** Cable 1 = 800 - 2.7 GHz  
Cable 2 = GPS  
No Wifi

Other configurations available upon request

### Specifications

#### Frequency:

As specified above

#### Comm Channel Gain:

800 - 1GHz	2 dBi
1700 - 2700	5 dBi (peak)
2.4 - 2.5 GHz	5 dBi (peak)

**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

#### Amplifier Bias:

3.3 or 5 VDC +/- 10%

#### Maximum Power:

800 - 1900 MHz 20 Watts

1900 - 5800 MHz 10 Watts

#### Current:

20 mA max, 10 mA typical

#### Cable:

GPS

RG-174, 15 ft (4.5 meters)

CABLE #1 & #2

Separate RF-195 Cables,  
15 ft (4.5 meters)

#### Case:

#### Case Material:

4.2"D x 3.2"H (107 mm x 81 mm)

White Polycarbonate

#### Mounting:

3/4" dia.x 1/2" long(19 mm x13 mm)  
for 3/16" thick (4.7 mm) metal

#### Hardware:

Nut, lockwasher and gasket  
included