

## Surface Mount GPS Antenna (Pat.Pnd.)

### MultiBand for 800 - 2500 MHz & GPS

- Mounts easily to roof, trunk or bulkhead
- MultiBand covers all popular worldwide frequency systems from 800 MHz - 2.5 GHz
- 3 Separate RF coax feeds, for Comm channel (800-2.4 GHz), 2.4+ GHz & GPS
- High performance GPS with 26 dB active amplifier



MultiBand with GPS  
3 separate coaxes



New!  
Magnet Mount  
Version  
(model MGW)

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. Three separate RF feeds allow communication with the voice/data channel, the 2.4 radio, as well as GPS. The surface mount style 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. Please consult factory for special lengths or connectors.

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 2.4"H weather-proof polycarbonate radome (107 mm x 61 mm), and supplied with all mounting hardware and sealing gasket. The radome color is white.

Antenna Model Configurator		SMW-UMB- <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		example - SMW-UMB-3A3A2C	
800 MHz -2.4 GHz Cable & Connector		2.4-2.5 GHz Cable & Connector		GPS Cable & Connector	
Code	Description	Code	Description	Code	Description
3A	RF-195 & TNC	3A	RF-195 & TNC	2C	RG-174 & SMA
3B	RF-195 & MiniUHF	3C	RF-195 & SMA	2D	RG-174 & SMB
3C	RF-195 & SMA	3J	RF-195 & Rev Pol SMA	2E	RG-174 & MCX
3H	RF-195 & Fakra	3K	RF-195 & Rev Pol TNC	2F	RG-174 & MMCX
3L	RF-195 & SMC			2H	RG-174 & Fakra
				2L	RG-174 & SMC

Note for Magnet mount version, substitute "MGW" instead of "SMW"

### Specifications

<b>Frequency:</b>		<b>Maximum Power:</b>	
GPS	1575.42 +/- 2 MHz	800 - 1900 MHz	20 Watts
Comm #1	800 - 2400 MHz	1900 - 2500 MHz	10 Watts
Comm #2	2400 - 2485 MHz	<b>Current:</b>	20 mA max, 10 mA typical
<b>Comm Channel Gain:</b>		<b>Cable:</b>	
800-1GHz	2 dBi	GPS	RG-174, 15 ft (4.5 meters)
1700-2400	5 dBi (peak)	Comm #1 & #2	Separate RF-195 Cables, 15 ft (4.5 meters)
2.4 - 2.5 GHz	5 dBi (peak)	<b>Case:</b>	4.2"D x 2.4"H (107 mm x 61 mm)
<b>GPS Gain:</b>	26 dB, 5 dBi Antenna	<b>Case Material:</b>	White Polycarbonate
<b>VSWR:</b>	2:1 max over range	<b>Mounting:</b>	3/4" dia.x 1/2" long(19 mm x13 mm) for 3/16" thick (4.7 mm) metal
<b>Noise Figure:</b>	2.0 dB max, 1.7 dB typical	<b>Hardware:</b>	Nut, lockwasher and gasket included
<b>Operating Temp:</b>	-30° to +80° C		
<b>Nominal Impedance:</b>	50 ohms		
<b>Amplifier Bias:</b>	3.3 or 5 VDC +/- 10%		