

Surface Mount GPS Antenna (Pat.Pnd.)

GSM/CDMA, WiFi, WiMAX & GPS

- 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 radio comm channel (800-2.7 GHz), 2.4/5 GHz & GPS
- High performance GPS with 26 dB active amplifier



MultiBand with GPS
3 separate coaxes



New!
Magnet Mount
Version
(series 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. 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 ASA radome (107 mm x 81 mm), and supplied with all mounting hardware and sealing gasket. The SMW radome color is white standard, black optional. The MGW mag mount is available in white (standard) or optional black.

Antenna Model Configurator		SMW- <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> example - SMW-UMB-3A3A2C Mag Mount - MGW-UMB-3A3A2C					
Combo Configuration		Cable #1		Cable #2		GPS Interface	
Code	Description	Code	Description	Code	Description	Code	Description
SMW-UMB	Cable 1 = 800 - 2.7 GHz Cable 2 = 2.4 GHz (WiFi) Cable 3 = GPS	3A	RF-195/TNC	3A	RF-195/TNC	2C	RG-174/SMA
SMW-301	Cable 1 = 800 - 2.7 GHz Cable 2 = 2.4 & 5+ GHz (WiFi) Cable 3 = GPS	3B	RF-195/MiniUHF	3B	RF-195/MiniUHF	2D	RG-174/SMB
		3C	RF-195/SMA	3C	RF-195/SMA	2E	RG-174/MCX
		3J	RF-195/RevPol SMA	3J	RF-195/RevPol SMA	2F	RG-174/MMCX
		3K	RF-195/RevPol TNC	3K	RF-195/RevPol TNC	2H	RG-174/Fakra
		00	No Cellular/cable	00	No WiFi/cable	2L	RG-174/SMC
						00	No GPS/cable

Note: For Mag mount, substitute MGW for SMW in model

Specifications	
Frequency:	Amplifier Bias: 3.3 or 5 VDC +/- 10%
Cable #1: 800 - 2700 MHz	Maximum Power:
Cable #2: 2400 - 2485 MHz or dual band	800 - 1900 MHz: 20 Watts
GPS: 1575.42 +/- 2 MHz	1900 - 5800 MHz: 10 Watts
Comm Channel Gain:	Current: 20 mA max, 10 mA typical
800 - 1GHz: 2 dBi	Cable:
1700 - 2700: 5 dBi (peak)	GPS: RG-174, 15 ft (4.5 meters)
2.4 - 2.5 GHz: 5 dBi (peak)	CABLE #1 & #2: Separate RF-195 Cables, 15 ft (4.5 meters)
4.9 - 6.0 GHz: 5 dBi (peak)	Case: 4.2"D x 3.2"H (107 mm x 81 mm)
GPS Gain: 26 dB, 5 dBi Antenna	Case Material: White ASA, black optional
VSWR: 2:1 max over range	Mounting: 3/4" dia. x 1/2" long (19 mm x 13 mm) for 3/16" thick (4.7 mm) metal
Noise Figure: 2.0 dB max, 1.7 dB typical	Hardware: Nut and gasket included
Operating Temp: -40° to +85° C	Option: Mag Mount MGW, 15 ft cables
Nominal Impedance: 50 ohms	

SMW-301 Series Antennas

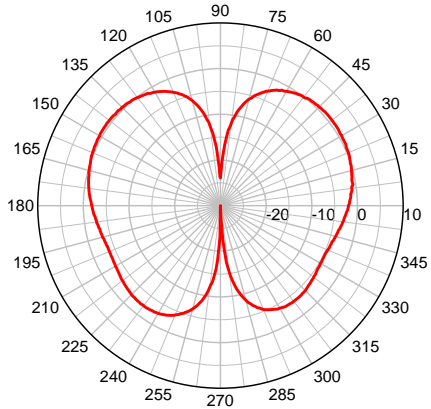
Surface Mount Multi-Band Antenna with GPS (1575 MHz) Cable#3

2 dBi Gain, Frequency (800-2700 MHz) Cable #1

5 dBi Gain, Frequency (2.4 & 4.9-6.0 GHz) Cable#2

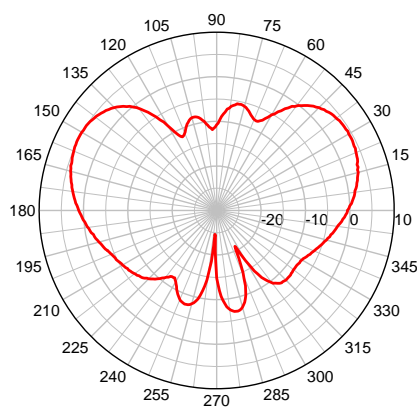
Cable #1

SMW 900 MHz Band – Elevation Plot



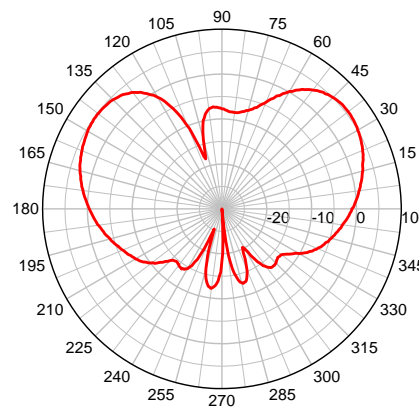
Cable #1

SMW 1900 MHz – Elevation Plot



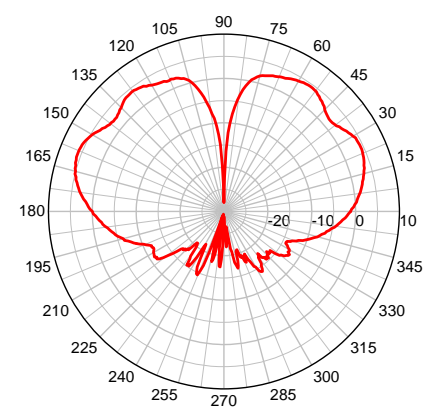
Cable #2

SMW 2400 MHz – Elevation Plot



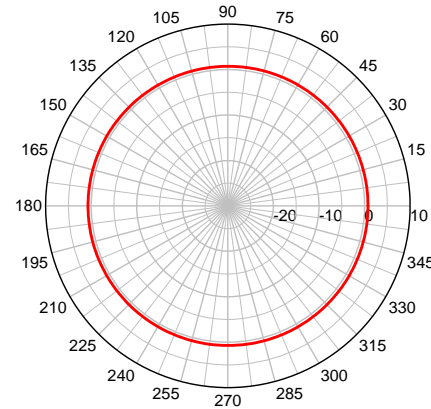
Cable #2

SMW 5500 MHz – Elevation Plot



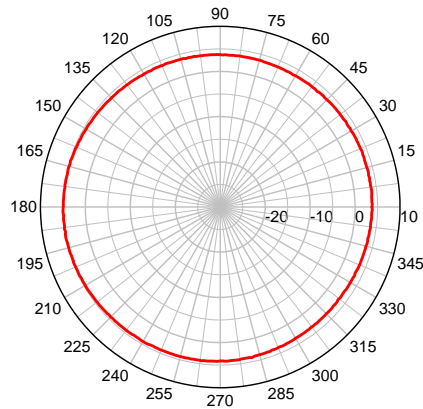
Cable #1

SMW 900 MHz Band – Azimuth Plot



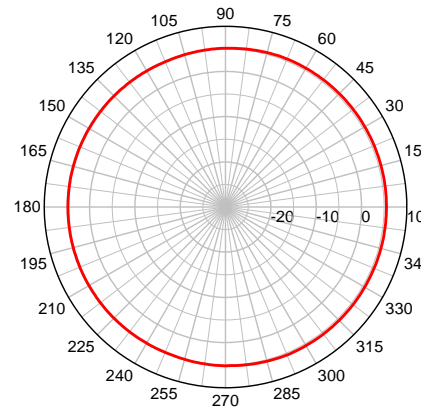
Cable #1

SMW 1900 MHz – Azimuth Plot



Cable #2

SMW 2400 MHz – Azimuth Plot



Cable #2

SMW 5500 MHz – Azimuth Plot

