



3-cable Multiband Antenna



(MGW Series)



(Black optional)

Surface Mount Multiband Cellular/LTE, WiFi & GPS

- Multiband; covers GPS, Cellular/LTE/AWS, WiFi, Public Safety 4.9 & DSRC 5.9 GHz
- 3 separate cable feeds
- Mounts easily to roof, trunk or bulkhead
- GPS with 26 dB active amplifier

The SMW-305 Series Antenna has three separate RF cable feeds and will most typically be used for GPS, Cellular/LTE/AWS (700/850/1700/1900/2100 MHz) and dual 2.4/5.0 WiFi. Bandwidth coverage is 694-894 MHz & 1.7-2.7 GHz on the first cable, 2.4 & 4.9-6.0 GHz on the second cable, and 1575 MHz for GPS on the third.

Other specialized applications are possible with this model. For example, this SMW-305 antenna could be used to provide Public Safety coverage at both 700 MHz and 4.9 GHz. Or, the antenna could be used for Smart Highway applications with DSRC at 5.9 GHz.

The antennas can be mounted to any vehicle, cargo container or trailer. The stud mount design uses a 3/4" feed thru (19mm) for securing to the vehicle.

Access to the underside of the body surface is required to complete the installation. For best performance, the antenna should be mounted on a metal surface or ground-plane.

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

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

This antenna is also available as a Magnet Mount, with all the same performance characteristics.

Antenna Model Configurator

SMW----- example - SMW-305-3A3A2C
Mag Mount - MGW-305-3A3A2C

Combo Configuration

Code Description

SMW-305 Cable 1 = 694-894 MHz & 1.7-2.7 GHz
Cable 2 = 2.4 & 4.9-6.0 GHz
Cable 3 = GPS

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

Cable #1

Code Description

3A RF-195/TNC
3B RF-195/MiniUHF
3C RF-195/SMA
3J RF-195/RevPol SMA
3K RF-195/RevPol TNC

Cable #2

Code Description

3A RF-195/TNC
3B RF-195/MiniUHF
3C RF-195/SMA
3J RF-195/RevPol SMA
3K RF-195/RevPol TNC

GPS Interface

Code	Description
2C	RG-174/SMA
2D	RG-174/SMB
2E	RG-174/MCX
2F	RG-174/MMCX
2H	RG-174/Fakra
2L	RG-174/SMC

Specifications

Frequency & Gain:

Cable 1	694-894 MHz, 3 dBi 1.7-2.7 GHz, 5 dBi
Cable 2	2.4 & 4.9-6.0 GHz, 5 dBi
Cable 3 (GPS)	1575.42 +/- 2 MHz 26dB, LNA 5 dBi nominal RHCP, Antenna

Data Modem:

VSWR	2:1 max over range
Nominal Impedance	50 ohms
Power	20 Watts

GPS:

Noise Figure	2.0 dB max, 1.7 dB typical
Amplifier Bias	2.7 to 5 VDC
Amplifier Current	20 mA max, 10 mA typical

Case:

4.2"D x 3.2"H (107 mm x 81 mm)
add 1/2" (1.3 cm) height for mag base

Case Material:

White ASA standard, Black optional
Threaded metal stud 3/4" dia. x 1/2" long
(19 mm x 13 mm) for 1/4" (6 mm) thick metal; supplied with gasket and nut

SMW Mounting:

SMW Cable:

Cable 1 & 2

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

Cable 3 (GPS)

RG-174, 15 ft (4.5 meters)

MGW Cable:

Same as above, 10 ft (3 meters)

Operating Temp:

-40 to +85 °C

Shock & Vibration:

IEEE1478, EN61373, MIL-810G
TIA 329.2-C

Water Ingress:

SMW:IPx7, MGW:IPx5