



## SMWG-313 multiband, 3-cable 2xDSRC/C-V2X & 1xGPS

- 3 antennas in 1 antenna housing
- Popular Choice for DSRC and C-V2X Trials
- Available in either Surface-mount (SMWG Series) or Mag-mount (MGWG)

The SMW-313 Series Antenna is a 3 cable surface mount and provides multiband coverage on DSRC/C-V2X at 5.9 GHz and GNSS.

This 3 cable surface mount multiband antenna mounts easily to a roof, trunk or bulkhead. The stud mount design uses a 3/4" diameter feed thru (19mm) for securing to the vehicle. The data cables are 15 feet of Low Loss -195 (4.5 meters). GNSS cable is 15 feet of RG-174. All connectors are SMA plug unless otherwise requested.

For best performance, the antenna should be mounted on a metal surface or ground plane. A Mag-mount version is available with the same performance specs.

The antennas are enclosed in a 4.2"D x 3.2"H weatherproof ASA radome (107 mm x 81 mm) and supplied with all mounting hardware and a sealing gasket. The SMWG Series is extremely weather resistant and rated IP67 for Dust and Water Ingress. The antennas have also passed industrial and military shock and vibration testing.

**Model Configurator**

SMWG-313------

Cable/Connector 1

Cable/Connector 2

Cable/Connector 3

Color

Cable Length in Inches (eg. 12 or 180)

Example: SMWG-313-3C3C2C-WHT-180  
 MGWG-313-3C3C2C-BLK-180

Specify "SMW" or "MGW" instead of "SMWG" or "MGWG" for GPS only option antenna.

Cable Options:		Connector Options:		Color Options:	
Code	Cable	Code	Connector	Code	Color
1	RG-58	A	TNC	WHT	White
2	RG-174	C	SMA	BLK	Black
3	LL-195	J	RP SMA		

(Other Configurations available.)

Specifications		
Frequency & Gain*:		
Cables 1&2 (DSRC/C-V2X)	5.8-6.0 GHz, 5 dBi	White or Black UV resistant ASA
Cable 3 (GNSS)	1561, 1575 & 1602 MHz, 5 dBi	
GPS Option	1575.42 +/- 2 MHz, 26 dB, 5 dBi	Separate LL-195, 15 ft (4.5 m)
	5 dBi nominal RHCP, Antenna	RG-174, 15 ft (4.5 m)
Data Modem:		SMA Plug (Male)
VSWR*	2:1 max over range	Magnet Mount
Nominal Impedance	50 Ohm	Threaded metal stud 3/4" dia. x 1/2" long (1.9 cm x 1.3 cm) for 1/4" (6mm) thick metal; supplied with gasket & nut; other stud lengths available
Power	10 Watts	
GPS:		
Noise Figure	2.0 dB max, 1.7 dB typical	
Amplifier Bias	2.7 to 5 VDC	
Amplifier Current	20 mA, 10 mA typical	
GPS & Glonass Option:	1561, 1575 MHz & 1602 MHz	
Operating Temp:	-40° to +80° C	
Case:	4.2"D x 3.2"H (10.7 cm x 8.1 cm) add 1/2" (1.3 cm) for mag base	
Case Material:		
Cable:		
Cable 1 & 2		
Cable 3 (GPS)		
Connectors:		
MGW Mounting:		
SMW Mounting:		
Shock & Vibration:		
Dust/Water Ingress:		

\*Measured on 1'(30cm) ground with 1'(30cm) cable 1'(30cm) cable 1'(30cm) cable