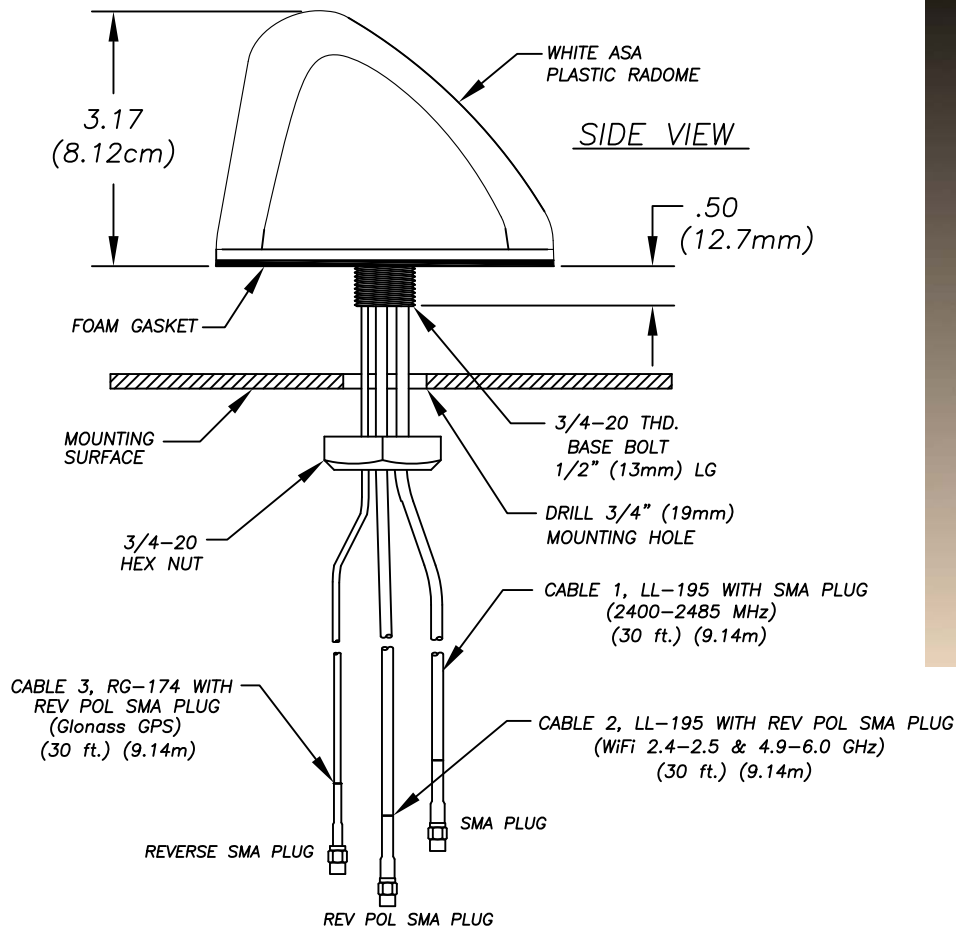


SMWG-304-3C3J2J-WHT-360

Multi-band Surface Mount Antenna

2400-2485 MHz & 2400/4900-6000 MHz with Glonass GPS



Antenna Specifications:

Frequency:	2400-2485 MHz
	2400-2485 & 4900-6000 MHz
Gain:	5 dBi Peak for 2400-2485 MHz
	5 dBi Peak for 2400-2485 & 4900-6000 MHz
GLONASS GPS	1575 MHz/1612 MHz
Voltage	3.3/5 VDC
Current	10mA (typ.), 20mA (max.)
VSWR:	< 2:1 VSWR over range
Maximum Power:	10 Watts
Connector/Interface:	As Shown
Case:	4.2" (10.6 cm) Dia. x 3.2" (8.12cm) High
Radome Material:	ASA UV Inhibitive Plastic
Cable	cable 1 — LL-195, 30 ft. (9.14m) (2400-2485 MHz)
	cable 2 — LL-195, 30 ft. (9.14m) (WiFi, 2.4 & 4.9-6.0 GHz)
	cable 3 — RG-174, 30 ft. (GPS Dual Voltage 3v & 5V)
Impedance:	50 OHM Nominal
Mounting:	3/4" (19mm) Dia. Feed through.
	1/2" lg. (12.7mm) thread for up to
	1/4" (6.35mm) thick surface 304 S.S.
Shock & Vibration:	IEEE1478, EN 61373, MIL-810G, TIA 329.2-C
Dust/Water Ingress:	IP67
Operating Temperature:	-30° to +80° C

MobileMark
antenna solutions

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9/16/19



SMW-304 multiband, 3-cable WiFi, Public Safety 4.9 & GPS

- 3 antennas in 1 antenna housing
- Covers GPS, WiFi, Public Safety 4.9 & DSRC 5.9
- Available in either Surface-mount (SMW Series or Mag-mount (MGW Series)

The SMW-304 Series Antennas is configured with three different cables. The first element covers 2.4-2.5 GHz, the second element covers 2.4 & 4.9-6.0 GHz and the third covers GPS at 1575 MHz.

This design accommodates two WiFi connections, the first at 2.4 GHz and the second at dual-band 2.5 & 5 GHz. Alternatively, the second element could accommodate Public Safety 4.9 GHz or DSRC 5.9 GHz.

The SMW-304 antennas provide 5 dBi gain on both of the data cables and a ground plane is not required.

The antenna can be configured for either surface mount or mag-mount and will handle 10 watts of power.

The surface mount models use a 3/4-inch feed thru (19 mm) for securing to the vehicle. Access to the underside of the body surface is required to complete the installation of the SMW Series.

Both the surface mount and mag-mount antennas are configured with 15 feet (4.5 meters) of cable. The communications channels use RF-195 cable and the GPS channel uses RG-174.

Model Configurator	
SMW-304-	-
Cable/Connector 1	
Cable/Connector 2	
Cable/Connector 3	
Color	
Cable Length in Inches (eg. 12 or 180)	
Example: SMW-304-3C3C2C-WHT-180 MGW-304-3C3C2C-BLK-180	
Specify "SMWG" or "MGWG" instead of "SMW" or "MGW" for GPS/Glonass combination antenna.	
Cable Options:	Connector Options:
Code Cable	Code Connector
1 RG-58	A TNC
2 RG-174	B Mini UHF
3 RF-195	C SMA
	D SMB
Color Options:	
Code Color	
WHT White	
BLK Black	
(Other Configurations available.)	

Specifications

Frequency & Gain (peak):		Case Material:	White or Black UV resistant ASA
Cable 1	2400-2485 MHz, 5 dBi	Cable:	
Cable 2	2.4-2.5 & 4.9-6.0 GHz, 5 dBi	Cable 1 & 2	Separate RF-195, 15 ft (4.5 meters)
Cable 3 (GPS)	1575.42 +/- 2 MHz, LNA 26dB 5 dBi nominal RHCP, Antenna	Cable 3 (GPS)	RG-174, 15 ft (4.5 meters)
Data Modem:		Connectors:	SMA Plug (Male) standard
VSWR	2:1 max over range	Mounting:	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
Nominal Impedance	50 ohms	Operating Temp:	-40° to +80° C
Power	10 Watts	Shock & Vibration:	IEEE1478, EN 61373, MIL-810G, TIA 329.2-C
GPS:		Dust/Water Ingress:	IP67
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:	1575 MHz & 1612 MHz		
Case:	4.2"D x 3.2"H (107 mm x 81 mm) add 1/2" (13 mm) for mag base		

SMW-304 Series Antennas

Surface Mount Multi-Band Antenna with

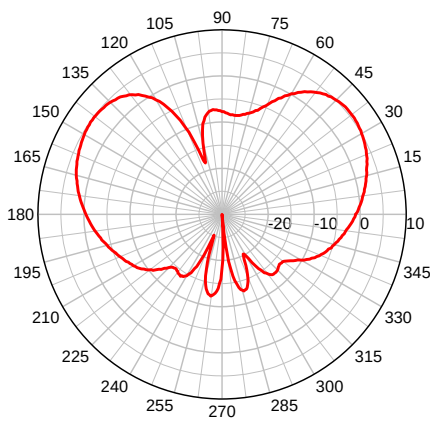
5 dBi Gain, Frequency (2400-2485 MHz) Cable #1

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

GPS (1575 MHz) Cable #3

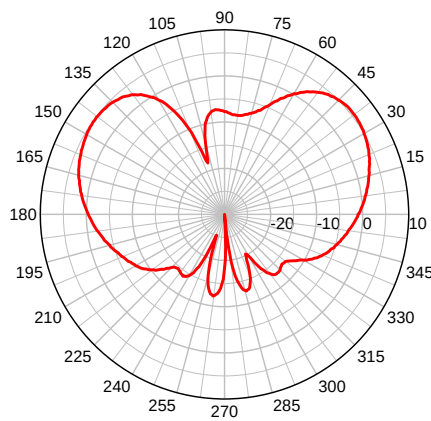
Cable #1

SMW 2400 MHz Band – Elevation



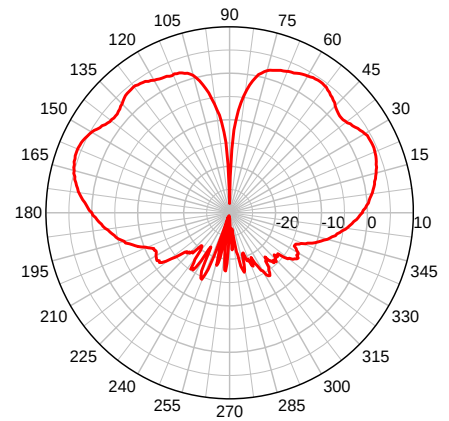
Cable #2

SMW 2400 MHz Band – Elevation



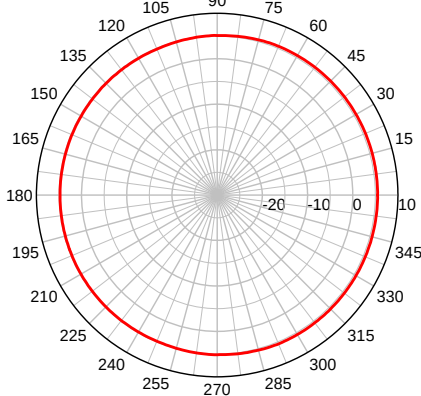
Cable #2

SMW 5500 MHz – Elevation



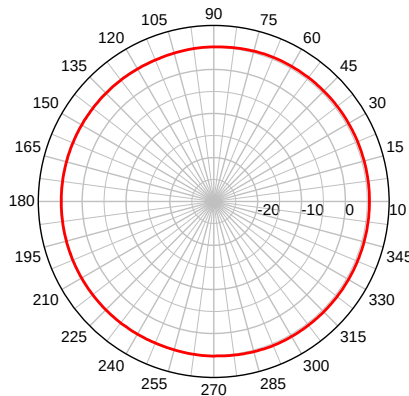
Cable #1

SMW 2400 MHz Band – Azimuth



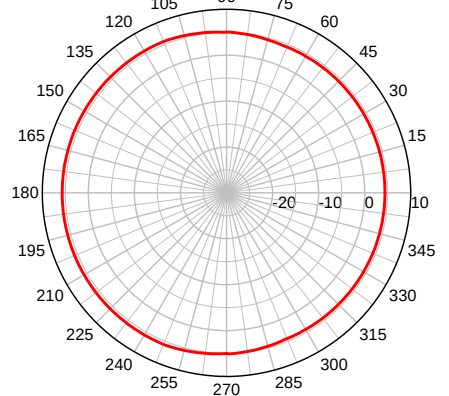
Cable #2

SMW 2400 MHz Band – Azimuth



Cable #2

SMW 5500 MHz Band – Azimuth





LL-195 Cable

Custom cable assemblies

This Cable Assembly is Available for a 1 Week Turn-Around with Specific Connectors and Lengths.

Cable: LL-195

Outside diameter: 0.1" (2.5 mm)

Loss per foot (per 30 cm) at 900 MHz: 0.10 dB

Loss per foot (per 30 cm) at 2500 MHz: 0.17 dB

Customer specified cable length and connectors

Purchase

Loss per foot @ 2500 MHz: 0.17 dB.

30 Foot Cable Loss = $30 * 0.17 = 5.1$ dB.