



MultiBand/Orbcomm Tracking Antenna

Surface Mount GPS Antenna (Pat.Pnd.) GSM/CDMA, 2.4 GHz WiFi, Orbcomm & GPS

- Mounts easily to roof, trunk or bulkhead
- MultiBand covers all popular worldwide frequency bands and Orbcomm Satellite
- 3 Separate RF Feeds & separate feed for GPS receiver
- High performance GPS with 26 dB amplifier

This new model offers extreme compatibility with existing over-the-road applications, plus the versatility of new technologies. The SMW 403 series adds Orbcomm satellite along with worldwide GSM/CDMA, 802.11b/g WiFi and GPS. The stud mount style antenna can be mounted to any vehicle, cargo container or trailer.

Orbcomm efficiency is rated at 85%, yet needs only a fraction of the foot print and height of traditional designs. With WiFi and Broadband also included, a variety of fleet services can be provided for drivers and fleet administrators.

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 GPS, the antennas are outfitted with 15 ft (4.5 meters) of RG-174 cable. The communications channel cables are 15 feet (4.5 meters). 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 3.2"H weather-proof ASA radome (107 mm x 81 mm), and supplied with all mounting hardware and sealing gasket.

Antenna Model Configurator

SMW------ example - SMW-403-3A3A3A2C

Combo Configuration

Code	Description	800 MHz -2.7 GHz Interface	2.4-2.5 GHz Interface	Orbcomm Interface	GPS Interface
403	Cbl1=800-2.7 GHz	3A RF-195 & TNC	3A RF-195/TNC	1A RG-58/TNC	2C RG-174/SMA
	Cbl2=2.4 GHz	3C RF-195 & SMA	3C RF-195/SMA	1B RG-58MiniUHF	2D RG-174/SMB
	Cbl3= Orbcomm	3H RF-195 & Fakra	3J RF-195/RevPol SMA	1C RG-58/SMA	2E RG-174/MCX
	Cbl4=GPS	3L RF-195 & SMC	3K RF-195/RevPol TNC		2H RG-174/Fakra

Specifications

Frequency:

Cable#1	800 - 2700 MHz
Cable#2	2400 - 2485 MHz
Cable #3	Orbcomm (137-138/148-150)
Cable #4	GPS, 1575.42 +/- 2 MHz

Band/Channel Gain:

800-1GHz	2 dBi
1.7 - 2.7 GHz	5 dBi (peak)
2.4 - 2.5 GHz	5 dBi (peak)

GPS Gain: 26 dB, 5 dBi Antenna

VSWR: 2:1 max over range

Noise Figure: 2.0 dB max, 1.7 dB typical

Operating Temp: -40° to +85° C

Nominal Impedance: 50 ohms

Amplifier Bias: 3.3 or 5 VDC +/- 10%

Current: 20 mA max, 10 mA typical

Max Power:

800 - 1900 MHz	20 Watts
1900 - 2500 MHz	10 Watts

Cable lengths: 15ft (4.5 Meters)

Cable:

Cables #1 & #2	RF-195 Cables
Orbcomm	RG-58 Cable
GPS	RG-174 Cable

Case: 4.2"D x 3.2 "H (107 mm x 81 mm)

Orbcomm Whip: 15" H (mm), 17-7 Stainless

Case Material: White ASA

Mounting: 3/4" dia. x 1/2" long(19 mm x 13 mm)
for 1/4" thick (6 mm) metal

Hardware: Nut and gasket included

Custom configurations available, please consult factory.