

## GPS+ Combination Antennas

The Max-Matics™ GPS+ antennas have been designed to provide maximum performance and versatility for telematics applications, including fleet monitoring and asset tracking.

By combining the high performance of a MAXRAD GPS antenna with the flexibility to add virtually any MAXRAD M mount compatible mobile antenna, MAXRAD provides reliable, real-time wireless voice and data coverage for fleet monitoring operators all over the industry.

The GPS+ antenna's precise performance and ease of installation provides outstanding value and flexibility for the most demanding wireless mobile applications.



WGSPSPTMRASBPPL shown with a WMLPV800  
800/900 MHz low profile vertical antenna

### Features

- Combination GPS/mobile antenna design provides GPS tracking coverage and voice/data wireless coverage capabilities for fleet monitoring or fleet tracking applications.
- UV-stable housing features attractive Industrial design that is available in off-white or black textured finishes.
- Outstanding GPS performance, offering 27 dB gain.
- 3 or 5 Vdc operating voltage supply enables operation with most GPS systems on the market.
- Several models are available, including trunk lid mount, permanent stud mount, mirror mount or magnet mount versions. Variety provides flexibility and versatility to end users.
- Various connector options are available for both the GPS antenna and the mobile antenna's permanent M mount.
- High frequency M mobile antenna mount provides a VSWR of less than 1.5:1 at frequencies from 27 MHz to 2.4 GHz for all MAXRAD mobile antennas used as part of the GPS+ antenna series.



The Max-Matics™ GPS+ antennas are available with various mount configurations, including mirror (above left), permanent stud (above middle) and trunk lid mount (above right). A magnet mount version (not pictured) is also available.

# Max-Matics™ GPS+ Combination Antennas



An ISO-9001 Registered Company

## Electrical Specifications (GPS Antenna)

**Operating Frequency:**  
L1: 1575.42 +/- 1.023 MHz

**Input Impedance:**  
50 Ohms

**VSWR:**  
1.5:1, maximum @1575.42 MHz

**Polarization:**  
Right hand circular

**Azimuth Coverage:**  
360°

**Elevation Coverage:**  
0° -90°

**Gain - Antenna Element:**  
+2 dBic, minimum at zenith  
-10 dBic, minimum at 0° elevation

**Axial Ratio:**  
3.0 dB, maximum

**Noise Figure:**  
2.2 dB, maximum (1.5 dB, typical)

**Operating Supply Voltage:**  
3-5 Vdc; 50 mV p-p ripple (maximum)

**Current Consumption:**  
20 mA, maximum @ 5 Vdc, 12 MA typical

**Nominal Gain:**  
27 dB at connector

**Out-of-Band Rejection:**  
fo=1575.42 MHz  
fo +/- 30 MHz                      8 dBc, minimum  
fo +50 MHz                          16 dBc, minimum  
fo - 50 MHz                          22 dBc, minimum  
fo +100 MHz                         27 dBc, minimum  
fo -100 MHz                         42 dB, minimum

## Mechanical Specifications

**Housing:**  
Black or off-white, UV-stable polycarbonate

**Housing Dimensions:**  
2.25" W x 4.25" L x 1.25" H

**Mounting Options:**  
Trunk lid, stud, mirror or magnet

**Mobile Antenna Mount interface:**  
1-1/8"-18 thread M mount

**Cable:**  
17' RG174 (GPS antenna side)  
17' RG58/U (mobile antenna side)

**Connectors Options (GPS antenna):**  
MSMA, FSMA, MC, BN and FFME  
RASBJ, RASBP, MCX, MMCX and RAMMCX

**Connectors Options (mobile antenna):**  
All options available with RG58 cable (see mount section)

**Cable Pull Force:**  
5 kgf, minimum

## Environmental Specifications

**Burn-out Protection:**  
Protected from damage by RF signals when the power received by the antenna is no greater than +17 dBm, maximum

**Operating Temperature Range:**  
-40° C to +85° C

**Storage Temperature Range:**  
-40° C to +100° C

To order, please follow the following part number configuration:

| Color  | Mount type   | GPS Connector   | Mobile Antenna Connector  | List Price |
|--|--|---|---|------------|
| Black textured finish is standard and no color code is required for this choice. | <i>Add the appropriate suffix (choose from the list below) to indicate your choice of mount:</i> | <i>Choose among:</i>  | <i>Choose among any of the connector options available for the BM mounts with RG58 cable:</i>   |            |
| For a white textured finish, begin the part number with "W"                      |  | Male SMA (MSMA)   | PL259 (standard)  |            |
|  |  | Female SMA (FSMA)   | Teflon PL259 (P)  |            |
|  |  | Male TNC (MC)   | Mini-UHF (PL)   |            |
|  |  | Male BNC (BN)   | BNC (BN)  |            |
|  |  | Female FME (FFME)   | TNC (C)   |            |
|  |  | Right angle SMB jack (RASBJ)  | N (N)   |            |
|  |  | Right angle SMB plug (RASBP)  | Female FME (FME)  |            |
|  |  | MCX   | Male SMA (MSMA)   |            |
|  |  | MMCX  | Right Angle Male SMA (SMARA58)  |            |
| (W)  | GPSPMR (for mirror mount)  | Specify your GPS connector of choice by adding the connector abbreviation from the above list to the part number. | Specify your connector of choice for the mobile antenna side by adding the connector abbreviation from the above list to the part number. | \$131.95   |
| (W)  | GPSPMM (for magnet mount)  |   |   | \$149.95   |
| (W)  | GPSPTM (for trunk lid mount)   |   |   | \$128.95   |
| (W)  | GPSPSM (for stud mount)  |   |   | \$139.95   |

Example: WGSPSPTMRASBPPL indicates a white, trunk lid mounted, GPS+ antenna with a right angle SMB plug connector on the GPS antenna cable, and a Mini-UHF connector on the mobile antenna mount cable. Note: mobile antenna sold separately.