

# Outdoor Small GPS Antenna

## MODEL: GA-65-N(M)

Small size and ruggedness, demand of vehicle locating and car navigation GPS antenna that will sustain harsh environment.



- Low noise figure
- Fully weather proof.
- Ultra-high Sensitivity
- Compact construction
- Excellent temperature stability

The antenna system **GA-65** is the integration of the high performance GPS patch antenna and a low noise amplifier into state-of-the-art low a very low profile/extremely compact/fully waterproof antenna signal enclosure. When connected to a GPS receiver with +2.5~ 5.5V DC antenna powers it provides excellent signal amplification and out-band-rejection for that receiver.

### Features:

GPS antenna with double threaded bolts and through holes for cable routing with course & fine treaded pitch locking for wing-nut fastener and lock-nut to prevent vibrations and un-authorized removal.

### Specifications:

| PHYSICAL CONDITION      |   |
|-------------------------|---|
| Constructions:          | ASA-UV radome   |
| Dimensions:             | 60mm(Dia.) x 86mm(H)  |
| Weight:                 | 145grams .  |
| Color:                  | White   |
| Cable & Connector       |   |
| RF cable:               | Optional  |
| Pulling strength:       | 6 Kg @ 5sec. molded plastic on connector end for strain relief. |
| Connector available:    | N(M)  |
| Antenna Element         |   |
| Center Frequency:       | 1575.42 MHz +/-1.023 MHz  |
| Polarization:           | R.H.C.P. (Right Handed Circular Polarization).                  |
| Absolute Gain @ Zenith: | +5 dBi typical.   |
| Gain @ 10° Elevation:   | -1 dBi typical.   |
| Axial Ratio:            | 3 dB max.   |
| Output VSWR:            | 2.0   |
| Output Impedance:       | 50 ohm  |

### Low Noise Amplifier

|   |   |
|---|---|
| Center Frequency:   | 1575.42 +/- 1.023 MHz   |
| Power Gain:   | 28 db +/-3db  |
| Bandwidth:  | 10 MHz min. @S11≤-10 dB   |
| Noise Figure:   | 1.5 typ   |
| Outer Band Attenuation:   | 3 dB max.   |
| Supply Voltages:  | 2.5~5.5V DC.  |
| Current Consumption:  | at 2.5V 6.6mA Typ.<br>at 3.0V 8.6mA Typ.<br>at 4.0V 12.6mA Typ.<br>at 5.0V 16.6mA Typ.                      |
| <b>Overall Performance: (antenna element, LNA &amp; coax cable)</b> |   |
| Center Frequency:   | 1575.42 +/- 1.023 MHz   |
| Gain:   | At 90° vertical to sky 30 ± 4.5dBi<br>(cable loss) Note:1<br>Mounted on the 60mm x 60mm square ground plane |
| Noise Figure:   | 1.5 max.  |
| Axial Ratio:  | 3 dB max.   |
| Bandwidth:  | 10 MHz min. @S11≤-10 dB   |
| VSWR:   | 2.0 max.  |
| Output Impedance:   | 50 ohm  |
| <b>Environmental</b>  |   |
| Operating Temperature:  | -40°C~ +85°C.   |
| Storage Temperature:  | -40°C~ +85°C.   |
| Relative Humidity:  | 95% non-condensing.   |
| Water Resistance:   | 100% waterproof.  |

\* This specification is subject to change without prior notice

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