

# NA0100

## Mechanical Mount Antenna



The NA100 permanent mount GPS value antenna provides 28 dB gain and great out-of-band rejection performance. It features a precision tuned custom ceramic patch element for maximum signal reception and 15KV ESD circuit protection. This minimizes GPS loss-of lock even when conditions are less than ideal. Weather proof, all-plastic, non-corrosive low profile package.

### General Notes

The NA0100 have been designed to be hard mounted to a flat surface or to a mast. This guide is intended to aid the installer in properly mounting for optimum GPS performance to a flat surface. When installed properly as per the following instructions the installation meets IP67 environmental specifications.

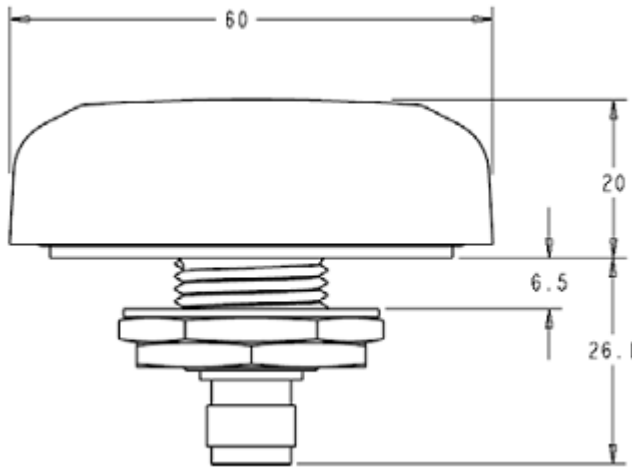
### Mounting Surface

The mounting surface must not exceed 6.5mm in thickness. The surface must be flat, clean and free of flaking paint or loose metal debris in order to have a watertight (IP67) installation.

### Mounting Angle

There will be very little degradation in GPS performance with slopes up to 30 degree horizontal. The antenna will function at angles beyond this point but the performance continue to degrade with increasing slope. It is recommended that the maximum slope exceed 45 degrees.

## Mechanical Specifications



## Installation Procedure

For optimum GPS performance, the antenna must have a clear view of the sky and preferably have a ground plane. A metallic ground plane of 10cm diameter (4 inches) is sufficient to realize virtually all ground plane benefits. A larger ground plane will provide no additional advantages. The antenna will operate without a ground plane with a slightly wider beam-width.

The product comes equipped with all necessary mounting accessories, 1 silicone rubber gasket (attached to the base), 1 metal washer and 2 nickel-plated brass panel nuts  $\frac{3}{4}$  inch size.

1. Select the location on the mounting surface. Make a  $\frac{3}{4}$  inch diameter hole using the appropriate hole-punch, saw or drill.
2. Remove from the antenna the 2 panel nuts and the metal washer.
3. Carefully insert the antenna in the  $\frac{3}{4}$  inch diameter mounting surface opening.
4. Place the metal washer and 1 panel nut on the thread of the antenna, on the inside of the mounting surface and tighten the first panel nut. The recommended torque for the 1st panel nut is 15-20 in-pounds.
5. Screw on and tighten the 2nd panel nut while holding the 1st panel nut in stationary position. The recommended maximum torque for the 2nd panel nut is 35-45 in-pounds. Do not exceed recommended maximum torque.



Company Datasheet # NA-0100

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### Technical specifications

Center Frequency	1575.42 MHz $\pm$ 10Mhz	
Antenna Dimensions	2.36" x .83" (60 x 21 mm) diameter and height	
Weight	.11 lbs (50g)	
Connector	TNC female	
Mounting	$\frac{3}{4}$ " thru-hole or bracket mount	
Temperature range	-40 to +85C	

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