

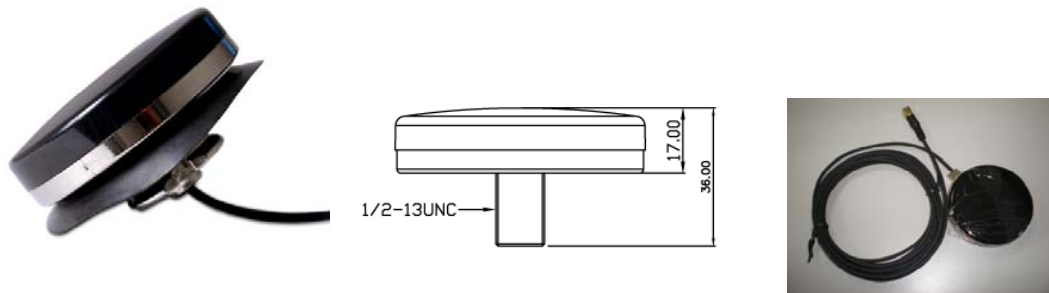


# GPS Antenna with Low Noise Amplifier

## Model: GPS-3H-C/S

WI-RD-D-019 V1.0

Integration of the high performance GPS patch antenna and a cutting-edge LNA into a very low profile extremely compact/ Water Resistance enclosure



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### Overview:

The GPS-3H is the integration of the high performance GPS patch antenna and a state-of-the-art low noise amplifier into a very low profile/extremely compact/fully water resistance enclosure. When connected to a GPS receiver with +2.5 to +5.0 VDC antenna power, it can provide excellent signal amplification and out of band filtering & rejection for that receiver.

Last but not least, the design of a double lock (or an anti-theft locking nut) provides sound security for the product.

### Features:

- Low Noise Figure/ Fully Weatherproof/ Ultra-high Sensitivity
- Compact Construction/ Excellent Temperature Stability

### Applications:

- AVL/Fleet Management Systems /Car Navigation/Marine GPS
- Weather Balloon/Security Surveillance/External Antenna for Handheld GPS

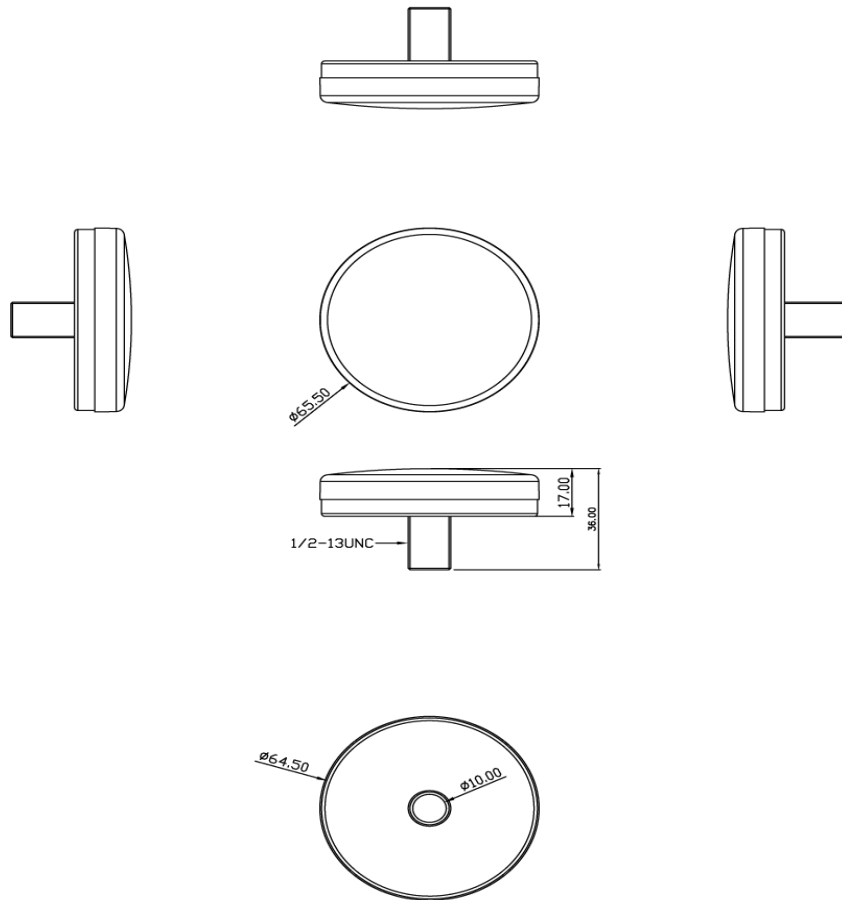


### Specification:

<b>Physical Condition</b>	
Dimension:	64.5mm (D) X 14mm (H)
Weight:	135.3 grams (excluding cable & connector)
<b>Cable &amp; Connector</b>	
RF Cable:	3 meters RG174/U (standard) cable & length (optional)
Pulling Strength:	6 Kg @ 5 sec.
Connector Available:	BNC, TNC, FME, MMCX, MCX, SMA, SMB or SMC. Straight or right angle.
Optional Adapters:	Universal Connector Adapter (FME to TNC/BNC/SMA/SMB/MCX)
<b>Antenna Element</b>	
Polarization:	R.H.C.P. (Right Hand Circular Polarization)
Absolute Gain at Zenith:	+3 dBic typically
Gain at 10o Elevation:	-1 dBi typically
Axial Ratio:	3 dB max.
<b>Low Noise Amplifier</b>	
Gain:	41 dB @ 3V typically
Band Width:	10 MHz min. @S11≤-10 dB
Noise Figure:	1.5 Typical.
Supply Voltage:	3~5V DC
Current Consumption:	9.6mA ± 1mA @ 3V DC
<b>OVERALL PERFORMANCE (Antenna Element, LNA &amp; Cable)</b>	
Center Frequency:	1575.42 MHz.
Gain:	40 ±2dB (Cable loss) note: 1.
Axial Ratio:	3 dB max.
VSWR:	2.0 max.
Output Impedance:	50 ohm
<b>Environmental conditions</b>	
Operating Temperature:	-40°C ~ +85°C
Storage Temperature:	-40°C ~ +90°C
Relative Humidity:	95% non-condensing

Note 1: Cable loss(-1.2dB/m)

Mechanical Diagram:



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