



GPS Antenna for Timing & Stationary Application

Model SA-300



Combining the most innovative concept with precision manufacture, we release this latest GPS antenna—SA-300.

With the compact polycarbonate radome enclosure and the waterproof/weatherproof physical construction, SA-300 is deliberately designed for both navigators and researchers who often need to use GPS in harsh environments, such as strong shock or vibration, fierce wind, and even continuous exposure to water and sunlight.



Additionally, SA-300's stainless pole mount not only enables antenna to receive GPS signals steadfastly, but also enables the cable to be threaded, protecting itself from environmental damage. Both of the industrial standard TNC connector & 1"-14 straight thread perfectly fit the typical marine mount, enhancing the multifunction and application for SA-300. Furthermore, through the inventive integration of dual amplifiers & dual filters (saw filter + bandpass filter), SA-300 provides excellent resistance to RF signal interference without compromising its gain, which helps ensure stable performance even in

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RF signal-jamming environment.

SA-300 is an active GPS antenna with high gain of 27 dB & low current of 27mA, supporting RG-58 A/U cable as long as 50m.

Given the aforementioned features, we believe SA-300 to be your most reliable companion for timing and stationary application



Please visit our website for more specifications of SA-300, surf our full line GPS products and on-line introduction with ordering information at <http://www.sanav.com>

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Specification

Physical Constructions:	
Constructions:	Polycarbonate radome enclosure, sealed with weatherproof rubber O-ring in-between; Center fed with TNC connector for antenna output
Antenna Dimensions:	4.5" in diameter & 2.9" in height
Weight:	220 grams w/o cable
Color:	White
Cable & Connector:	
Cable Length:	10 m RG58 A/U with 15-50 m optional; Cable connectors hermetically molded plastics for waterproof and stain relief
Connector Available:	TNC (standard), other types (optional)
Mounting	
Standard Mounting:	External flagpole type mast mount 1"-14" threaded mast

Optional Mounting:	Cabin roof-mount with stainless steel base & shaft Rail side mount with stainless rod
Antenna Element	
Polarization:	R.H.C.P. (Right Hand Circular Polarization).
Absolute Gain @ Zenith:	+5 dBi typically
Azimuth Coverage:	360°
Gain @ 10° Elevation:	-1 dBi typically
Axial Ratio:	3 dB max.
Output VSWR:	1.5:1 max.
Amplifier Element	
General:	L1 frequency, 1575.42 MHz +/-1.023 MHz
LNA Gain:	28 dB typically
Bandwidth:	2 MHz min.
Noise Figure:	4.0 max.
Out-of-Band Attenuation:	30 dB min. @ Fo +/- 50Mhz
Current Consumption:	27mA +/- 3mA
Overall Performance	
Center Frequency:	1575.42 MHz
Gain:	27 dB typ.
Noise Figure:	4.0 max.
Axial Ratio:	3dB max.
VSWR:	1.8 max.
Output Impedance:	50 Ω
Electrical Characteristics	
Supply Voltage:	4.5-5.5V DC
Power Consumption:	27mA @ 4.5 volts, 0.12 watts typ. < 0.2 watts max.
Environmental Characteristics	
Operating Temperature:	-30°C. to +85°C.
Storage Temperature:	-30°C. to +85°C.

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Operating Humidity:	95% RH, non-condensing
Waterproof:	100% waterproof at the rating of IP66

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