

SA- 300 Active Antenna

- ❑ Combining the most innovative concept with precision manufacture, we proudly present the SA-300 GPS Antenna
- ❑ With the compact polycarbonate random enclosure and 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 the 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 and 1" ~ 14" straight thread perfectly fit the typical marine mount, enhancing multifunction and application for SA-300
- ❑ Furthermore, through the inventive of dual amplifiers and 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 RF signal-jamming environments



Datasheet SA-300 Active Antenna

Mechanical Data:

Ø in inch x H	4,5" x 2.9"
Weight	220gram (without cabel)
Standard Mounting	External Flagpole mount 1" – 14" threaded mast
Optional Mounting	1) cabin roof-mount with stainless steel base & shaft 2) Rail side mount with stainless rod

Environmental Conditions:

Operating Temp.	-30°C ~ + 85°C
Storage Temp.	-40°C ~ + 85°C
Relative Humidity	95% RH, non-condensing
Waterproof	100% waterproof IP65

Antenna element:

Polarization	R.H.C.P
Absolute Gain @ Zentith	+5dBi typically
Azimuth Coverage	360°
Gain @ 10° Elevation	-1 dBi typically
Axial ratio	3 dB max.
Output VSWR	1.5:1 max

Low noise Amplifier:

General	L1 frequency 1575.42 +/- 1.023 MHz
LNA Gain	30 dB typical
Noise Figure	2.0 max
Band With	2 MHz min.
Supply Voltage	4.0 ~ 6.0 V DC
Current Consumption	27 mA +/- 3 mA
Out-of-Band Attenuation	3dB min. @ Fo+/-50 Mhz

Cable & Connector:

Connector on antenna	TNC jack and othe types optional
RF Cable	10m RG58 A/U with TNC plug on one end and BN on the other
Optional Cable	15~50 m are available upon request. Cable connectors are hermetically molded plastics for waterproof and stain relief
Pulling Strength	12kg for 5 sec.

Overall Performance:

Center Frequenz	1575.42 MHz
Gain	27 dB
Noise Figure	2.0 dB max.
Axial Ratio	3dB max.
VSWR	2.0 max.
Output Impedance	50 Ω

Ordering Information:

SA-300

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