



GNSSANT-AJ

Anti-Jam High-Gain
GNSS Antenna

The **GNSSANT-AJ** is an anti-jam high-gain antenna designed for applications in areas where elevated levels of electronic 'noise' in the same frequency band from interfering signals can be expected. This anti-jam feature modifies the reception pattern of the GNSS antenna such that it is "deaf" to signals arriving from -10° to $+15^{\circ}$ from horizon while slightly increasing the gain of the antenna at zenith. The GNSSANT-AJ covers the single-band of GNSS with SBAS augmentation. Provides excellent out of band rejection and multipath rejection.



Features

- Anti-Jam Technology
- -10° to $+15^{\circ}$ from horizon "deaf" zone
- Multiconstellation GNSS Single-Band
- Great axial ratio (2.0 dB typ.)
- Low LNA noise (3.0 dB typ.)
- High rejection SAW filter
- High gain LNA: 38 dB min.
- Low current: 19 mA typ.
- Wide voltage input range: 2.5-12 VDC
- ESD circuit protection (15 kV)
- IP67 weather-proof housing

Benefits

- Operates under ground-based jamming
- Circular polarisation throughout the full bandwidth
- Superior multipath signal rejection
- Excellent signal-to-noise ratio
- Excellent out-of-band signal rejection
- Increased system accuracy
- Ideal for harsh environments

Specifications

Architecture	Dual-feed, RHCP ceramic patch
Band	GPS L1, GLONASS G1, Galileo E1, BeiDou B1, and SBAS (WAAS, EGNOS & MSAS)
Antenna Gain (at Zenith)	6.3 dBic typ. @ 90°
Axial Ratio (over full bandwidth)	<2dB @zenith

Electrical

Filtered LNA Frequency Bandwidth	1559 to 1606 MHz
Polarization	RHCP
LNA Gain	38 dB min., across full bandwidth
Gain flatness	+/- 2dB, 1559 to 1606 MHz
Out-of-Band Rejection <1500 MHz / >1640 MHz	>50 dB / >70 dB
VSWR (at LNA output)	<1.5:1
Noise Figure	3.0 dB typ
Supply Voltage Range (over coaxial cable)	2.5 to 16V DC nominal (12 VDC rec. max)
Supply Current	19 mA typ.
ESD Circuit Protection	15 KV air discharge
Impedance	50 Ω

Mechanicals & Environmental

Mechanical Size	4.0 in dia x 4.0 in H, 10.0 cm dia x 10.2 cm H
Connector	TNC-F (supplied with TNC-M to SMA-F adapter)
Operating /Storage Temp. Range	-40 to +85 $^{\circ}$ C / -50 to +95 $^{\circ}$ C
Weight	13.0 oz , 370 g
Attachment Method	$\frac{3}{4}$ " (19mm) through hole mount, L bracket mount kit provided
IP Rating	IP67, weather-proof enclosure
Shock	Vertical axis: 50 G, other axes: 30 G
Vibration	3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G

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