



HIGH GAIN WIDE BEAMWIDTH GPS ANTENNA

Our low-profile ANT-GPS-A active GPS antenna developed by AAC SpaceQuest provides hemispherical coverage and a built-in Low Noise Amplified (LNA). This antenna is ideal for MicroSats and SmallSats but can also be mounted recessed on CubeSats. The ANT-GPS-A is a space-qualified L-band patch antenna tuned to GPS frequency bands. The units have over 15 years of successful on-orbit flight operations heritage on our AAC SpaceQuest spacecraft as well as being deployed for a global clientele.

KEY HIGHLIGHTS:

- Tuned to L1 GPS Band (Multi-channel models also available as part of our ANT-GPS Series)
- Built in 33dB LNA
- Hemispherical Radiation Pattern
- Low Axial Ratio and VSWR
- Space Qualified with more than 18 in Operation on Orbit
- Powered from GPS Receiver through RF Cable



LOW PROFILE DESIGN

The ANT GPS units are all low-profile by design. The modular GPS antenna have versatile cable connection points to allow for ease of integration within the bus.



FLEXIBLE CONFIGURATION

The frequency band and constellation on these units can be configured to match the GNSS receiver selected. From single frequency to multi-frequency, multi-constellation.



HERITAGE

With over 15 years of on-orbit heritage these units have been developed to adapt to the ever-evolving constellations and associated frequencies.

TECHNICAL SPECIFICATIONS

Performance Specifications			
Frequency:	L1, 1575.42 ±12 MHz (Muilt-Channel GPS Antenna Models Also Available)		
Radiation Pattern:	Hemispherical		
Polarization:	RHCP		
LNA Gain:	33 dB		
Axial Ratio:	2 dB		
VSWR:	<2.0:1		
Antenna Gain (dBic):		Free Space	Ground Plane
	90° Zenith:	+5.0	+2.5
	60° Elevation:	+4.2	+2.5
	30° Elevation:	+0.7	+1.6
	20° Elevation:	-0.9	-0.5
	10° Elevation:	-2.3	-2.9
LNA Noise Figure:	3.5 dB		
DC Grounding:	Yes		
Connector:	SMA Female		
Output Impedance:	50 Ohms		
LNA P1dB Out	-13 dBm.		
Vibration.	>30 Grms		

Mechanical Specifications	
Mass:	80 grams
Size (incl. connector):	21.03 mm x 50.8 mm x 50.8 mm
Enclosure:	6061-T6 Aluminum Base with Composite Radome
Operating Temperature:	-55°C to +85°C



To make an enquiry, request a quotation or learn about AAC Clyde Space's other products and services, please contact:

enquiries@aac-clydespace.com



**AAC
CLYDE
SPACE**

#SPACEISAWESOME

www.aac-clyde.space

Copyright AAC Clyde Space 2023. All rights reserved. All information subject to change. Release date 28 April 2023.