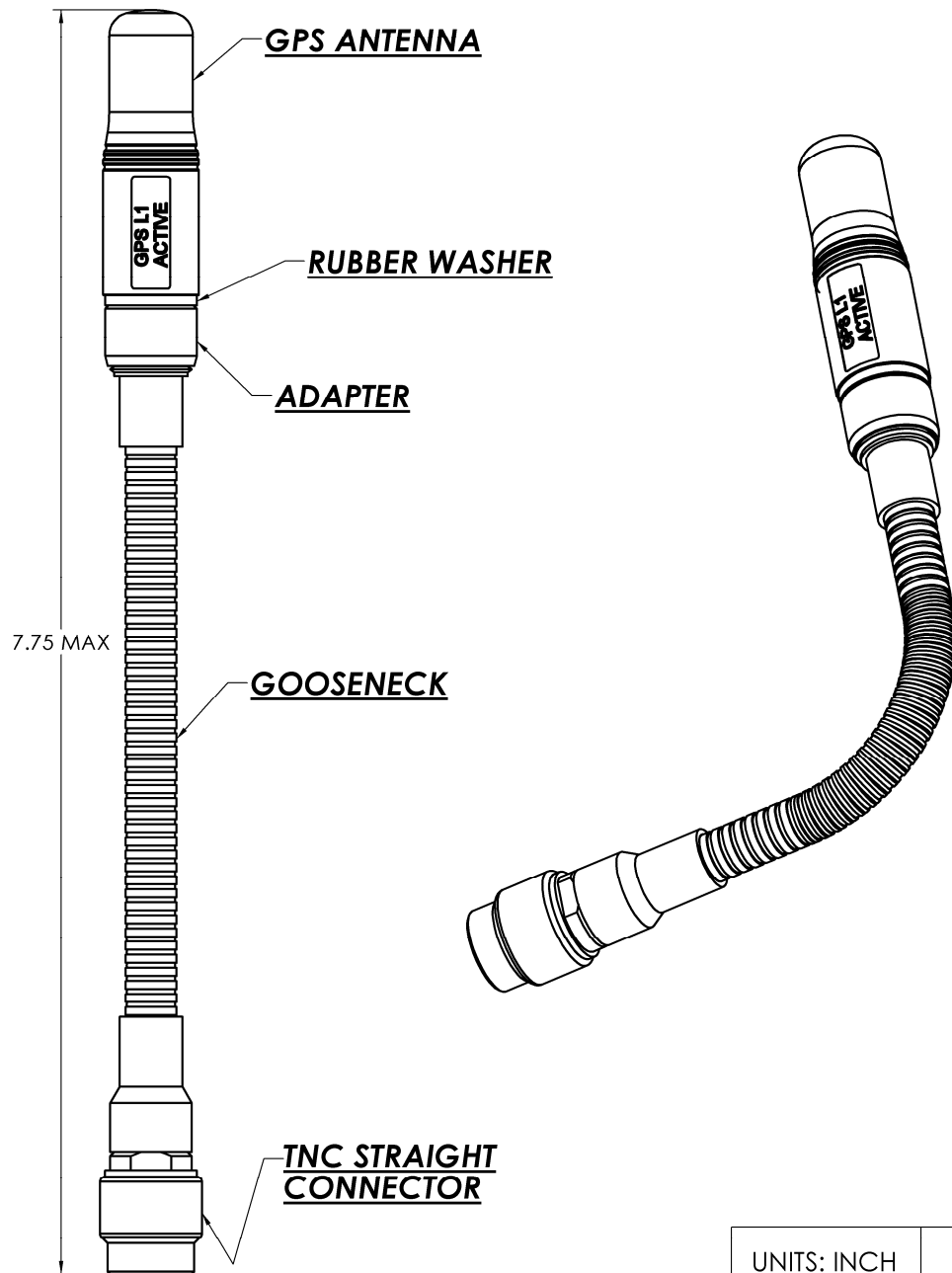


**ARTICULATED, ACTIVE GPS L1 ANTENNA**

**MD11-016**

Series : Antenna



UNITS: INCH	
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All dimensions are inches

Issue : 1225

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



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**MD11-016**

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**ELECTRICAL CHARACTERISTICS**

Frequency :.....	<b>GPS L1 (1575.42) MHz</b>
Nominal Impedance:.....	<b>50 Ω</b>
VSWR:.....	<b>2.5:1 Max</b>
Gain:	
Radiating Element only : .....	<b>- 5 dBic ± 1 dB</b>
Active Gain (LNA) – Fig 1 :.....	<b>16 dB</b>
Polarization : .....	<b>RHCP</b>
Radiation Pattern:.....	<b>Hemi-spherical</b>
3 dB Beamwidth (both planes) : .....	<b>120° x 120°</b>
P1 dB compression	<b>-14 dBm</b>
Noise Figure (LNA) :.....	<b>1.5 dB</b>
DC Input Power : .....	<b>2.7 V Min</b>
	<b>3.5 V max</b>
Connector type :.....	<b>TNC Male</b>

**MECHANICAL CHARACTERISTICS**

Antenna Color :.....	<b>Black matte</b>
Antenna Material :.....	<b>PEI</b>
Weight :.....	<b>.25 Lb</b>
Overall length : .....	<b>7.75 Inch (Max)</b>
Articulation:.....	<b>Gooseneck Black</b>
Size - Coil OD....	<b>.31 Inch</b>
Stiffness Rating...	<b>Heavy Duty</b>
Gooseneck Flexibility: .....	<b>±90 Degrees</b>
	<b>500 Cycles</b>

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**ENVIRONMENTAL CHARACTERISTICS**

*Product Compliant with the RoHS (Restriction of Hazardous Substances) and WEEE (Waste Electrical and Electronics Equipment) requirements*

Operating Temperature :.....	<b>-40 / +71 °C</b> <b>MIL -STD-810F, Methods 501.4 &amp; 502.4, Procedure II</b>
Storage Temperature :.....	<b>-40 / +71 °C</b> <b>MIL-STD-810F, Methods 501.4 &amp; 502.4, Procedure I</b>
Humidity (Non-condensing):.....	<b>95%</b> Relative Humidity <b>Through Operating Temp range MIL-STD-810F, Methods 507.4</b>
Shock : .....	<b>20g</b> Peak Acceleration <b>11ms</b> Duration <b>MIL-STD-810F, Method 516.5, Procedure I</b>
Drop Test : .....	<b>1</b> Meter <b>Top &amp; Sides onto Concrete Floor</b>
Immersion : .....	<b>2</b> Meters (sea water) <b>30</b> Min <b>MIL-STD-810F, Meth. 512.4, Proc I</b>
Altitude (Operational) :.....	<b>30,000</b> Ft <b>MIL-STD-810F, Method 500.4, Procedures I &amp; II</b>

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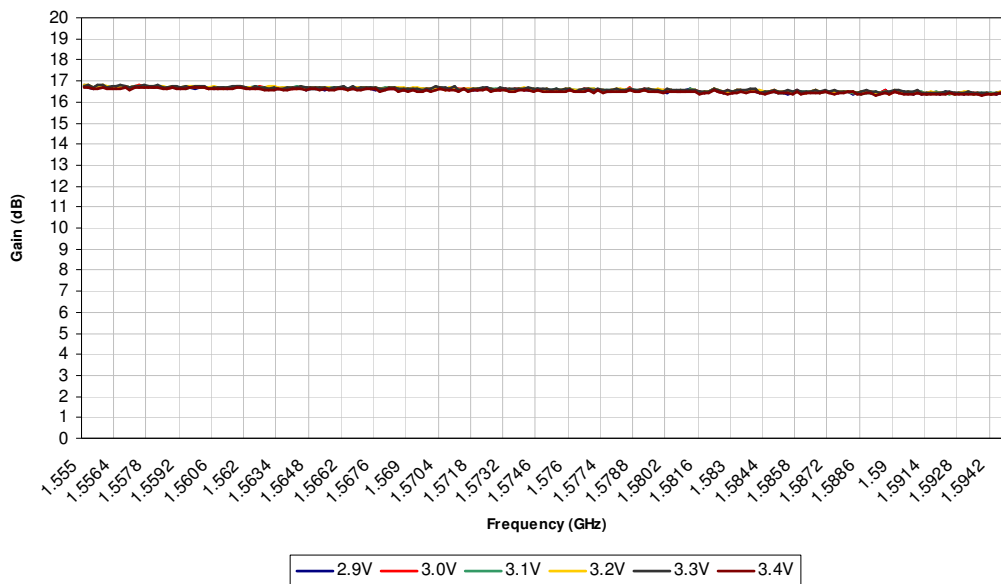
**ARTICULATED, ACTIVE GPS L1 ANTENNA**

**MD11-016**

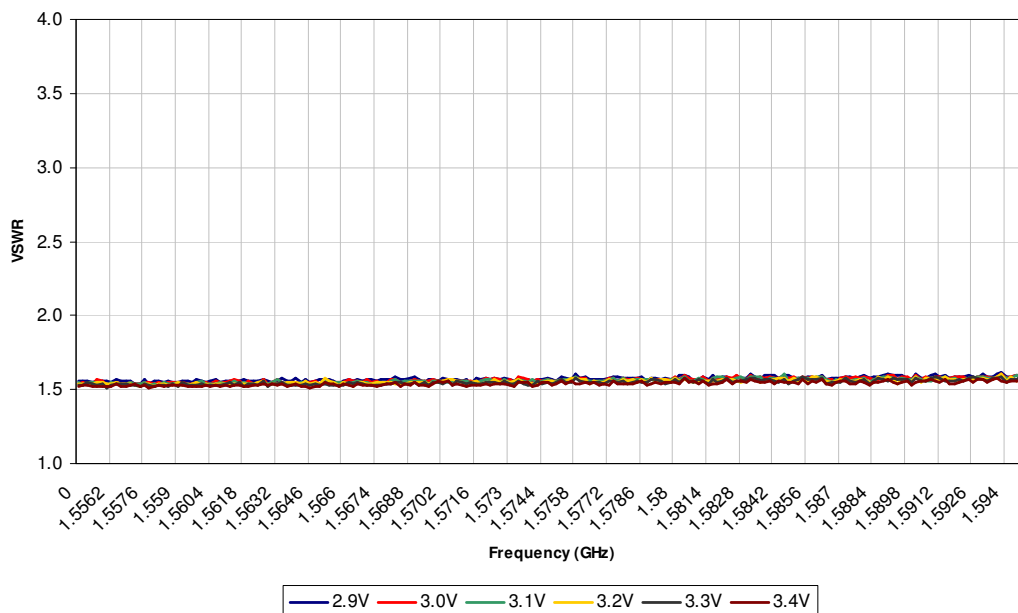
Series : Antenna

**ELECTRICAL CHARACTERISTICS:**

Pre-Amp Circuit alone



**Fig 1: LNA Gain vs DC input voltage**



**Fig 2: Output VSWR vs DC input voltage**

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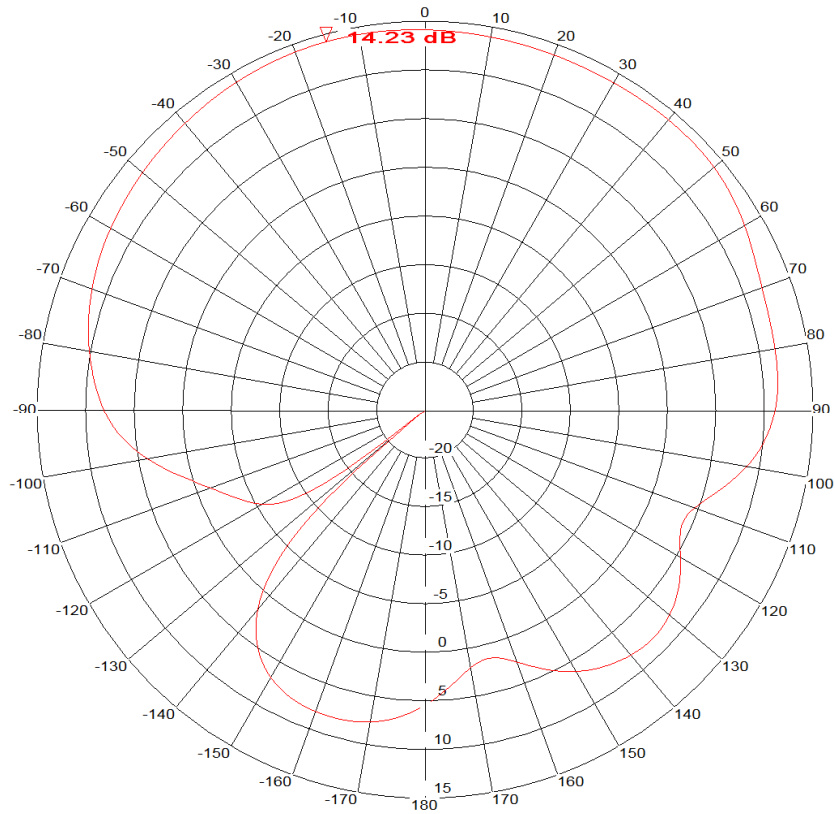
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**Fig 3: Typical RHCP @ 1575 MHz**

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