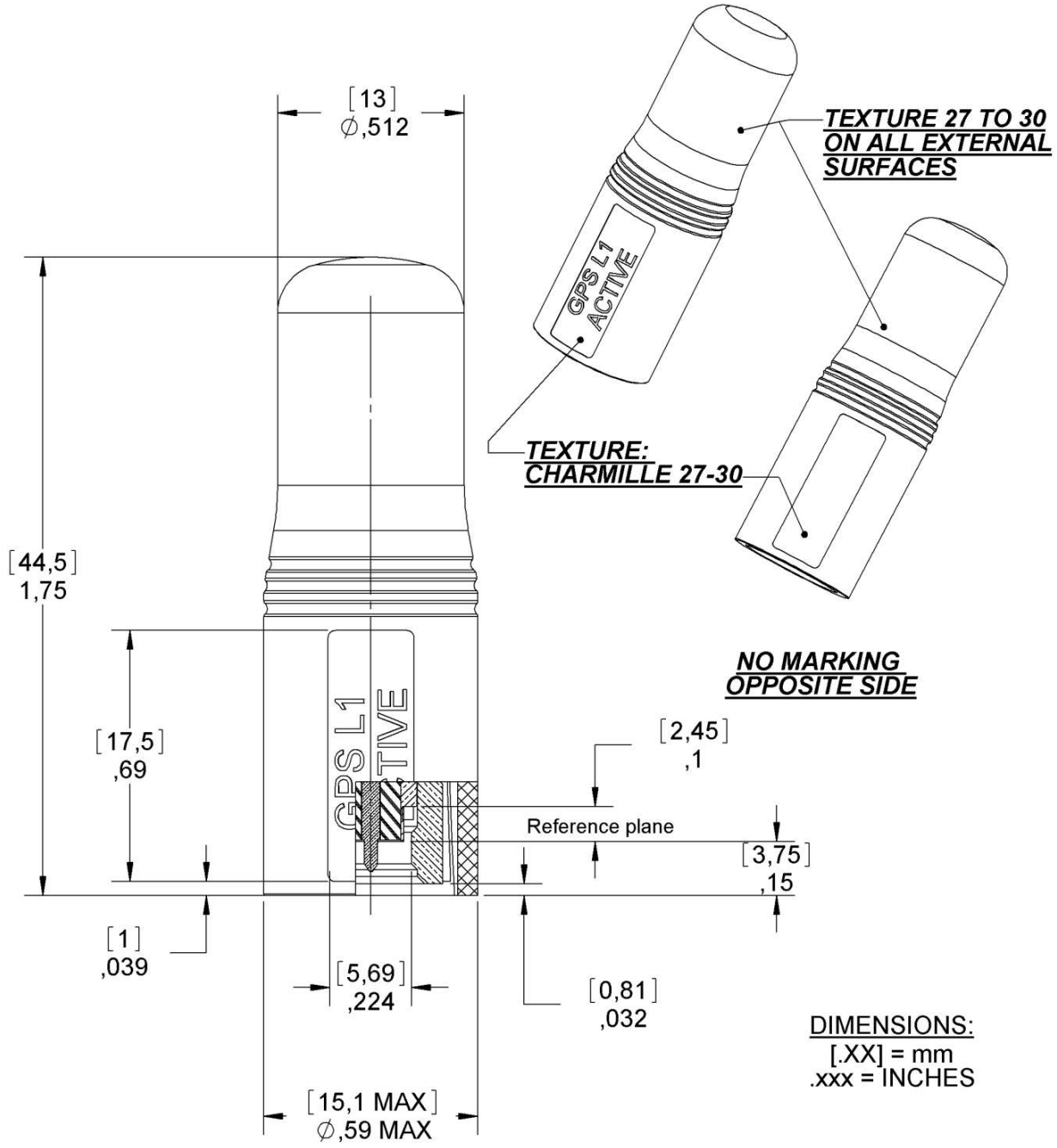
| PAGE 1/3 | ISSUE **251114A** | SERIES **ANTENNA** | PART NUMBER **R380.300.013** |
|---|---|---|---|




All dimensions are in [mm] / inches

## ELECTRICAL CHARACTERISTICS

| | | |
|---|---|---|
| Frequency : | **GPS L1 (1575.42)** | MHz |
| Nominal Impedance : | **50** | Ω |
| VSWR : | **2.0:1** | Typ |
| | **2.5:1** | Max |
| Gain : | | |
| Radiating Element only : | **-3** | dBic ±1dB |
| Active Gain (LNA) : | **16** | dB typ |
| Polarization : | **RHCP** | |
| Radiation Pattern: | **Hemi-spherical** | |
| 3 dB Beamwidth (both planes) : | **120° x 120°** | typ |
| P1 dB compression : | **-14** | dBm |
| Noise Figure (LNA alone) : | **1.5** | dB max |
| Supply Voltage : | **3.3** | V typ. |
| | **3.0** | V min |
| | **3.5** | V max |
| Current consumption : | **8** | mA typ |
| Connector type : | **Male SMA** | |

## MECHANICAL CHARACTERISTICS

| | | |
|---|---|---|
| Plastic radome : | **PEI** | |
| Color : | **BLACK** | |
| Texture : | **Charmille 30** | |
| Weight : | **30** | g |
| Overall length : | **<1.77** | in |
| | **<45** | mm |
| Max Diameter | **0.59** | in |
| | **15.1** | mm |
| RoHS Compliant: | **Yes** | |

## ENVIRONMENTAL CHARACTERISTICS

| | | |
|---|---|---|
| Operating temperature : | **-32/+55**<br>**IAW MIL-STD-810G**<br>**meth 501.5 & 502.5, proc II** | ° C |
| Storage temperature : | **-55/+85**<br>**IAW MIL-STD-810G**<br>**meth 501.5 & 502.5, proc I** | ° C |
| Temperature Shocks | **3 cycles -40/+70°C**<br>**IAW MIL-STD-810G**<br>**meth 503.5 , proc I** | |
| Altitude : | **40,000**<br>**IAW MIL-STD-810G**<br>**meth 500.5, proc I** | ft |
| Humidity : | **Induced Hot Humid**<br>**IAW MIL-STD-810G**<br>**meth 507.5, proc II** | |
| Immersion (mated to radio) | **20m, for 2h**<br>**IAW MIL-STD-810G**<br>**meth 512.5, proc I** | |
| Salt Fog : | **96h**<br>**(4x24h alterning wet & dry)**<br>**IAW MIL-STD-810G**<br>**meth 509.5** | |
| Solar Radiation: | **10 cycles, 20/4h sun/dark**<br>**IAW MIL-STD-810G**<br>**meth 505.5, proc II** | |
| Transit Shocks : | **26 drops from 1.2m high**<br>**IAW MIL-STD-810G**<br>**meth 516.6, proc IV** | |
| Fluid Contamination | **Table 504.1-II**<br>**MIL-STD-810G**<br>**Meth 504.1, proc II** | |

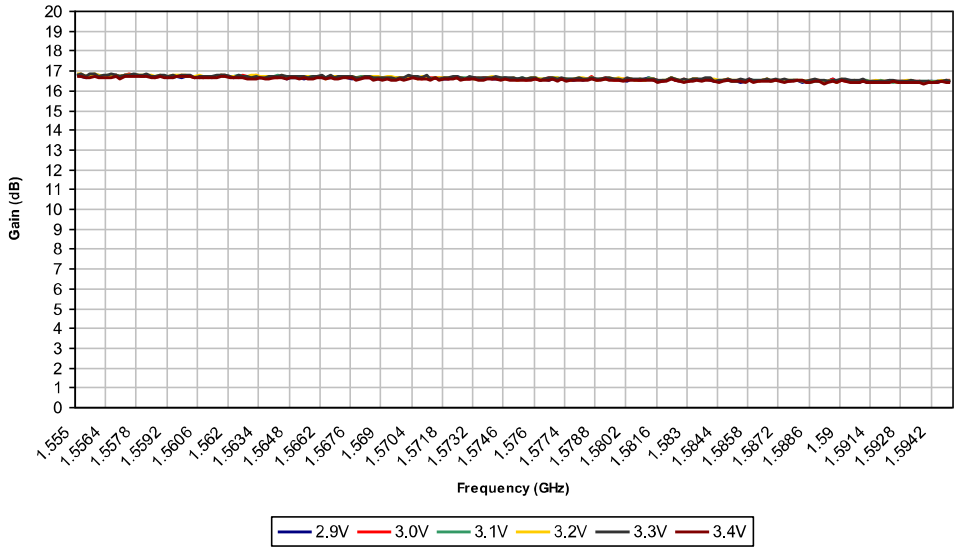



Figure 1: LNA Gain vs DC input voltage

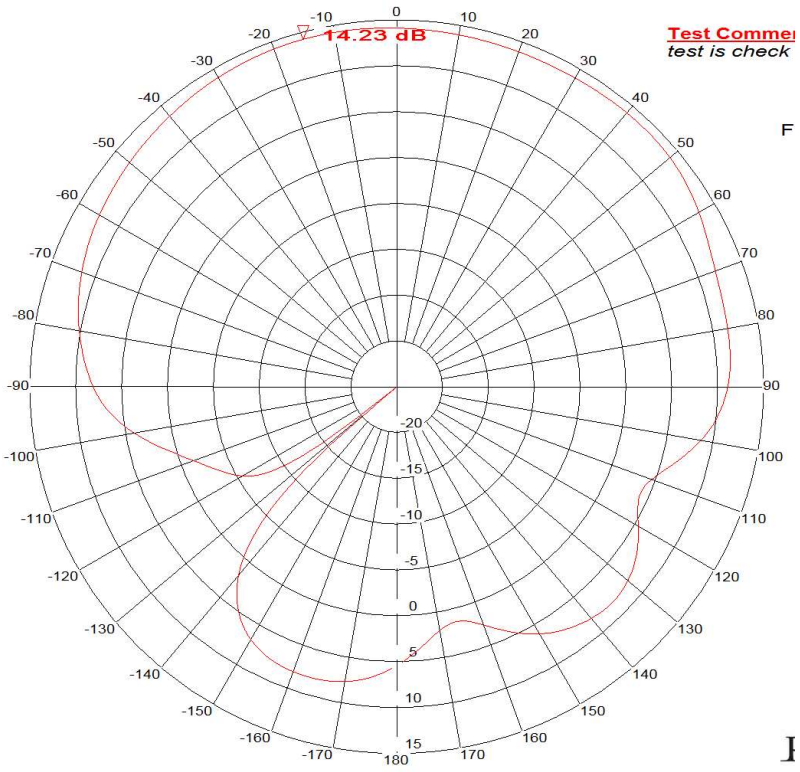



Figure 3: Typical elevation pattern in free space (RHCP)