





PAGE 1/3 ISSUE **251114A SERIES** PART NUMBER **R380.300.013 ANTENNA** [13] TEXTURE 27 TO 30 ON ALL EXTERNAL SURFACES Ø,512 <u>TEXTURE:</u> CHARMILLE 27-30 [44,5] 1,75 **NO MARKING OPPOSITE SIDE** [2,45] [17,5],1 ,69 Reference plane [3,75][1] ,039[5,69] [0,81] ,224 ,032 **DIMENSIONS:** [.XX] = mm .xxx = INCHES [15,1 MAX] Ø,59 MAX All dimensions are in [mm] / inches





13dBi GPS L1 ANTENNA, 3.3V

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## **ELECTRICAL CHARACTERISTICS**

Frequency : GPS L1 (1575.42) MHz Nominal Impedance : 50  $\Omega$  VSWR : 2.0:1 Typ 2.5:1 Max

Gain:

Polarization : RHCP
Radiation Pattern: Hemi-spherical
3 dB Beamwidth (both planes) : 120° x 120°

P1 dB compression : -14 dBm Noise Figure (LNA alone): 1.5 dB max Supply Voltage: 3.3 V typ. V min 3.0 3.5 V max Current consumption: 8 mA typ

Connector type : Male SMA

## **MECHANICAL CHARACTERISTICS**

## **ENVIRONMENTAL CHARACTERISTICS**

typ

Plastic radome : PEI -32/+55 ° C
Color : BLACK Operating temperature : IAW MIL-STD-810G meth 501.5 & 502.5, proc II

Texture : Charmille 30

Weight: 30 g Storage temperature: IAW MIL-STD-810G meth 501.5 & 502.5, proc I

Overall length: <1.77 in

3 cycles -40/+70°C

<45 mm Temperature Shocks IAW MIL-STD-810G

Max Diameter 0.59 in

**15.1** mm Altitude : 40,000 ft

IAW MIL-STD-810G

RoHS Compliant: Yes meth 500.5, proc I

Humidity: Induced Hot Humid

IAW MIL-STD-810G meth 507.5, proc II

Immersion (mated to radio) 20m, for 2h

IAW MIL-STD-810G meth 512.5, proc I

meth 503.5, proc I

Salt Fog: 96h

(4x24h alterning wet & dry)

IAW MIL-STD-810G

meth 509.5

Solar Radiation: 10 cycles, 20/4h sun/dark
IAW MIL-STD-810G

meth 505.5, proc II

Transit Shocks: 26 drops from 1.2m high

IAW MIL-STD-810G meth 516.6, proc IV

Fluid Contamination Table 504.1-II

MIL-STD-810G Meth 504.1, proc II





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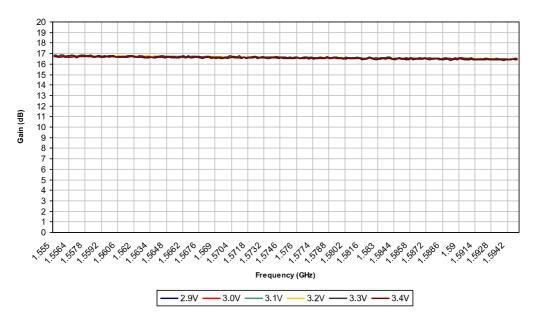


Figure 1: LNA Gain vs DC input voltage

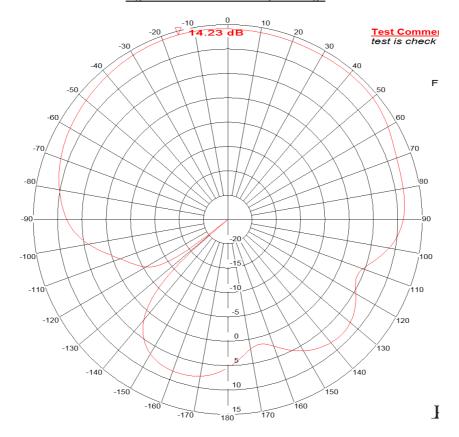


Figure 3: Typical elevation pattern in free space (RHCP)