



Antenna_GPS_SMA_3M

User Guide For GV300 Devices

ACCEAAG300UG001



| | |
|----------------------------|-------------------------------|
| Document Title | Antenna_GPS_SMA_3M User Guide |
| Version | 1.00 |
| Date | 2012-06-15 |
| Status | Release |
| Document Control ID | ACCEAAG300UG001 |

Contents

| | |
|-----------------------------------|---|
| Contents | 2 |
| 0. Revision history | 3 |
| 1. General Description | 4 |
| 2. General Specification | 5 |
| 2.1. Appearance | 5 |
| 2.2. Operating Condition | 5 |
| 2.3. Storage Condition | 5 |
| 3. Electrical Specification | 6 |
| 3.1. Patch | 6 |
| 3.2. Filter / LNA | 6 |
| 4. Dimensions | 7 |

0. Revision history

| Revision | Date | Author | Description of change |
|----------|------------|--------|-----------------------|
| 1.00 | 2012-06-15 | Cid Xu | Initial |
| | | | |
| | | | |

1. General Description

Antenna_GPS_SMA_3M is a GPS Active Antenna with SMA type RF connector. The cable length is 3m.

2. General Specification

2.1. Appearance

Antenna Unit (with radome, connector, and cable – refer to an attached drawing)

| | | | |
|------------|--------------------|-----------|----------|
| Dimensions | 37.5*34.5*12.5mm ; | Radome | #D |
| Weight | 62±5g(typ); | Connector | SMA PLUG |
| Cable | RG-174 3m | | |

2.2. Operating Condition

| | |
|-------------|--------------|
| Temperature | -40 to +90°C |
| Humidity | 10 to 95% RH |

2.3. Storage Condition

| | |
|-------------|--------------|
| Temperature | -40 to +90°C |
| Humidity | 10 to 95% RH |

3. Electrical Specification

* All value are defined at $25 \pm 15^{\circ}\text{C}$, $65 \pm 20\% \text{RH}$, power handling 1 u watt, air pressure $960 \pm 100 \text{ HPA}$ unless otherwise notes.

* Patch characteristics are measured with 70x70 mm ground plane in an anechoic chamber.

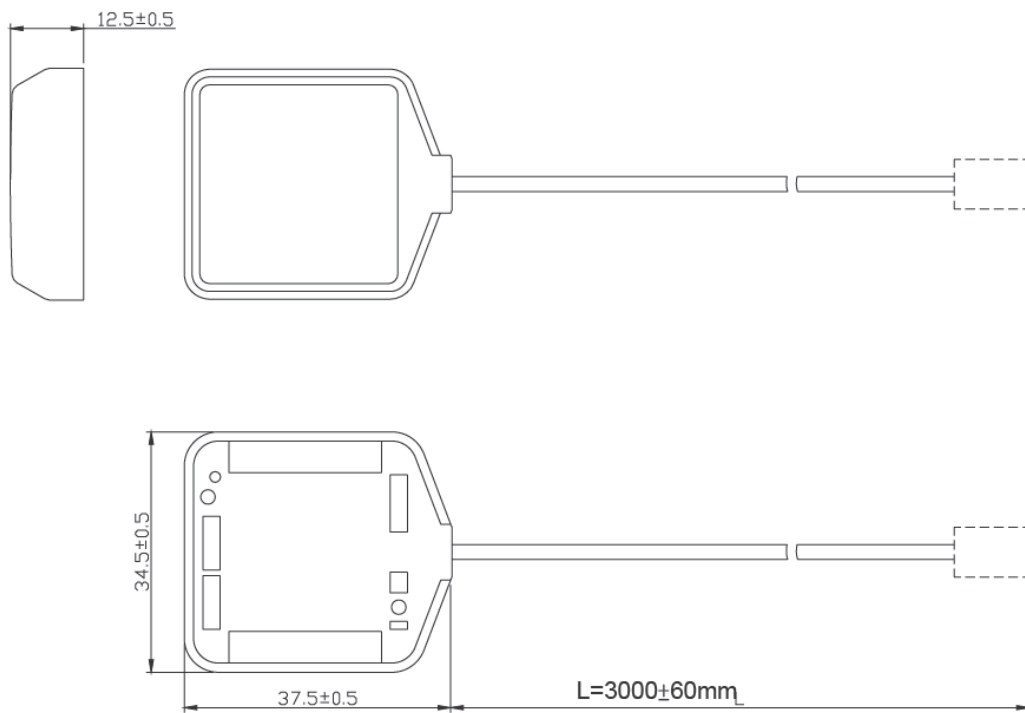
3.1. Patch

| Characteristics | Specification |
|--------------------------------|---|
| Center Frequency | 1575.42 MHz (when covered with a radome and measured by 70*70mm ground plane) |
| Bandwidth(10dB return loss) | 10 MHz min |
| Gain at Zenith | 5.0 dBic typ |
| Gain at 10° elevation | - 1.0 dBic min |
| Polarization | R.H.C.P |
| Axial Ratio | 3.0 dB typ |

3.2. Filter / LNA

| Characteristics | Specification |
|-----------------------------|--|
| Center Frequency | 1575.42 MHz |
| Gain | $27 \pm 3 \text{ dB}$ |
| Noise Figure | 1.5 dB typ |
| Filter Out band attenuation | 7dB TYP $f_o \pm 20\text{MHz}$ 20dB TYP $f_o \pm 50\text{MHz}$ 30dB TYP $f_o \pm 100\text{MHz}$ ($f_o=1575.42\text{MHz}$) |
| Output V.S.W.R | 2.0 max |
| Voltage (3.3V) | DC = $3.3 \pm 0.6\text{V}$ |
| Current (3.3V) | 12mA TYP 15mA max |

4. Dimensions



Connector Appearance: SMA PLUG

