

## GA-106C – 15x15x6.6 mm<sup>3</sup>

RoHS  
Compliant



### GNSS Active Antenna Module

#### Overview

GA-106C is a compact, low power, variable bias voltage, high performance GNSS active antenna module. It measures just 15(L) x 15 (W) x 6.6 (H) mm<sup>3</sup>. Bias voltage range is 2.7V~3.3V. It is a good companion to GNSS engine boards.

#### Applications

- Handheld devices
- Automatic vehicle location
- Fleet management
- Electronic-mapping application
- Security system

#### Features

- Compact
- Low power consumption
- Variable bias voltages
- High gain, low noise

#### Technical Specifications

|                   |                       |
|-------------------|-----------------------|
| Working Voltage   | 2.7V~3.3V             |
| Power Consumption | Typ. 3mA@3V, max. 5mA |

#### Antenna Performance Data

##### Ceramic Patch

|                     |   |
|---------------------|---|
| Size                | 15mm*15mm*4mm                                 |
| Operating Frequency | GPS: 1575.42±1.023 MHz<br>GLONASS: 1602±5 MHz |
| Center Frequency    | 1593 ± 3 MHz                                  |
| Bandwidth           | 18MHz min.<br>Return Loss @ -10dB             |
| VSWR                | 1.5 max, Center Frequency                     |

|                  |  |
|------------------|--|
| Gain at Zenith   | GPS: -5.5 dBi typ.<br>GLONASS: -2.0 dBi typ. |
| Impedance        | 50 ohm                                       |
| Test Ground Size | 54.1mm*54.08mm                               |
| Polarization     | R.H.C.P.                                     |

#### LNA/Filter

|                     |   |
|---------------------|---|
| Operating Frequency | 1561.098±2.046 MHz<br>1575.42±1.023 MHz<br>1602±5 MHz |
| Gain                | 15 dB Typ.  |
| Noise Figure        | 2.6 Typ.  |
| Output VSWR         | 2.0 Max   |

#### Environmental Data

|                       |               |
|-----------------------|---------------|
| Operating Temperature | -40°C ~ +85°C |
| Storage Temperature   | -40°C ~ +90°C |
| Relative Humidity     | 40% ~ 95%     |

#### RF Customization

|                  |  |
|------------------|--|
| RF Coaxial Cable | Length customizable, e.g. 30mm, 16mm, 231mm etc. |
| RF Connector     | E.g. I-PEX (MHF1), Mini-I-PEX (MHF4)             |

#### Mechanical Data

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