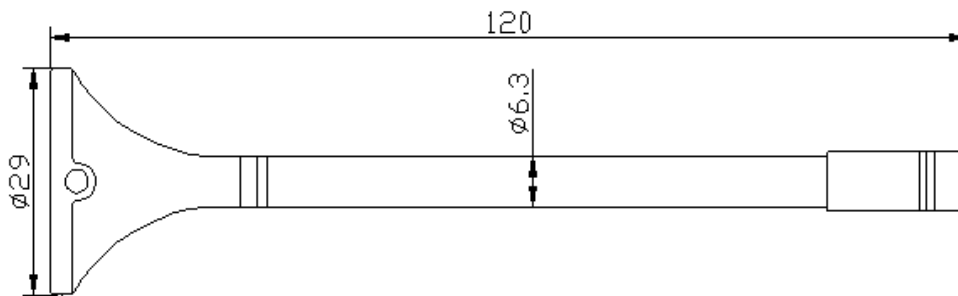


# GSM Antenna

## Part Number: VTGMSA-4



### 1 Dimension (Unit: mm)



### 2 Electrical Characteristics

#### 3.1 Dielectric Antenna

Form 1

| No. | Item             | Specifications           | Post Environmental Tolerance |
|-----|------------------|--------------------------|------------------------------|
| 1   | Frequency (MHz)  | 870~960MHz/1710~1990 MHz | ±3 MHz                       |
| 2   | V.S.W.R (in BW ) | ≤1.6 : 1                 | —                            |
| 3   | Gain (Zenith)    | 2dB                      | ±0.5 dB                      |
| 4   | Polarization     | Vertical                 | —                            |
| 5   | Impedance        | 50 Ω                     | —                            |

#### 3.2 Mechanical

Form 2

| No. | Item  | Specification          |
|-----|-------|------------------------|
| 1   | Cable | RG 174 3m/5m or others |

|   |                 |                    |
|---|-----------------|--------------------|
| 2 | Connector       | SMA/MMCX or others |
| 3 | Plastic Housing | Black              |
| 4 | Size            | Φ29×120mm          |

#### 4 Reliability

Condition: Temperature: 40±5℃

Load: DC=5V±0.5 V

Quantity: 2000pcs

Sustained Time: 480h

#### 5 Environmental Specifications

Condition:

Post Environmental Tolerance (Refer to the table 1 or 2 )

Temperature range 25±3℃

Relative Humidity range 55~75%RH

Operating Temperature range -40℃~+85℃

Storage Temperature range -40℃~+100℃

##### 5.1 Moisture Proof

The device should satisfy the electrical characteristics specified in paragraph 3.1~3.2 after exposed to the temperature 40±2℃ and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

##### 5.2 Vibration Resist

The device should satisfy the electrical characteristics specified in paragraph 3.1~3.2 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

##### 5.3 Drop Shock

The device should satisfy the electrical characteristics specified in paragraph 3.1~3.2 after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

##### 5.4 High Temperature Endurance

The device should satisfy the electrical characteristics specified in paragraph 3.1~3.2 after exposed to temperature 80±5℃ for 24±2 hours and 1~2 hours recovery time under normal temperature.

##### 5.5 Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in paragraph 3.1~3.2 after exposed to the temperature -40℃±5℃ for 24±2 hours and to 2 hours recovery time under normal temperature.

##### 5.6 Temperature Cycle Test

The device should also satisfy the electrical characteristics specified in paragraph 3.1~3.2 after exposed to the low temperature -25℃ and high temperature +85℃ for 30±2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.