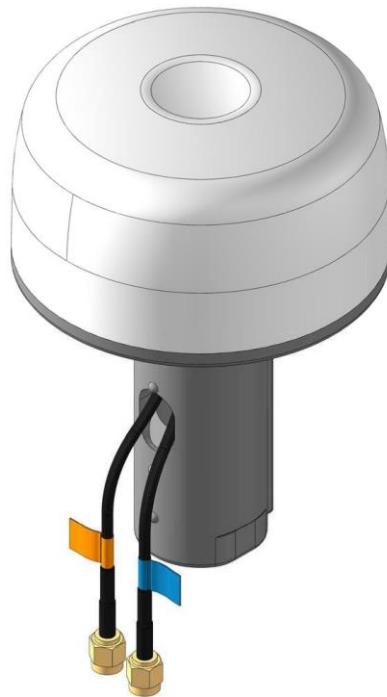


## GPS & 3G External Antennas

Product Number : ATG3G-94133-2.0WP

### 1. Picture

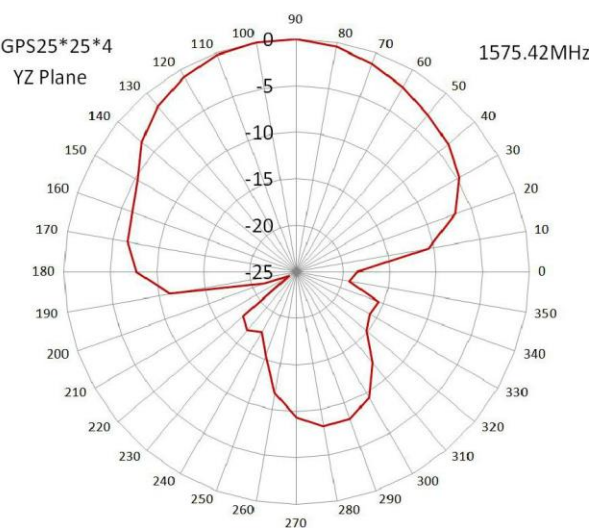
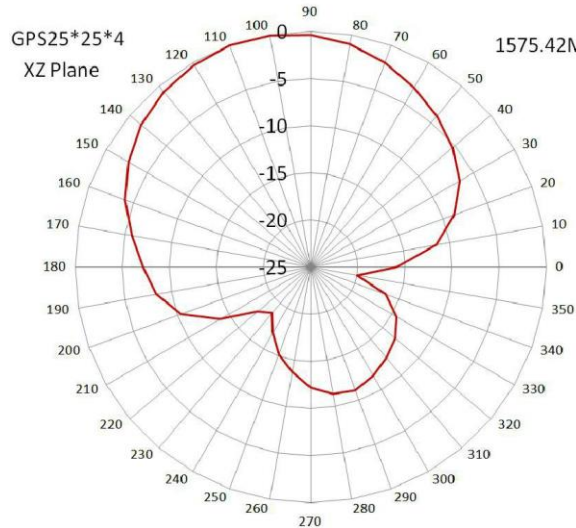
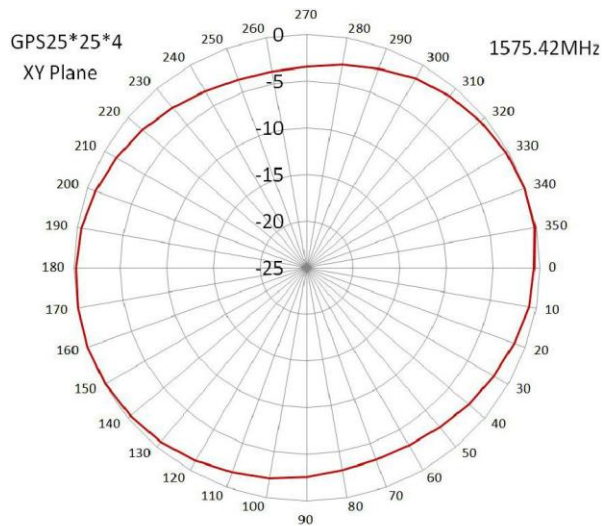


## 2. Electrical Characteristics

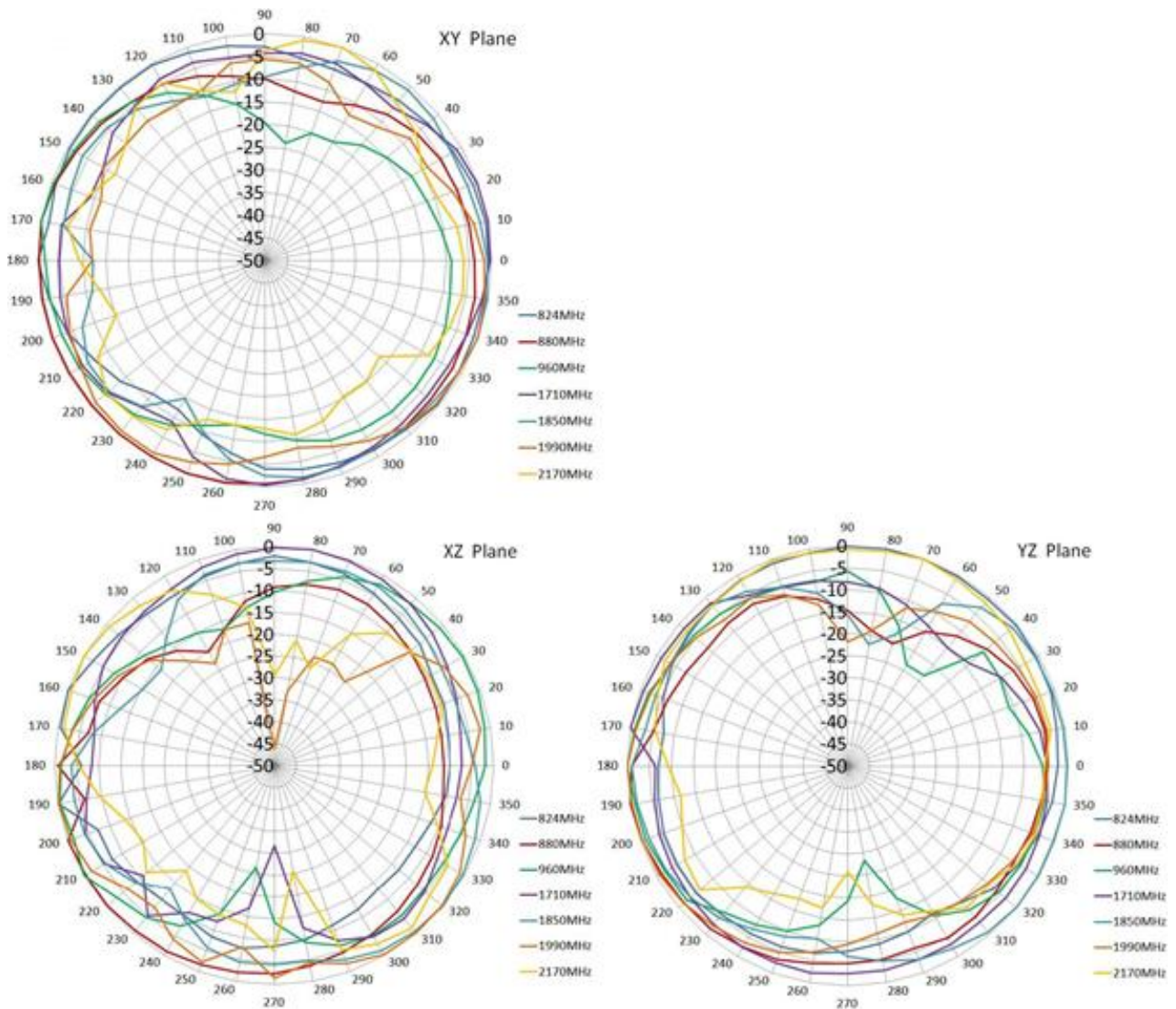
Item		Specifications	
GPS Antenna	Dielectric Antenna	Center Frequency	1575.42±3MHz
		Band Width	CF±5MHz
		Polarization	RHCP
		Gain	2dBic (Zenith)
		V.S.W.R	<1.5
		Impedance	50Ω
	LNA	Axial Ratio	3dB (max)
		Gain	28±2dB
		Noise Figure	<1.5dB
		V.S.W.R	<2.0
3G/GSM Antenna	Supply Voltage	2.2~5V DC	
	Current Consumption	<15mA	
	Frequency Range	824~960MHz/1710~2170MHz	
	V.S.W.R	<2.0	
	Polarization	Linear	
Mechanical	Gain	2dBi	
	Impedance	50Ω	
	Cable	RG174	
	Connector	SMA/MCX/FAKRA or others	
	Radome Material	ABS	
Environmental	Mounting Method	Screw	
	Operating Temperature	-40℃~+85℃	
	Relative Humidity	Up to 95%	
	Ingress Protection	IP67 (exclude cable outlet)	
	Vibration	10 to 55Hz with 1.5mm amplitude 2hours	
	Environmentally Friendly	ROHS Compliant	

## 3. Radiation Pattern

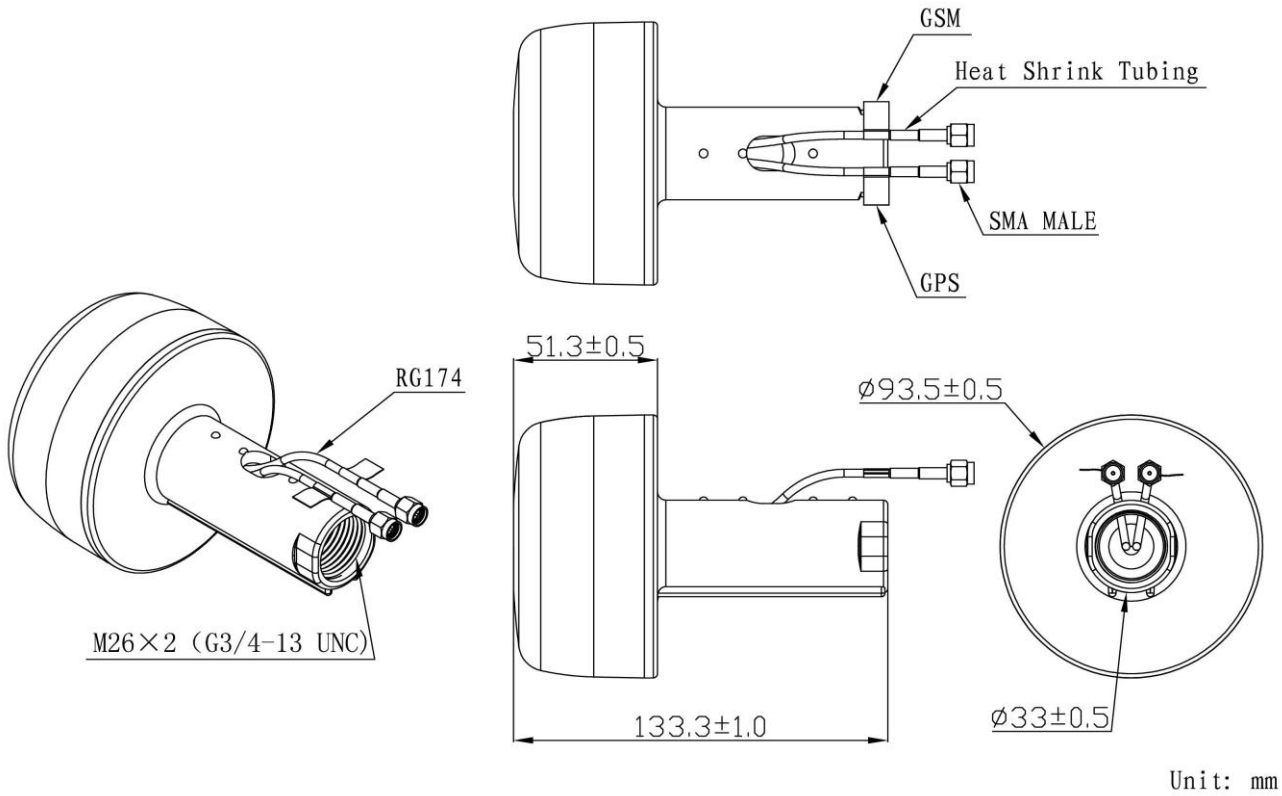
### GPS Antenna



## 3G/GSM Antenna



## 4. Drawing



## 5. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

## 6. Note

**6.1 This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.**

**6.2 The product will get free warranty for one year since the date of purchase users operate in the correct way; users will have to pay cost of the materials and maintaining fee out of the condition.**

**6.3 Electrostatic sensitive device.Observe precautions for handling.**