GPS & 3G External Antennas

Product Number : ATG3G-68055-2.0BP

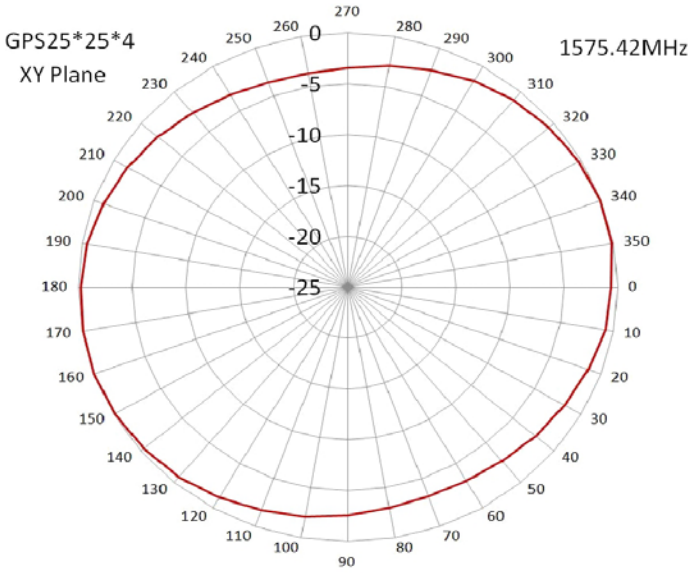
1. Picture

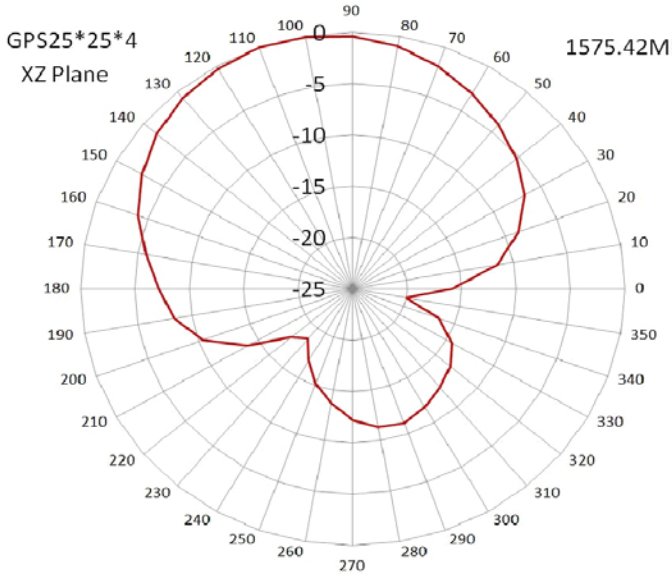
2. Electrical Characteristics

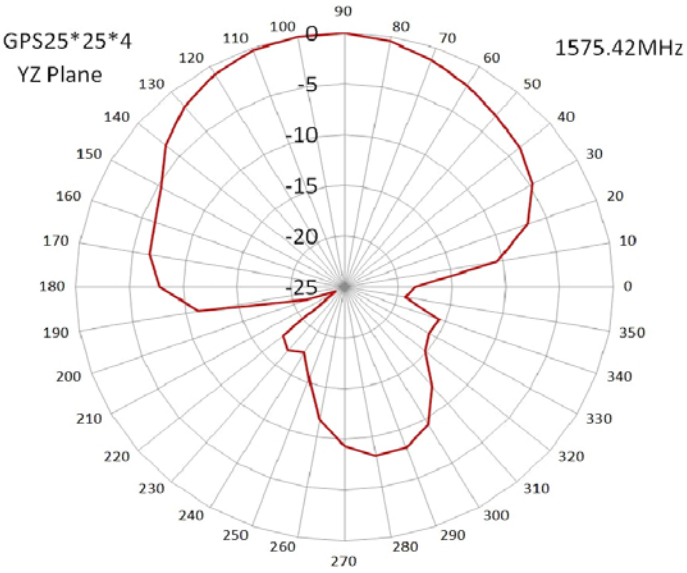
Item			Specifications
GPS Antenna	Dielectric Antenna	Center Frequency	1575.42±1MHz
		Band Width	CF±5MHz
		Polarization	RHCP
		Gain	2dBic（Zenith）
		V.S.W.R	＜1.5
		Impedance	50Ω
		Axial Ratio	3dB（max）
	LNA	Gain	28±2dB
		Noise Figure	＜1.5
		Ex-band Attenuation	12dB@CF+50MHz/16dB@CF-50MHz
		V.S.W.R	＜2.0
		Supply Voltage	2.2~5V DC
		Current Consumption	5~15mA
3G/GSM Antenna		Frequency Range	824~960MHz/1710~2170MHz
		V.S.W.R	＜2.0
		Polarization	Linear
		Gain	2.0dBi
		Impedance	50Ω
Mechanical		Cable	RG174
		Connector	SMA/MCX/FAKRA or others
		Material	Radome:ABS/Base:Cast Aluminum
		Mounting Method	Screw
Environmental		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

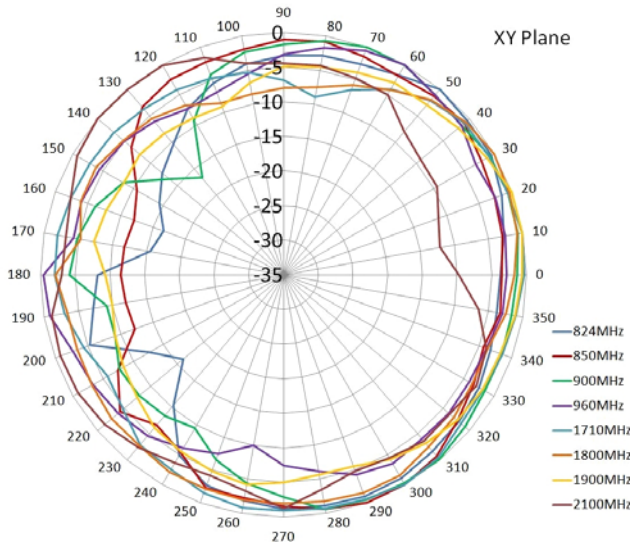
GPS Antenna

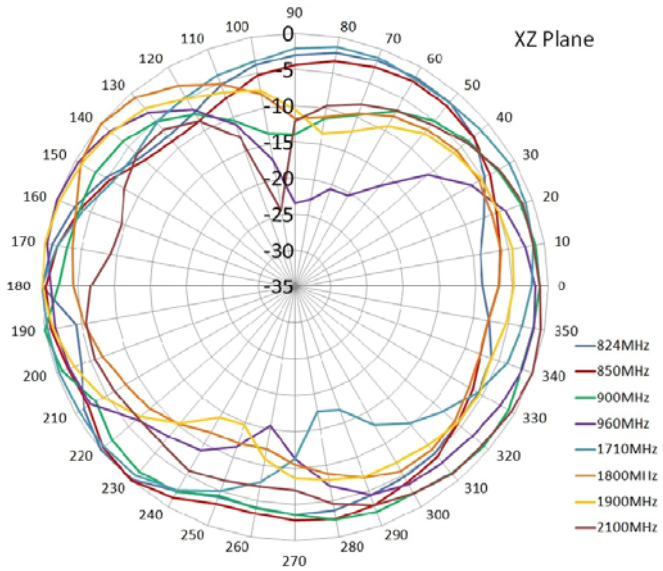


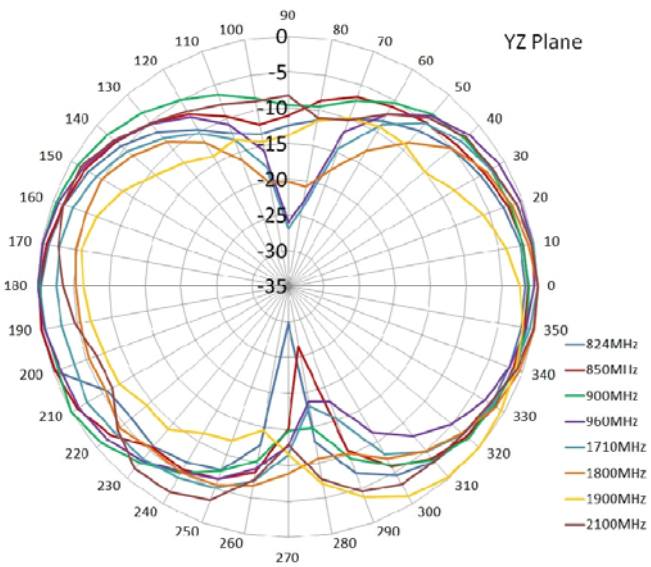




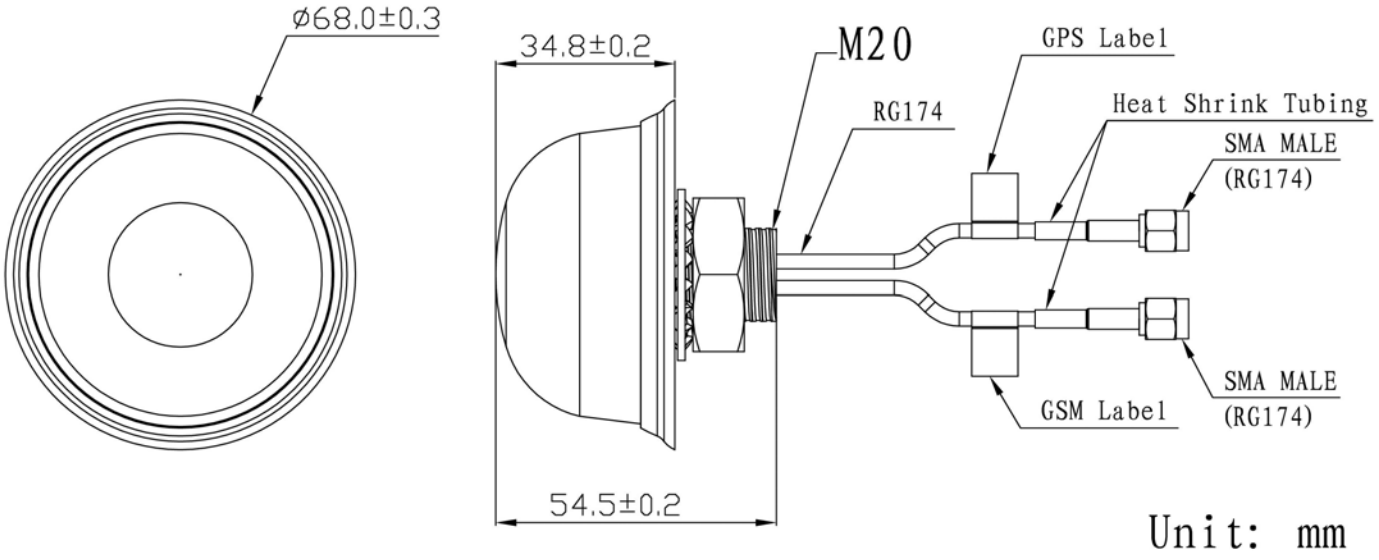
3G/GSM Antenna







4. Drawing


ø68.0±0.3
34.8±0.2
M20
RG174
GPS Label
Heat Shrink Tubing
SMA MALE
(RG174)
SMA MALE
(RG174)
GSM Label
54.5±0.2
Unit: mm

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.