

1. Specification

Sample Photo



Manufacturer: Tengxiang Technology.Inc

Model : AT-1

A. Electrical Characteristics

Frequency	2400~2500 MHz, 5150-5850MHz
S.W.R.	<= 2.0
Antenna Gain	2400~2500 MHz(2.0dBi Max), 5150-5850MHz(2.0dBi Max)
Polarization	Linear
Impedance	50 Ohm

B. Material & Mechanical Characteristics

Material of Radiator	CS
Material of Plastic	Body1: TPE Body2: ABS Body3: PC+PBT
Cable Type	OD1. 13mm , Gray

C. Environmental

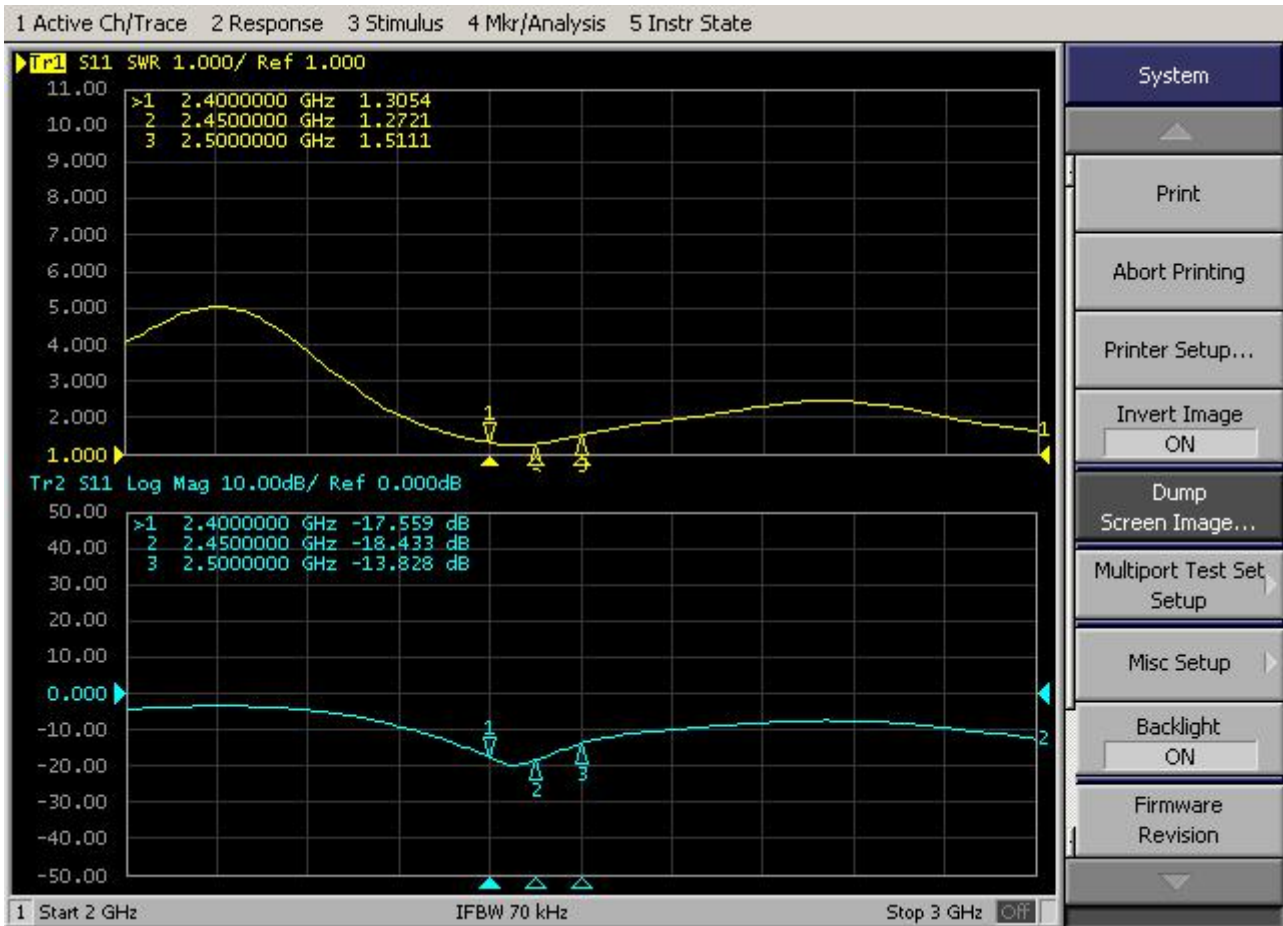
Operation Temperature	- 25 °C ~ + 65 °C
Storage Temperature	- 25 °C ~ + 65 °C



2. 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: 24 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: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 25°C (30 minutes) to + 65°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: 24 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 2015/95/EC

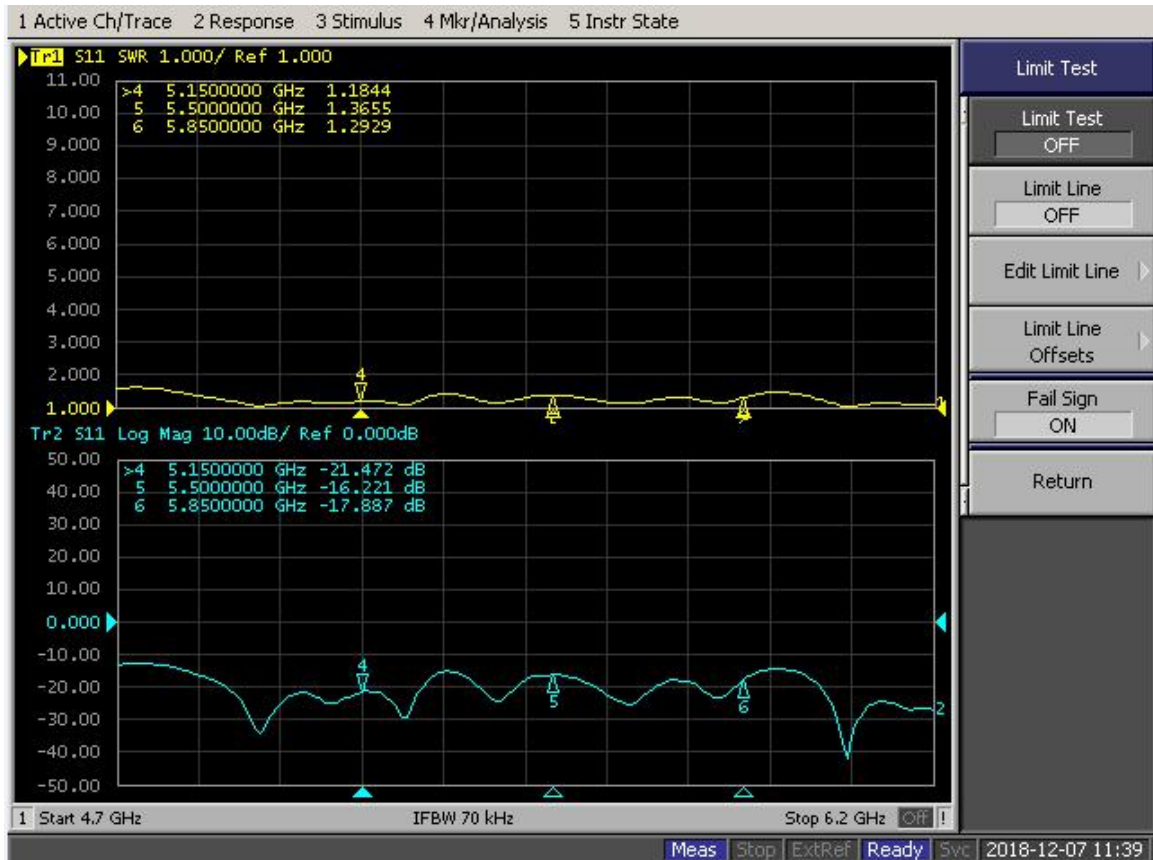
3. 2.4G Antenna - S Parameter Test Data



4. 2.4G Antenna - Radiation Pattern Test Data

Frequency (MHz)	2400.0	2450.0	2500.0
Efficiency (%)	63.60	68.00	64.80
Gain (dBi)	1.5	2.0	1.6

5. 5G Antenna - S Parameter Test Data

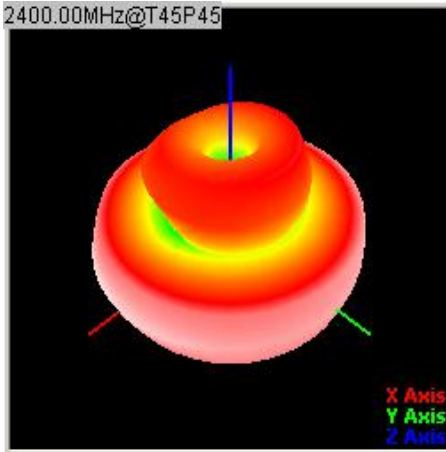


6. 5G Antenna - Radiation Pattern Test Data

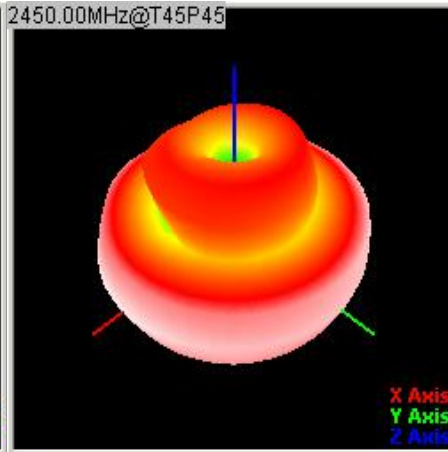
Frequency (MHz)	5150	5500	5850
Efficiency (%)	57.1	66.8	61.1
Gain (dBi)	1.7	2.0	1.5

2.4GHz Antenna

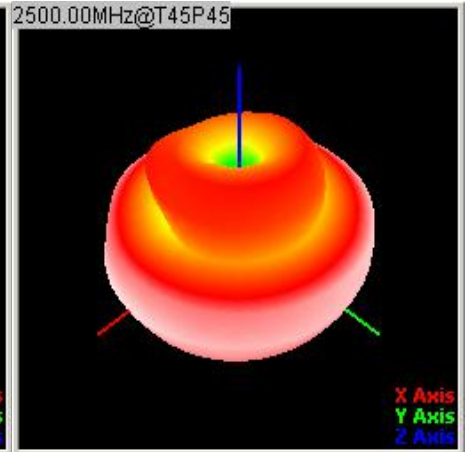
2400MHz



2450MHz

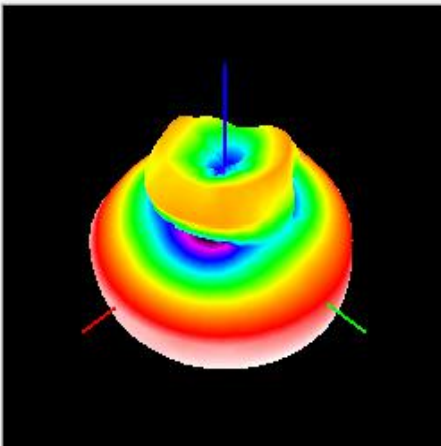


2500MHz

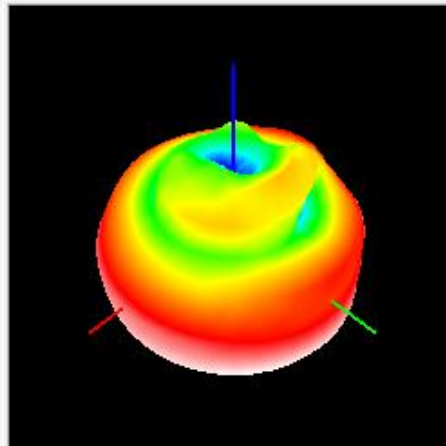


5GHz Antenna

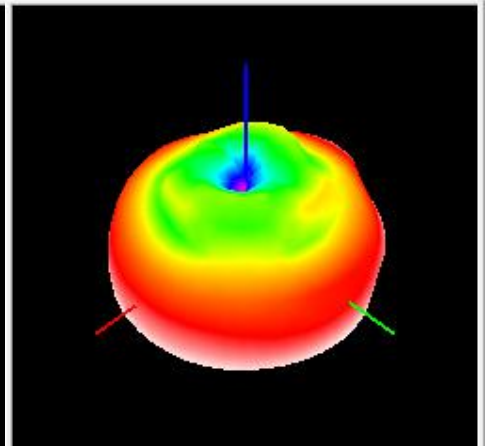
5150MHz



5500MHz

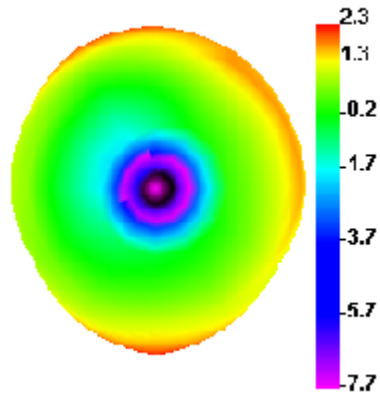


5850MHz

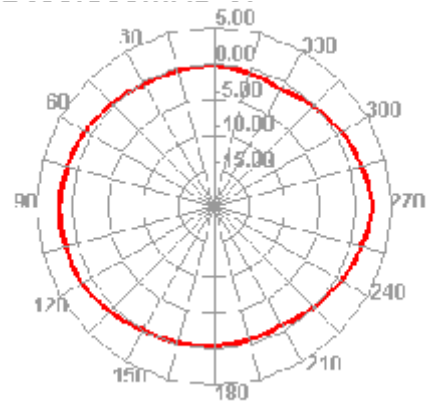


Note: Only the worst-case frequency data graphs are displayed

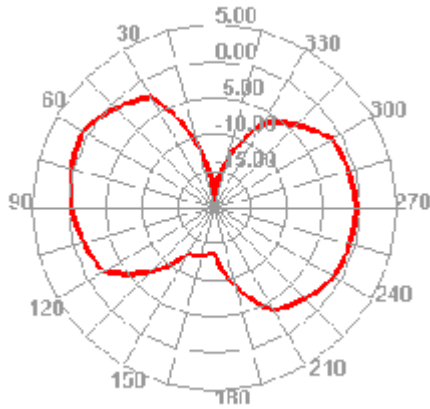
2450MHz



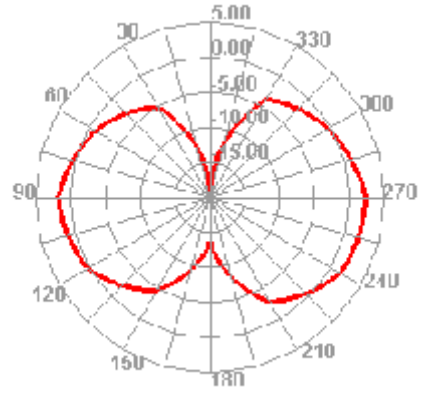
2450MHz H



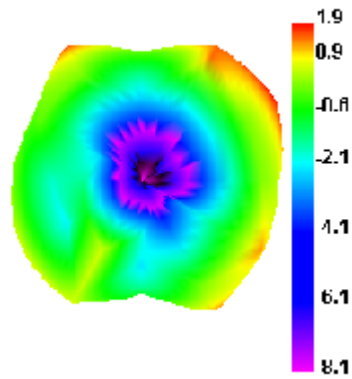
2450MHz E1



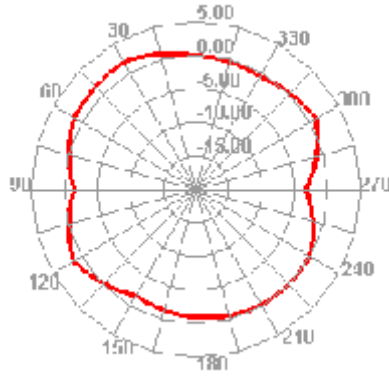
2450MHz E2



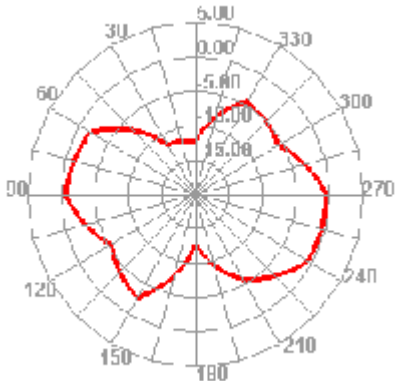
5500MHz



5500MHz H



5500MHz E1



5500MHz E2

