2.4GHz / 5.8GHz External Antennas

Product Number: AT2458G-10087-2.0BT

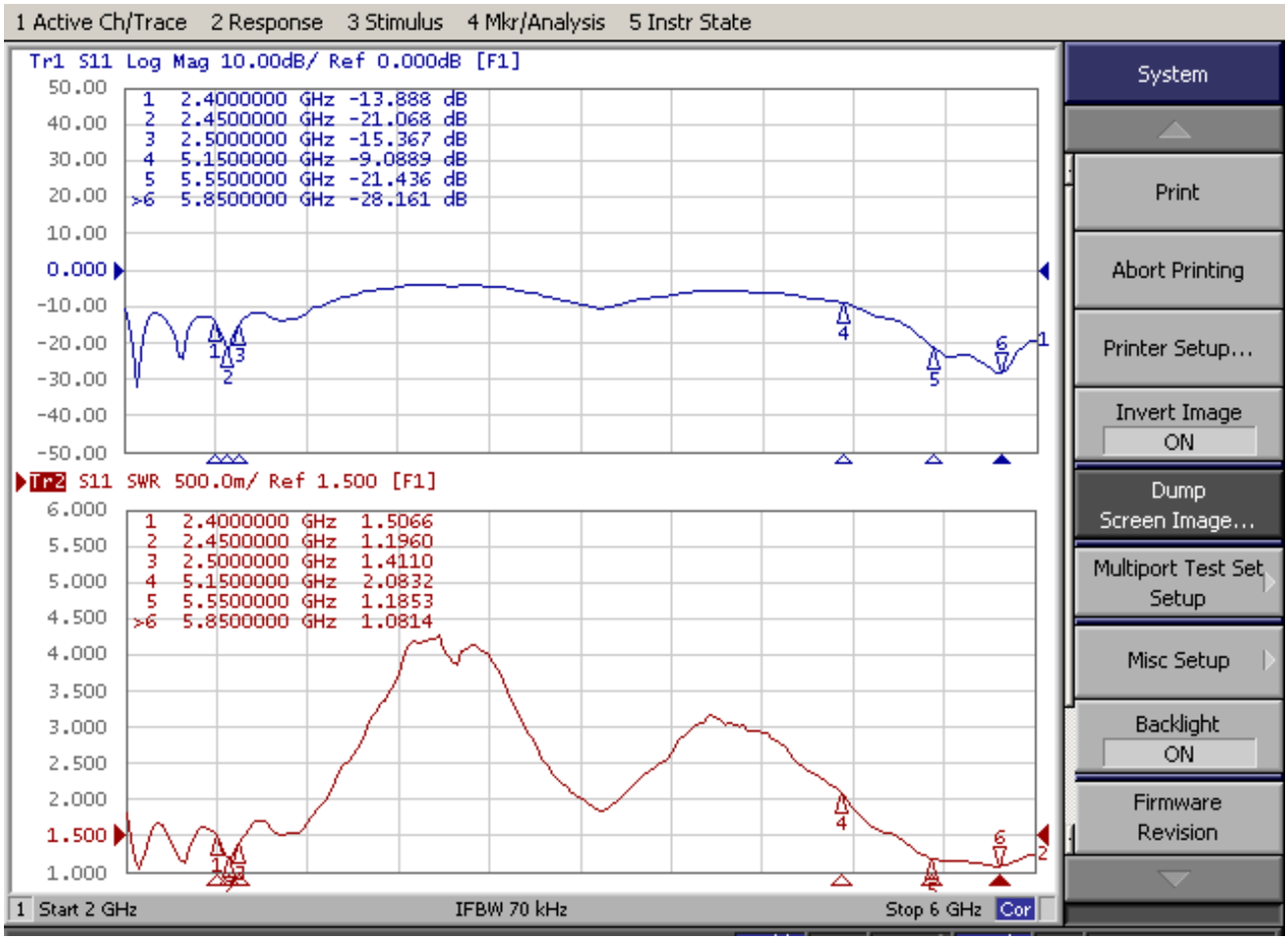
1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400-2500MHz 5150MHz-5800MHz
V.S.W.R.	<= 2.0 @ 2400 ~ 2500 MHz <= 2.5 @ 5150 ~ 5850 MHz The data is tested with 1M cable
Antenna Gain	2.0 dBi @ 2400 ~ 2500 MHz 3.5 dBi @ 5150 ~ 5850 MHz
Radiation Pattern	Omni-Directional
Max Input Power	>= 2 W
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	TPEE / ABS /POM
Cable Type	RG-178U
Connector Type	SMA Male Reverse
C. Environmental	
Operation Temperature	- 25 ˚C ~ + 70 ˚C
Storage Temperature	- 40 ˚C ~ + 85 ˚C
Waterproof	IP66
Antenna Color Storage life	< 2 year

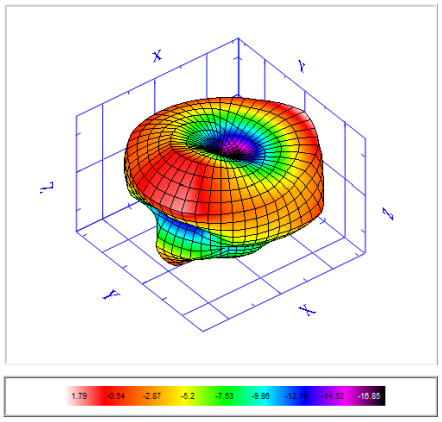
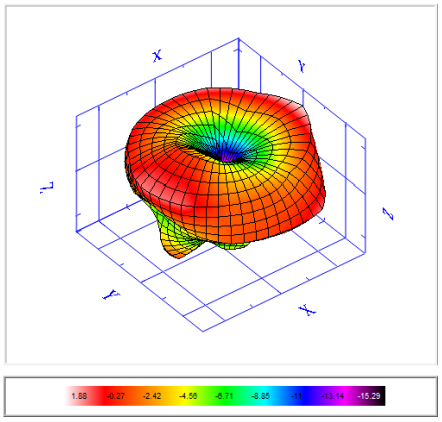
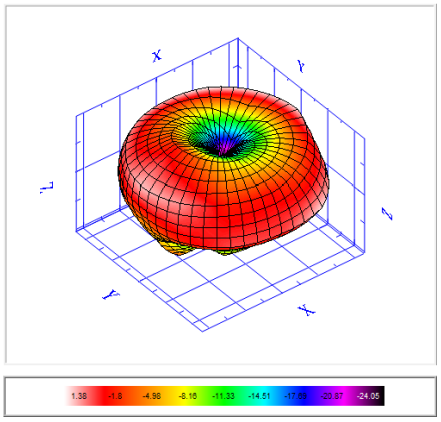
2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	V.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

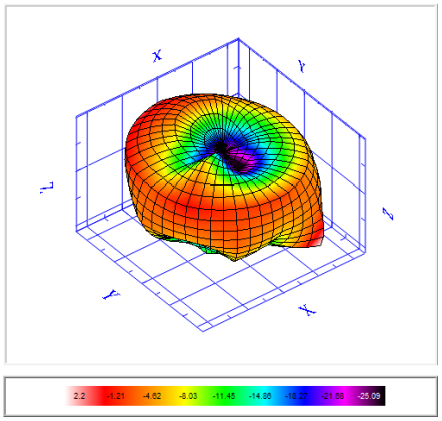
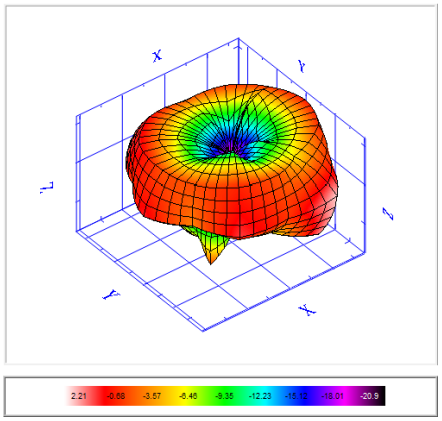
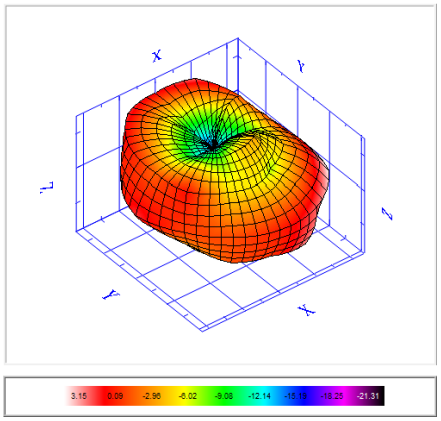
3. Antenna - S Parameter Test Data



4. Antenna - Radiation Pattern Test Data

2400 MHz	2450 MHz	2500 MHz
		

Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
E-Total Peak Gain (dBi)	1.79	1.78	1.91	1.95	1.89	1.88	1.81	1.76	1.56	1.57	1.38
Efficiency (%)	61.25	62.75	61.64	61.55	61.93	58.93	59.67	59.37	59.53	60.85	58.45
Average Gain (dB)	-2.13	-2.02	-2.1	-2.11	-2.08	-2.3	-2.24	-2.26	-2.25	-2.16	-2.33

5150 MHz	5500 MHz	5850 MHz
		

Frequency	5150	5200	5400	5550	5600	5800	5850
E-Total Peak Gain (dBi)	2.2	3.56	2.75	2.21	1.23	1.45	3.15
Efficiency (%)	51.26	55.4	53.88	51.35	44.08	48.69	59.38
Average Gain (dB)	-2.9	-2.56	-2.69	-2.89	-3.56	-3.13	-2.26

5. Mechanical Drawing