5.8GHz External Antenna

Product Number: AT5.8G-13295-7.0WT

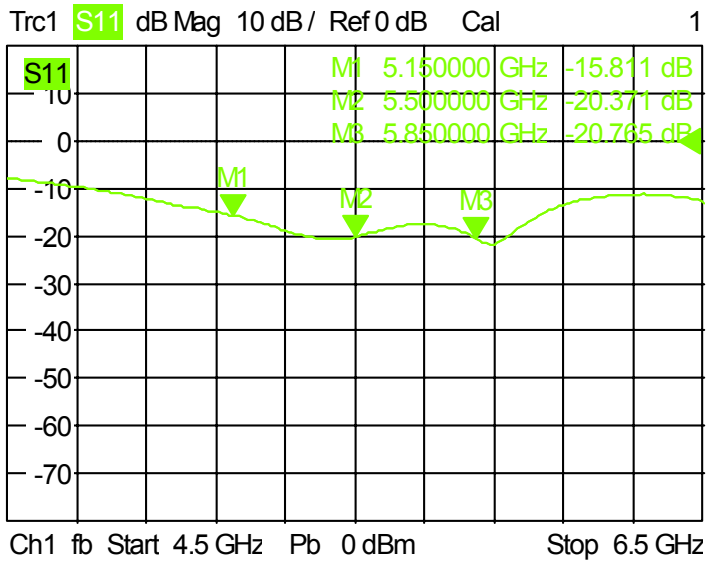
1. Specification

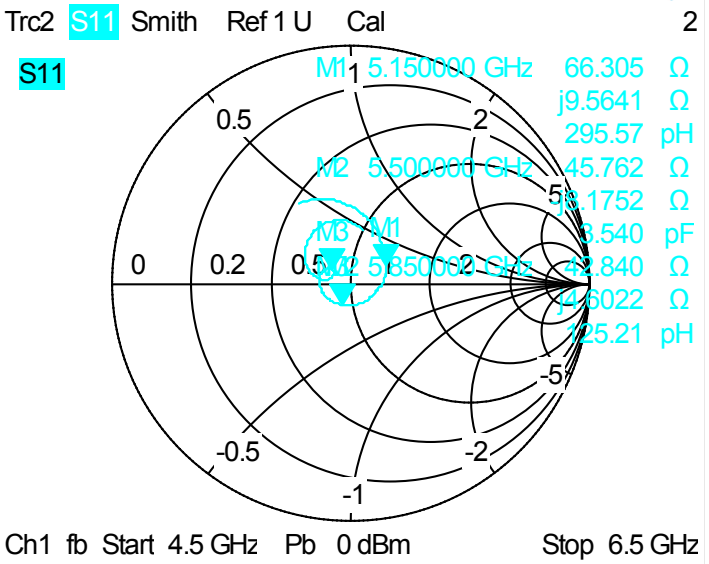
Sample Photo	
	
A. Electrical Characteristics	
Frequency	5150~ 5850 MHz
S.W.R.	<= 2.0
Antenna Gain	7 dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	Body: TPEE
Cable Type	RG-178
Connector Type	SMA Male Reverse
Connector Pull Test	>= 3 Kg
Connector Torque Test	520~1400 g.cm
C. Environmental	
Operation Temperature	- 40 ˚C ~ + 85 ˚C
Storage Temperature	- 40 ˚C ~ + 85 ˚C

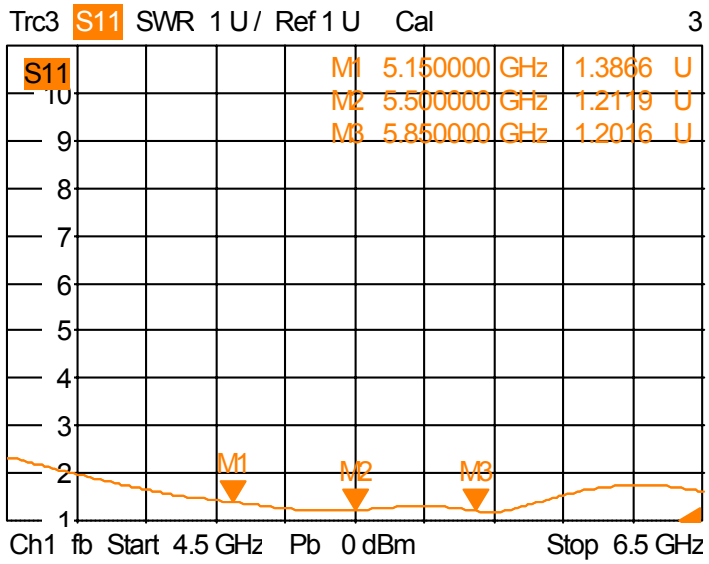
2. Characteristics and Reliability Test

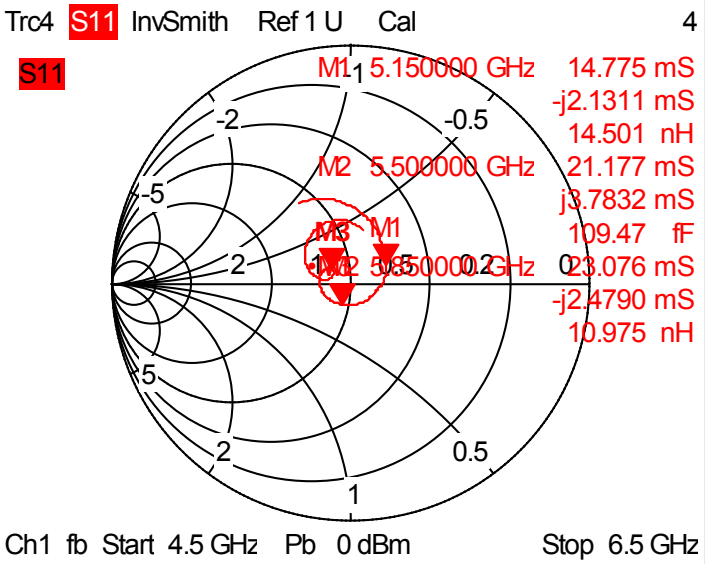
Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 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: 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 Dat









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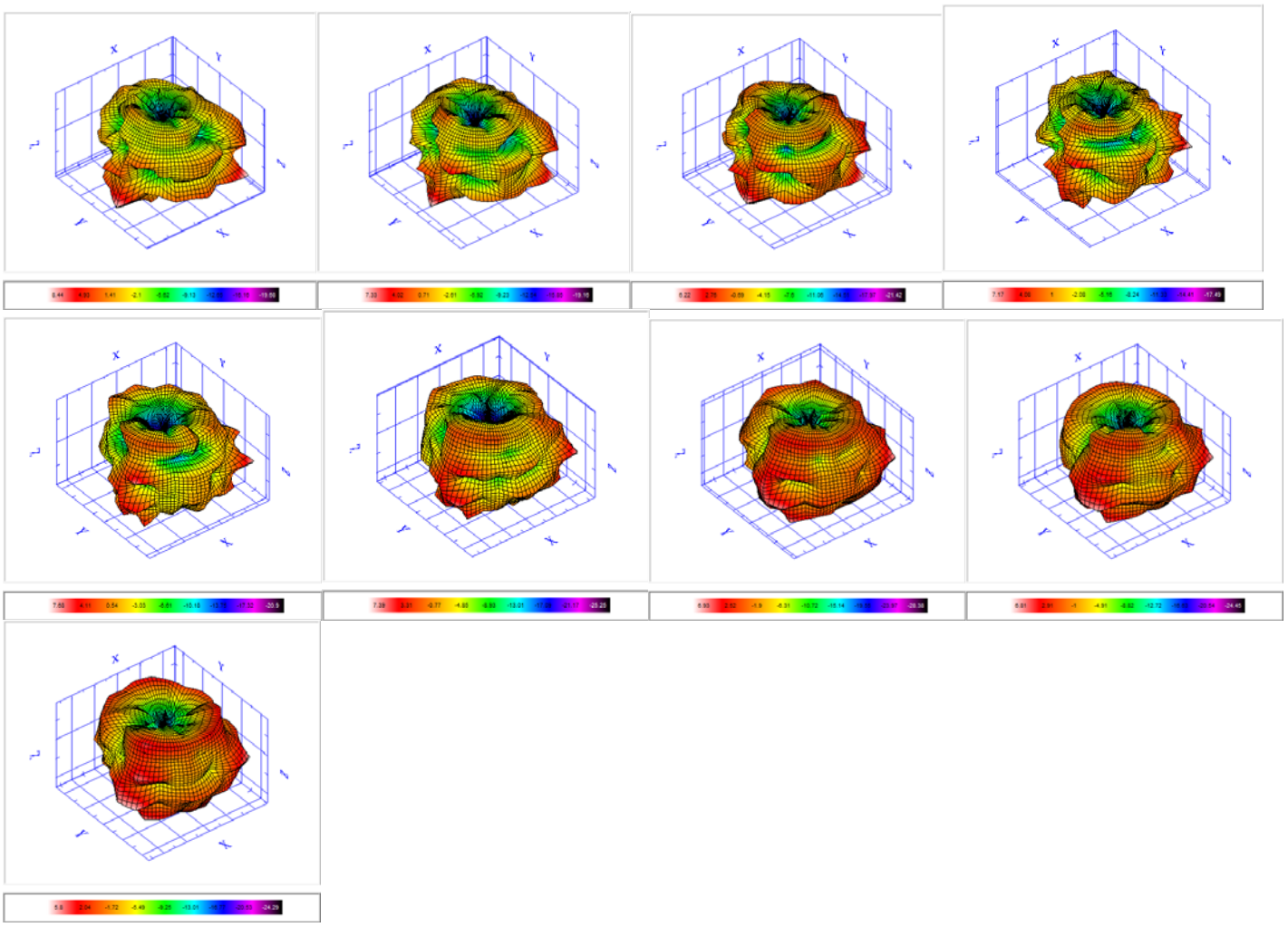
4. Antenna - Radiation Pattern Test Data

Frequency	5150	5250	5350	5470	5600	5725	5785	5800	5850
TRP (dBm)	-0.94	-0.62	-0.77	-0.74	-0.53	-0.68	-0.89	-0.64	-0.54
Peak EIRP (dBm)	5.8	6.81	6.93	7.39	7.68	7.17	6.22	7.33	8.44
E-Theta Peak Gain (dBi)	-6.44	-6.85	-6.79	-10.01	-6.51	-4.08	-7.04	-6.12	-6.64
E-Phi Peak Gain (dBi)	5.73	6.77	6.93	7.37	7.68	7.16	6.19	7.32	8.38
E-Total Peak Gain (dBi)	5.8	6.81	6.93	7.39	7.68	7.17	6.22	7.33	8.44
Directivity (dBi)	6.74	7.43	7.7	8.13	8.21	7.84	7.11	7.96	8.98
Efficiency (%)	80.51	86.79	83.8	84.27	88.56	85.59	81.47	86.38	88.26



5. Mechanical Drawing