



AGP-I072702SM



1. Specification

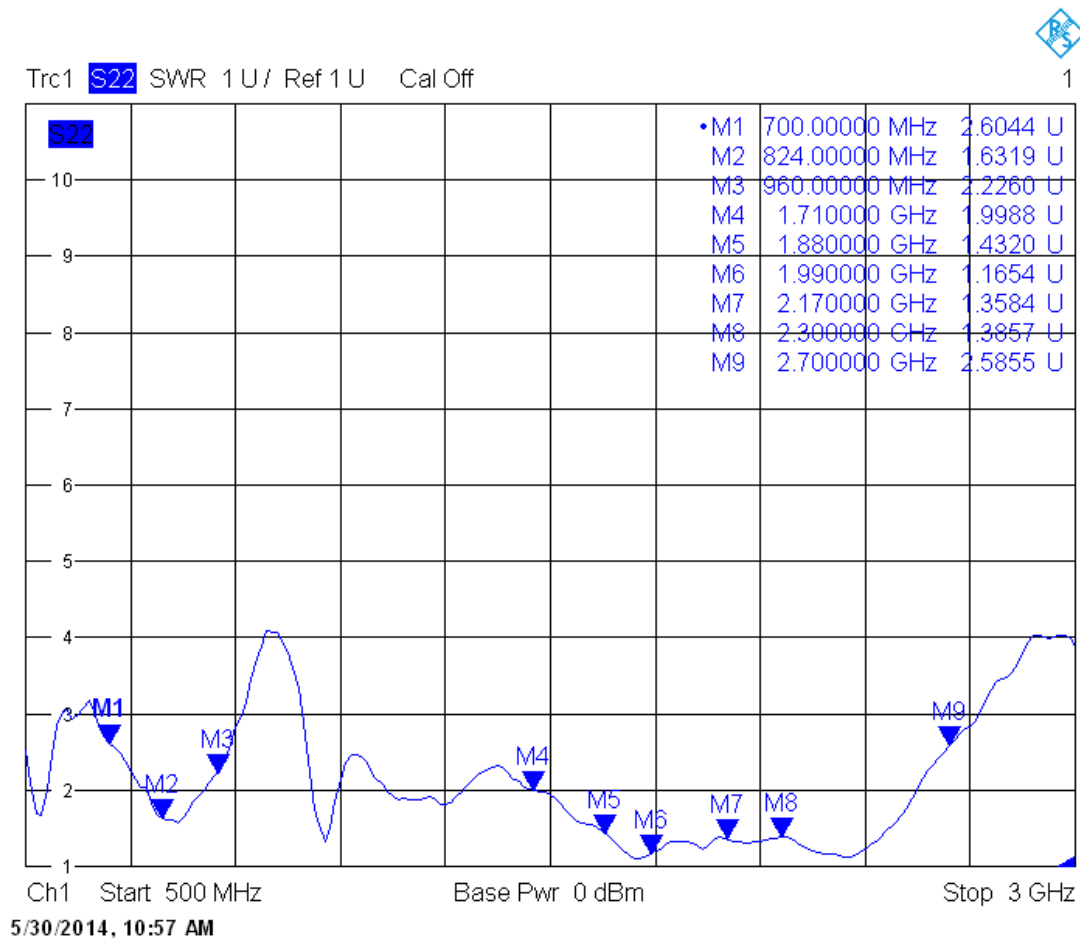
A. Electrical Characteristics	
Frequency	700 ~ 960 MHz 1710 ~ 2700 MHz
S.W.R.	<= 3.0 @ 824 MHz <= 2.0 @ 1880 ~ 2300 MHz
Antenna Gain	0.5 ± 0.5dBi @ 700 ~ 960 MHz 2.0 ± 0.7dBi @ 1710 ~ 2700 MHz
Efficiency (%)	40 % @ 700 ~ 960 MHz 76% @ 1710 ~ 2700 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	PCB
Material of Plastic	BODY: ABS HINGE:ABS
Cable Type	RG-178U-03
Connector Type	SMA Male
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

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	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	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	GB / T 2423 . 17- 93 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	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 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.)	GB /T 2423 . 2 - 89 Temp: 80°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 2011/65/EU
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

AGP-I072702SM + SMAFN9-3085A-Z0X00I-FE

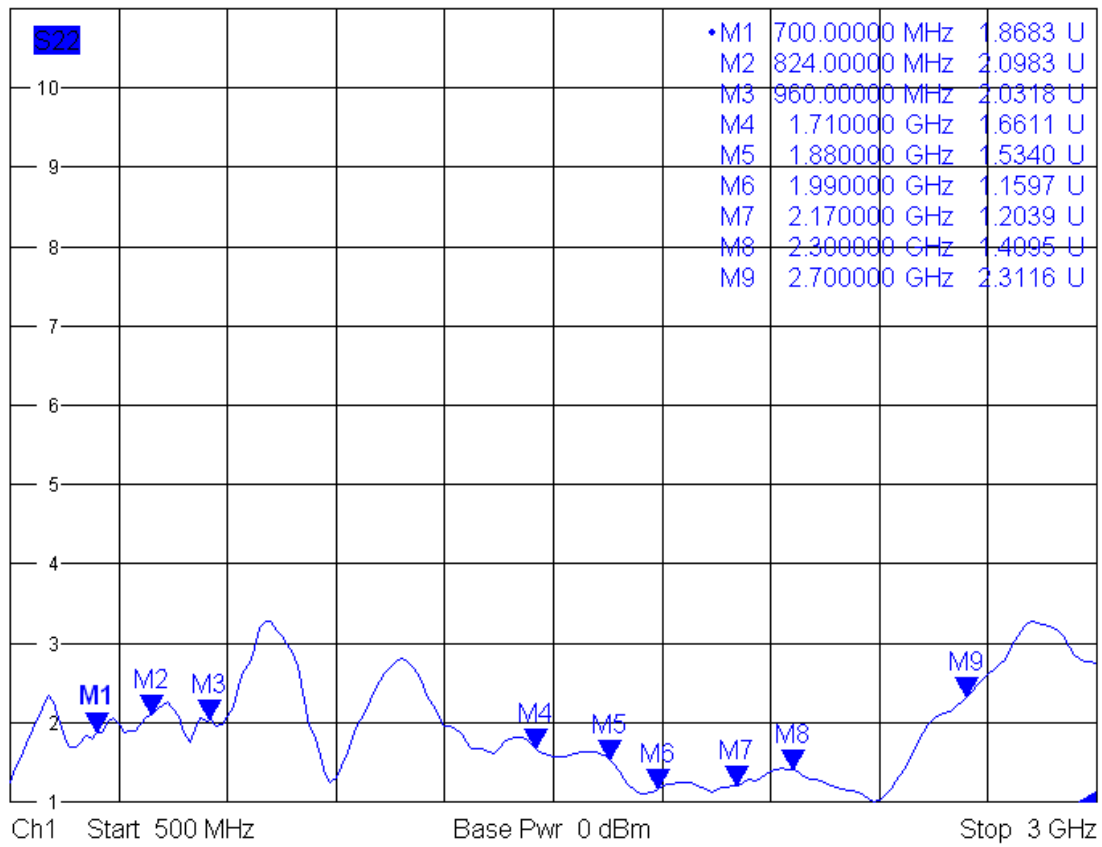


AGP-I072702SM + SMAFN9-3250A-Z0X00I-FE



Trc1 S22 SWR 1 U/ Ref 1 U Cal Off

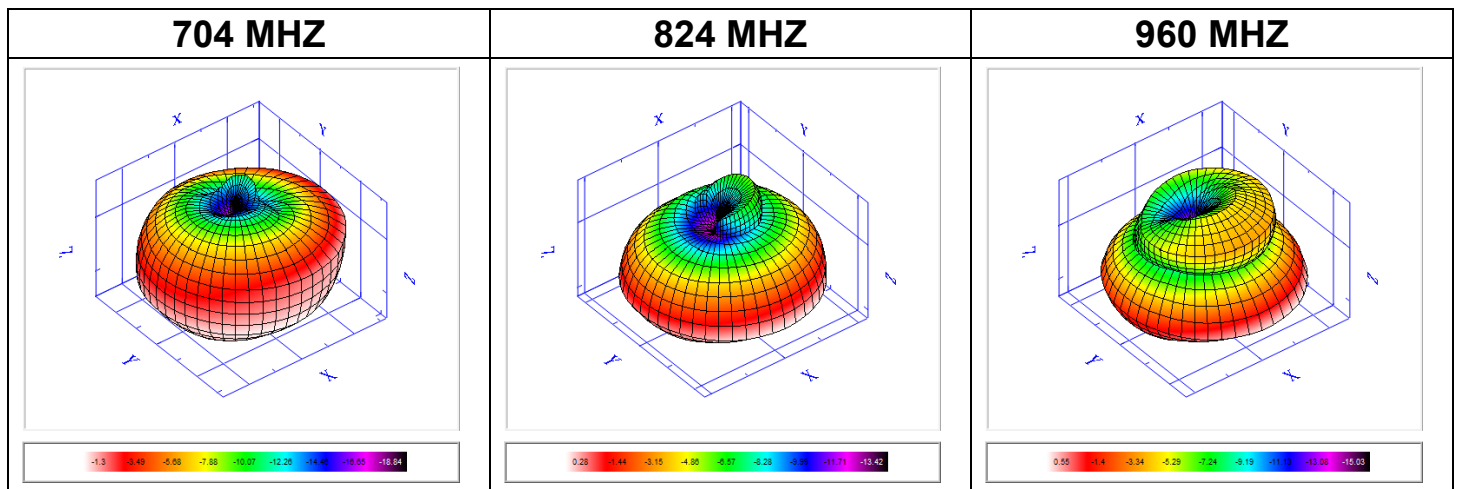
1



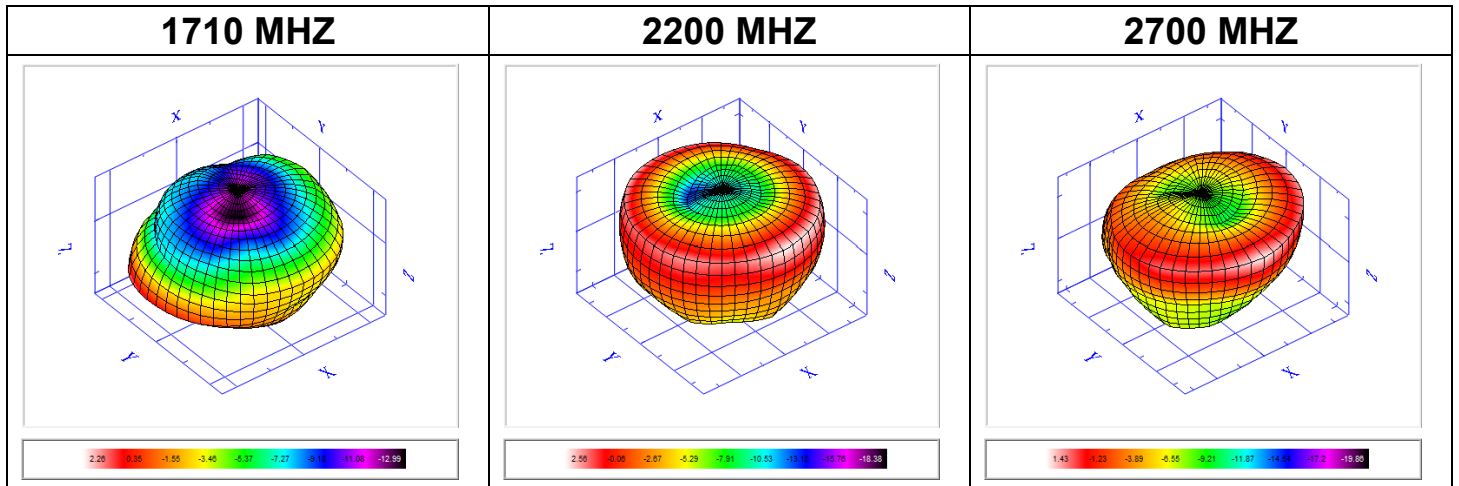
5/30/2014, 11:01 AM



4. Antenna - Radiation Pattern Test Data



Frequency	704	824	880	960
TRP (dBm)	-4.86	-3.74	-3.45	-3.65
Peak EIRP (dBm)	-1.3	0.28	0.71	0.55
NHPRP +/- 45 (degree)	-4.57	-3.5	-3.23	-3.41
NHPRP +/- 30 (degree)	-5.58	-4.79	-4.53	-4.97
E-Theta Peak Gain (dBi)	-7.42	-6.32	-5.78	-5.7
E-Phi Peak Gain (dBi)	-1.73	0.01	0.51	0.34
E-Total Peak Gain (dBi)	-1.3	0.28	0.71	0.55
Directivity (dBi)	3.56	4.02	4.16	4.2
Efficiency (%)	32.69	42.28	45.19	43.14

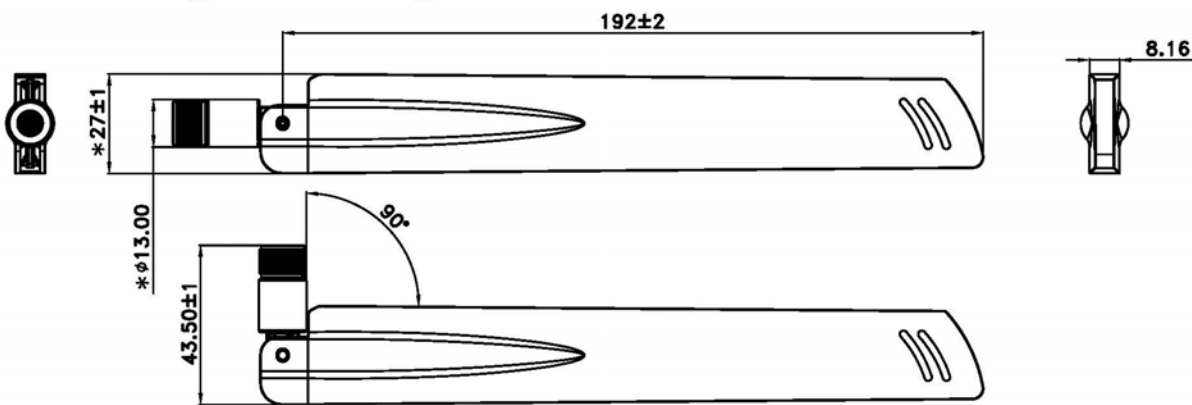
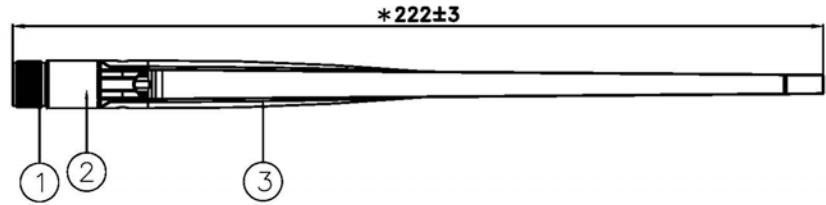


Frequency	1710	1880	1990	2000	2100	2200	2300	2400	2500	2600	2700
TRP (dBm)	-1.35	-1.09	-0.64	-0.63	-0.55	-0.63	-1.49	-1.76	-0.79	-1.33	-3.33
Peak EIRP (dBm)	2.26	0.64	1.38	1.52	2.32	2.56	1.22	2.38	3.7	3	1.43
NHPRP +/- 45 (degree)	-1.22	-1.36	-1	-1	-0.93	-1.08	-1.81	-2.06	-1.07	-1.73	-4.09
NHPRP +/- 30 (degree)	-2.77	-1.87	-1.22	-1.21	-1.08	-1.2	-2.48	-2.37	-1.13	-1.68	-3.98
E-Theta Peak Gain (dBi)	-7.6	-11.2	-13.9	-14.1	-12.8	-10.3	-9.71	-8.94	-8.18	-11.3	-13.4
E-Phi Peak Gain (dBi)	2.25	0.62	1.36	1.51	2.29	2.55	1.17	2.34	3.68	3	1.42
E-Total Peak Gain (dBi)	2.26	0.64	1.38	1.52	2.32	2.56	1.22	2.38	3.7	3	1.43
Directivity (dBi)	3.61	1.73	2.02	2.16	2.88	3.19	2.7	4.14	4.49	4.33	4.77
Efficiency (%)	73.24	77.8	86.31	86.43	88.07	86.49	71.01	66.74	83.37	73.7	46.43

RoHS
Compatible



SIGN	DATE	DESCRIPTION	APPROVER
▲			
▲			
▲			



Note:

1. Take " * " is the important dimension.
2. Tolerance: Unmarked tolerance refer to the standard tolerance please.

No.	Part Number	Name	Material	Finish	Q'ty
3	AN64D-P5-01B	Body	ABS	Black	1
2	Hinge-AN67-01B	Hinge	ABS	Black	1
1	SMA207-CCT5AN19-A	SMA公頭公針	Cu	Black	1

TITLE: AN64D Type LTE Antenna					
PART NO.:			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY	UNITS: mm SCALE: / REVISION: A	Tolerance X.X ±0.5 X.XX ±0.2 X* ±1
Grant 2013/12/03	Jack 2013/12/03	SiFei 2013/12/03	LJHUA 2013/12/03		