零 件 承 認 書

Approval Sheet

客戶名称： **SYKJ**

产品料号： YL-AN5550-15S01BRS

产品名称： 5.55GHz Rogers Antenna

SMA 内螺内孔，L=154MM

供应商确认		
审核	制作人	日期
張禮波	楊興凱	2021.04.05

客戶签署		
品保	工程	采购

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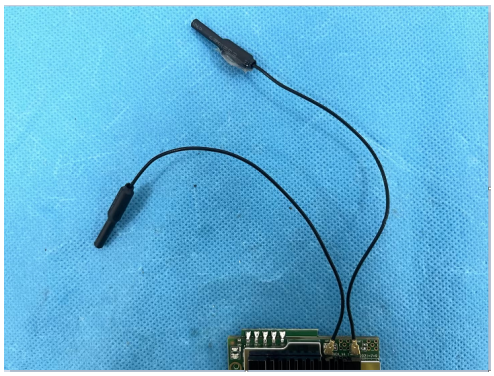
1. Revision History

Revision	Date	Change Notification	Description
1.0	2021.04.05	初版	

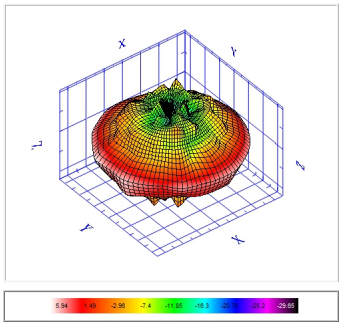
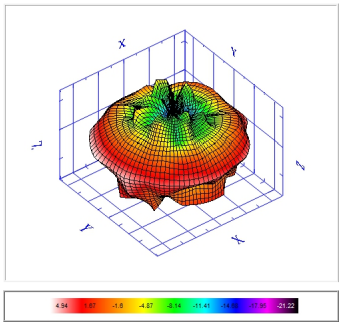
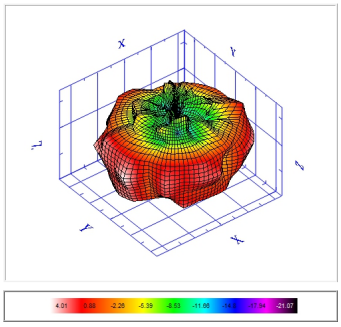
2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	5150 ~ 5850 MHz
S.W.R.	5.55GHz <= 1.5
Antenna Gain	5.94 dBi
Efficiency(%)	75 % @ 5.550 GHz
Radiation Pattern	Omni-Directional
Max Input Power	>= 2 W
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Dipple (Rogers)
Connector Type	SMA MALE (反极性 SMA 内螺内孔)
Material of Plastic	Body1: ABS Body2: ABS Body3: POM
Cable Type	RG-178 双银线
Pull Test of SMA	>=3kg
C. Environmental	
Operation Temperature	- 40 ˚C ~ + 65 ˚C
Storage Temperature	- 40 ˚C ~ + 80 ˚C
Antenna Color Storage life	< 2 year

3. 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
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

4. Antenna - Radiation Pattern Test Data

5150 MHz	5550 MHz	58500 MHz
		

Frequency	5150	5250	5350	5400	5500	5550	5650	5700	5800	5850
TRP (dBm)	-1.64	-1.5	-1.41	-1.62	-1.47	-1.61	-1.64	-1.84	-0.88	-1.55
Peak EIRP (dBm)	5.94	5.73	5.31	4.65	5.23	4.94	4.36	4.64	4.91	4.01
NHPRP +/- 45 (degree)	-1.76	-1.63	-1.55	-1.78	-1.66	-1.82	-1.9	-2.15	-1.21	-1.9
NHPRP +/- 30 (degree)	-2.09	-1.99	-1.9	-2.15	-2.07	-2.27	-2.39	-2.61	-1.61	-2.36
E-Theta Peak Gain (dBi)	-7.07	-8.2	-8.5	-7.95	-6.38	-7.58	-5.31	-6.53	-5.6	-5.56
E-Phi Peak Gain (dBi)	5.94	5.72	5.29	4.63	5.23	4.83	4.32	4.54	4.9	3.94
E-Total Peak Gain (dBi)	5.94	5.73	5.31	4.65	5.23	4.94	4.36	4.64	4.91	4.01
Directivity (dBi)	7.58	7.23	6.72	6.27	6.7	6.54	6	6.47	5.78	5.56
Efficiency (%)	68.54	70.78	72.3	68.82	71.24	69.08	68.54	65.52	81.71	70.04