

A letter of recognition

DESCRIBE: Anker Innovations Co., LTD (T8170)

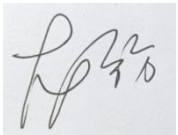
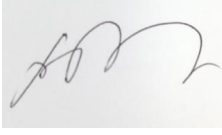
Customer NO: 290000-019520

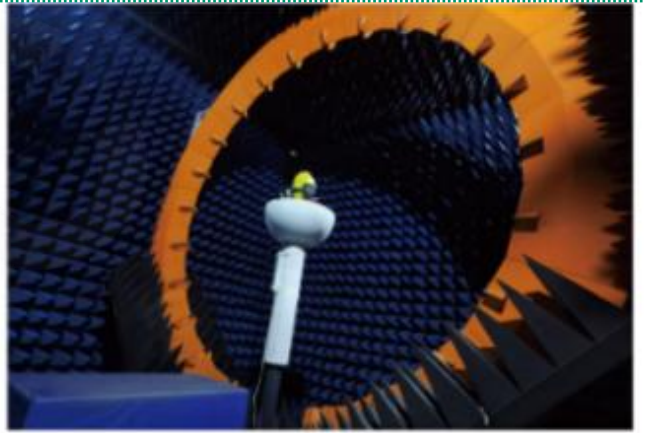
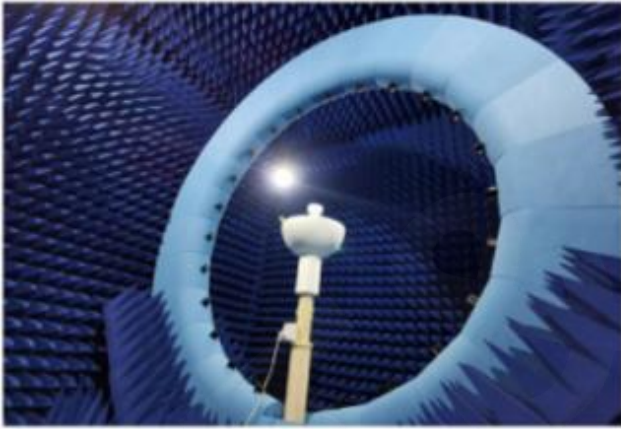
PART NO: ATC1373-HY054B04RA

Antenna type: 2.4G FPC ANT

DATE: 2023. 06. 19

PROVIDER: AT&C TECHNOLOGIES(SHENZHEN) CO. LTD

		ID Department	Test department	Structure section	Quality department
Customer Admit	confirm				
Supplier Admit	confirm	confirm	Proofreading	To examine	Approval
			MO zenweng	Xuliying	



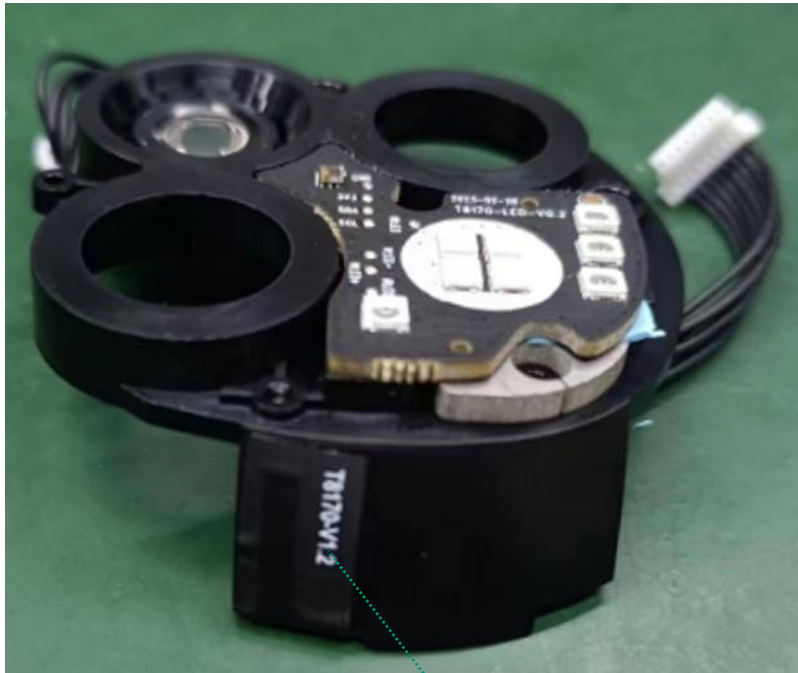
We have RF equipments as below

Anechoic Chambe

- Satimo 1ea
- SY24 1ea
- SAR 1ea
- KSS 2ea

Measurement

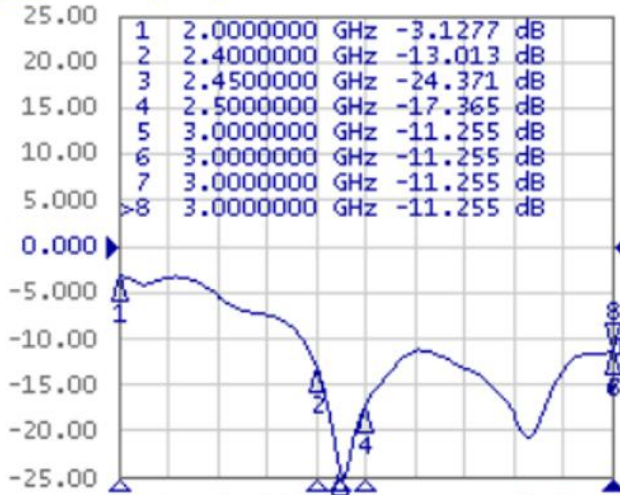
- 2G, 3G, 4G
- GPS
- Wifi
- Bluetooth(3.0) OTA
- NFC & WPC



T8170-ANT

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [F1]

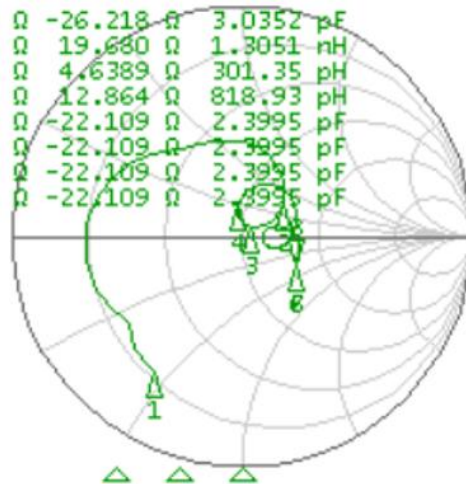


Tr2 S11 SWR 1.000/ Ref 1.000 [F1]



Tr3 S11 Smith (R+jX) Scale 1.000U [F1]

Point	Frequency (GHz)	R (Ω)	X (Ω)	Capacitance (pF)	Inductance (nH)	Phase (pH)
1	2.000000	11.459	-26.218	3.0352		
2	2.400000	68.154	19.680		1.3051	
3	2.450000	54.278	4.6389		301.35	
4	2.500000	46.881	12.864		818.93	
5	3.000000	77.750	-22.109	2.3995		
6	3.000000	77.750	-22.109	2.3995		
7	3.000000	77.750	-22.109	2.3995		
8	3.000000	77.750	-22.109	2.3995		



1 Start 2 GHz

IFBW 70 kHz

Stop 3 GHz C?

Antenna *Efficiency

2.4G) Passive Test Results

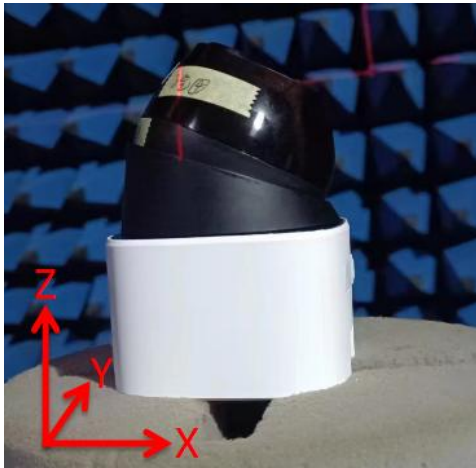
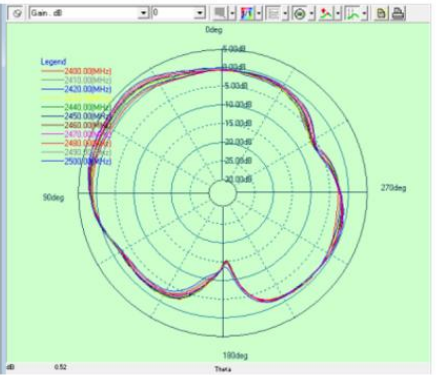
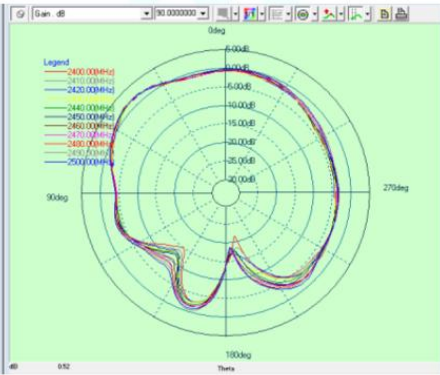
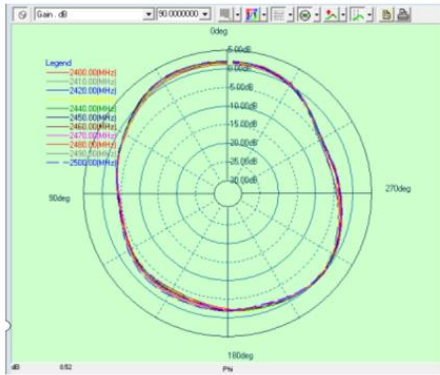
Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Max Gain (dBi)
2400	64.26%	-1.92	2.75
2410	66.78%	-1.75	2.72
2420	67.05%	-1.74	2.59
2430	66.53%	-1.77	2.89
2440	67.04%	-1.74	2.86
2450	65.85%	-1.81	3.02
2460	65.84%	-1.81	3.11
2470	67.36%	-1.72	3.23
2480	68.20%	-1.66	3.29
2490	69.43%	-1.58	3.38
2500	68.85%	-1.62	3.39
AVG:	67.02%	-1.74	3.02

Directional pattern TEST

H

E1

E2





1	2	3	4	5	6	7	8	9	10	11	12	13													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>REV No.</th><th>REV</th><th>DATE</th><th>DESCRIPTION OF CHANGE</th><th>DRAWN</th><th>CHECKED</th><th>APPROVED</th></tr> <tr> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>						REV No.	REV	DATE	DESCRIPTION OF CHANGE	DRAWN	CHECKED	APPROVED	1												
REV No.	REV	DATE	DESCRIPTION OF CHANGE	DRAWN	CHECKED	APPROVED																			
1																									
<p><NOTE></p> <ol style="list-style-type: none"> General Tolerance: ± 0.15 FPC Antenna Welded Cable Wire Component, MFG Terminal, Mouth Down Product Surface: Antenna Surface Black matte ink surface silk printing as shown in the figure position, PE bag packaging shipment SMD471 LSE for antennas backing glue. Material material: PI, substrate thickness $T = 1/2mil$, electrolyticcopper foil thickness 0.5oz Coarsening (O) labeling is managed according to key dimensions Measure the size after removing the attachment plane of the stripping paper. Gold plating Type and Spec, thickness: electrolytic method / AU (gold plating 0.025-0.060 Nickel thickness is 2-8UM) Front, back, no bubbles or foreign bodies in appearance. Salt fog 48H OK Raw materials should meet ROHS requirements 						<p>Back glue is required in shaded areas</p> <p>Cutting position of adhesive backed paper</p>																			
<p>ATNC-S-01-A4</p>						<p>A4(297X210)</p>																			

X	± 0.5	2nd ANGLE PROJECTION		AT&C AT&C Co., LTD. (Shenzhen)	
.X	± 0.25	COPYRIGHT, AT&C, 2000. 04. 05			
.XX	± 0.10	THIS SERVICE USER NOT IMPLY PUBLICATION.			
.XXX	± 0.05				
CHECKED BY	ZJY	SIZE	STU A4	PART NAME	T8170-FPC
DRAWN BY	LJF	UNITS	MM	MODEL NAME	WIFI-Ant
APPROVED BY	SJM	SCALE	1:1	DRAWING NUMBER	ATC1373-HY054B04RA
				DRAWING DATE	2022.06.19
				REV.	A

Size information					Measuring sample			% Tolerance		Handling opinions			Measuring tool
number	Dimension property	Dimension	Lower tolerance	Upper tolerance	1	2	3	Upper	Lower	determine	Supplier review comments	Customer review comments	
1	key point	8.24	-0.15	0.15	8.25	8.17	8.22			PASS			PJ
2	key point	19.64	-0.20	0.20	19.68	19.71	19.65			PASS			PJ
3	key point	1.2	-0.10	0.10	1.23	1.20	1.20			PASS			PJ

Salt spray test report

Item name	FPC ANT	Item type	ATC-1356	models	T8140R
The experimental class	Salt spray test	Number of items	5 pcs	The researchers	Zhangxuemei
The experiment	Sample reliability verification				
Experimental conditions	<p>Brine concentration for 5 plus or minus 1%, salt water barrels and the temperature of the laboratory to 35 + 2 °C, saturated air barrel temperature to 47 + 2 °C, PH: 6.5-7.5 KGF/cm2, spray quantity: 1-2 ml / 1 hr / 80 cm2, test time 48 h.</p> <p>Specific reference GBT 10125-1997 standard</p>				
Note:					
The experiment on	《Inspection standard for plated parts》				
The equipment used:	Salt spray test chamber				
The experiment					
After the experiment					
The experimental conclusion:	After the test, clean water was rinsed and the surface of the shrapnel was not oxidized, discolored or blackened for 2H;				
Tester/date: ren kangyong 2022-12-14			Audit: Pengguangliang		

Packaging method

PE bag packaging, product emission neat, uniform quantity



Picture: Outer box "I" seal, QC PASS seal on the left side of the outer box, sealed without exposure.



PART LIST

The packing drawing is schematic diagram, which does not mean that the picture is the actual product and the actual shipment is the standard.

NO	DESCRIPTION	Q'TY	MATERIAL	REMARKS	REV.
1	ANTENNA	1/1000		N/A	A
2	PAD OUT	1/4	SW A	N/A	A
4	CARTOON BOX	-	SW A	N/A	A
5	PACKING TAPE	-	PP	N/A	A