

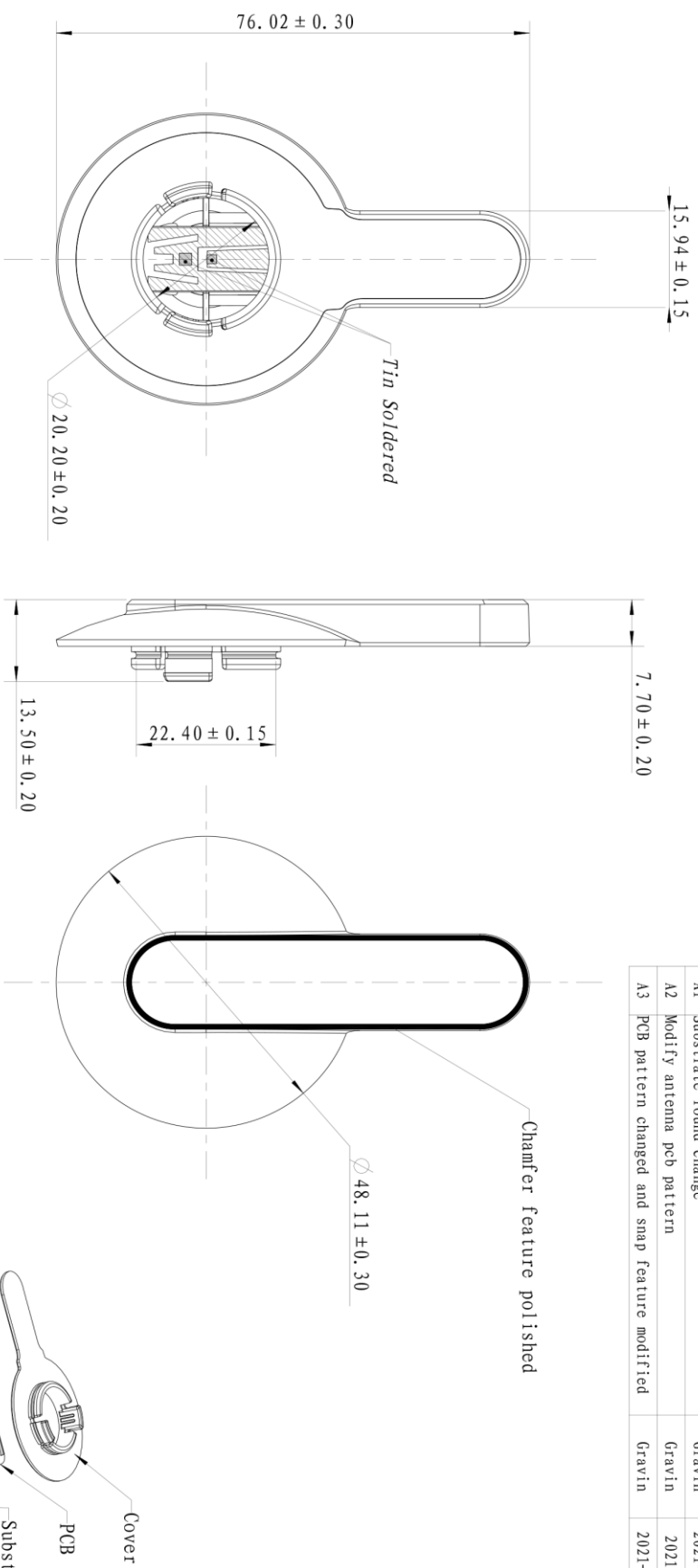
# APPROVAL SHEET

Part Description	Vendor: Kunshan Yunzhong			Description: CM0204-X03-00																			
	Product Name: IMI_IPC055_A02-Antenna L ( WIFI Antenna )		Project: IMI_IPC055																				
	Part No. 5022AA013590																						
Attachments	<table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Spec</td> <td><input type="checkbox"/> Drawing</td> <td><input type="checkbox"/> Sample</td> <td colspan="3"><input type="checkbox"/> RoHS Report</td> </tr> <tr> <td><input type="checkbox"/> Cpk Report</td> <td><input type="checkbox"/> FAI Report</td> <td><input type="checkbox"/> Reliability Report</td> <td colspan="3"><input type="checkbox"/> RoHS Questionnaire</td> </tr> <tr> <td><input type="checkbox"/> QC Flow Chart</td> <td><input type="checkbox"/> Material Verification Sheet</td> <td><input type="checkbox"/> Packing Content</td> <td colspan="3"><input type="checkbox"/> Safety Report</td> </tr> </table> <p style="color: red; font-size: small;"> <input type="checkbox"/> Symbol is necessary to provide to chuangmi with attachment.  <input type="checkbox"/> Symbol is necessary to provide to chuangmi by soft copy.  <input type="checkbox"/> Symbol is provided by specific requirements.         </p>					<input type="checkbox"/> Spec	<input type="checkbox"/> Drawing	<input type="checkbox"/> Sample	<input type="checkbox"/> RoHS Report			<input type="checkbox"/> Cpk Report	<input type="checkbox"/> FAI Report	<input type="checkbox"/> Reliability Report	<input type="checkbox"/> RoHS Questionnaire			<input type="checkbox"/> QC Flow Chart	<input type="checkbox"/> Material Verification Sheet	<input type="checkbox"/> Packing Content	<input type="checkbox"/> Safety Report		
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Vendor	Design	Check	Approval:																				
Technology Check	Project Manager	Hardware	Testing																				
	Product Manager	ID	Mechanical																				
	SQE																						
Final Check	<input type="checkbox"/> Approved <input type="checkbox"/> Reject <input type="checkbox"/> Condition Approved              Meet requirements: _____ <input type="checkbox"/> Temporary Approved              _____ Pcs is limited by purchasing <input type="checkbox"/> Quality Planning                      Rohs Status				Quality Director (Only for special dispensation)																		
<b>Notes:</b> Four copies is needed. It is effective to be approved. Approved documnets will be filed by below departments except color box,instructions,pallets and label. <input type="checkbox"/> Vendor <input type="checkbox"/> OEM <input type="checkbox"/> SQE <input type="checkbox"/> Quality planning  Color box,instructions,pallets and label approve documents, should be reserved by: <input type="checkbox"/> Vendor <input type="checkbox"/> OEM <input type="checkbox"/> SQE <input type="checkbox"/> Mechanic or Package engineering																							

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REV	DESCRIPTION	DRAWN	DATE
A0	Initial release	Gravin	2021-9-1
A1	Substrate round change	Gravin	2021-9-23
A2	Modify antenna pcb pattern	Gravin	2021-9-29
A3	PCB pattern changed and snap feature modified	Gravin	2021-10-13



Scale 1:2

- Specification:
1. Refer to 3D solid for unspecified dimensions & tolerance.
  2. Color: white.
  3. No flash and flaw.
  4. 5 pcs FAL report for first batch parts.
  5. Not any change with material and process.
  6. Comply with RoHS requirements.

Part Name	IPC055-A02-ANT L(WIFI Antenna)	Drawing No. /Part No.	QM0204-X03-00	Revision	REV A3
Spec.	Assembly	Customer P/N:	5022AA013590		
Drawn	Gravin	2021-0-13			
E. E.	Huangfei	2021-0-13			
APPROVED	Snaker	2021-0-13			

Kunshan Yuzhuhong Electronics and Technology Co., Ltd.



## Inspection Report

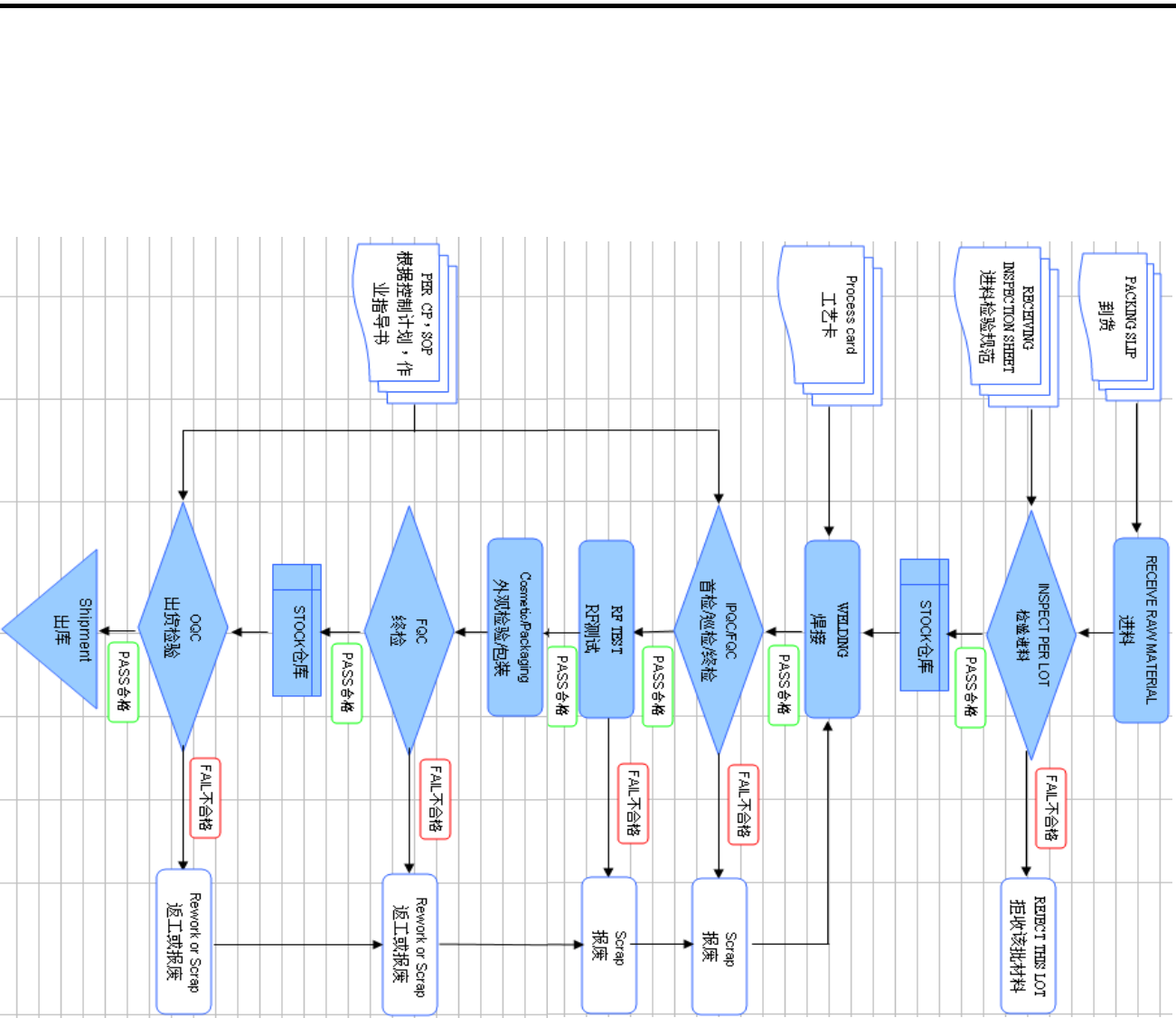
Inspection Report										
Customer	Chuangmi	Part Name	IML_IPC055_A02-Antenna L (WIFI Antenna)							
P/N	5022AA013590	Manu. Date						Rev	A	
Standard	GB/T2828.1-2012				Sample Level	AQL=0.4				
Item	Test	Method and comments	Standard			Samples no.	Acc rej.	Rej.	Judge OK/NG	
1	Appearance	Visual	Dirt				0	0	OK	
2	Color	Visual Color difference	No obvious color difference				0	0	OK	
3	Dimensions	actual dimensons							Judge OK/NG	
		1	2	3	4	5				
4	<b>76.02±0.3</b>	<b>75.89</b>	<b>76.10</b>	<b>76.20</b>	<b>75.80</b>	<b>75.83</b>			OK	
5	<b>15.94±0.15</b>	<b>15.88</b>	<b>16.06</b>	<b>15.89</b>	<b>15.99</b>	<b>16.00</b>			OK	
6	<b>7.7±0.2</b>	<b>7.78</b>	<b>7.65</b>	<b>7.69</b>	<b>7.75</b>	<b>7.78</b>			OK	
7									OK	
8										
9	RF consistence								OK	
Conclusion (OK/NG)		OK								
					Edited	张驰	Approved	黄晴		

## Process Flow Chart

<b>Customer</b>	Chuangmi	<b>Written By</b>	Wenfeng	<b>Orig. Date</b>	2021-10-22
<b>Part Number</b>	5022AA013590	<b>Revised By</b>	Lan xuaehua	<b>Revised Date</b>	2021-10-22
<b>Description</b>	IMI_IPC055_A02- Antenna L (WIFI antenna)	<b>Approved By</b>	Sinfo Pan	<b>Approved Date</b>	2021-10-22
	Raw material				
	↓				
	IQC Insp.			RF Test	
	↓			↓	
	FAI			Inspection	
	↓			↓	
				QC insp.	
	↓			↓	
	Molding				
	↓			↓	
	Assembly			Final Inspection	
	↓			↓	
	SonicWelding			Package and Storage	

# QC Flow chart

Customer	Chuangmi	Written By	Wheifeng	Orig. Date	2021-10-22
Part Number	S022AA013590	Revised By	Lan Xueghua	Revised Date	2021-10-22
Description	IMI_IPC055_A02-Antenna L (WiFi Antenna)	Approved By	Sirfo Pan	Approved Date	2021-10-22

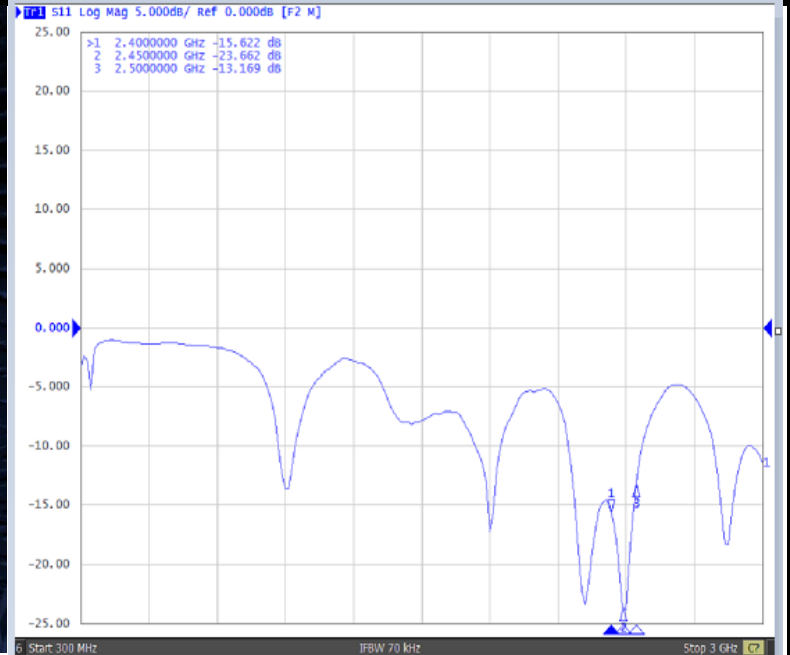
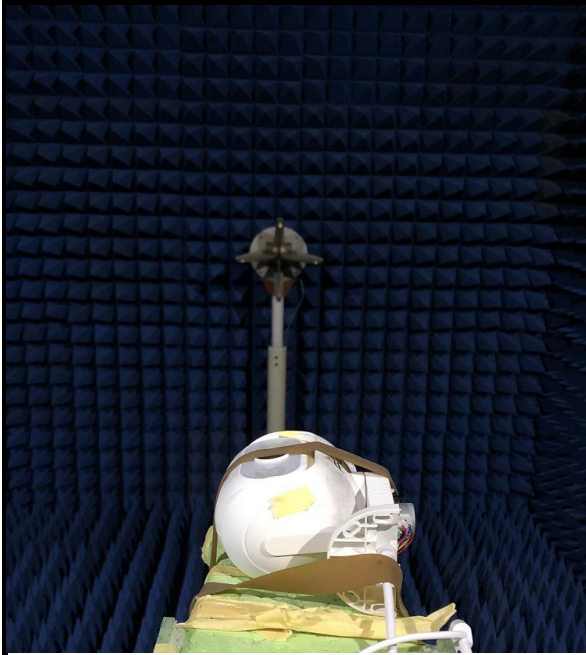




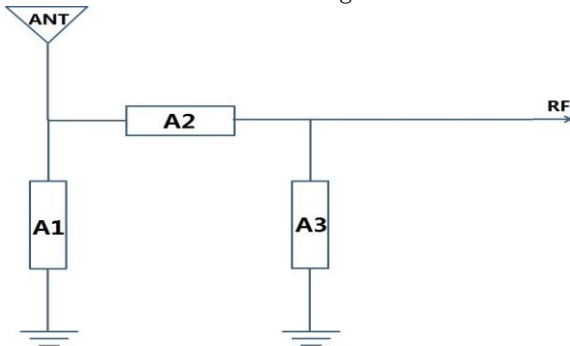


# Antenna Performance

Customer	Chuangmi	Written By	Xiaowei	Orig. Date	2021-10-12
Part Number	5022AA013590	Revised By	Lai Weijian	Revised Date	2021-10-12
Description	IMI_IPC055_A02-Antenna L (WIFI)	Approved By	Huangfei	Approved Date	2021-10-12



Matching Circuit



Passive			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	50.4	-3.0	0.6
2410	47.3	-3.3	0.4
2420	50.5	-3.0	0.8
2430	47.3	-3.3	0.7
2440	50.8	-2.9	1.0
2450	51.8	-2.9	1.0
2460	47.2	-3.3	0.6
2470	48.8	-3.1	0.6
2480	44.3	-3.5	0.3
2490	47.5	-3.2	0.7
2500	49.5	-3.1	0.8

A1	NC
A2	0ohm
A3	NC

**Antenna Type : External (monopole)**

Active

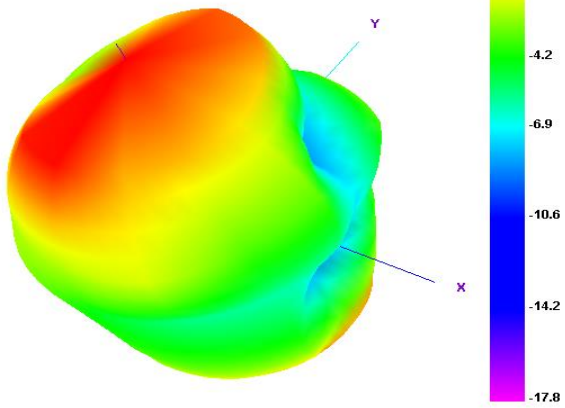
11b	Wifi 2G TRP			Wifi 2G TIS		
	1	7	13	1	7	13
	2412	2442	2472	2412	2442	2472
	13.7	14.3	14.1	-83.6	-84.0	-83.6

11g	Wifi 2G TRP			Wifi 2G TIS		
	1	7	13	1	7	13
	2412	2442	2472	2412	2442	2472
	12.2	12.8	12.0	-69.4	-70.5	-69.4

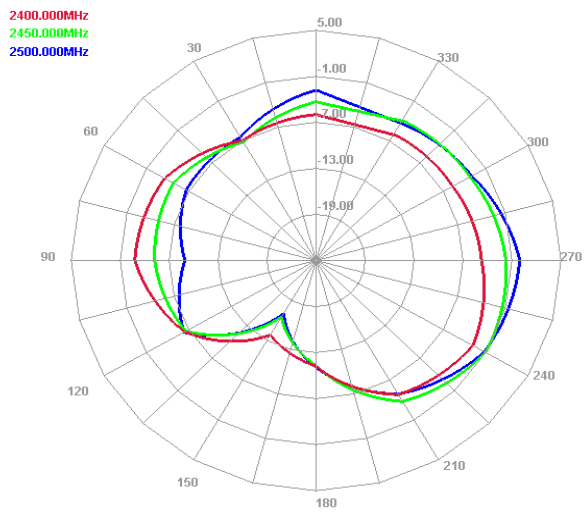
11n	Wifi 2G TRP			Wifi 2G TIS		
	1	7	13	1	7	13
	2412	2442	2472	2412	2442	2472
	12.0	12.8	11.8	-66.9	-68.1	-67.2

# Antenna Pattern

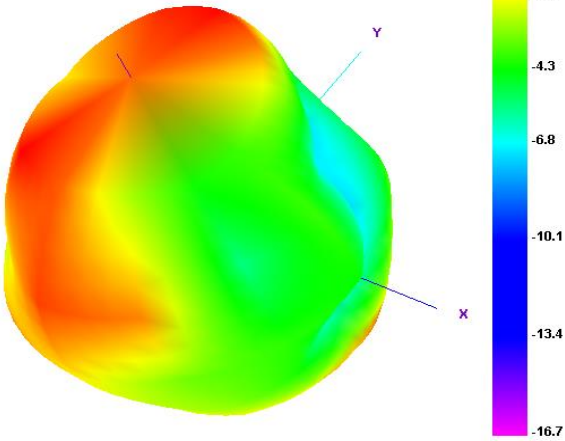
2400.000MHz



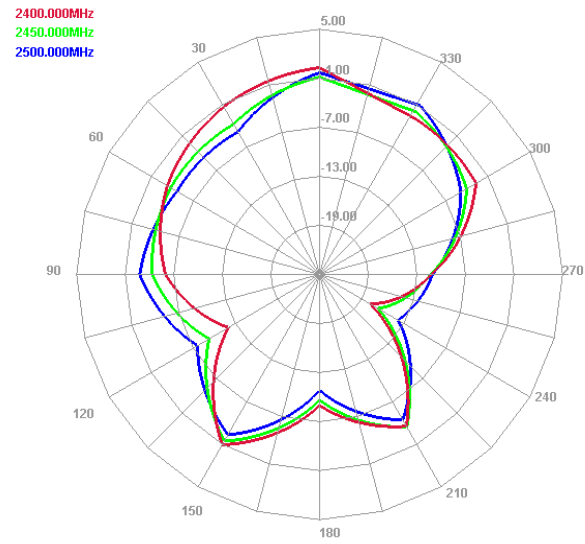
Horizontal



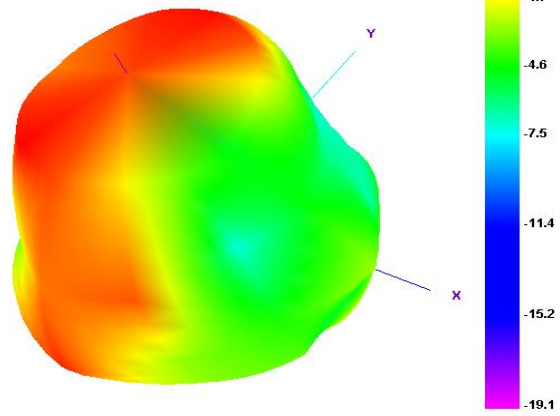
2450.000MHz



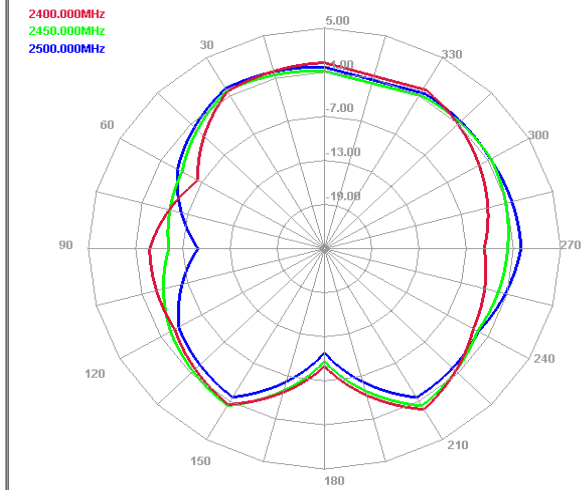
E1 Face



2500.000MHz



E2 Face



## Antenna Gain

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	50.4	-3.0	0.6
2410	47.3	-3.3	0.4
2420	50.5	-3.0	0.8
2430	47.3	-3.3	0.7
2440	50.8	-2.9	1.0
2450	51.8	-2.9	1.0
2460	47.2	-3.3	0.6
2470	48.8	-3.1	0.6
2480	44.3	-3.5	0.3
2490	47.5	-3.2	0.7
2500	49.5	-3.1	0.8
AVE	48.66	-3.13	0.7



QR-QA20-08

# RoHS Restricted Substance Element Questionnaire

Supplier: Kunshan Yunzhihong Electronic and technology Co., Ltd.

Part information																
Yunzhihong P/N			cm0204-x03-00-a1			Manufacturer				Kunshan Yunzhihong Electronic and technology Co., Ltd.						
Part structure information																
No	Part name	Part type	Vendor	3rd part report				限用物质含量PPM							Attachement	
				date	code	Pb	Cd	Hg	Cr <sup>6+</sup>	PBB	FR-SCS-CROH-PP	BBP	DBP	DIBP		
1	CM0204-X03-30	OSP	Yibao	2020-12-17	ETR20C2368	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2	CM0204-X03-30	PCB	Yibao	2020-12-11	SHAEC2024450002	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3	CM0204-X03-30	Oil ink	Yibao	2021-2-01	SHAEC2101778606	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
						<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
						<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Notes																

Editor: huangqing

Department: QC

# Material Certification

Customer	Chuangmi	Written By	Liushiqiang	Orig. Date	2021-10-22
Part Number	5022AA013590	Revised By	huangfei	Revised Date	2021-10-22
Description	IMI_IPC055_A02-Antenna L (WIFI Antenna)	Approved By	Laiweijian	Approved Date	2021-10-22

**CHIMEI**  
a step up

奇美實業股份有限公司  
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www.chimeicorp.com

CHIMEI CORPORATION  
No. 300, Sec. 1, Zhongheng Rd., Shende Dist., Tainan City 77000, Taiwan

## General PC Alloy WONDERLOY® PC-385

產品敘述: Ultra high impact

物性	ISO 測試方法	測試條件	單位	PC-385
熔融指數	1133	260°C×5KG	ml/10 min	21
Spiral flow	CHIMEI	260°C, 2mm, V:50%, P:50%	cm	30
比重	1183	23 °C	g/cm <sup>3</sup>	1.15
拉伸強度	527	50 mm/min, yield	MPa	55
		50 mm/min, break	MPa	57
延伸率	527	50 mm/min	%	130
彎曲強度	178	2 mm/min	MPa	85
彎曲彈性模數		2 mm/min	GPa	2.3
IZOD 衝擊強度	180/1A	23°C, Notched	KJ/m <sup>2</sup>	55
		-30°C, Notched	KJ/m <sup>2</sup>	45
Charpy 衝擊強度	179	23°C, Notched	KJ/m <sup>2</sup>	55
		-30°C, Notched	KJ/m <sup>2</sup>	45
維氏軟化溫度	306	50°C/hr; 1KG	°C	143
		50°C/hr; 5KG	°C	135
熱變形溫度	75/A	1.8MPa, unannealed	°C	108
		1.8MPa, annealed	°C	-
介電系數	IEC 60250	1MHz	-	3
體積電阻率	IEC 60093	-	Ohm X m	1E+16
表面電阻率	IEC 60093	-	Ohm	1E+16
線膨脹係數	11359	-	-	7.5*10 <sup>-4</sup>
燃燒等級	-	UL-94	-	1.5mm HB
成型收縮率	294-4	-	%	0.4-0.6
標記	1043	-	-	>ABS+PC<

April 12, 2021

Notes : These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests

The above statement is based on our current level of knowledge and covers the above products directly manufactured and supplied by CHIMEI CORPORATION at the date of issue. CHIMEI CORPORATION makes no warranty, whether express or implied, and assumes no liability in connection with any use of above information. Notwithstanding the foregoing, CHIMEI CORPORATION shall in no event be held obligated or liable for any claims due to or arising from (i) any customer provided, assigned, materials and/or parts, which are incorporated or adopted in the products; (ii) any combination of the products with material not provided or authorized by our company; (iii) any modifications to the products which are made or directed by customer; (iv) our compliance with the specifications, instructions, and/or designs provided by customer; (v) any anti-trust, unfair competition and/or other unlawful actions effected by customer; or (vi) any defects, infringement, breach and/or violation which are acting out of customer's fault or otherwise not solely and directly attributable to CHIMEI CORPORATION. In no event will CHIMEI CORPORATION be liable for any indirect, special, exemplary, punitive, or consequential damages (including but not profits) of any nature whatsoever whether arising out of the purchase, shipment, installation, handling, or use of any product or otherwise.

# Package

Packing Requirement:

1. Customer name, part name and part No.
2. Show the package method.
3. Marked the packing qty.



Fig 1 Antenna part

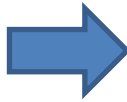


Fig 2 50 pcs per PE bag



Fig 3 Labeled the part info.

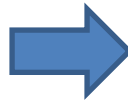


Fig 4: 40 bags per carton



Fig: Enveloped the carton and label the part info. 2000PCS per carton.

Part No.	5022AA013590	
Part Name	IMI_IPC055_A02-Antenna L (WIFI antenna)	
Rev	A3	
Package	Cartoon	
inner	PE bags	40 bags
Outer	Total	2000 pcs