

SPECIFICATION FOR APPROVAL

CUSTOMER	JULIDE		
CS P/N	VT-E210005		
PART NAME	Built-in FPC Antenna (RT-FPC253 V0.0) 2.4G/5.8G ϕ 0.81 Black L=55MM With three generationsIPEX ROHS		
FREQUENCY	2.4-2.5GHz/5.15-5.85GHz		
RTANT NO.	RT395-10005-A		
DATE	2023.05.05		
Sample signature			
APPROVED BY		CHECKED BY	DRAWED BY
Huang Longbao		Liu Yunhai	Liu Yunhai
Remark(备注):			
Customer acknowledgment signature			
APPROVED BY		CHECKED BY	TESTED BY
Sign(Client confirms signature and seal): _____			

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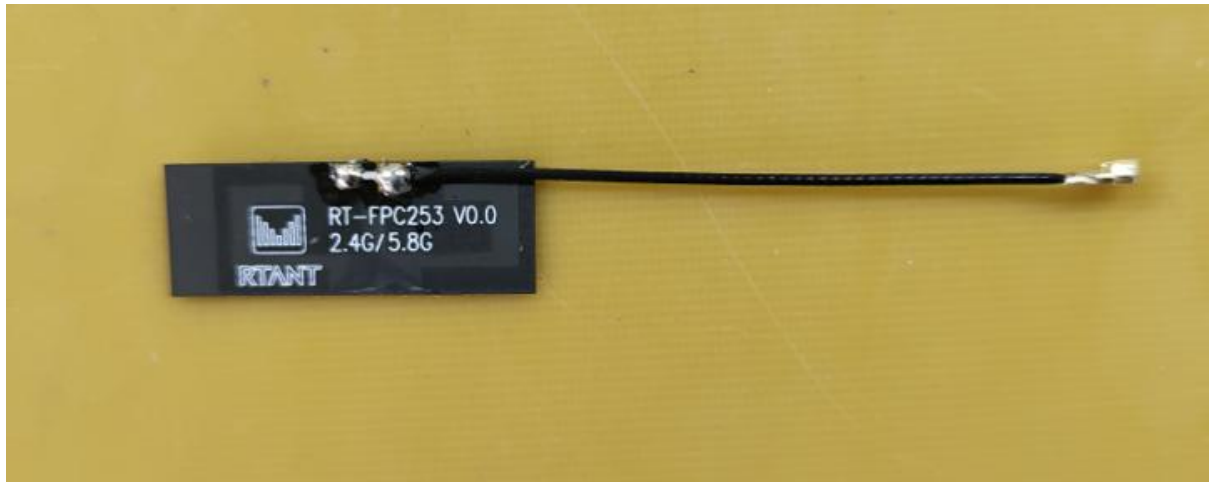
1. Contents

No.	content	Pages
0	Acknowledgment cover	1
1	Project list	2
2	Revision history	2
3	Product picture	3
4	Specification	3
5	Electrical Test Report	4-5
6	Sample inspection report	6
Appendix	2D Product picture, Packaging specification	Appendix

2. Revision history

Revision	Date	Change the content
X0	23.05.05	New version

3. Product picture

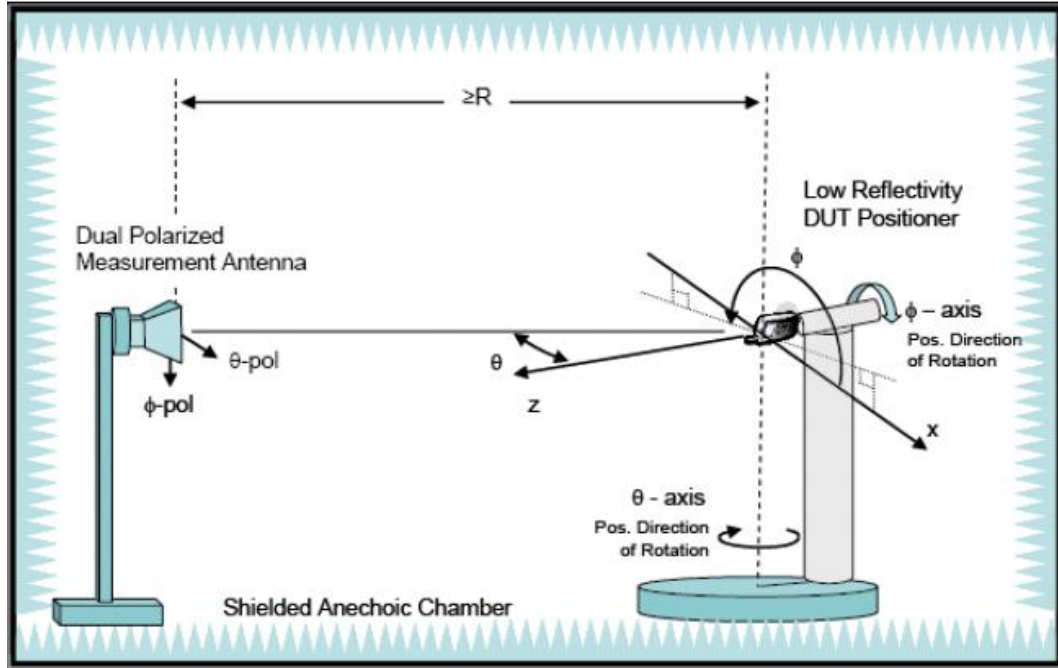


4. Specification

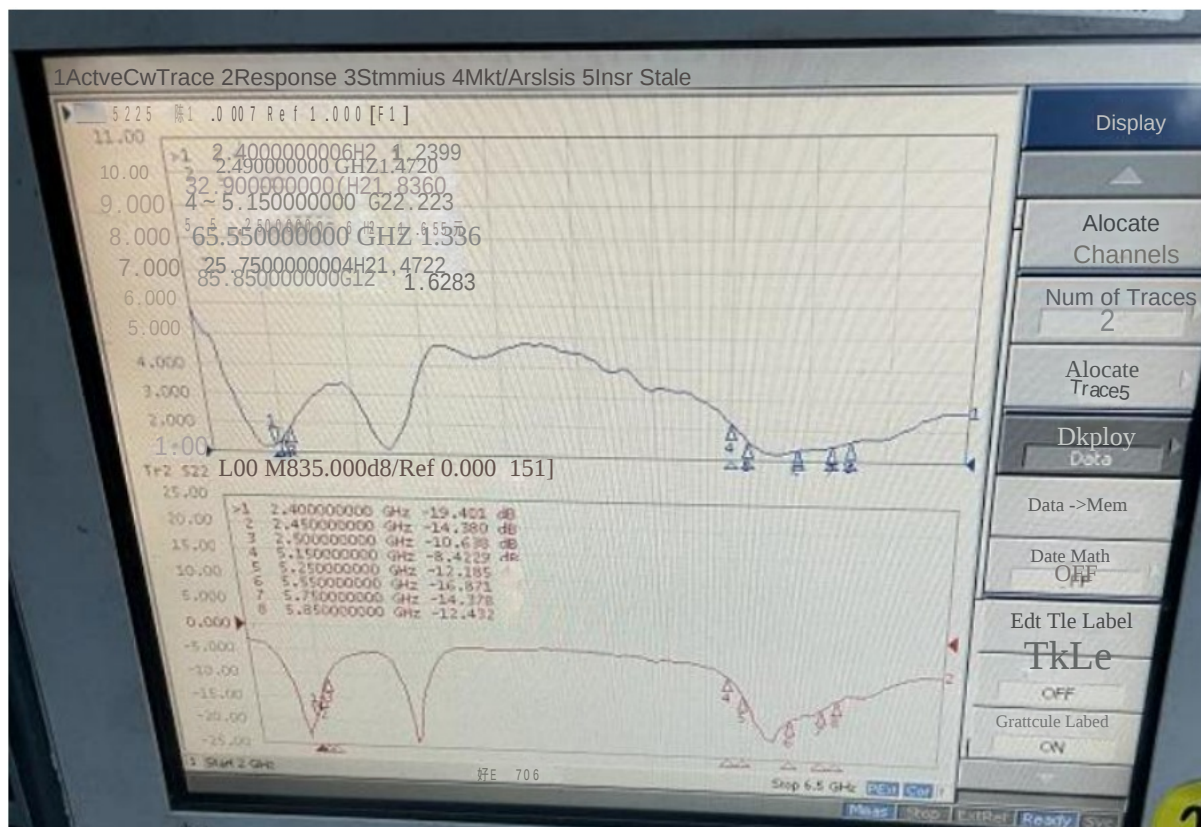
A. Electrical Properties	
Frequency Rang	2.4-2.5GHz/5.15-5.85GHz
Impedance	50 Ω Nominal
VSWR	2.5Max.
Gain(peak)	0.86dBi
Efficiency	>30%
Out of roundness	3.0 dBi (Max.)
Radiation	Omni-Directional
Polarization	Linear Vertical
B. Physical Properties	
Connector Type	Second generation IPEX
Cable	Φ 0.81mm Black
Antenna Radiator	FPC

5. Electrical Test Report

5.1 Test equipment



5.2 Network Analyzer Test Report



5.3 Passive test data

Frequency	2.4GHz	2.41GHz	2.42GHz	2.43GHz	2.44GHz	2.45GHz	2.46GHz	2.47GHz	2.48GHz	2.49GHz	2.5GHz
Efficiency(%)	41.17	42.99	41.41	43.41	44.28	44.36	42.48	42.51	40.81	41.84	39.38
Gain(dBi)	0.26	0.53	0.34	0.66	0.79	0.86	0.58	0.44	0.32	0.21	0.14

Frequency	5.15GHz	5.2GHz	5.25GHz								
Efficiency(%)	32.32	38.23	42.7								
Gain(dBi)	0.17	0.35	0.72								

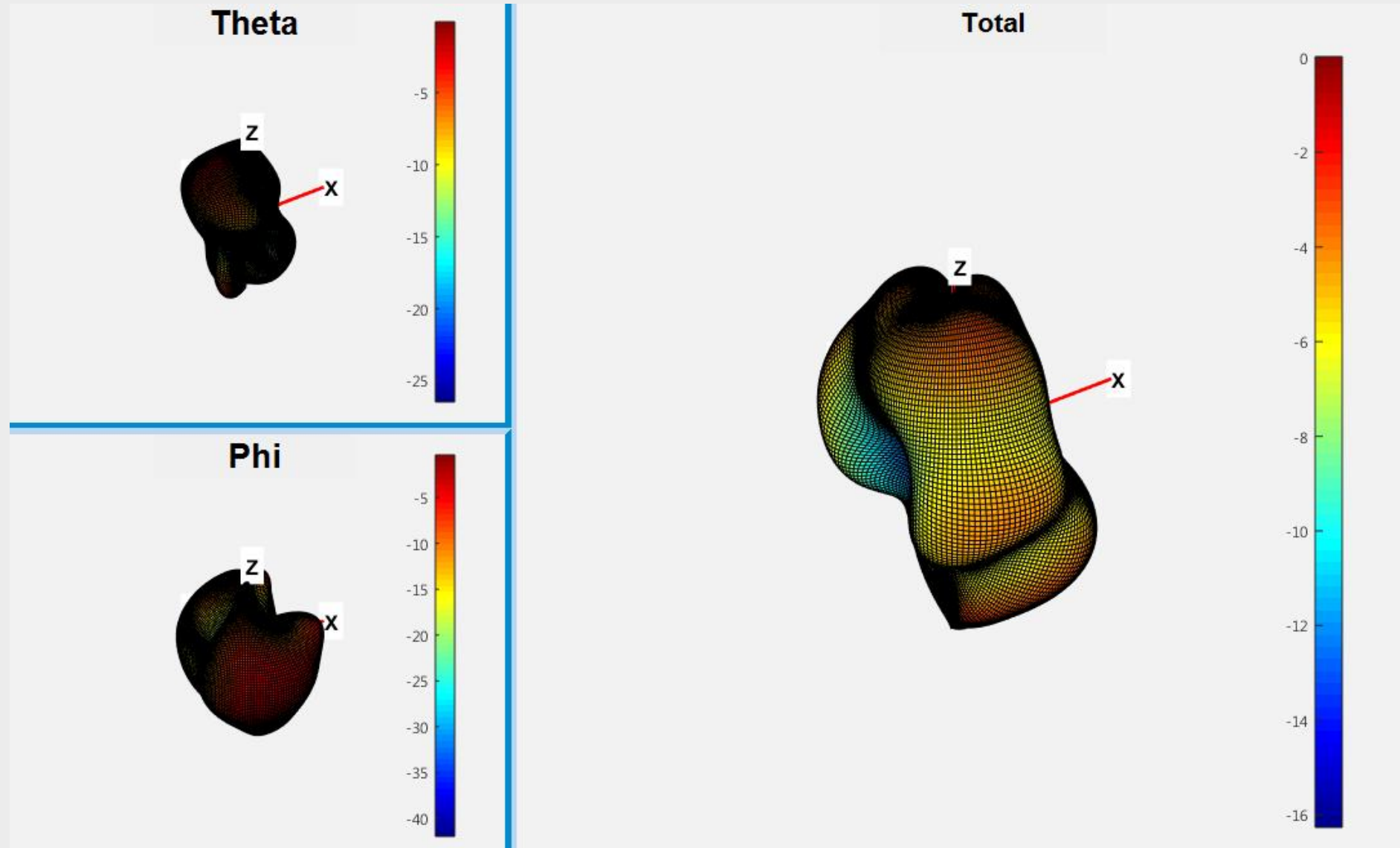
Frequency	5.7GHz	5.75GHz	5.8GHz	5.85GHz
Efficiency(%)	40.46	41.45	39.6	35.53
Gain(dBi)	0.52	0.44	0.46	0.32



5.3D.Direction chart WIFI-2450M



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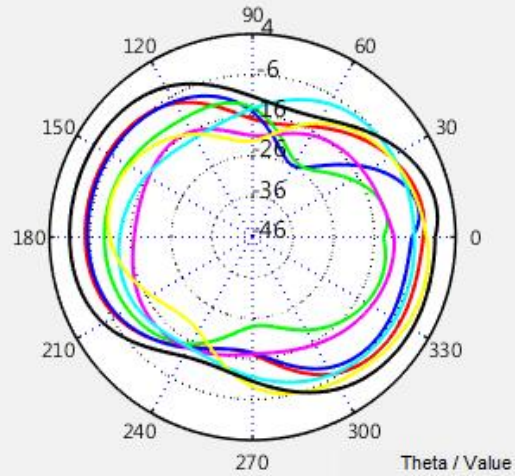


2D.Direction chart WIFI-2450M

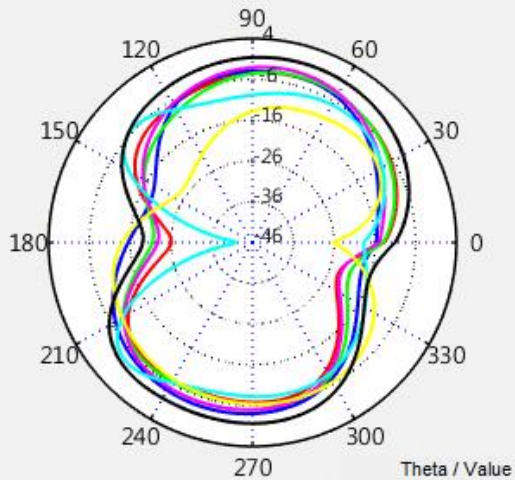


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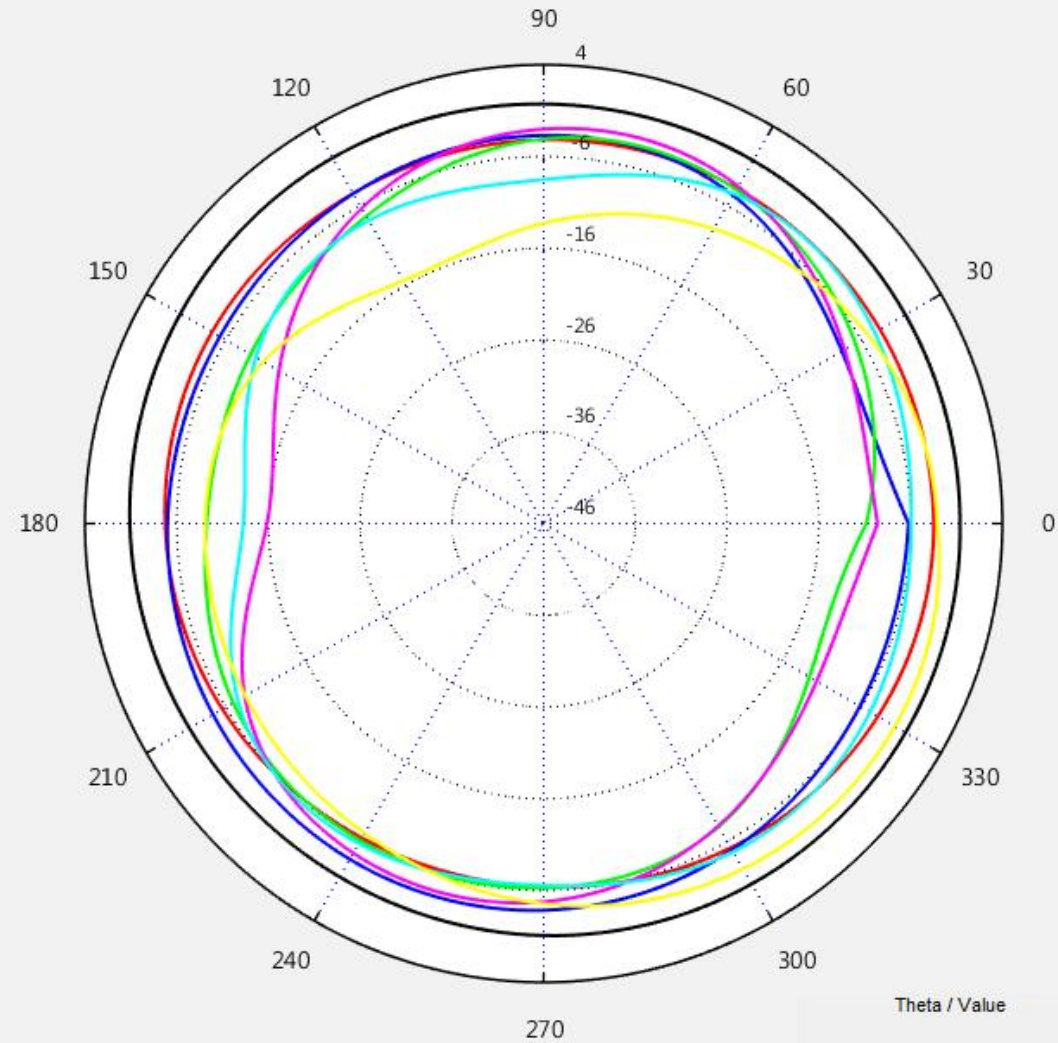
Theta



Phi



Total



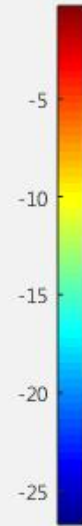
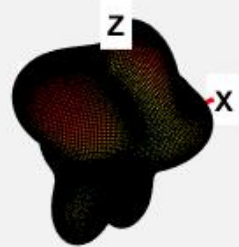


5.3D.Direction chart WIFI-5150M

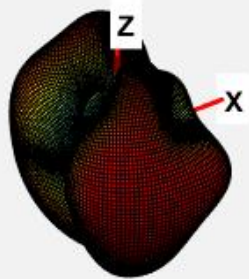


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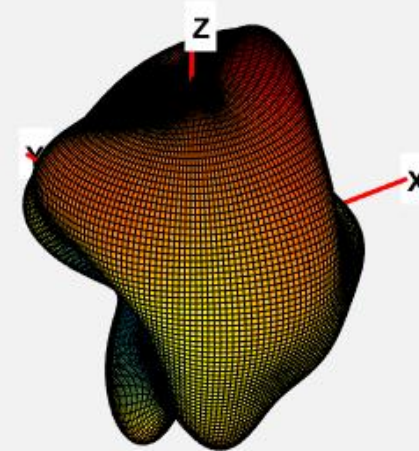
Theta



Phi



Total





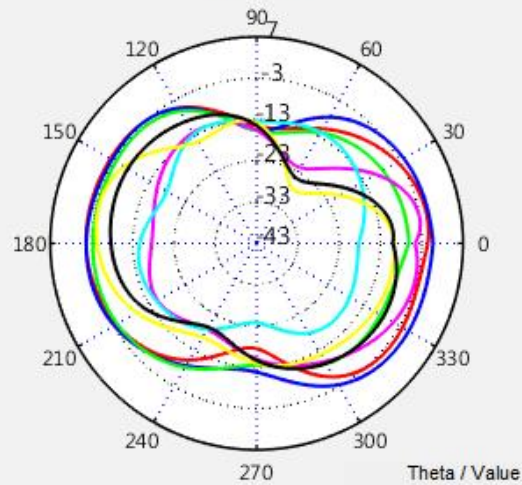
2D.Direction chart

WIFI-5150M

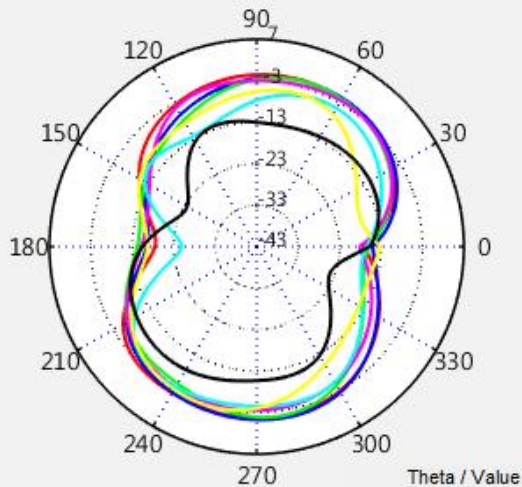


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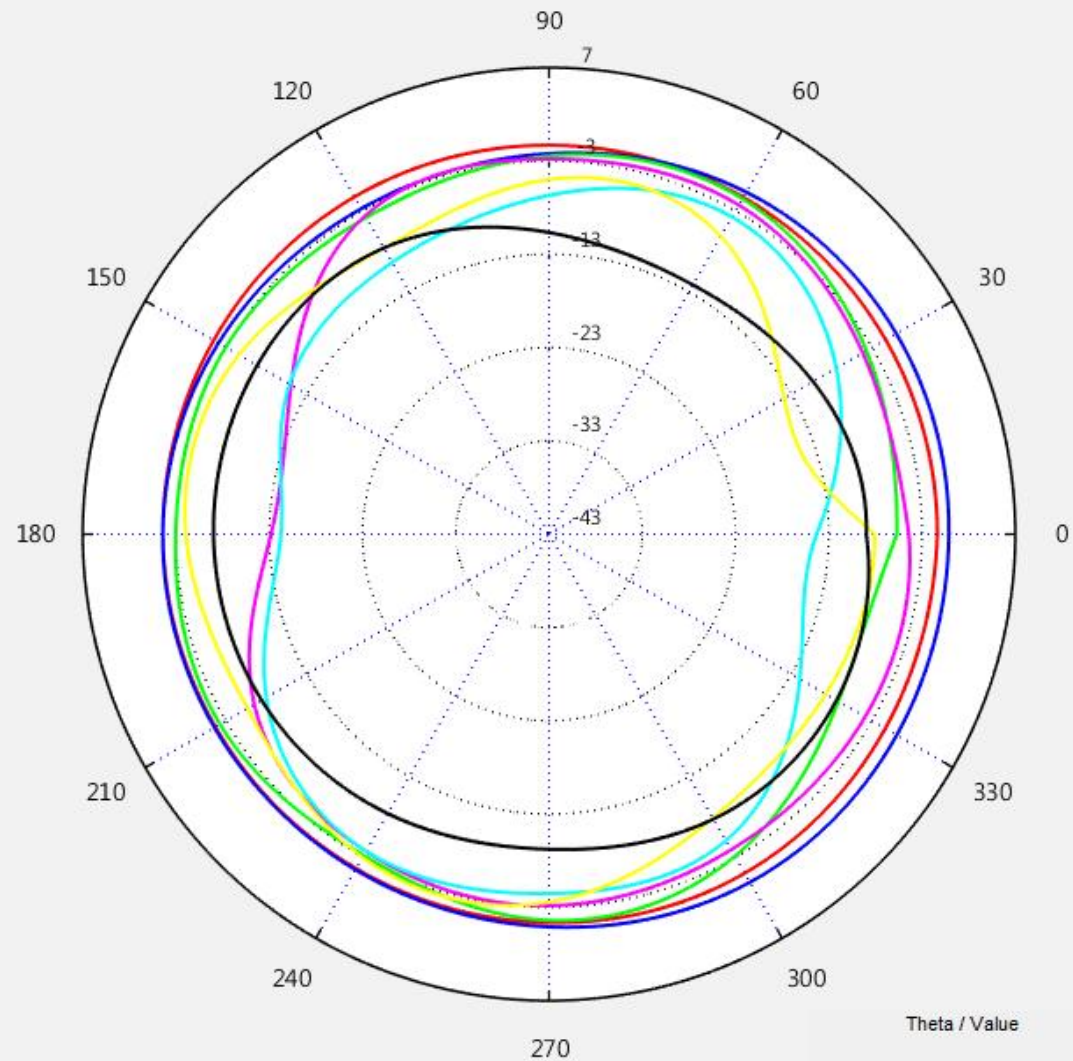
Theta



Phi



Total





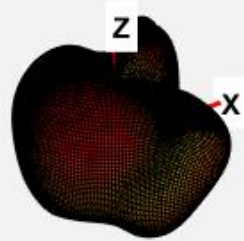
5.3D.Direction chart

WIFI-5550M

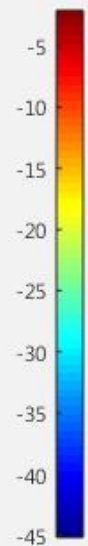
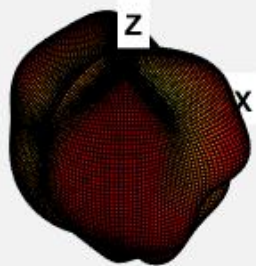


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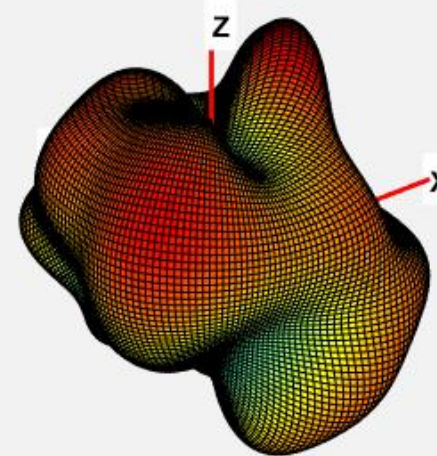
Theta



Phi



Total



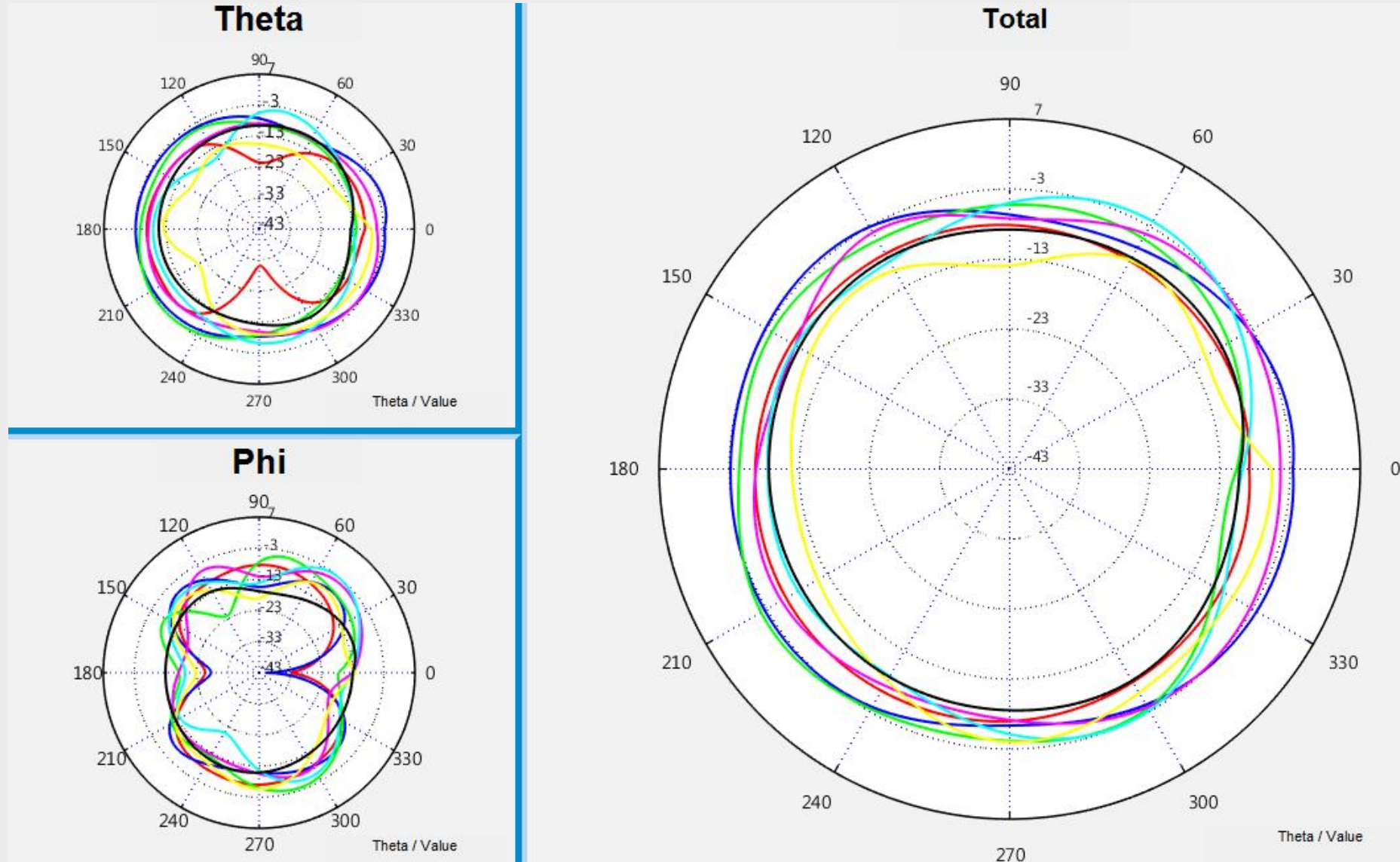


2D.Direction chart

WIFI-5550M



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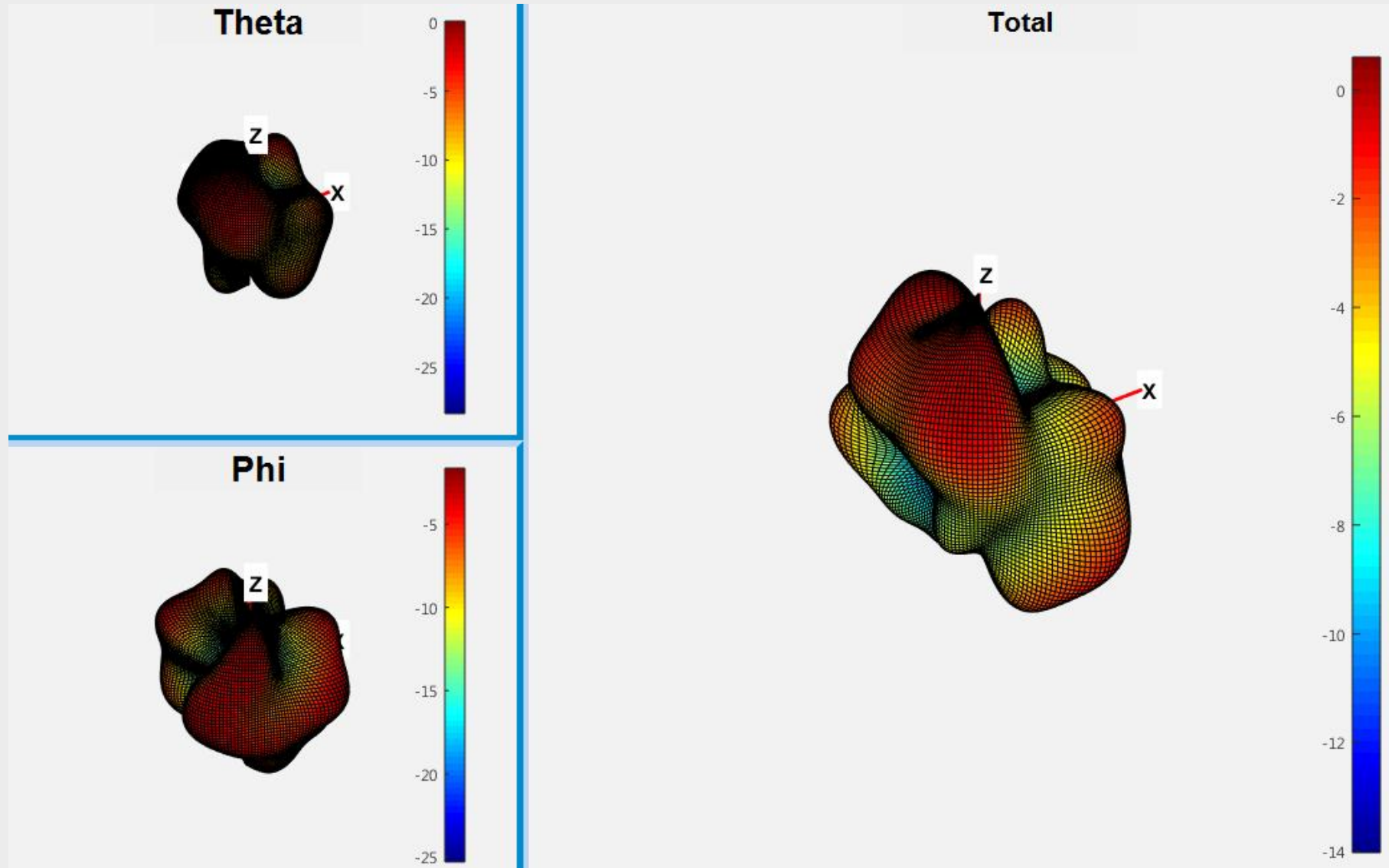


5.3D.Direction chart

WIFI-5850M



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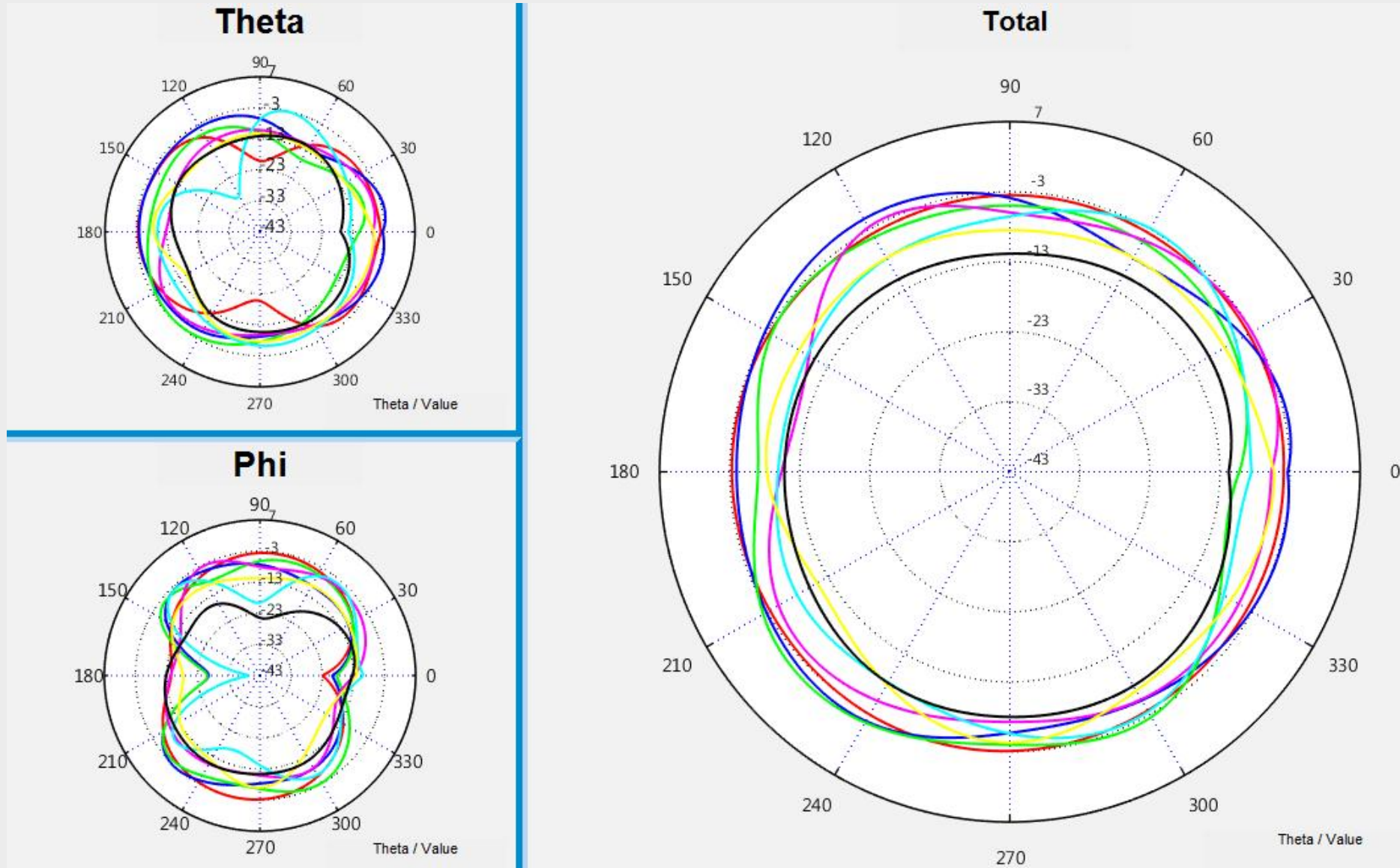


2D.Direction chart

WIFI-5850M



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6. Sample inspection report

Date: 2023.05.05

Inspection Quantity		5PCS	Qualified quantity		5PCS				
Test items		Inspection Standards and Instructions	Test results					Judgment	
			No. 1	No. 2	No. 3	No. 4	No. 5		
Exterior	Wire	No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	■OK □NG	
	IPEX	No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	■OK □NG	
	Plastic	No color difference, no dirt, no damage, no scratches						□OK □NG	
	Welding	After welding, no cold welding, false welding, tin tip, tin bead, and missing welding are allowed						□OK □NG	
	Dip tin	After immersion tin, there should be no tin tip, convex solder ball, no immersion tin, deformation						□OK □NG	
	Other							□OK □NG	
Main dimensions	1	55±2mm	55	55	55	55	55	■OK □NG	
Electrical and functional test	Frequency Rang	2.4-2.5GHz 5.15-5.85GHz							
	VSWR	<2.5	pass	pass	pass	pass	pass	■OK □NG	



g								
Mechanical behavior	pull	After Cable and IPEX are assembled, the tensile force is greater than 0.6kg	0.8	0.7	0.8	0.8	0.7	☒ OK ☐ NG
Remark								
Final decision		☒ Qualified ☐ Unqualified ☐ Conditional approval						

CHECKED BY: Zhang Chaochao

TEST BY: Lei Juanlan