

# SPECIFICATION FOR APPROVAL

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

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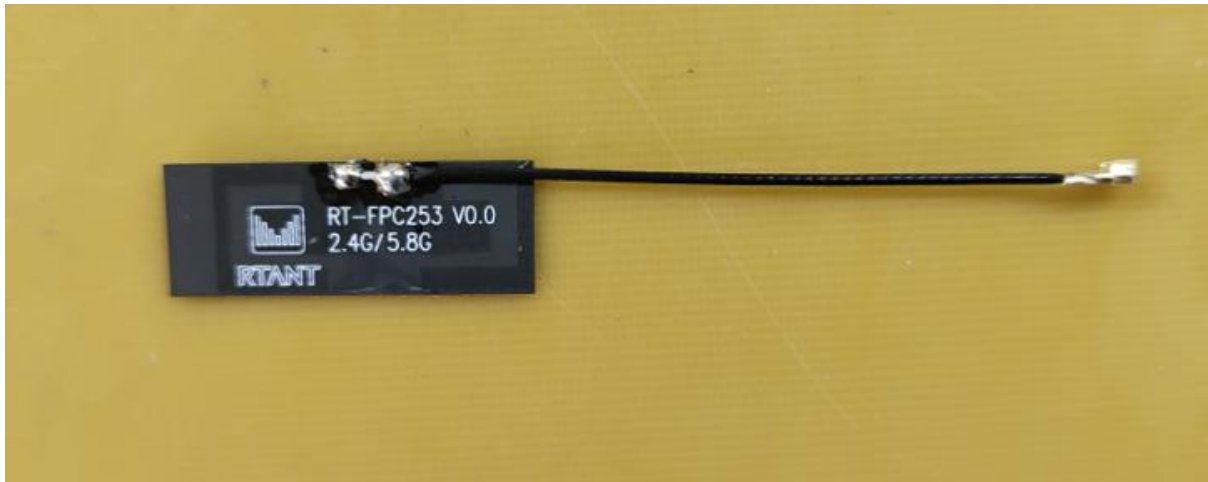
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## 2. Revision history

Revision	Date	Change the content
X0	23.05.05	New version

### 3. Product picture

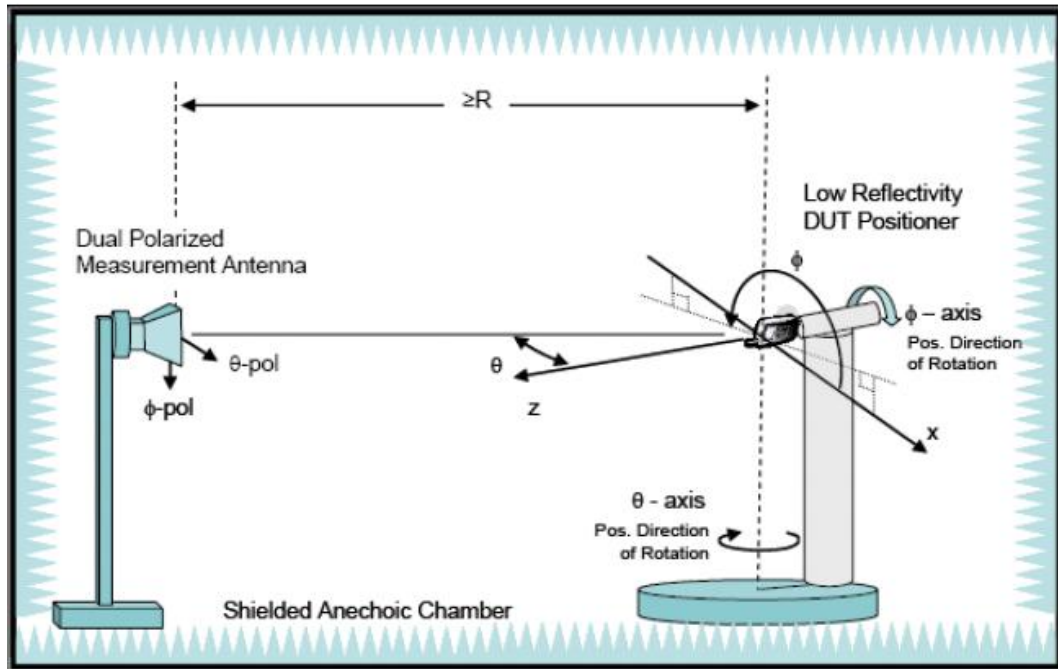


### 4. Specification

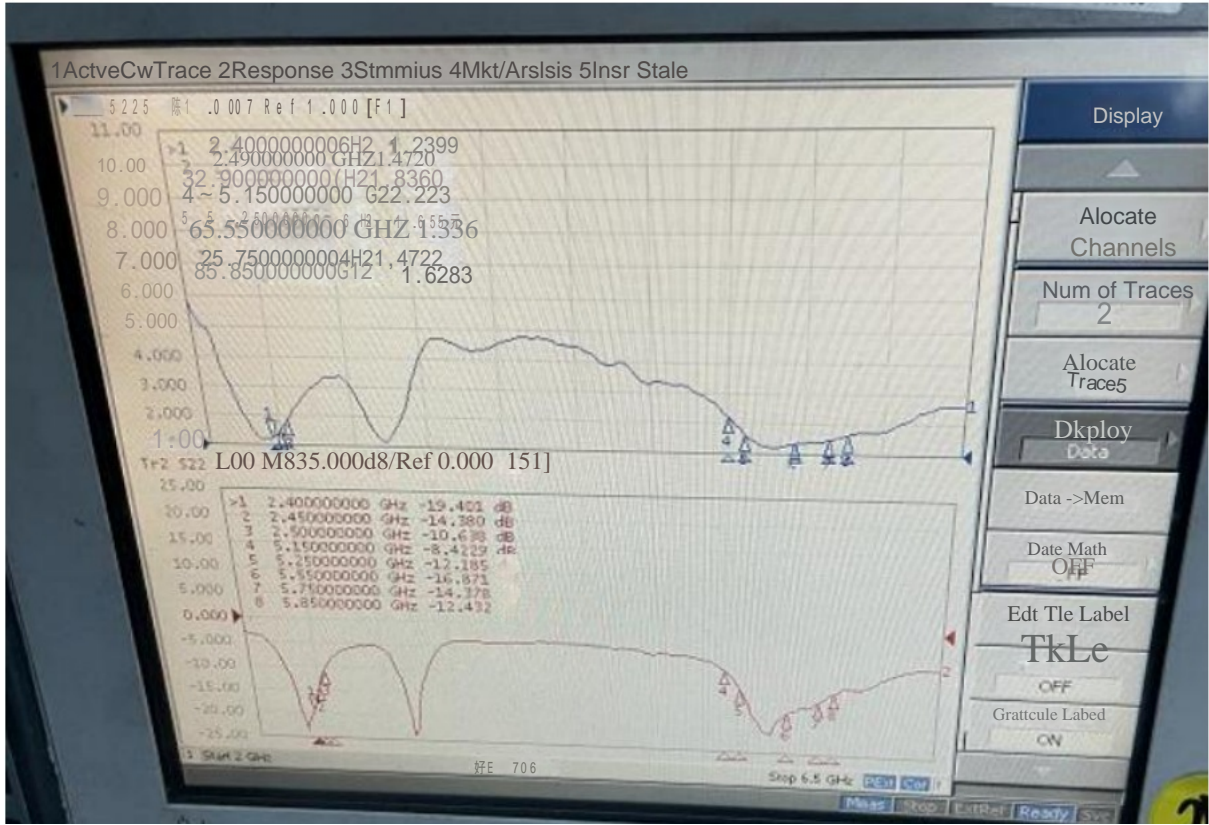
<b>A. Electrical Properties</b>	
Frequency Rang	2.4-2.5GHz/5.15-5.85GHz
Impedance	50 $\Omega$ Nominal
VSWR	2.5Max.
Gain(peak)	0.86dBi
Efficiency	>30%
Out of roundness	3.0 dBi (Max. )
Radiation	Omni-Directional
Polarization	Linear Vertical
<b>B. Physical Properties</b>	
Connector Type	Second generation IPEX
Cable	$\Phi$ 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



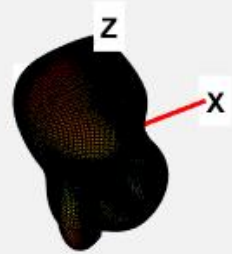
# 5.3D.Direction chart

WIFI-2450M

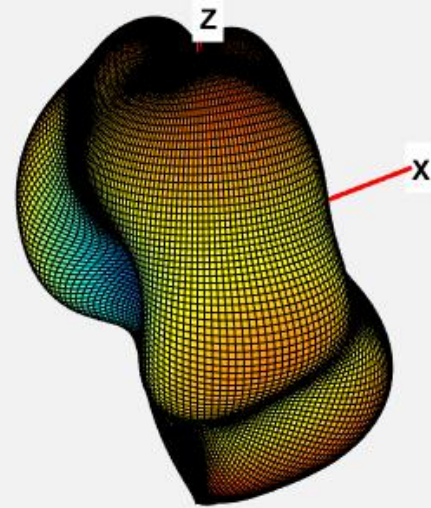


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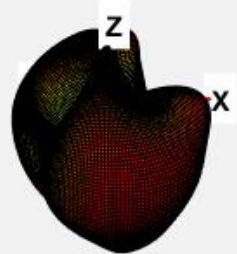
Theta



Total



Phi

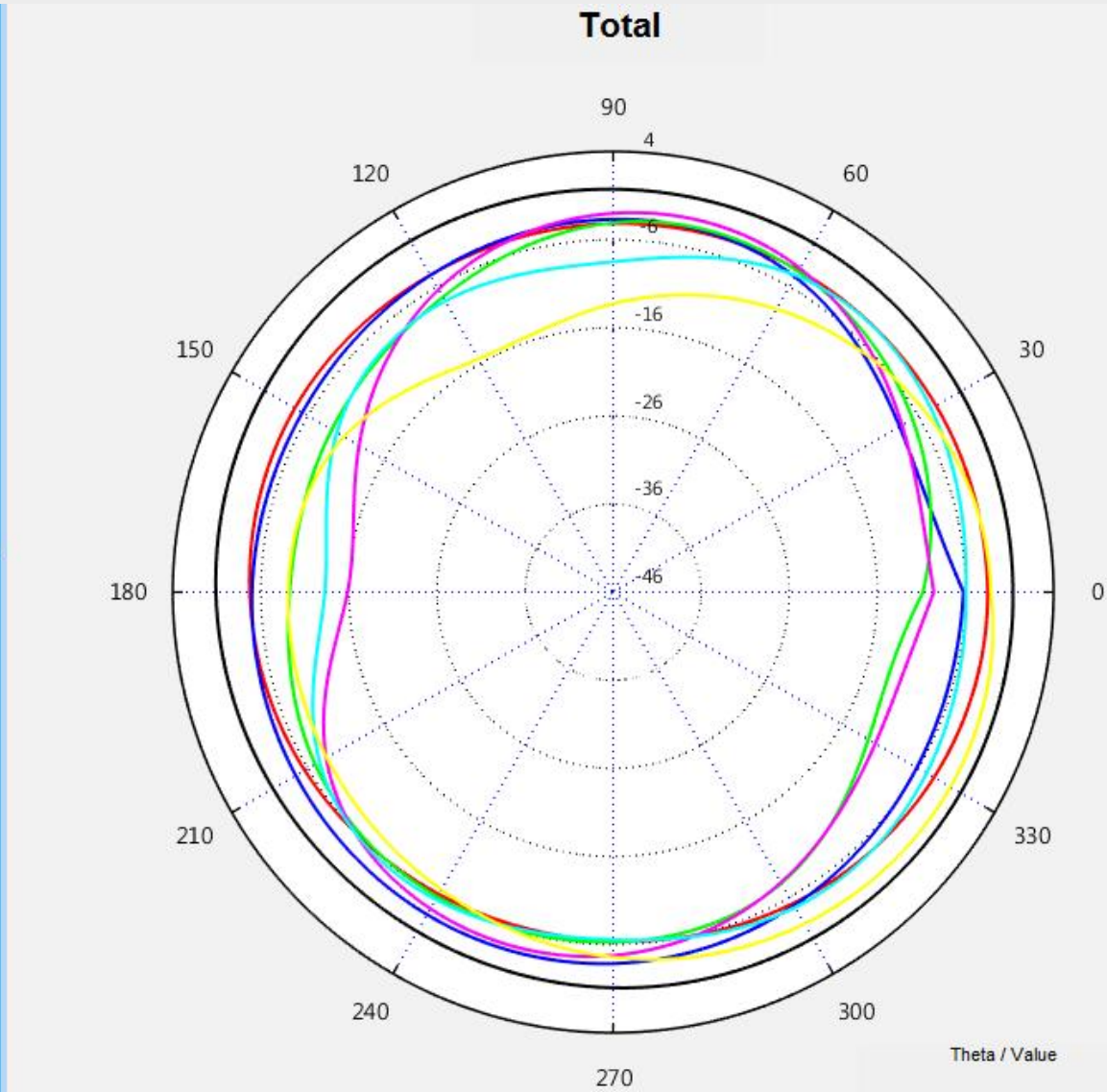
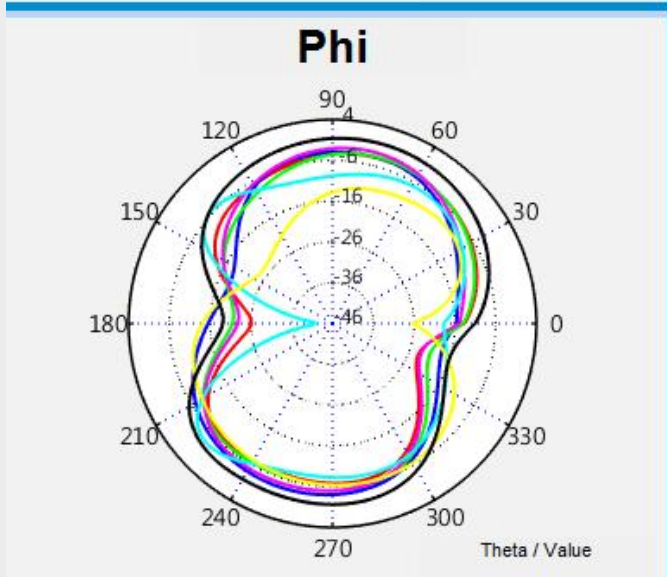
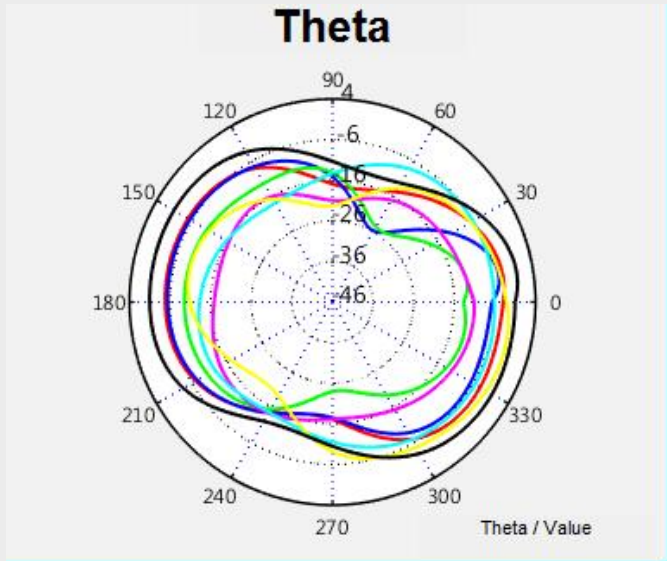




# 2D.Direction chart WIFI-2450M



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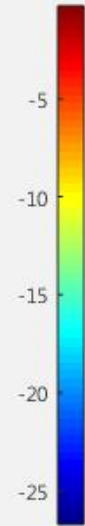
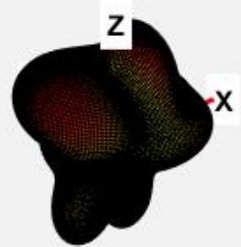


# 5.3D.Direction chart WIFI-5150M

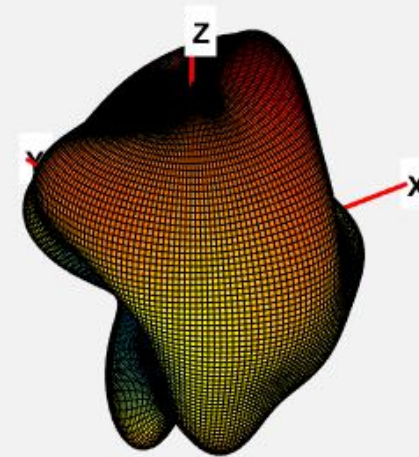


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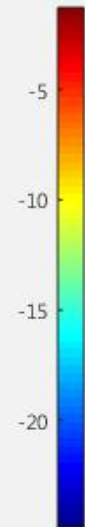
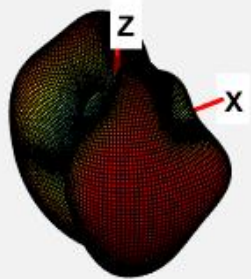
Theta



Total



Phi





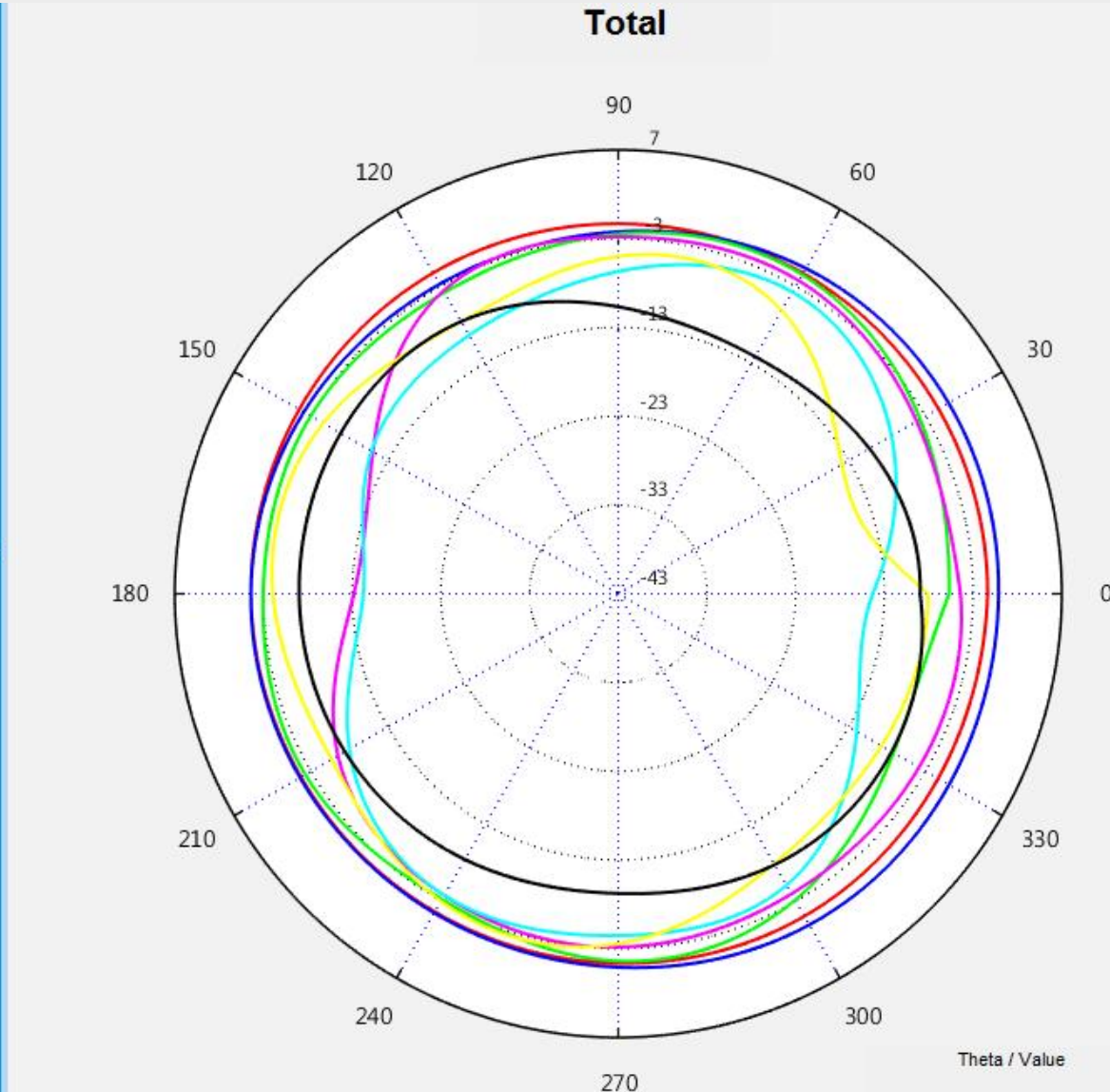
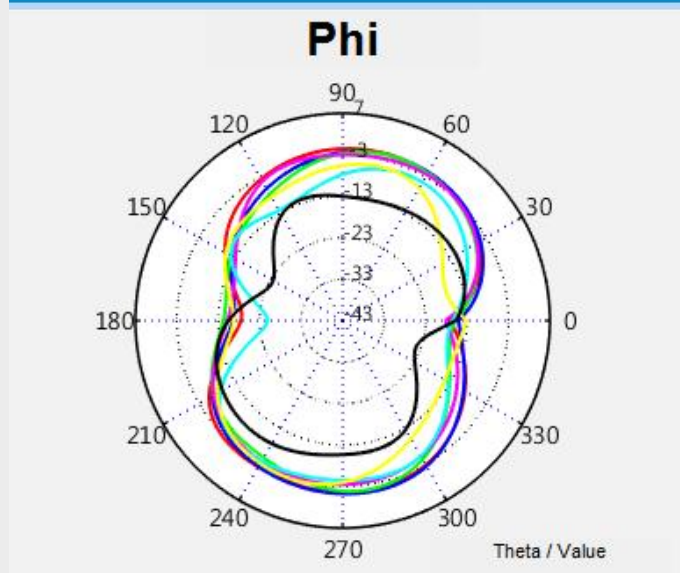
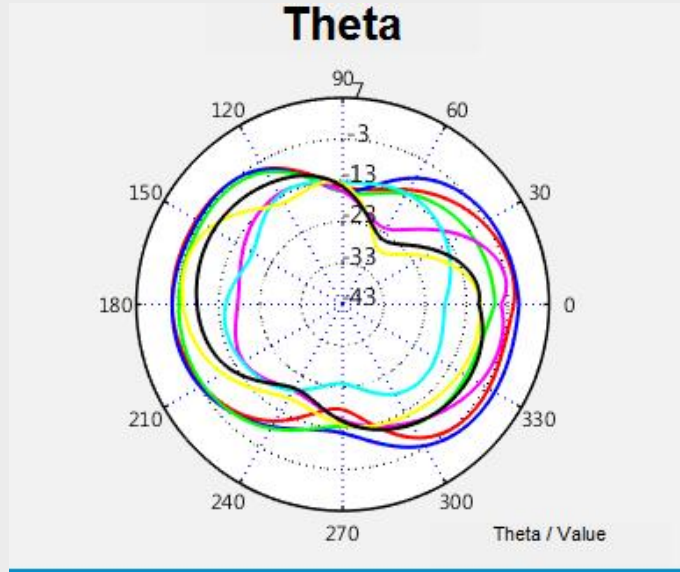


# 2D.Direction chart

WIFI-5150M



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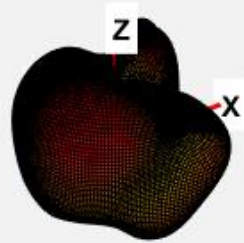
# 5.3D.Direction chart

WIFI-5550M

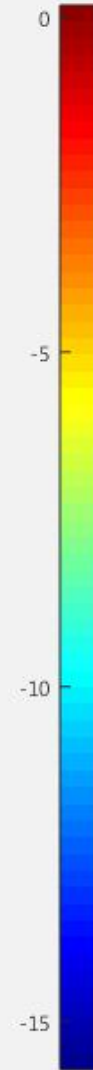
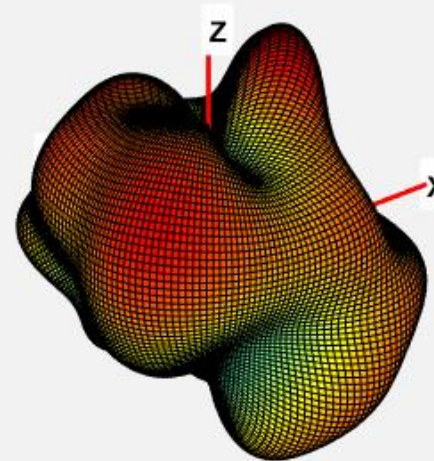


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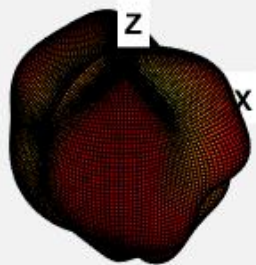
Theta



Total



Phi



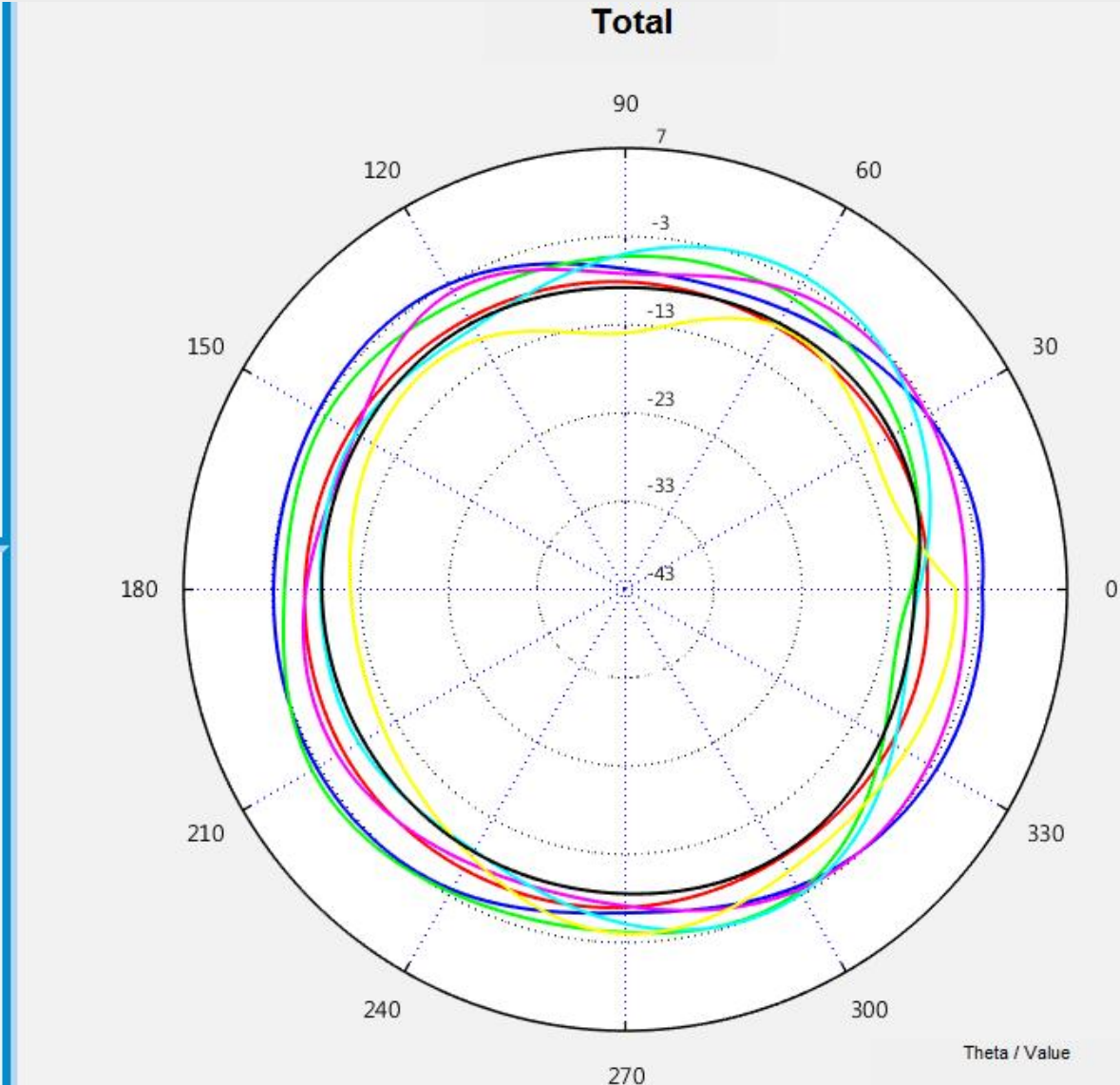
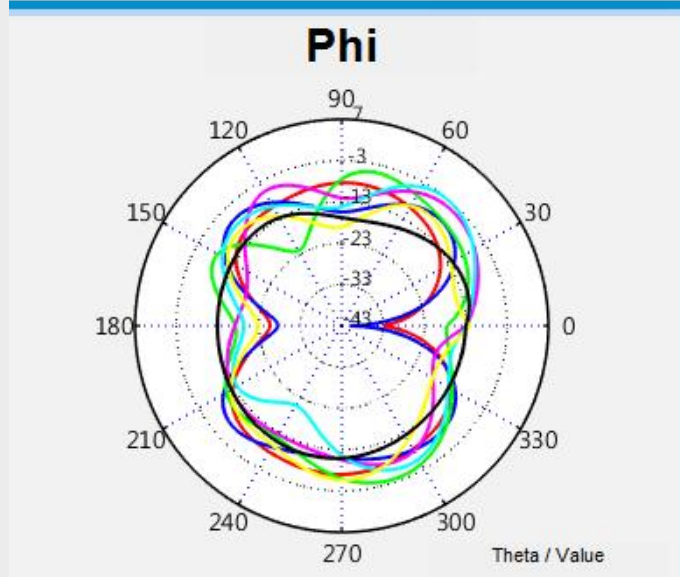
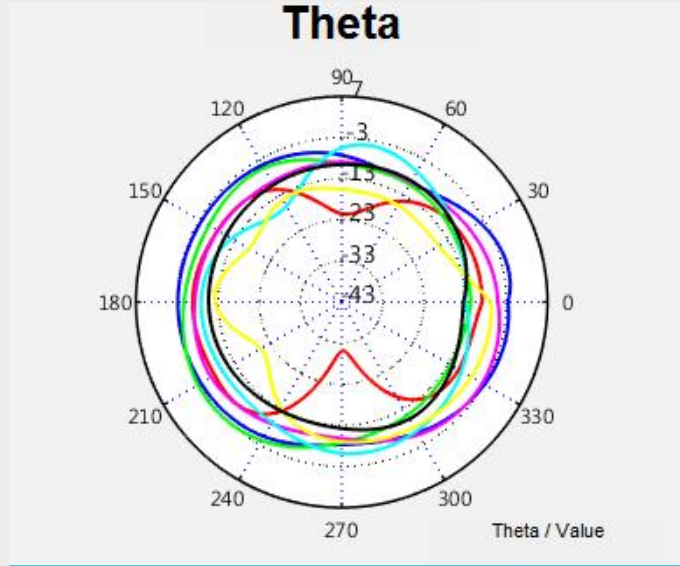


# 2D.Direction chart

WIFI-5550M



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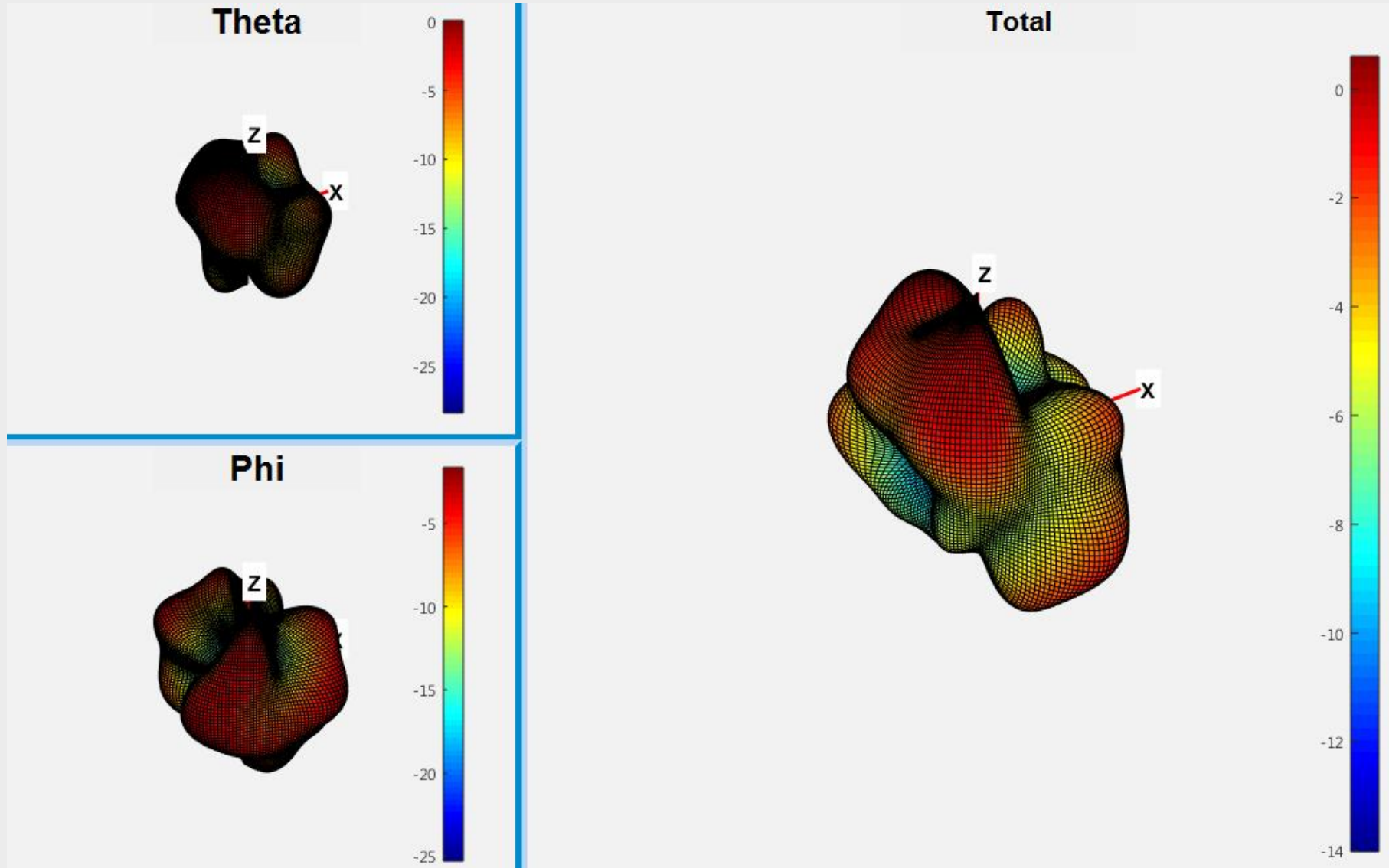


# 5.3D.Direction chart

WIFI-5850M



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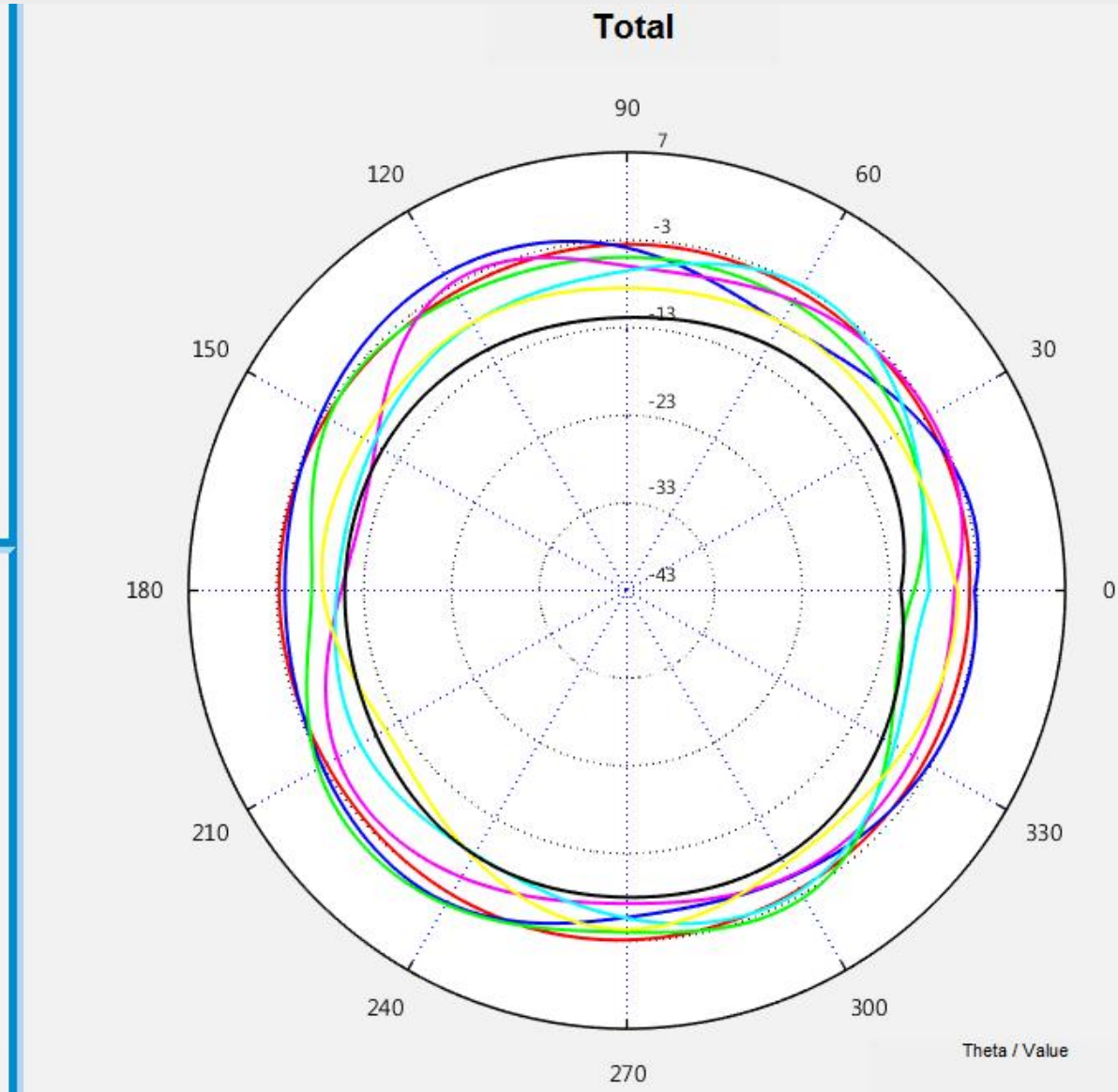
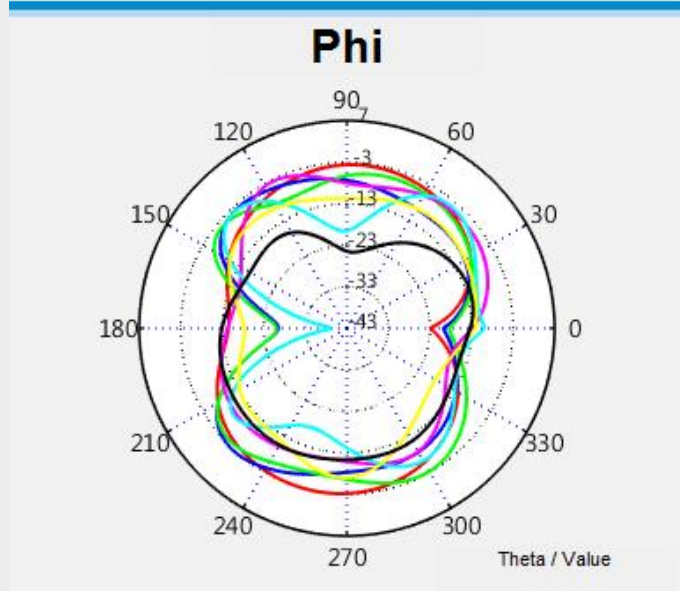
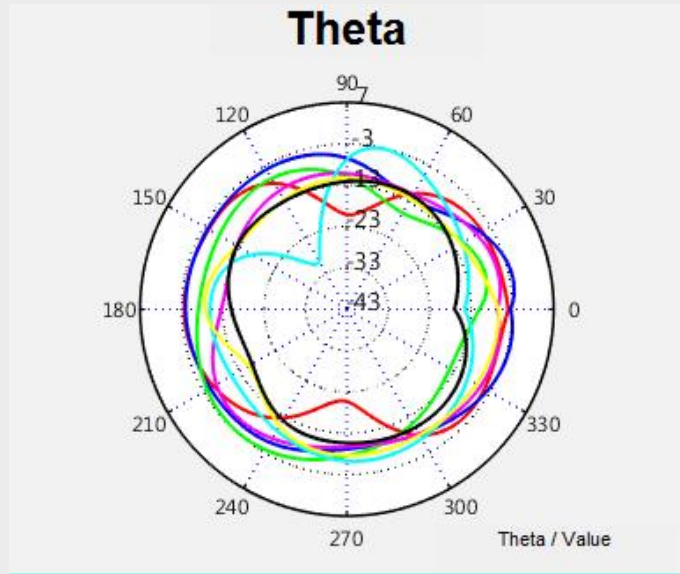


# 2D.Direction chart

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	pass	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NG
	IPEX	No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	pass	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NG
	Plastic	No color difference, no dirt, no damage, no scratches							<input type="checkbox"/> OK <input type="checkbox"/> NG
	Welding	After welding, no cold welding, false welding, tin tip, tin bead, and missing welding are allowed							<input type="checkbox"/> OK <input type="checkbox"/> NG
	Dip tin	After immersion tin, there should be no tin tip, convex solder ball, no immersion tin, deformation							<input type="checkbox"/> OK <input type="checkbox"/> NG
	Other								<input type="checkbox"/> OK <input type="checkbox"/> NG
Main dimensions	1	55±2mm	55	55	55	55	55	55	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NG
Electrical and functional testing	Frequency Rang	2.4-2.5GHz 5.15-5.85GHz							
	VSWR	<2.5	pass	pass	pass	pass	pass	pass	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NG



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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	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NG
Remark								
Final decision	<input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Unqualified <input type="checkbox"/> Conditional approval							

CHECKED BY: Zhang Chaochao

TEST BY: Lei Juanlan