

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 generations IPEX 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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Http://www.rtant.com

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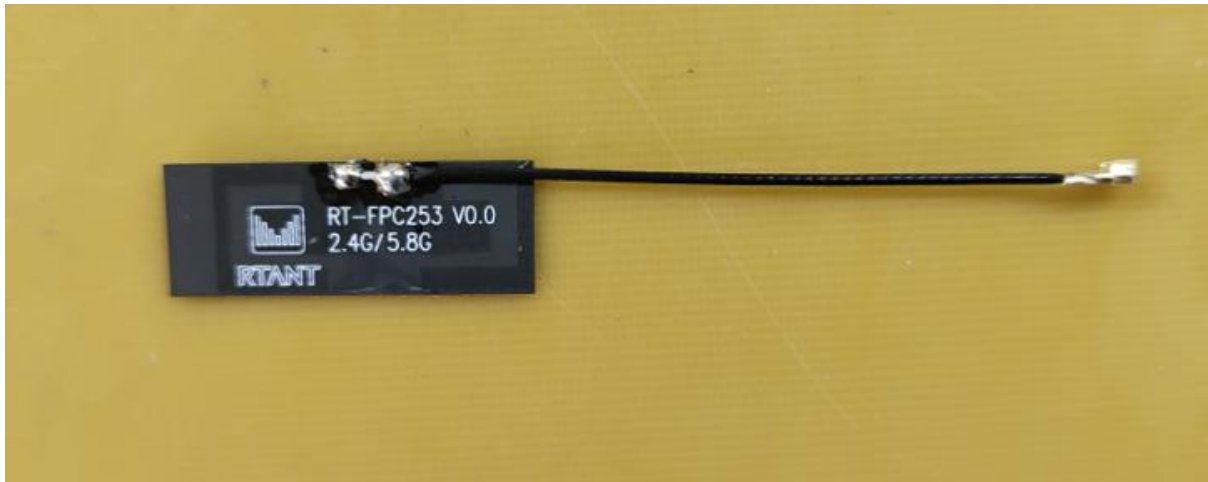
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2. Revision history

Revision	Date	Change the content
X0	23.05.05	New version

3. Product picture

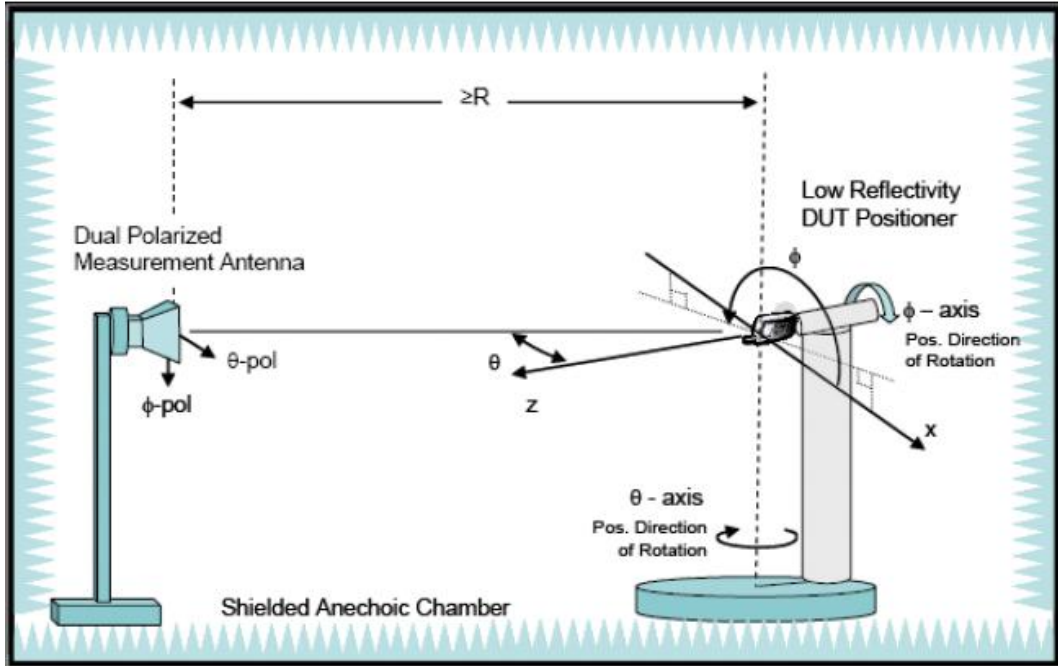


4. Specification

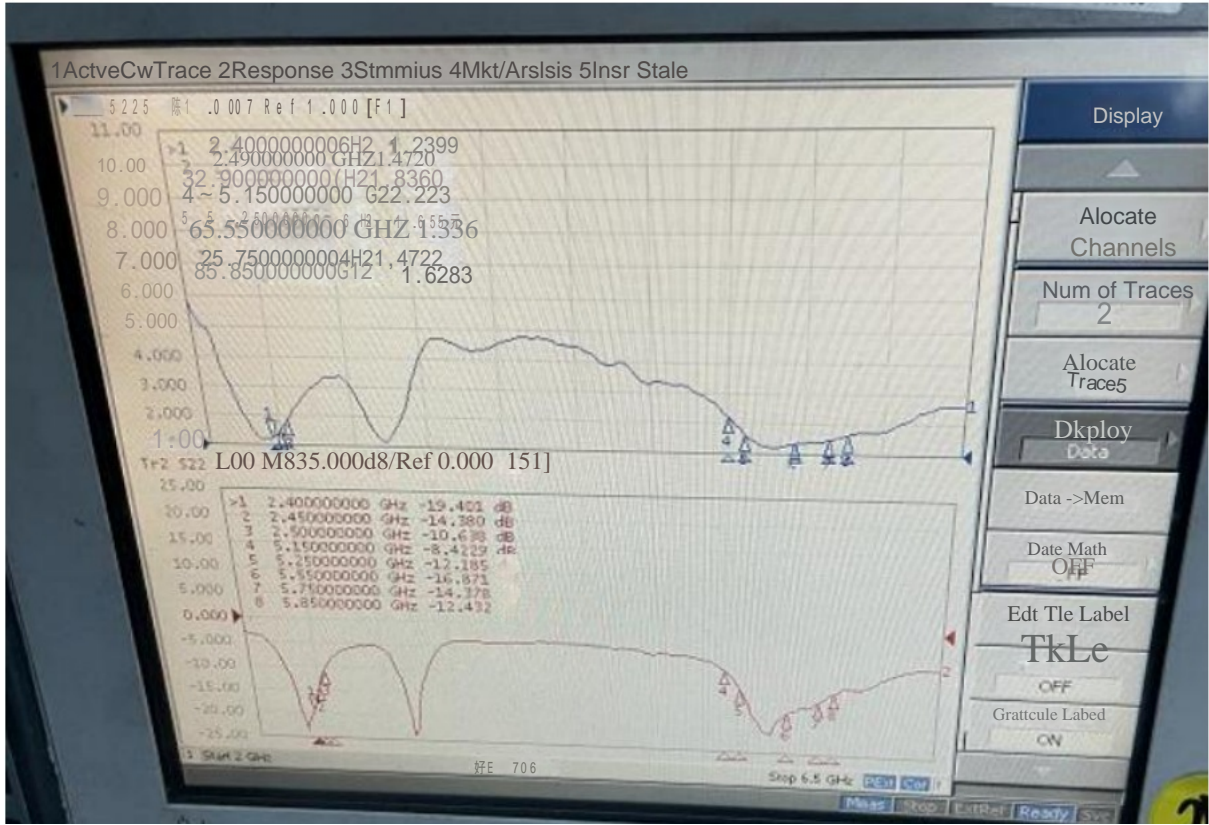
A. Electrical Properties	
Frequency Rang	2.4-2.5GHz/5.15-5.85GHz
Impedance	50 Ω Nominal
VSWR	2.5Max.
Gain(peak)	0.86dBi
Efficiency	>30%
Out of roundness	3.0 dBi (Max.)
Radiation	Omni-Directional
Polarization	Linear Vertical
B. Physical Properties	
Connector Type	Second generation IPEX
Cable	Φ 0.81mm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

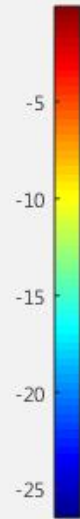
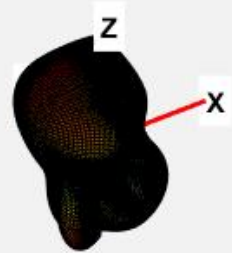


5.3D.Direction chart WIFI-2450M

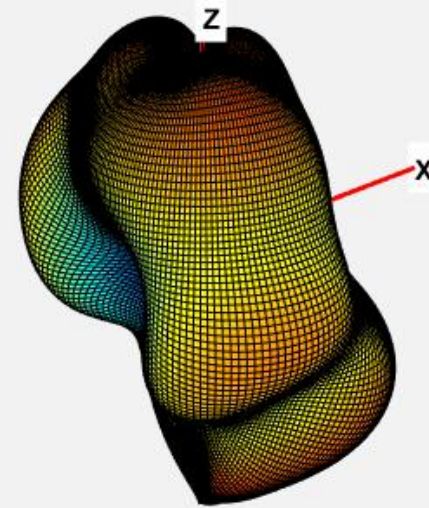


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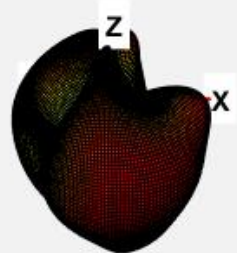
Theta



Total



Phi

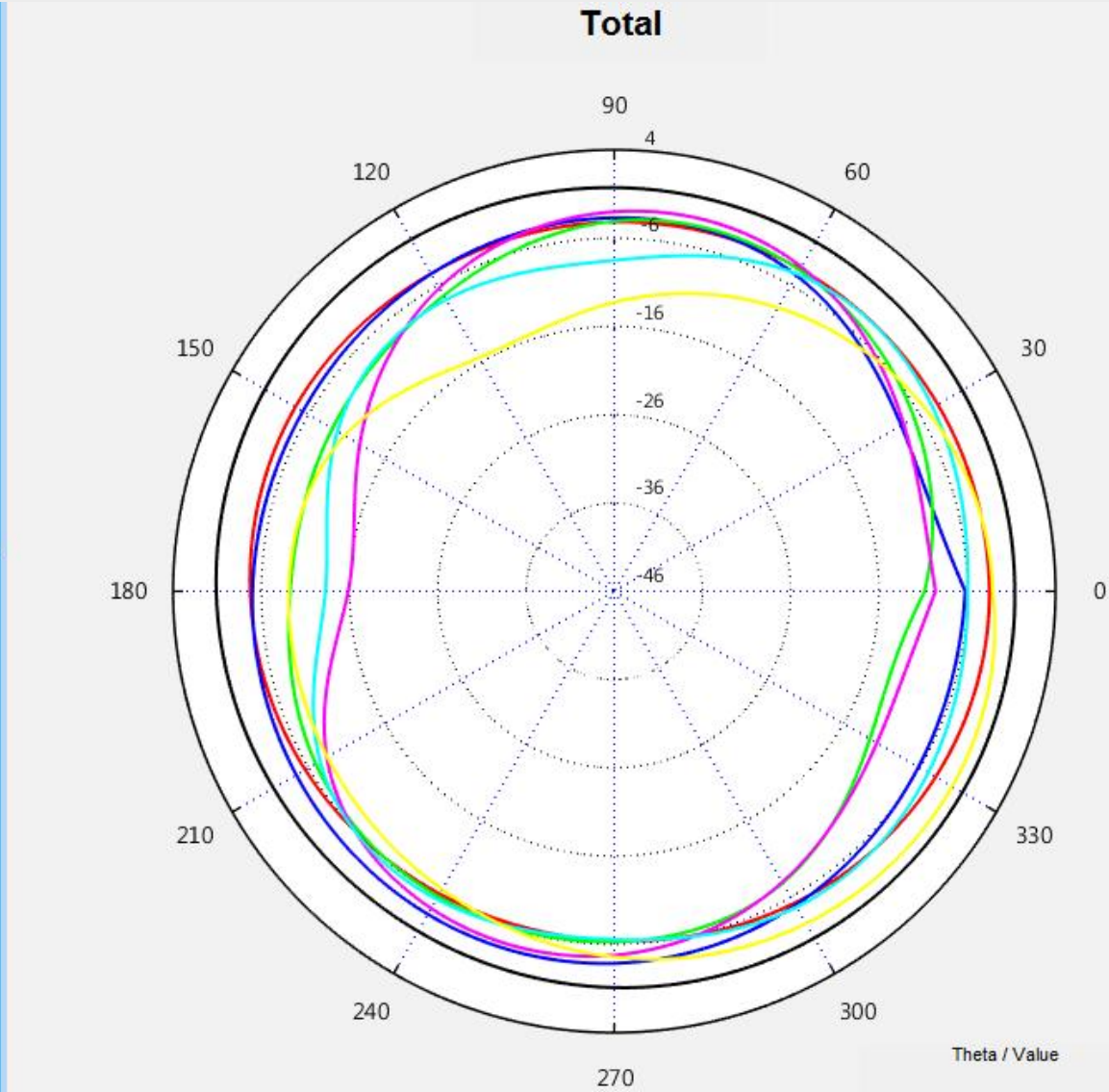
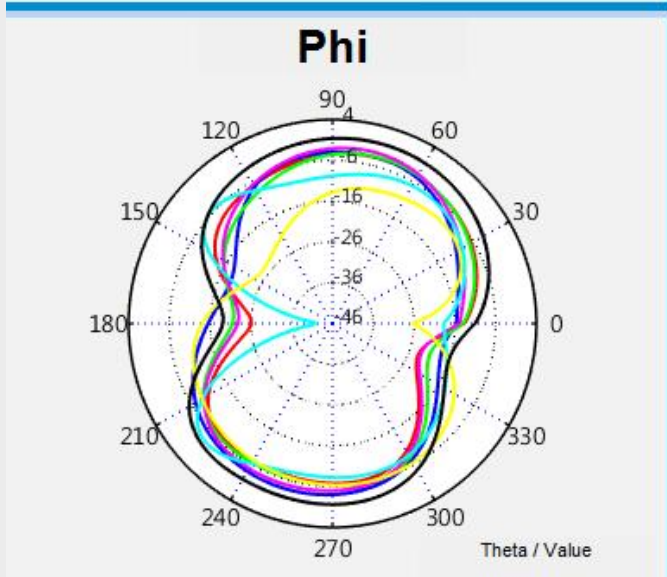
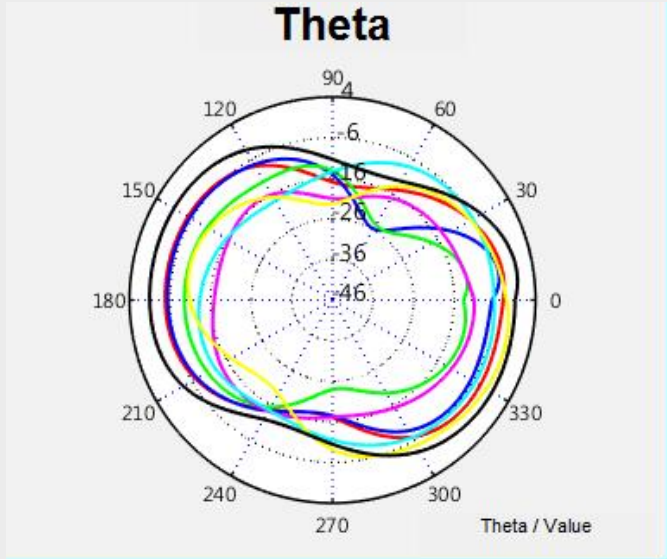




2D.Direction chart WIFI-2450M



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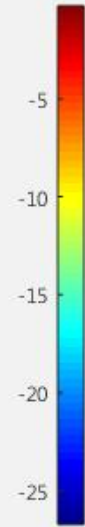
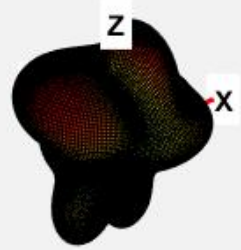


5.3D.Direction chart WIFI-5150M

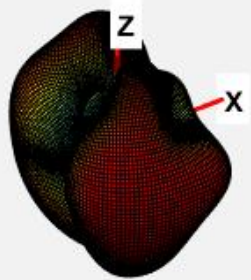


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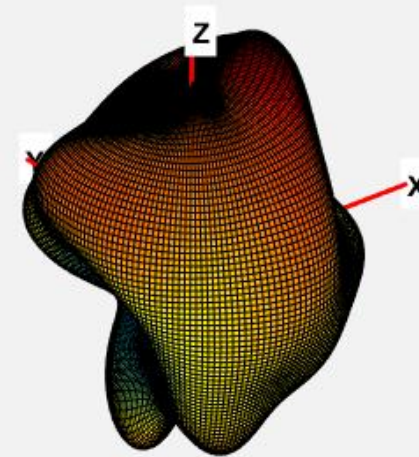
Theta



Phi



Total



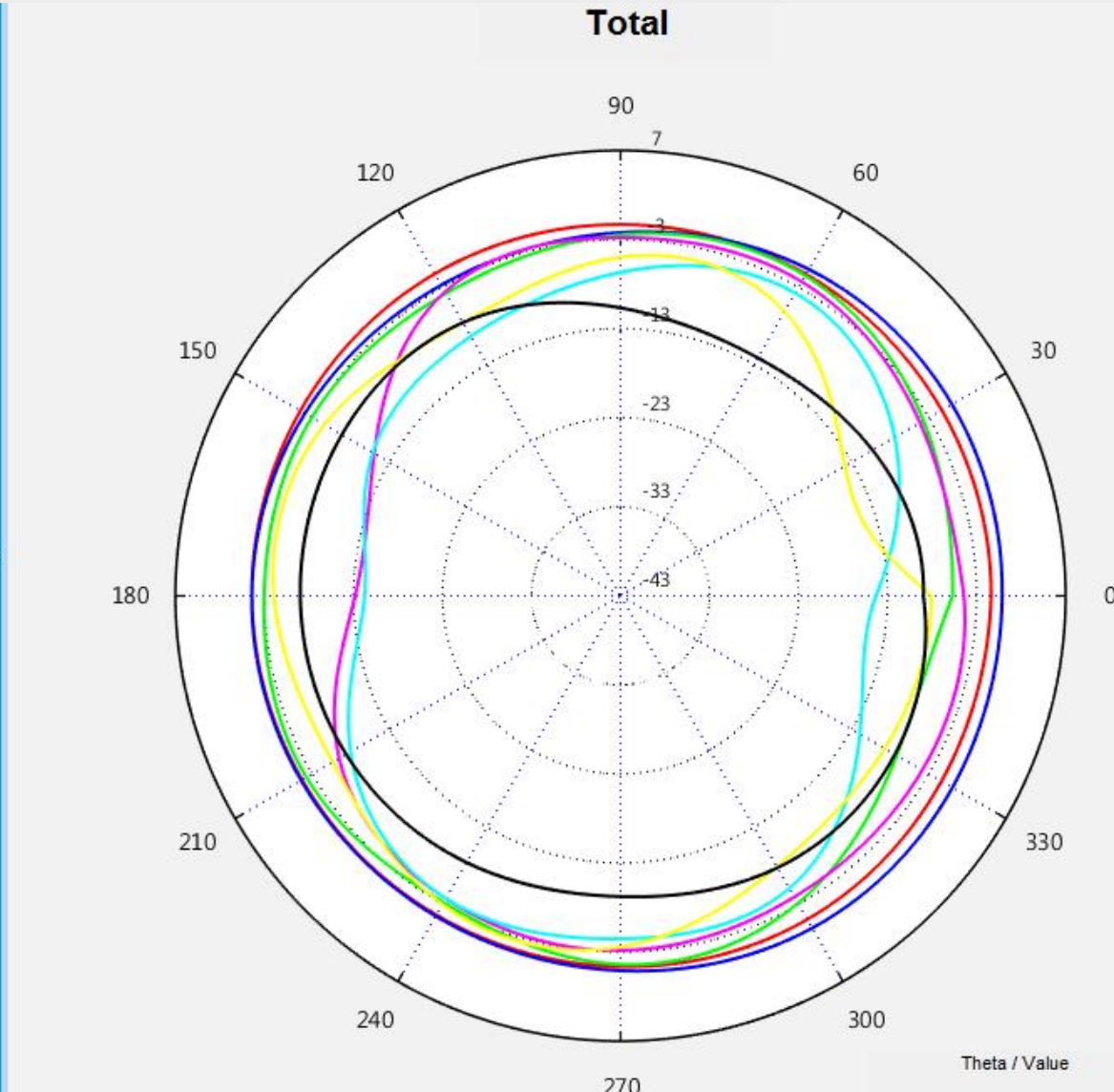
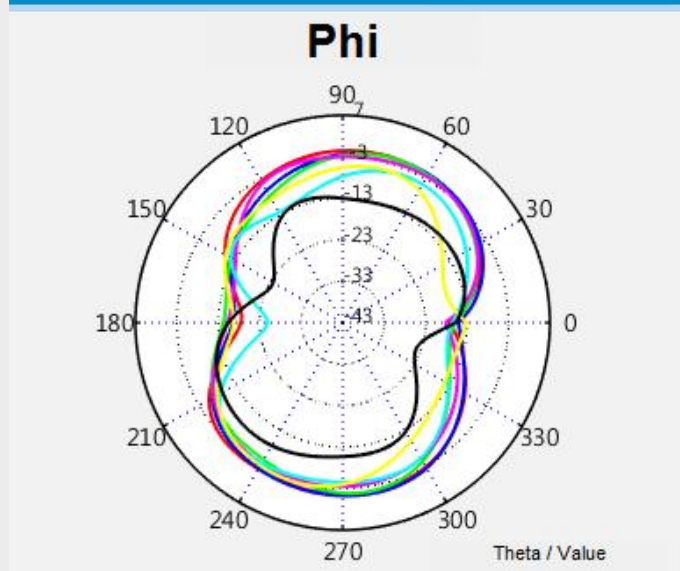
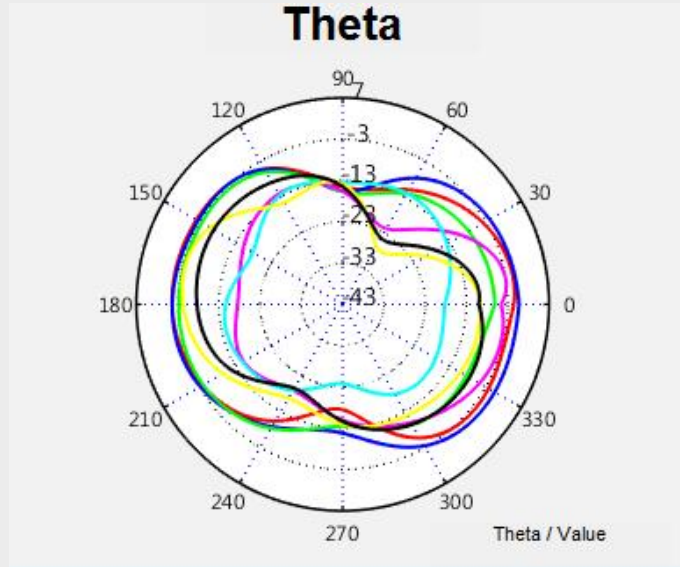


2D.Direction chart

WIFI-5150M



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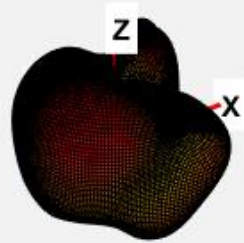
5.3D.Direction chart

WIFI-5550M

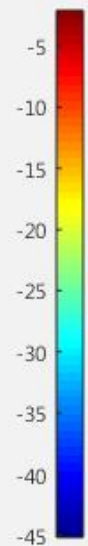
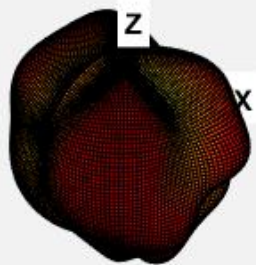


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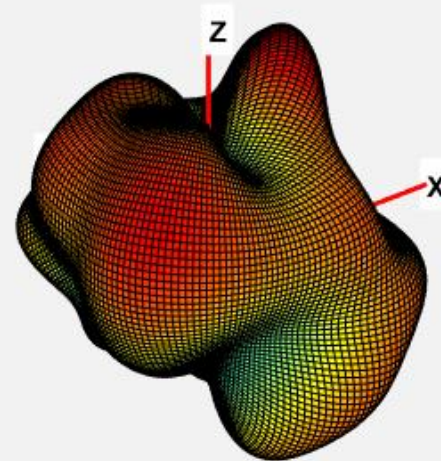
Theta



Phi



Total



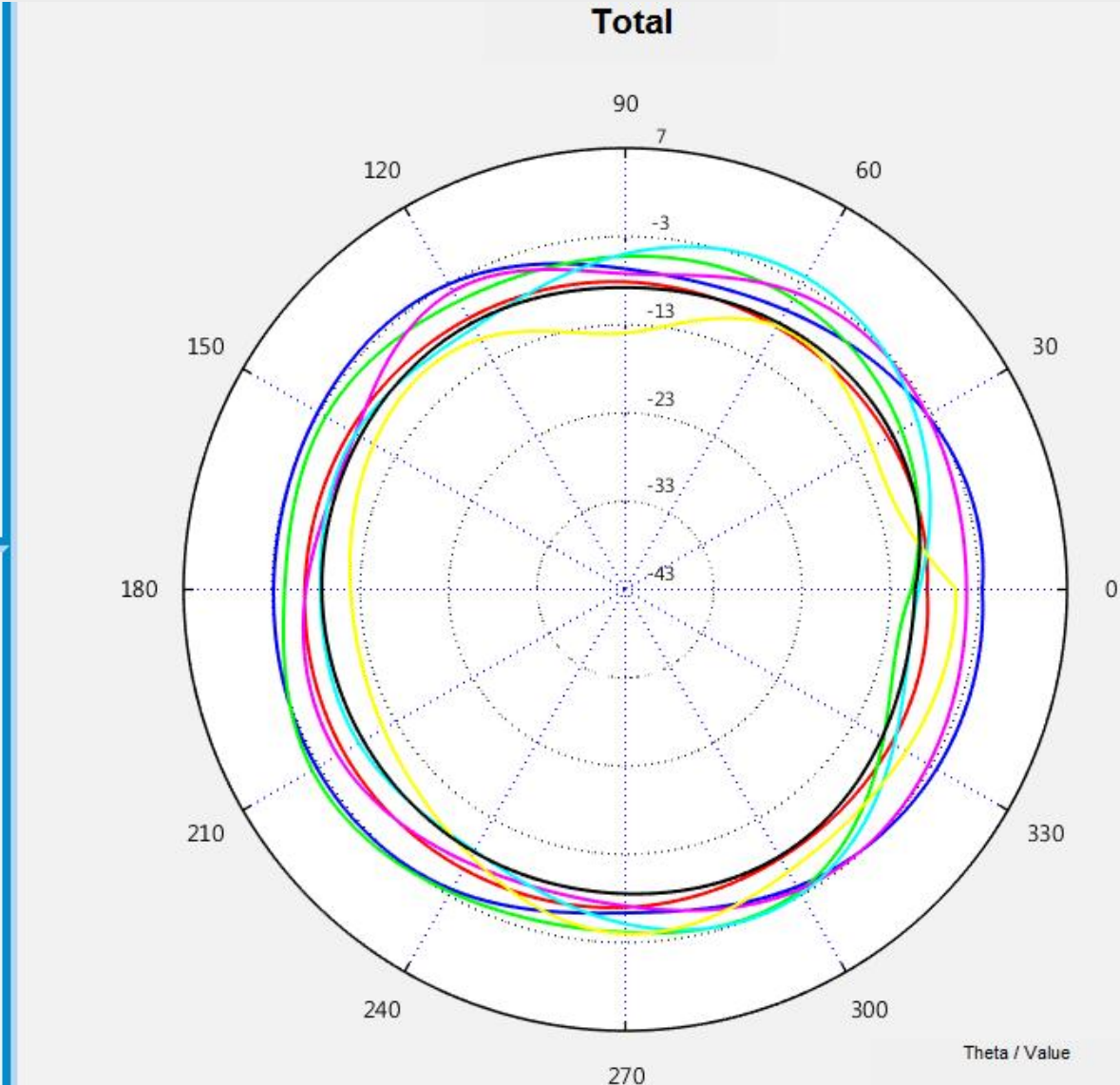
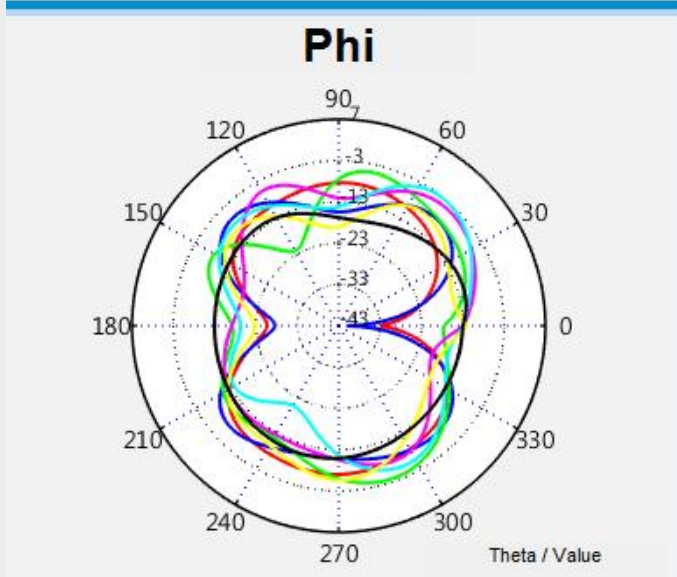
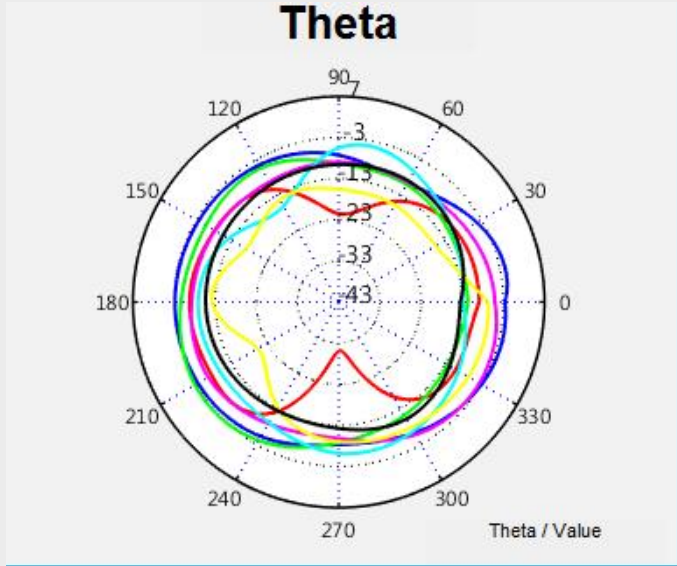


2D.Direction chart

WIFI-5550M



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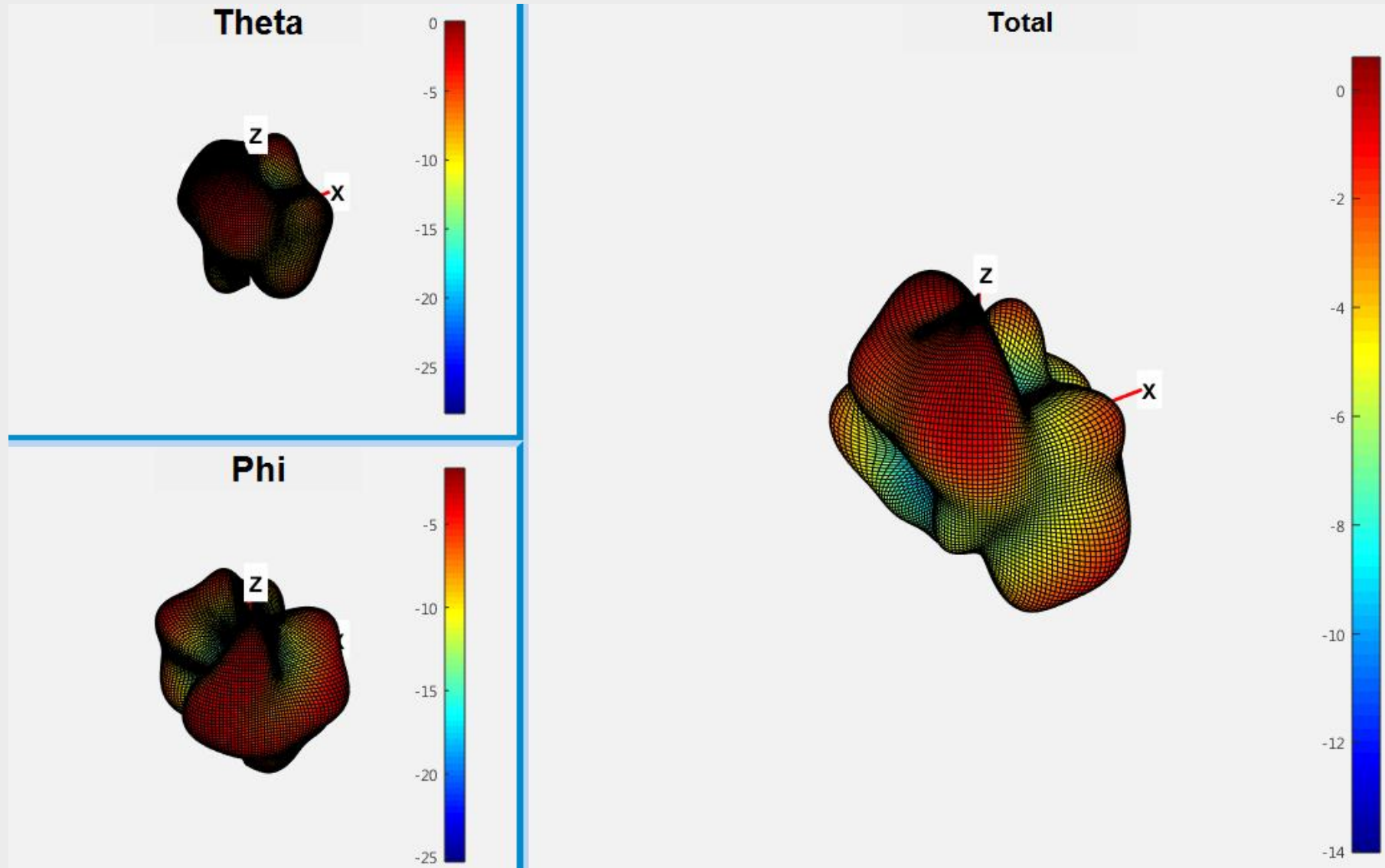


5.3D.Direction chart

WIFI-5850M



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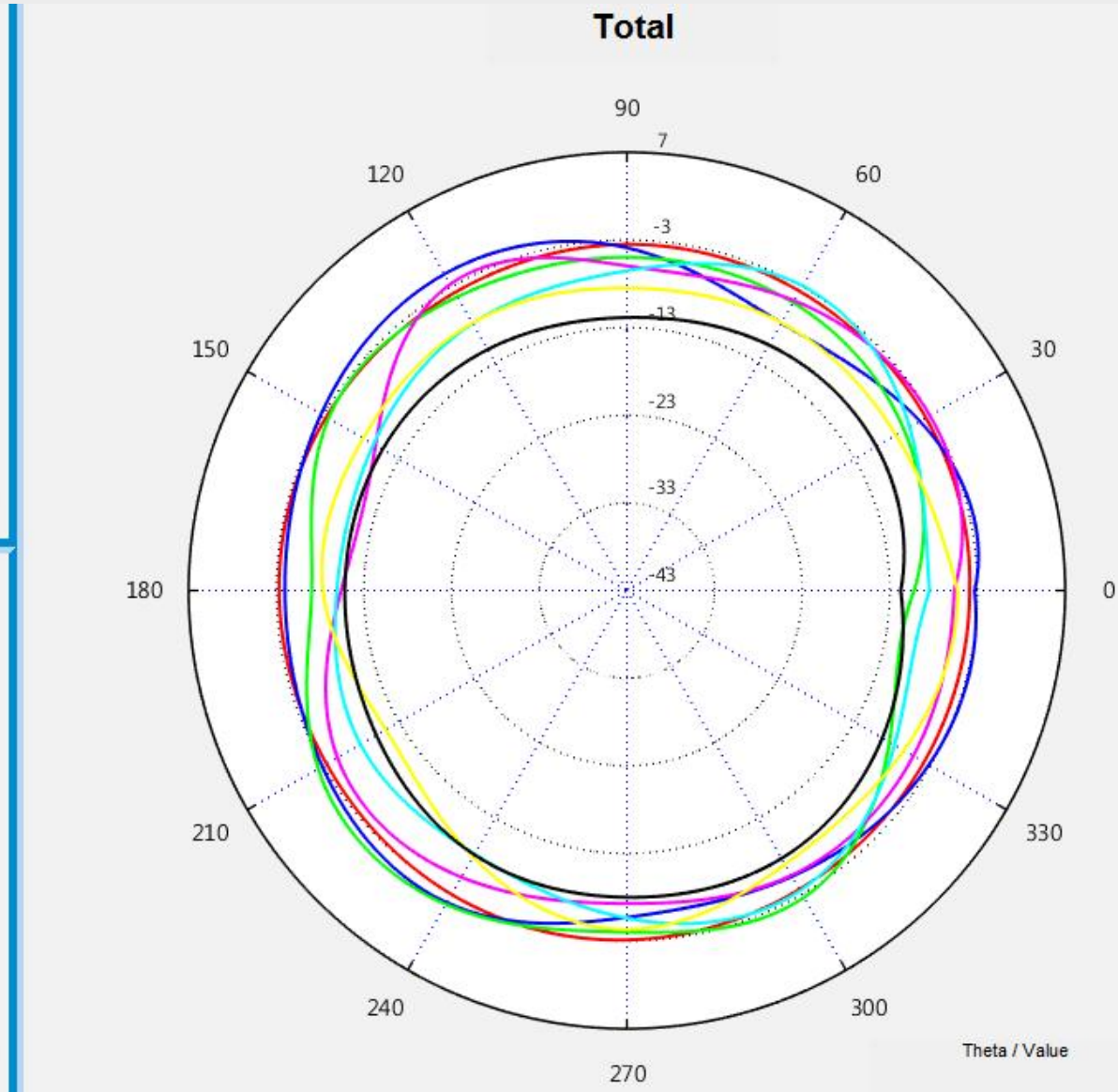
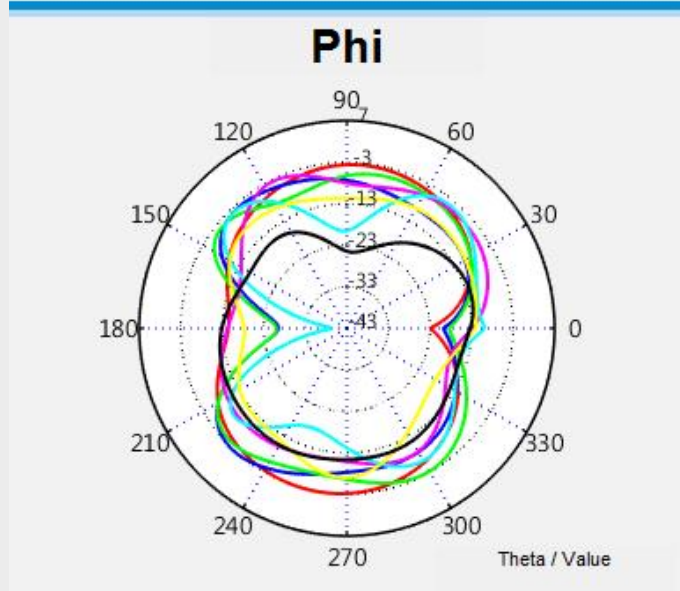
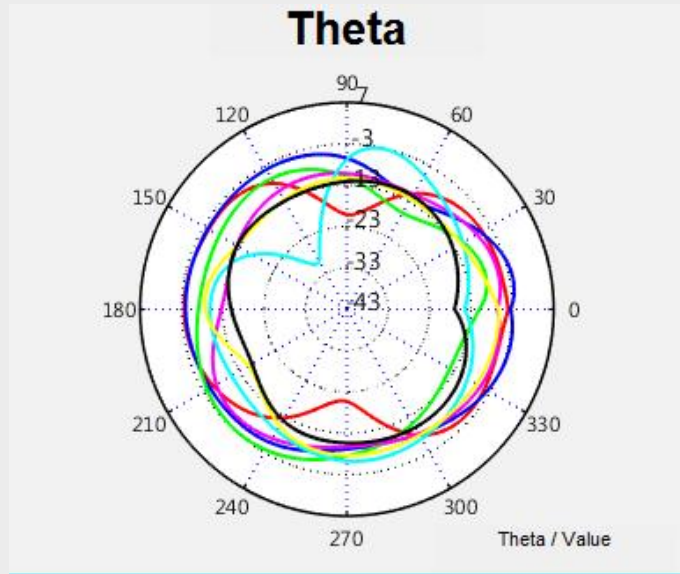


2D.Direction chart

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	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