

SPECIFICATION FOR APPROVAL

CUSTOMER: Shenzhen HAC Telecom Technology Co., Ltd.
CUSTOMER PARTNO:

SUPPLIER: ShenZhen MyAntenna RF Technology Co.,Ltd
PRODUCT MODEL: HAC-TH915-A21F01
PRODUCT NAME: HAC-TH915-A21F01 Spring antenna
PRODUCT CODE: M04-0102130R0A

CUSTOMER SIGNATURE:

CUSTOMER SEAL:

SUPPLIER SIGNATURE:

SUPPLIER SEAL:

NOTE: PLEASE RETURN THIS COPY AS A CERTIFICATION OF YOUR APPROVAL

Prepared by:

Date:

2022.08.30

Add:

Tel:

Fax:

0755-86503881

0755-27801677

VERSION INFORMATION

[illegible]

PERFORMANCE PARAMETER

1. Electrical Characteristics

1	Frequency Range	880MHz-960MHz
2	V. S. W. R	<3.0
3	Gain	0 dBi
4	Impedence	50 Ω
5	Polarization	Vertical polarization

2. Mechanical parameters

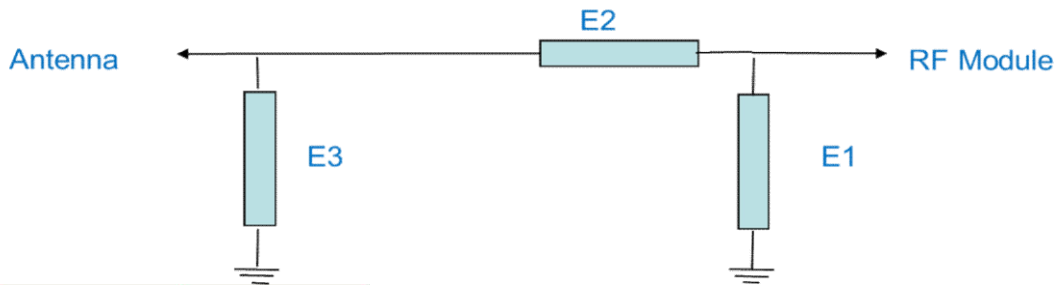
1	Measure	Φ 0.6mm
2	Colour	Silvery white

3. Environment Condition

1	Working Temp	-30°C~80°C
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TESTING CURVE

1. Matching circuit

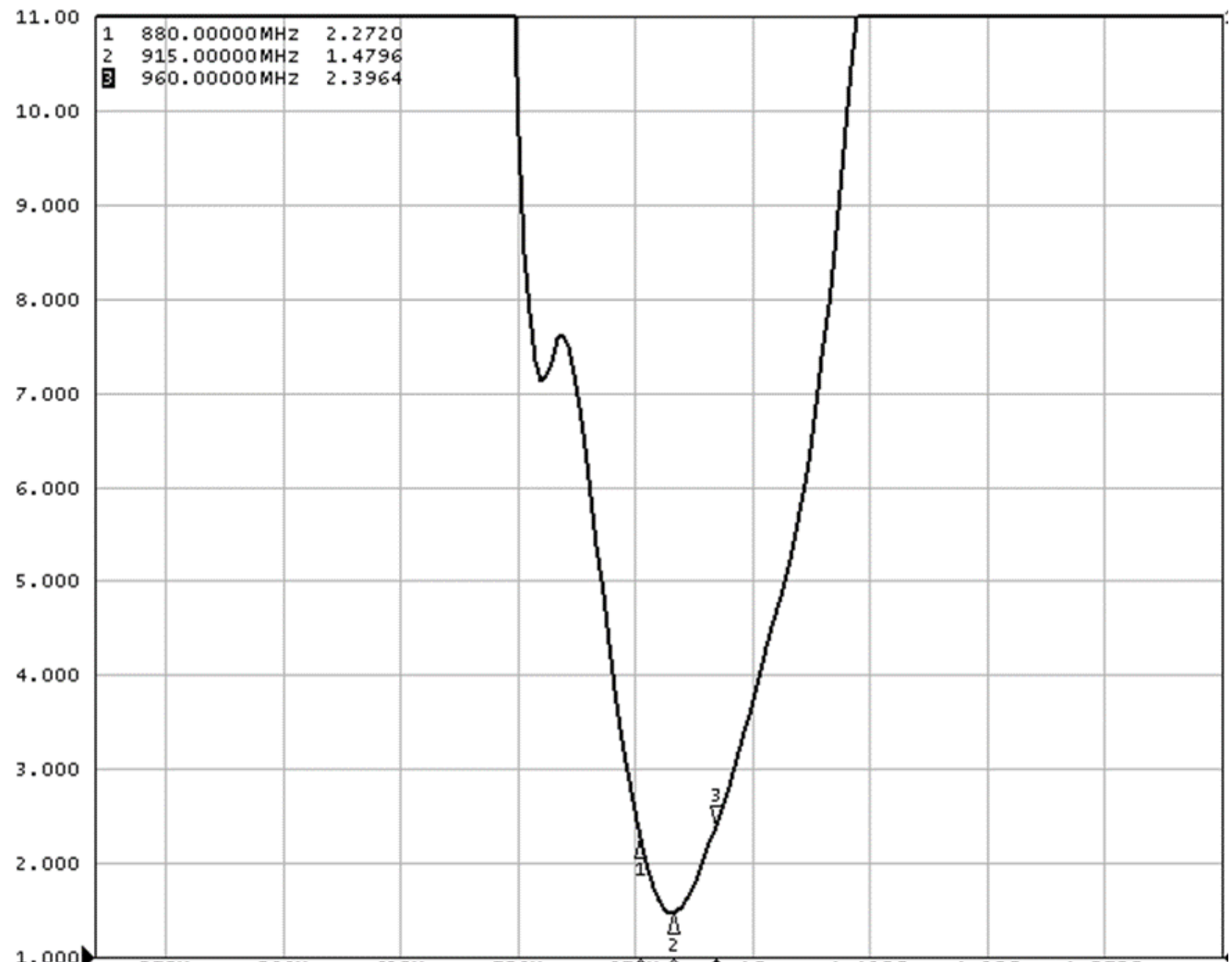


Element	Value
E1(0402)	NC
E2(0402)	0Ω
E3(0402)	NC

TESTING CURVE

2. Performance test

2.1 V.S.W.R



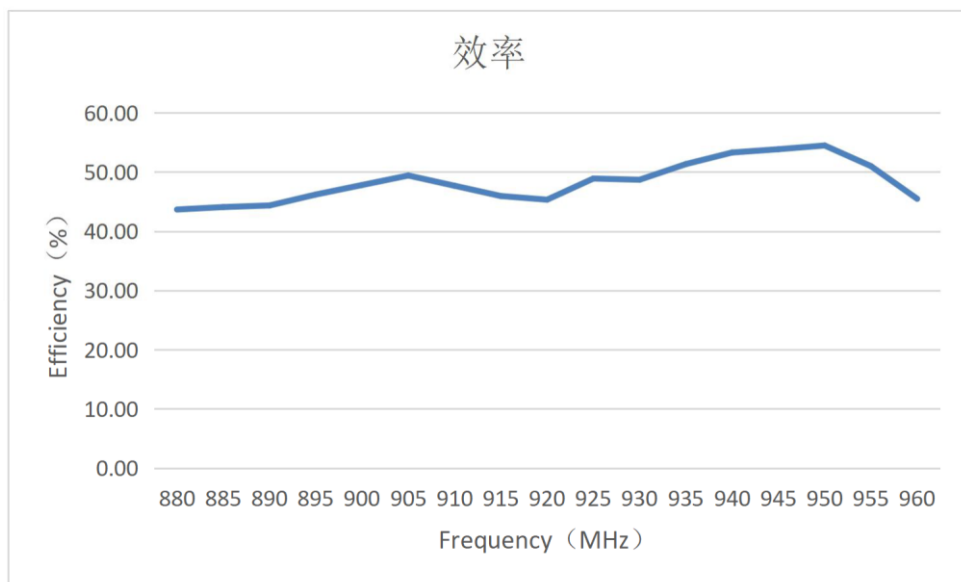
Data list

Freq/MHz	880	915	960
VSWR	2.27	1.47	2.39

TESTING CURVE

3. Passive testing

3.1 Efficiency and Gain

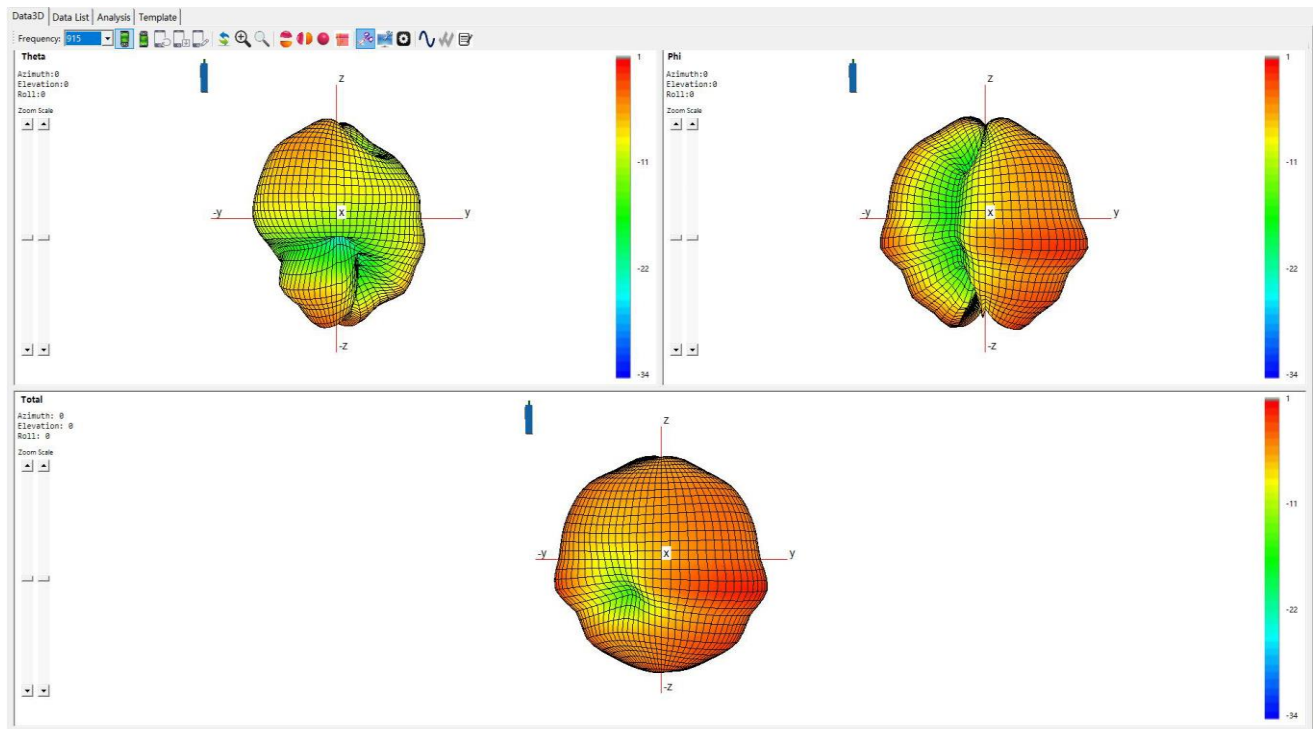


Data list

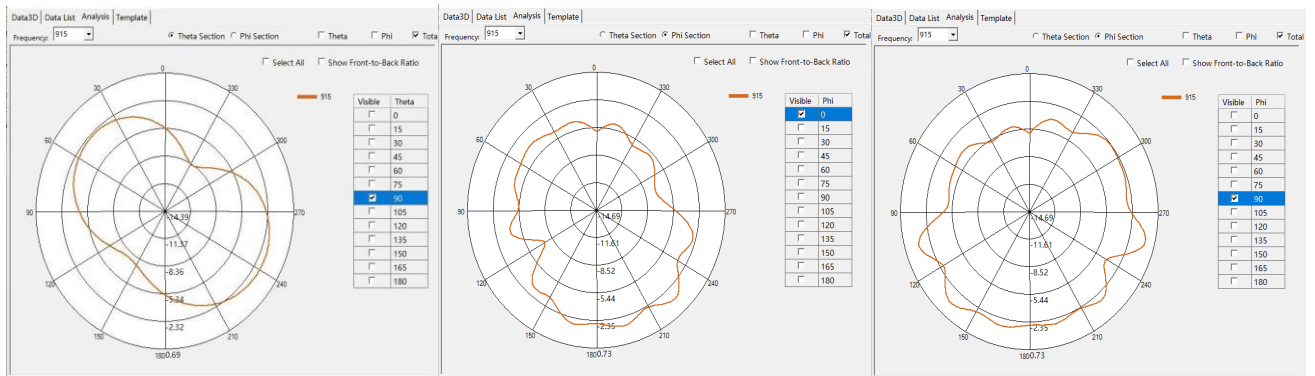
Freq (MHz)	Gain(dBi)	Efficiency(%)
880	-1.07	43.67
885	-0.74	44.08
890	-0.37	44.35
895	0.15	46.20
900	-0.57	47.81
905	-0.94	49.41
910	-0.85	47.68
915	0.00	45.95
920	-0.64	45.33
925	-0.90	48.90
930	-0.87	48.70
935	-0.85	51.34
940	-0.60	53.29
945	-0.35	53.85
950	-0.32	54.48
955	-0.04	51.00
960	-0.41	45.48

TESTING CURVE

3.2 3D Map



3.3 2D Figure



SCHEDULE DRAWING

ANTENNA PLACEMENT DIAGRAM



Certificate of Acceptance Sample Size Inspection Report

Item name		HAC-TH915-A21F01		Antenna type	Spring antenna	Date	2022. 08. 30			
Visual inspection standard				1.The antenna surface is normal						
Dimensional inspection standard				2.Within the tolerance range required by the drawing						
No.	Inspection items	Specifications	Inspection tools	Number of samples	Determine	Description				
1	Appearance	Above standards	Visual	3	OK					
2	Size	As below	Vernier caliper	3	OK					
No.	Inspection items	Specifications	Inspection tools	Test results (including 6 data recorded at the highest and lowest values)						
				1	2	3	4	5	6	
1	Overall dimension	40.75±0.5	Calipers							
2		Φ5.6±0.1								
3		31.23±0.5								
4		3.9±0.3								
5		20.63±0.5								
6										
7										
8										
Note										
Approval:			Checked:			Inspector:				

QC ENGINEERING DRAWING

			Documentat ion	MA-QCW-2208-	Documentat ion name	HAC-TH915-A21F01 Spring antenna			Authorize	
			Version	A					Check	
QC Engineering Drawing			Release date	2022. 08. 30	Effective date	2022. 08. 30	Page	1/1	Approval	
N o.	Flow	Process name	Process parameters /quality characteristics	Use equipment fixture	Detection equipment	Inspectio n method	Inspection frequency	Usage record	Undertaker	Relevant documents
1		Incoming inspection	Inspection standard/drawing	Calipers	/	Visual	AQL spot check	IQC inspection report	IQC	
2		Confirmation of packaging (bagging) quantity	/	/	/	Visual	Full inspection	Daily production report	Operator	
3		Warehousing	MO	/	/	/	/	Product warehousing order	Warehous e keeper	
4		Pre-shipment inspection	/	/	/	/	Spot check	Spot check report	OQC	
Explain ☐ Operation and processing ☒ Confirmation, inspection, judgment, approval ☒ Store: ☐ Handling: ☐										
Mark		Modify content				Version	Date	Modified by	Approval	
		First issue				A	2022. 08. 30			

ROHS TEST REPORT

Project material name	Material code	Report test sample name	Testing organization	Detection time	Test report No		Test conclusion	Remarks
HAC-TH915-A21F01	M04-0102130R0A	Nickel plated stainless steel	SGS	2022. 03. 21	SZXEC2200395905		OK	
Prepared by:		Checked:		Date: 2022. 08. 30		Seal :		

PRODUCT VERIFICATION

Test items	Test description/test standard	Objective requirements	Product validation (PV)							Remark
			Sample		Test site			Test	Responsible	
			Quantity	Type	Client	Supply	Third party	Conclusion		
Visual inspection	The surface shall be free of dents, scratches, cracks, deformation, burrs, mildew and other defects; The surface coating shall not blister, crack or fall off; Metal parts shall be free of rust and other mechanical damage; The filling material shall not overflow.	Normal appearance	Full inspection	Toolin		√		OK		
Dimension	As drawing size	Within dimension tolerance	3pcs	Too		√		OK		
Performance check	The product meets the requirements in the design specification	Short circuit and continuity test	Full inspection	Too		√		OK		
Salt fog resistance	48-hour salt spray test	No rust on the surface after cyclic verification	3pcs	/		√		OK		
Requirements for prohibited and restricted substances	Test according to RoHs requirements	Products shall comply with RoHs standards	/	/		√		OK		
Packaging specification	Place according to the drawing specifications	Visual inspection and placement as required	Full inspection	Too			√	OK		

BOM DETAILS

No.	Part No.	Product Name	Version	Specification description	Colour	Unit	Consumption
1	M04-0102130R0A	Spring antenna	V1.0	Silvery, NB Antenna, Soldering, Nickel plating on $\Phi 0.6$ mm stainless steel, Φ	Silvery white	PCS	1
2							
3							
4							
5							
6							
7							