



Y101 Project Antenna Material Requirements Specification Document

Customer Name : Yigu Electronics

Sub-project name : Y101

Change History Record :

Serial Number	version	Status	Start and end dates	Responsible person	Page number	Note
1	First edition	First edition	2025-2-25	Jieyi Li	8	

Supplier's signature for acknowledgement :

Responsible person / Date		IQC/ Date	Review / Date	Approval/Date
MD				
RF				

The buyer acknowledges and signs (please return the signed copy after acknowledgement) :

The determination result of the demander : ☐ Qualified ☐ Unqualified			
Development Design Engineer / Date	SQE Engineer / Date	Procurement Manager / Date	Development Department Manager's Approval / Date

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1. Overview

1.1 Scope of application

This requirement stipulates the antenna technical requirements and material demand specifications for product Y101.

This requirement applies to the antenna selection, testing and acceptance of Y101.

2. Technical indicators requirements.

2.1 Introduction to Test Items and Equipment

List	Test items	equipment
S11 parameters	Standing wave ratio, return loss	Network Analyzer
Active testing	TRP,TIS	Integrated tester, microwave anechoic chamber
Passive testing	Gain, efficiency	Network Analyzer

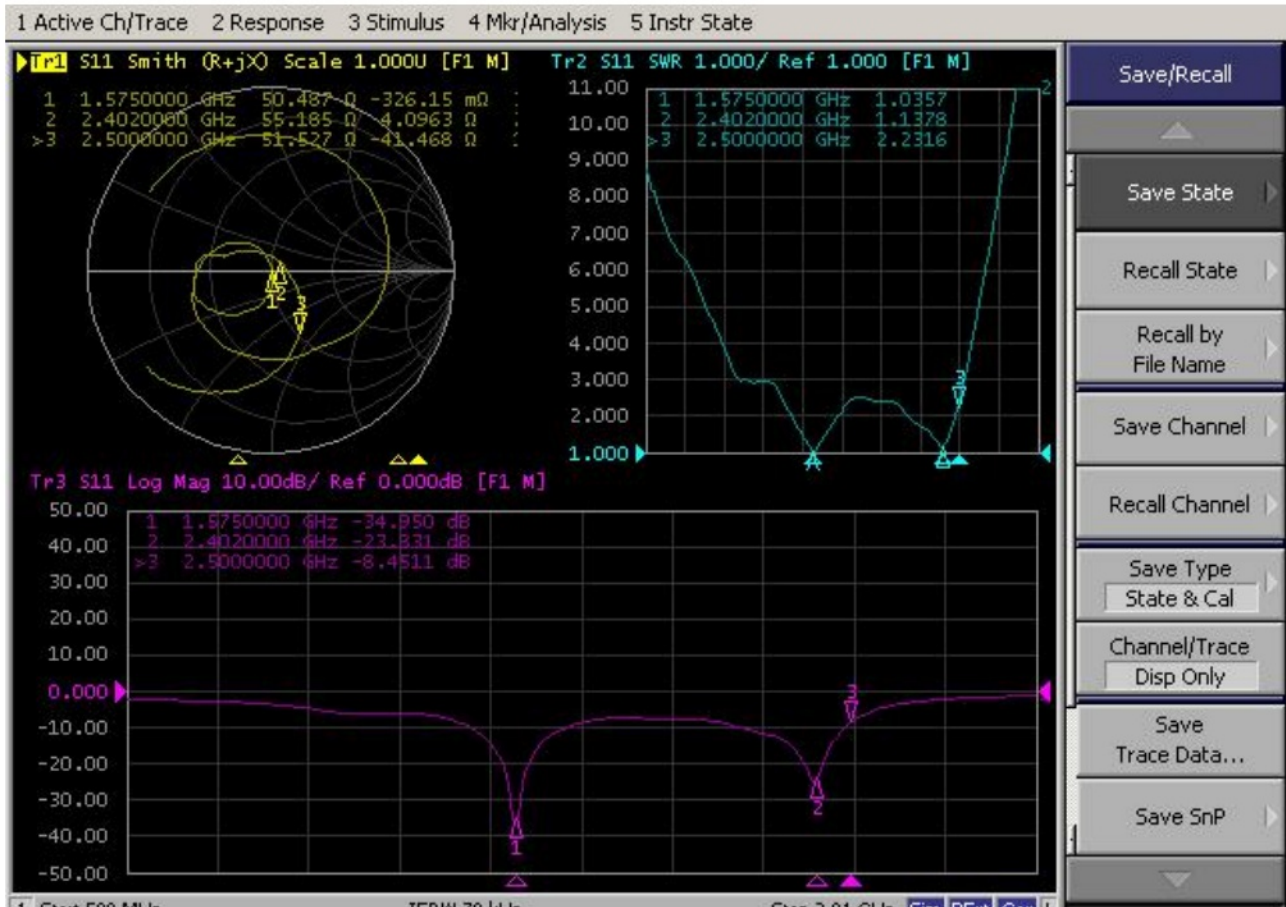
2.2 Passive report

2.2.1 Passive Test Description

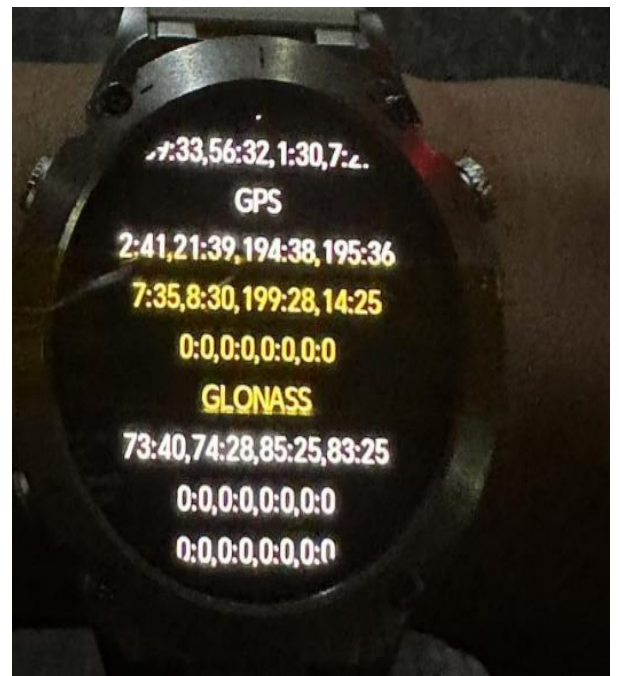
Test equipment: Network analyzer

Test Method: Connect a 50-ohm CABLE cable from the instrument's test port, calibrate with a calibration piece, and then connect the SMA connector of the mobile phone fixture. Record the return loss or standing wave ratio corresponding to the relevant frequency points.

2.2.2 Antenna passive parameters



2.2.3 GPS satellite search - arm.



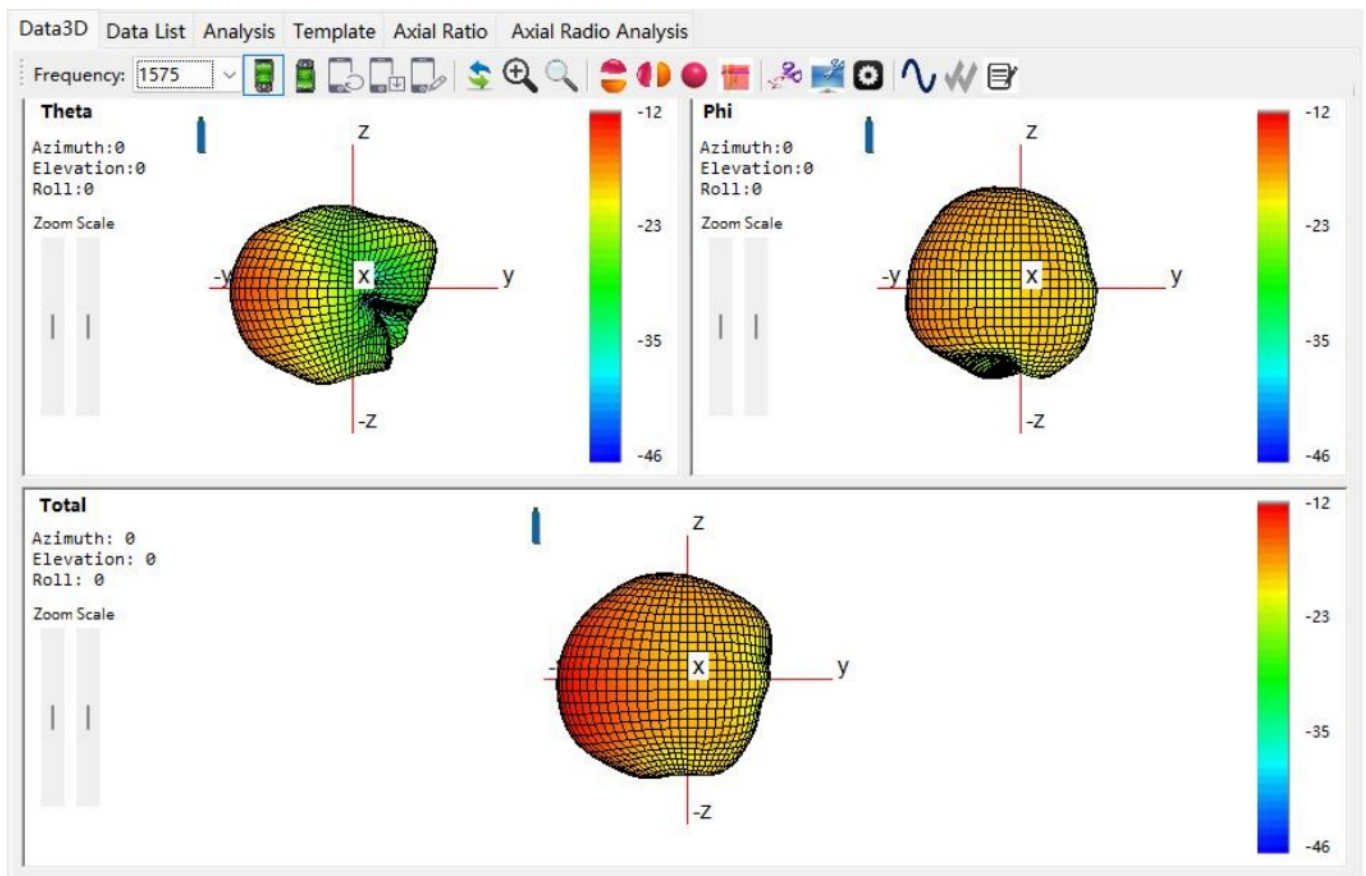
Add the status of the key and cable arrangement

2.2.4 Antenna efficiency, gain

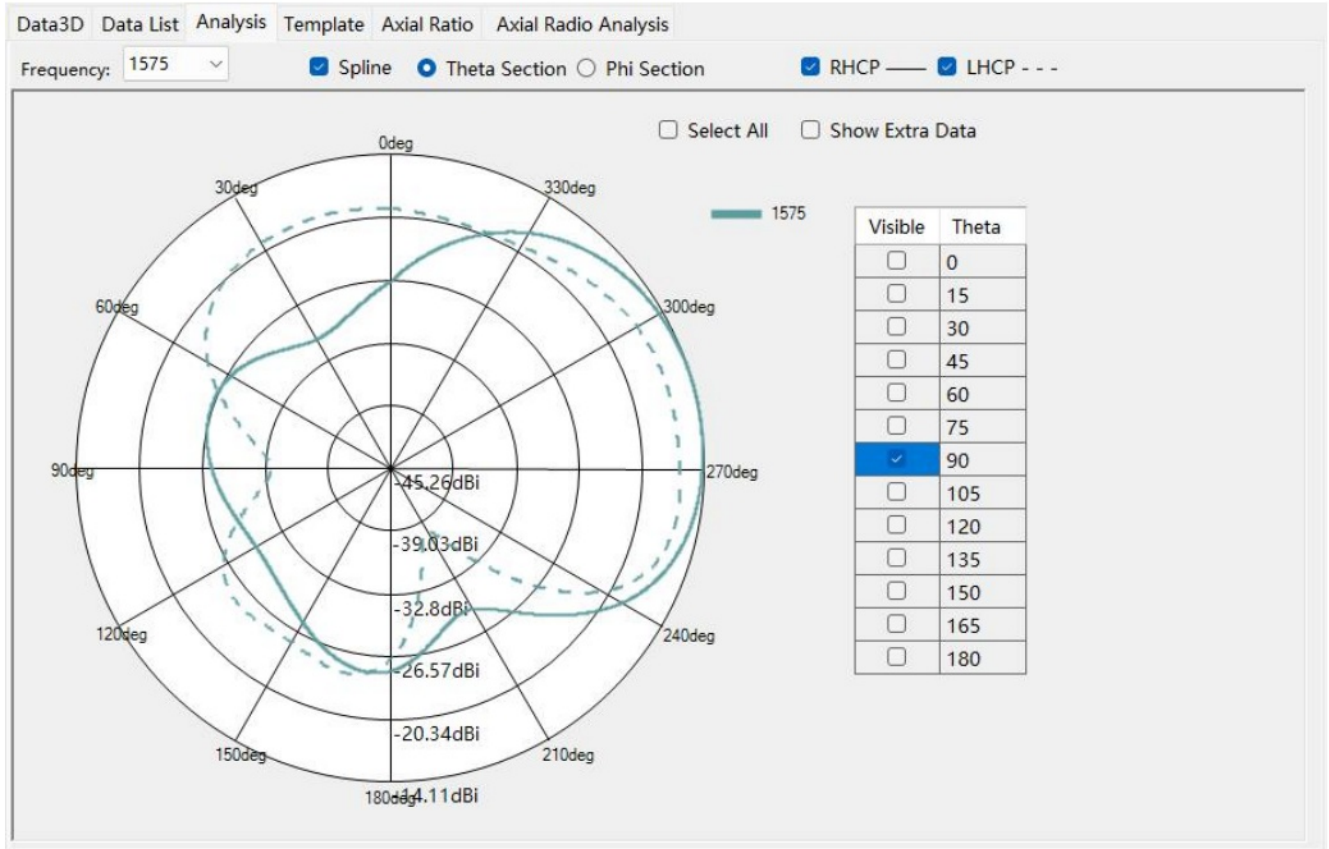
Freq (MHz)	Effi (%)	Gain (dBi)
1550	7.0%	-6.40
1560	7.4%	-6.38
1570	7.6%	-6.01
1575	8.1%	-5.49
1580	7.5%	-5.95
1590	7.1%	-6.61

Freq (MHz)	Effi (%)	Gain (dBi)
2400	5.1%	-5.94
2420	5.1%	-5.81
2440	5.3%	-5.66
2450	5.6%	-5.27
2460	5.0%	-6.58
2480	4.8%	-7.04

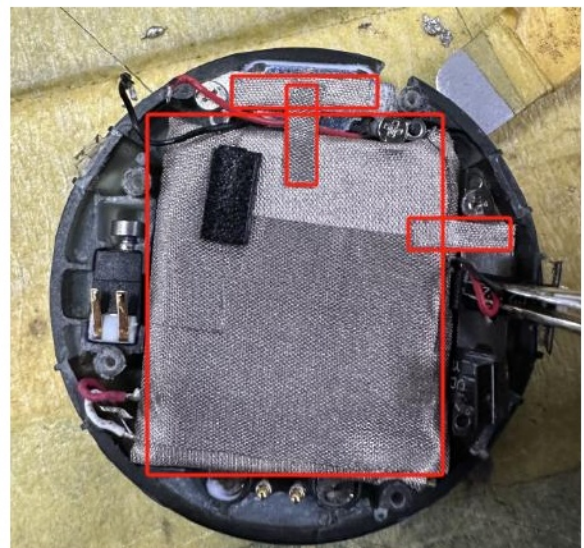
2.2.5 GPS Apple Chart - Arm



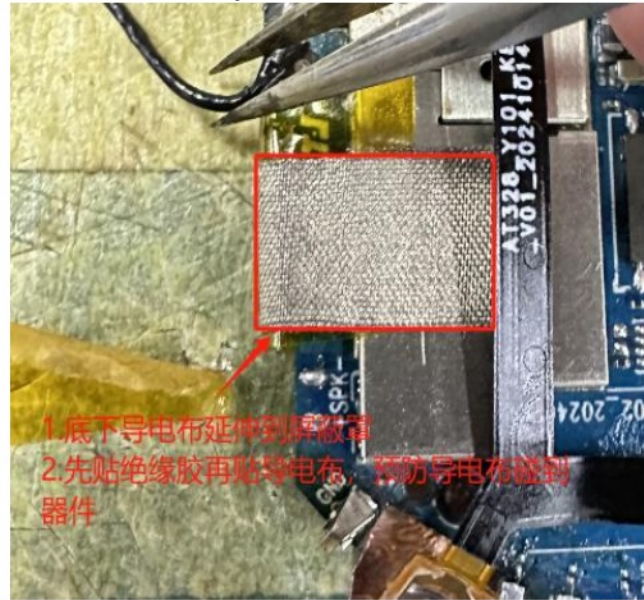
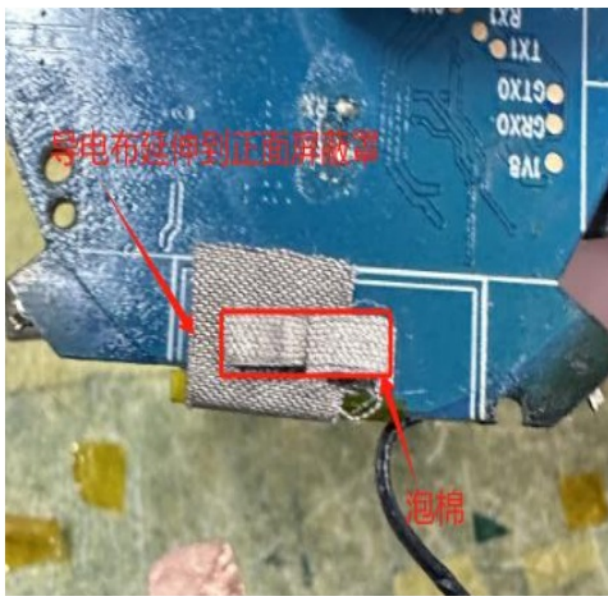
2.2.6 GPS Direction Map - Arm



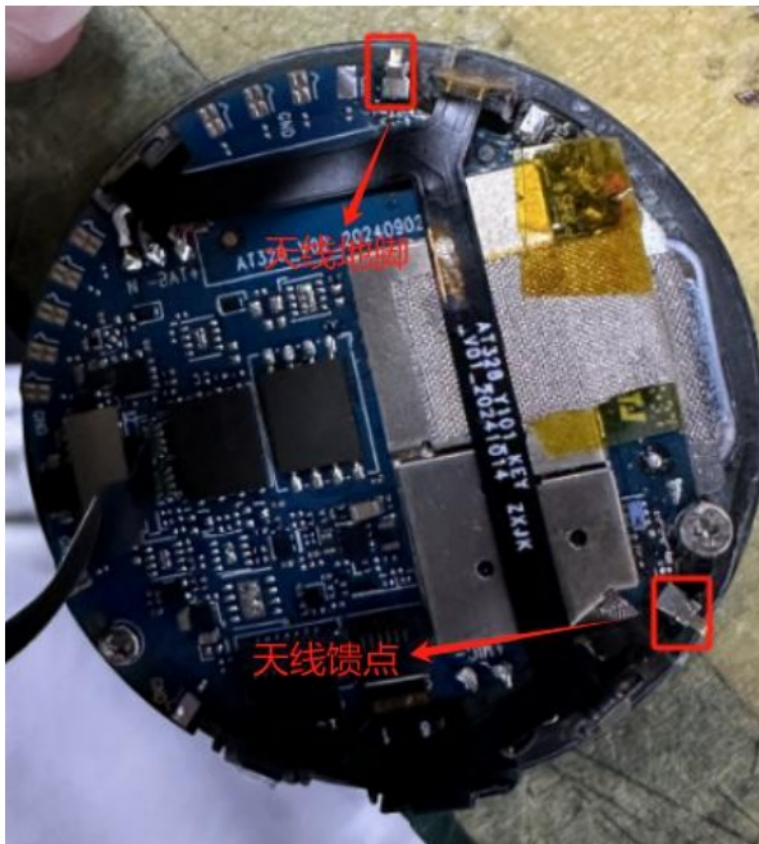
2.2.7 Environmental Handling



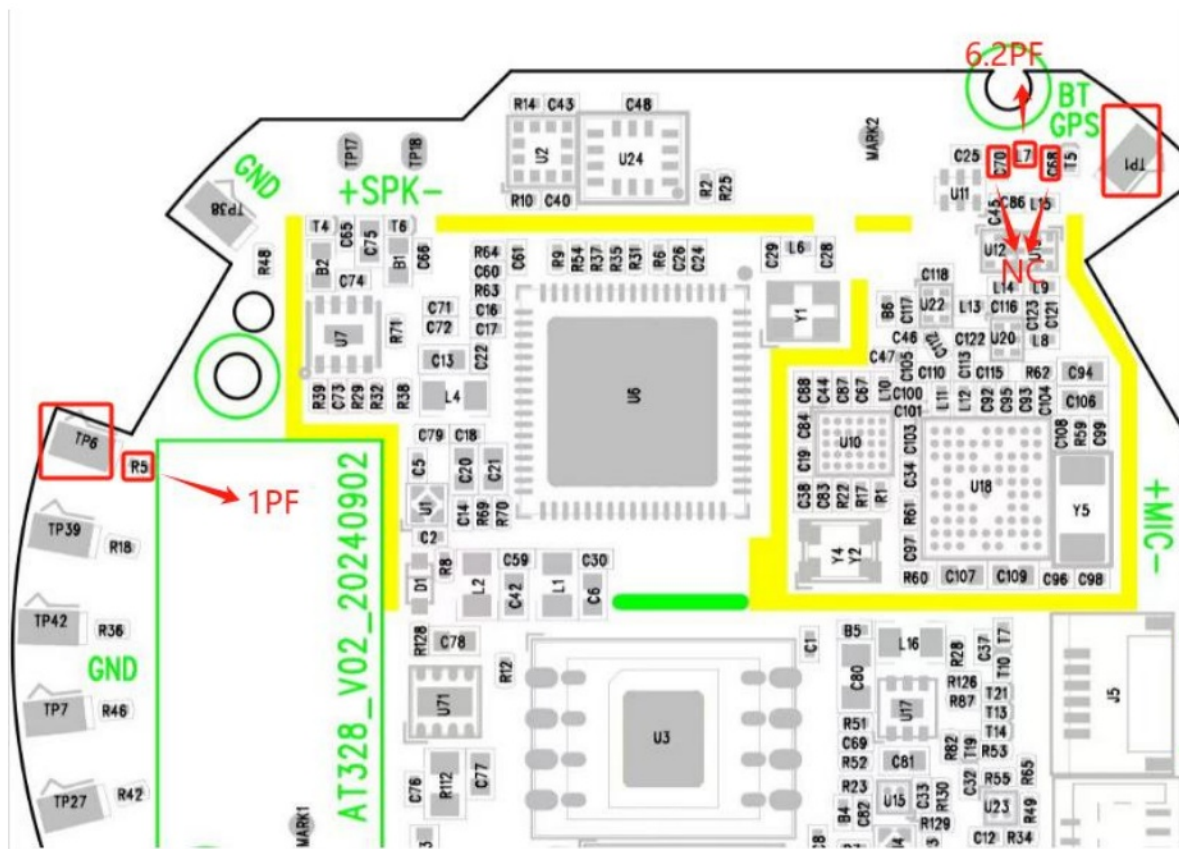
Battery cover included / Horn / Light



2.2.8 Instructions for Using the Elevation Angle



2.2.9 Matching Instructions



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Antenna dimension drawing



Length : 5.85mm
Width : 3.29 mm