

HF012Project antenna specification

## Address

501,building A2, Silicon valley power intelligent terminal Industrial Park ,20Dafu Industrial Zone, Dafu community, Guanlan stree, Longhua District ,Shenzhen

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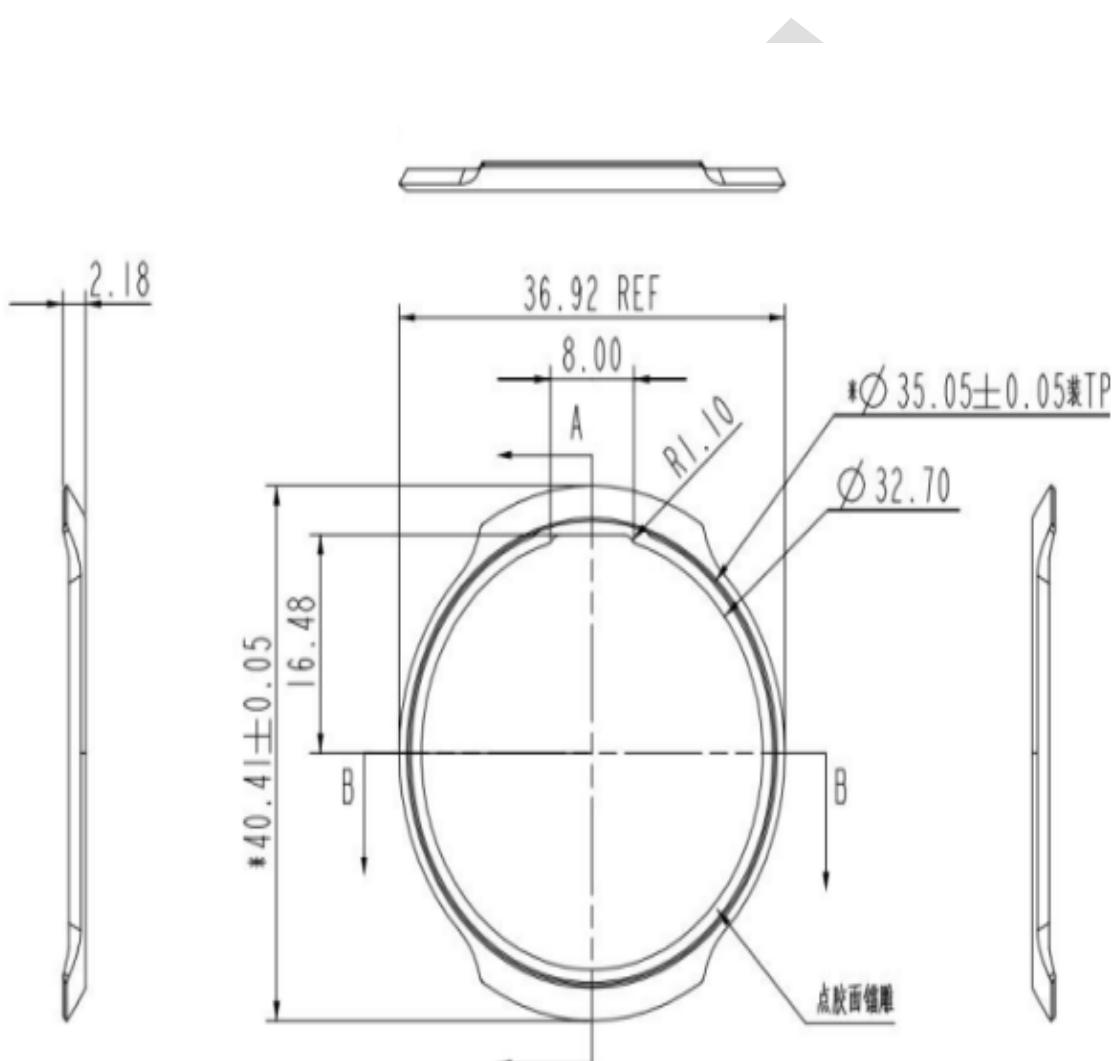
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**The Supplier acknowledges the signature that:**

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

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The demander's judgment result: <input type="checkbox"/> qualified <input type="checkbox"/> unqualified			
Development & Design Engineer / Date	SQE Engineer / Date	Purchasing Leader / Date	Development Manager approval / date



## 1. Overview

### 1.1 Scope of application

This requirement applies to the LS26 Antenna type selection, test, and acceptance.

### 1.2 Project basic information

Antenna name:	<u>LS26</u>
Antenna frequency:	GPS+BT:1575.42MHz/2.4G
Antenna material:	Metal frame

## 2. Technical index requirements

### 2.1 Introduction of test items and equipment

inventory	test item	equipment
Active test	TRP,TIS	Integrated tester, microwave darkroom

### 2.2 Active Reporting

#### 2.2.1 Test instructions

Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

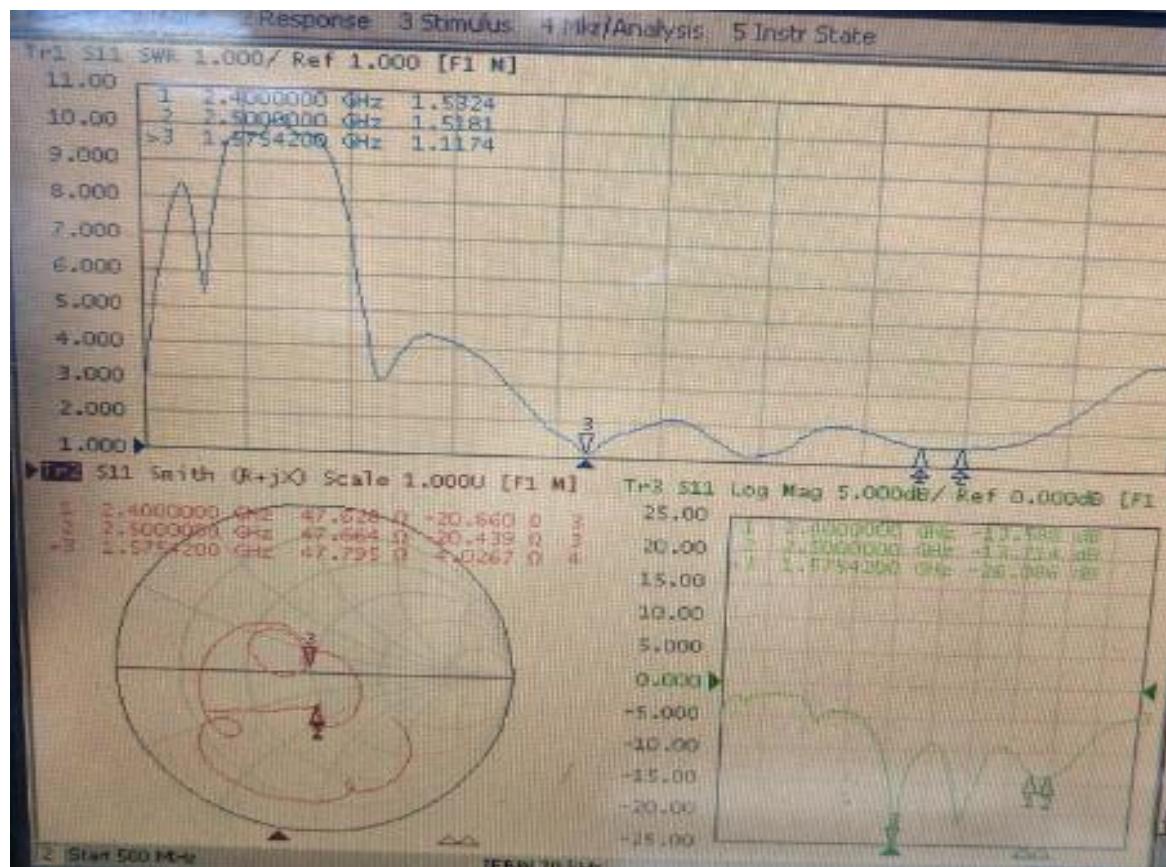
Test environment: temperature  $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , humidity  $50\% \pm 15\%$

Test method: DUT is fixed in the center of the turntable with H plane, on the same horizontal line as the center of the horn antenna.

The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

### 3. Develop test reports

#### 3.1 Antenna passive parameters



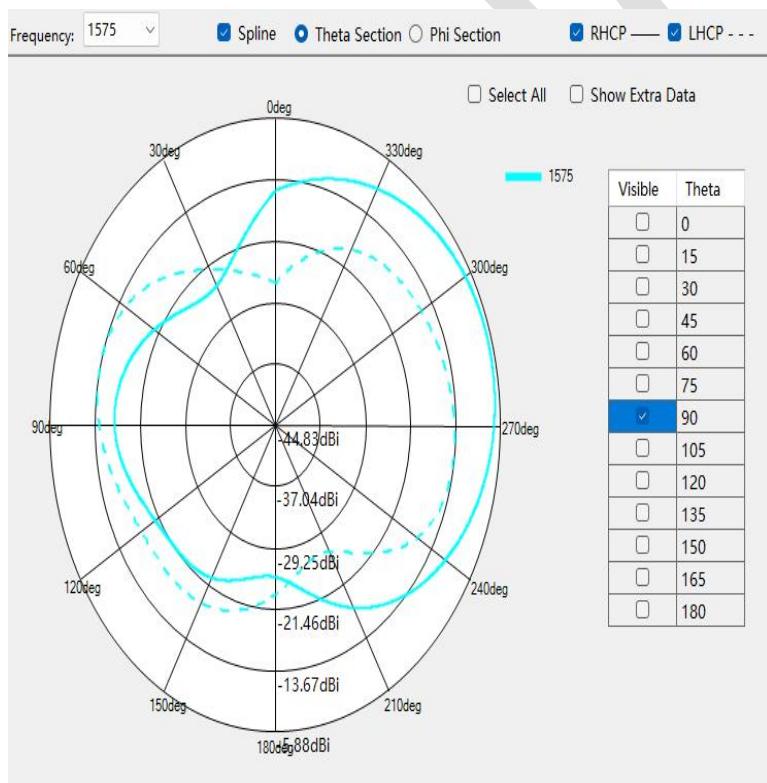
Freq (MHz)	Effi (%)	Gain (dBi)
1550	6.18	-6.40
1560	6.25	-6.21
1570	6.27	-5.98
1575	6.39	-5.63
1580	6.45	-5.25
1590	6.28	-5.01

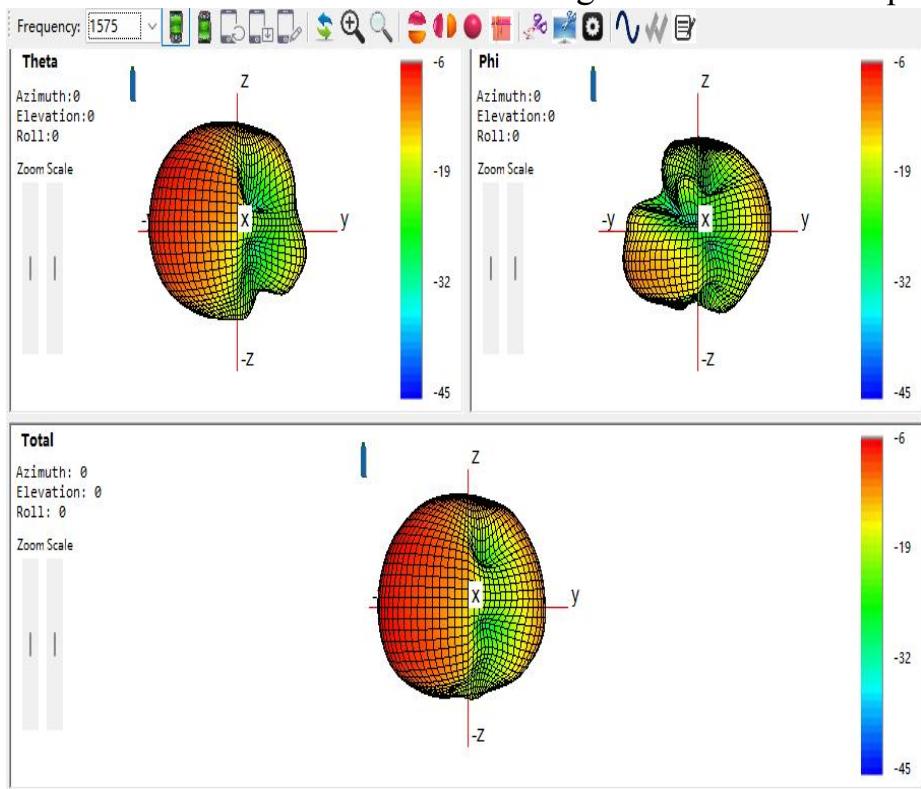
Freq (MHz)	Effi (%)	Gain (dBi)
2400	5.60	-5.31
2420	5.32	-5.39
2440	5.20	-5.47
2450	5.21	-5.00
2460	5.47	-5.87
2480	5.27	-5.82

### 3.2 GPS search for stars

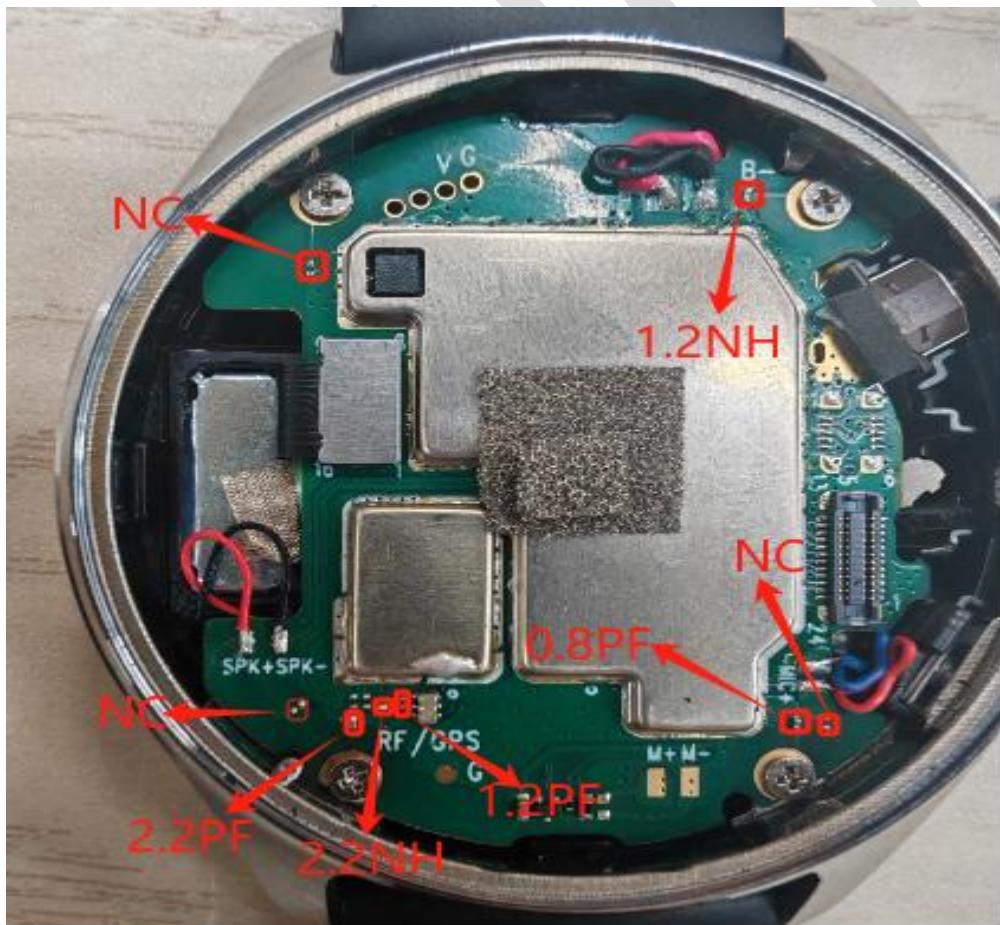


### 3.3 GPS Apple map/direction map-arm

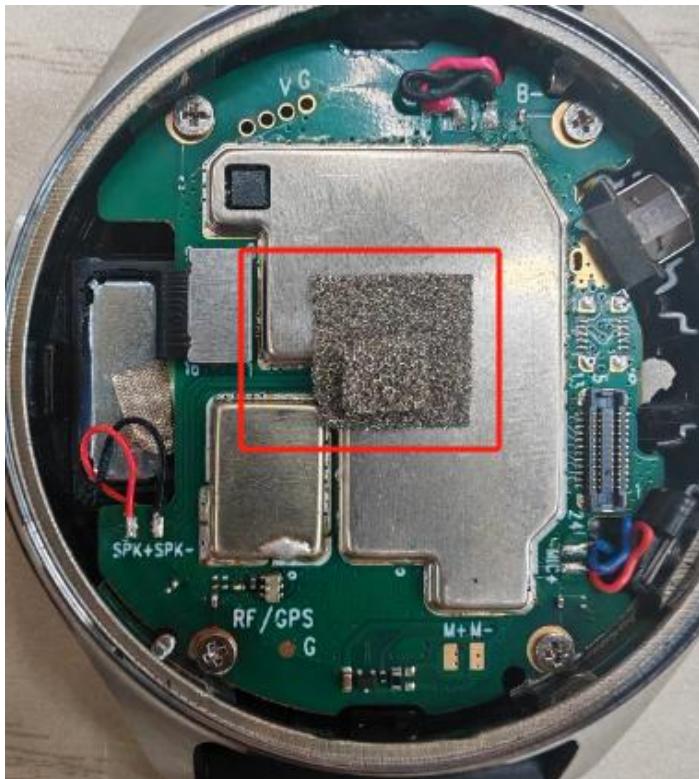




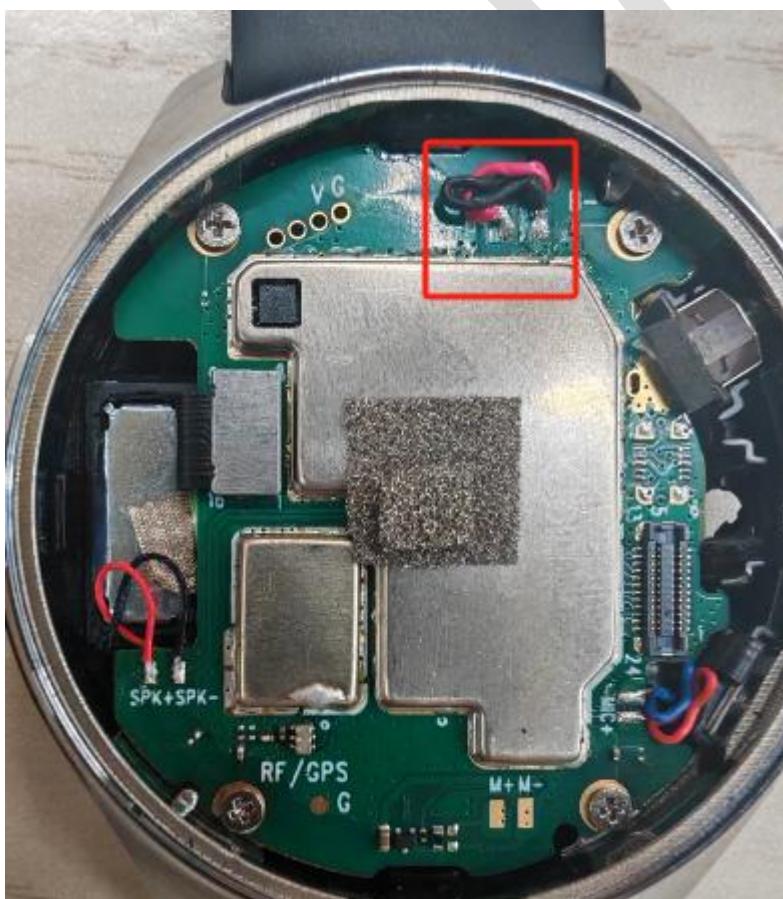
### 3.4 Antenna loading coil



### 3.5 Antenna environment processing



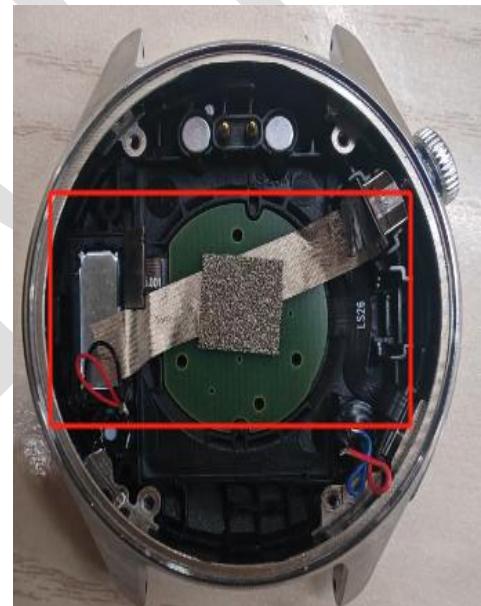
The motherboard shield is replaced with a conductive foam above



The excess wire of the battery line should be folded back above the motherboard and not close to the metal frame



The screen needs to be covered with conductive cloth



The battery needs to be wrapped with conductive cloth, the copper area of the motherboard needs to be covered with conductive foam, and the speakers and buttons need to be covered with conductive cloth to connect the battery with the motherboard.