



Tuo Pin IoT

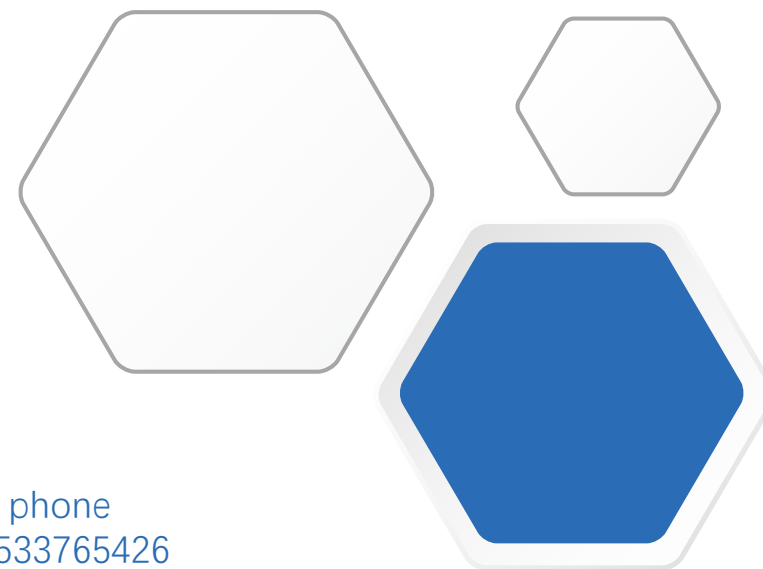
LM106 Signal Issues Detected



Radio frequency:Lin Gong

Time:2026.05.13

Mobile phone
number13533765426





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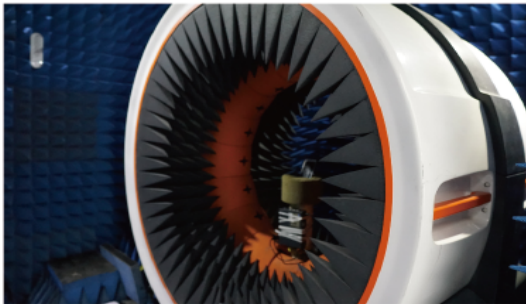
Project Summary



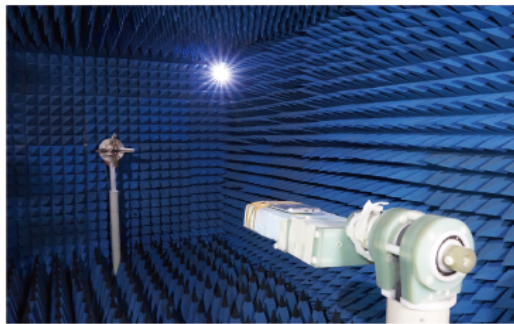
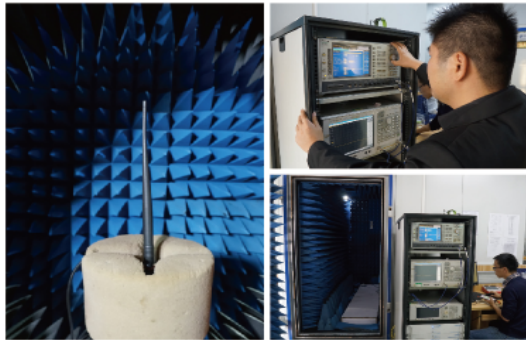
Basic Information

Basic information

【SATIMO】



【广屏】



Test system

➤ SATIMO, Agilent E5071C, Anritsu MT8820C, CMW500, StarPoint SP9500

SATIMO Anechoic Chamber - Equipment

Anritsu Comprehensive Tester 8820c / Agilent Network Analyzer 5071C / Agilent Comprehensive Tester E4438C

Wide Screen Anechoic Chamber - Equipment

Agilent Comprehensive Tester 8960 / Rohde & Schwarz CMW500

Debugging Network Analyzer

Agilent Network Analyzer 5071C



Basic Information

Basic information



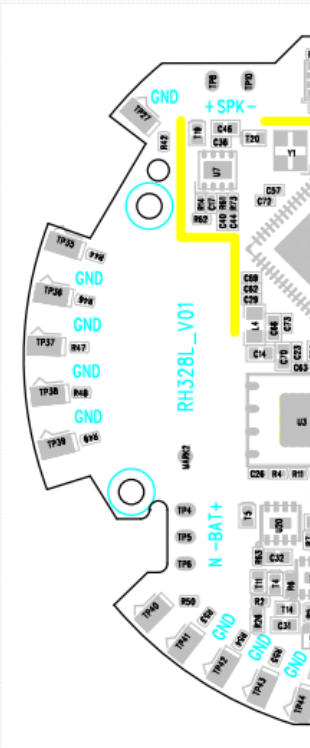
Complete machine documentationmachine data

- LeMi InterconnectProject
- Name:LM106Metal watchAntenna
model:TP-WT-LM106
- Band information:GPS (L1)/BT
- Integrated metal-frame antenna



Basic Information

Basic information



Antenna matching

Antenna circuit matching description

C56	NC
L7	text2. 4PF
C19	And5. 1NH
C1	0Europe
R49	And2NH



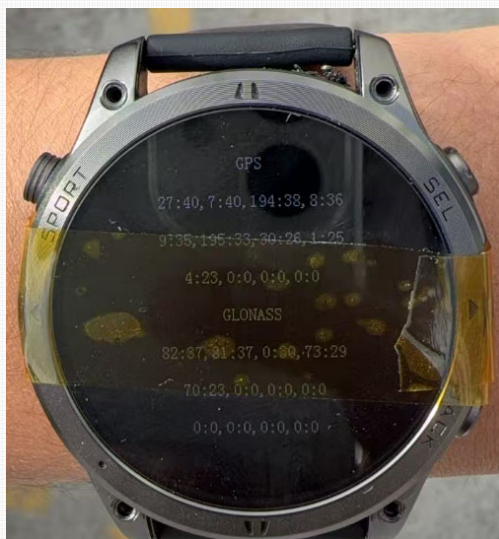
Test data:test
data

GPSPassive antenna diagram - (SWR/Log Mag)





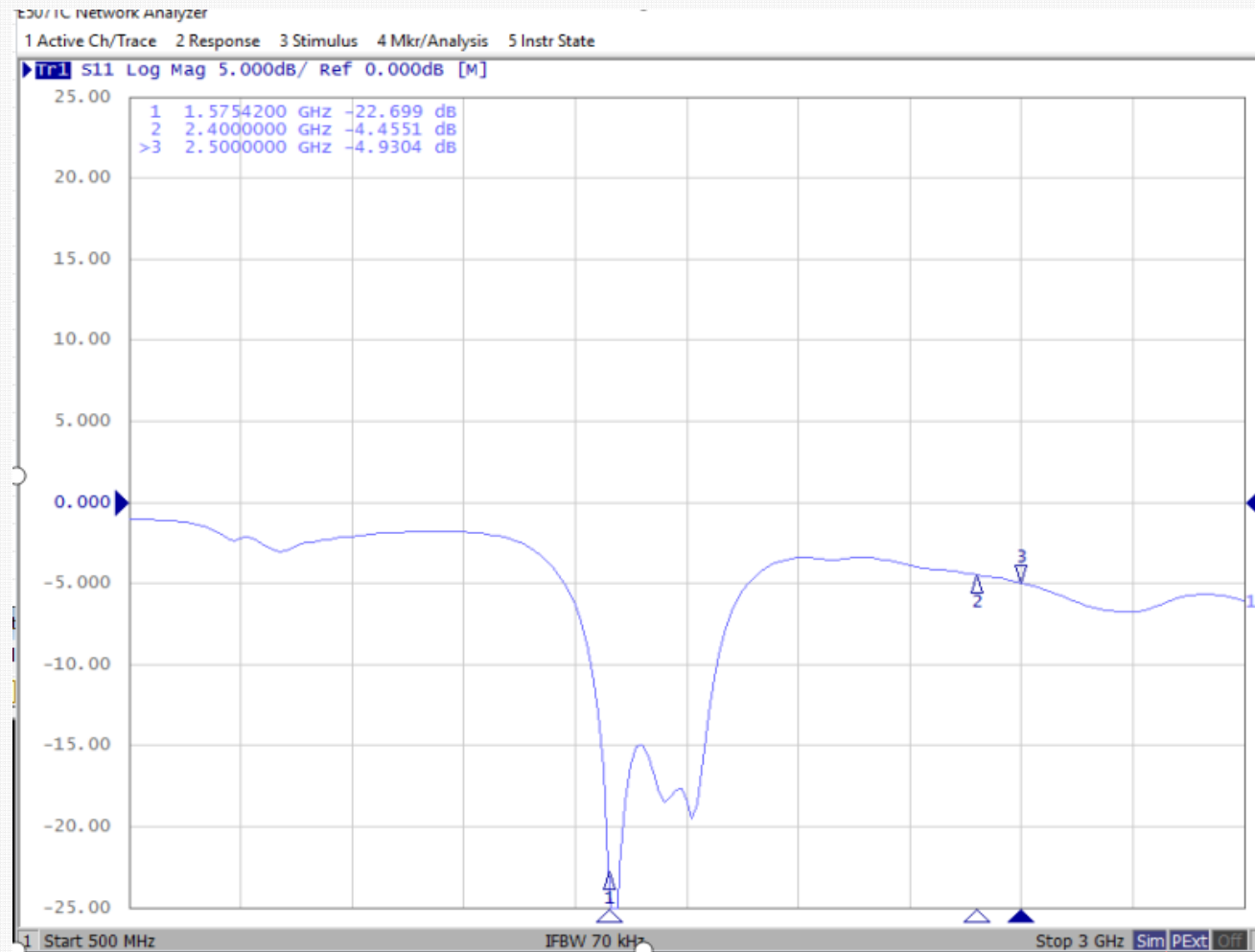
Test data: GPSHand-measured star chart:





Test data:test
data

BTPassive antenna diagram - (SWR/Log Mag)



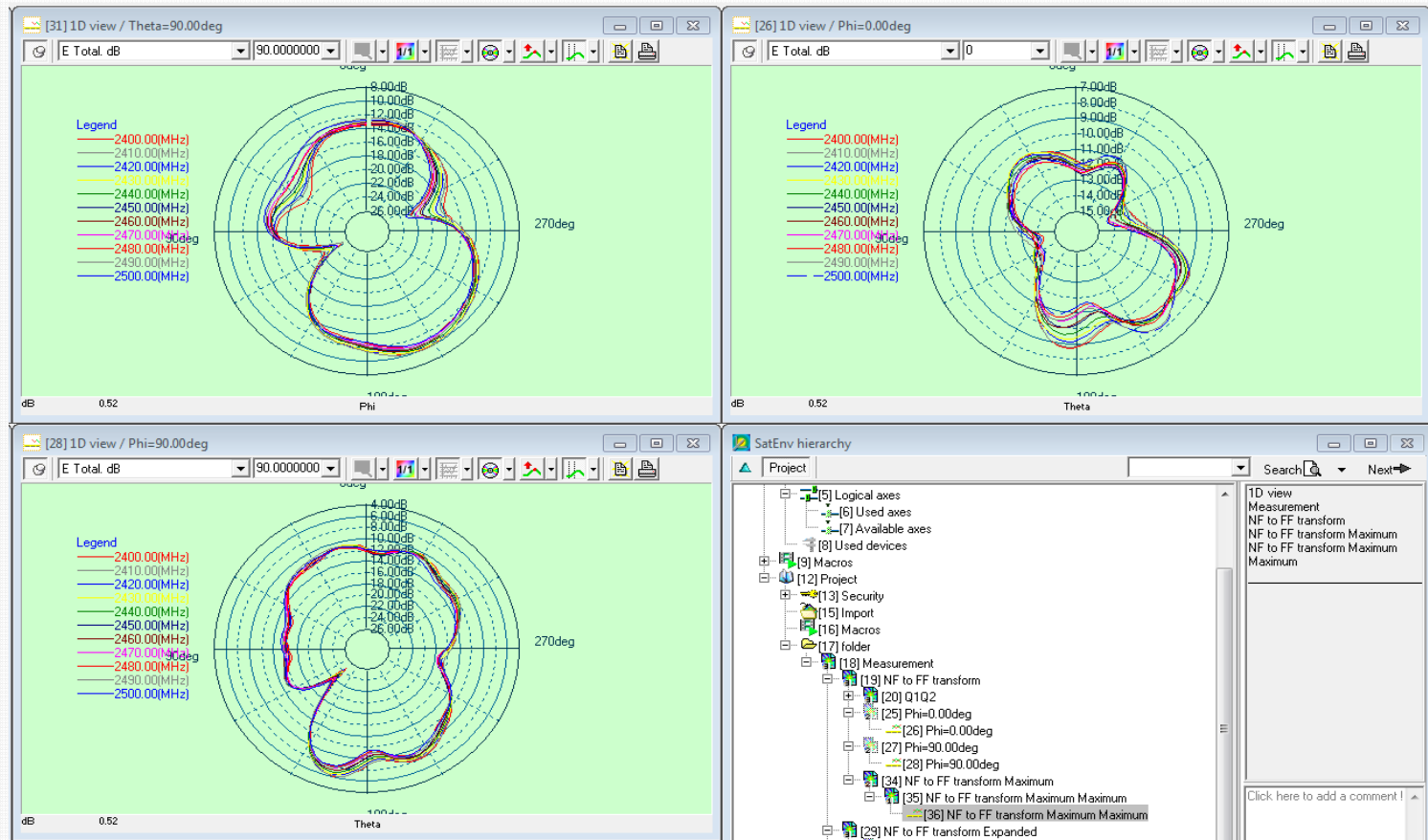


Test data:test
data

BTAntenna passive data- (Efficiency/Gain/Directional pattern)

2400-2500MHZ Efficiency

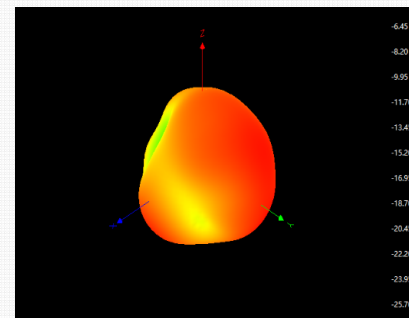
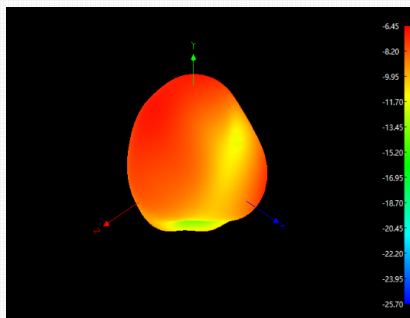
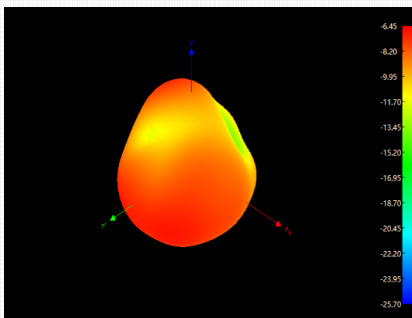
Frequency	Efficiency	Gain. dBi
2400MHz	6%	-6.45
2410MHz	6%	-6.21
2420MHz	6%	-6.47
2430MHz	6%	-6.55
2440MHz	6%	-6.38
2450MHz	6%	-6.13
2460MHz	6%	-5.99
2470MHz	6%	-5.97
2480MHz	5%	-5.85
2490MHz	6%	-6.01
2500MHz	6%	-5.70



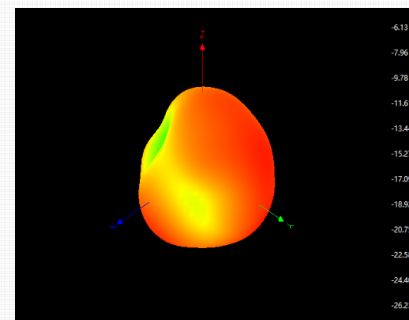
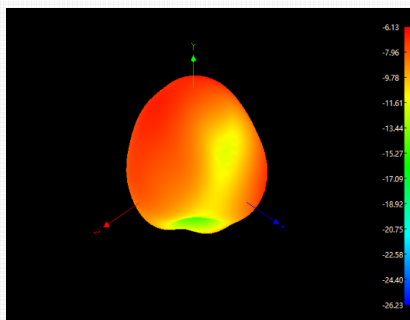
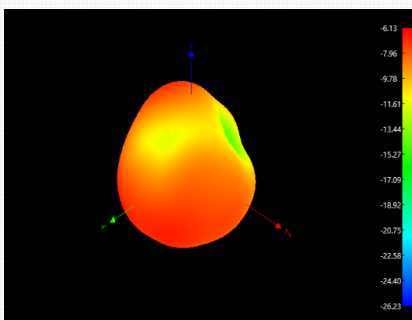


Test data:test
data

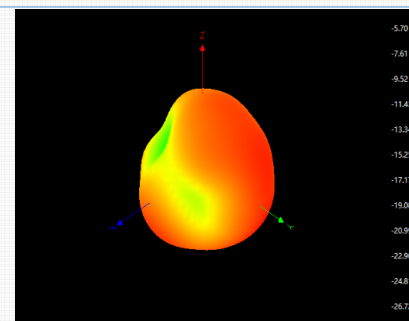
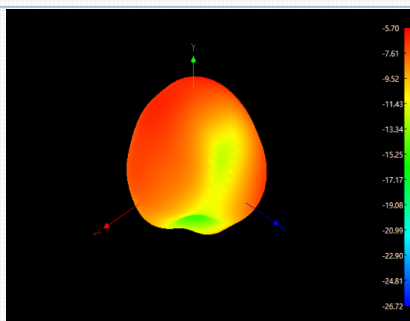
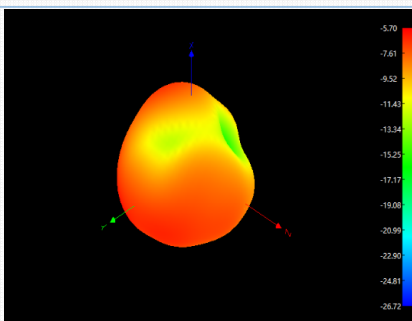
BTPassive antenna diagram -2400MHz/2450 MHz/2500
MHz-3DApple diagram



2400MHz
Gain:-6.45dBi



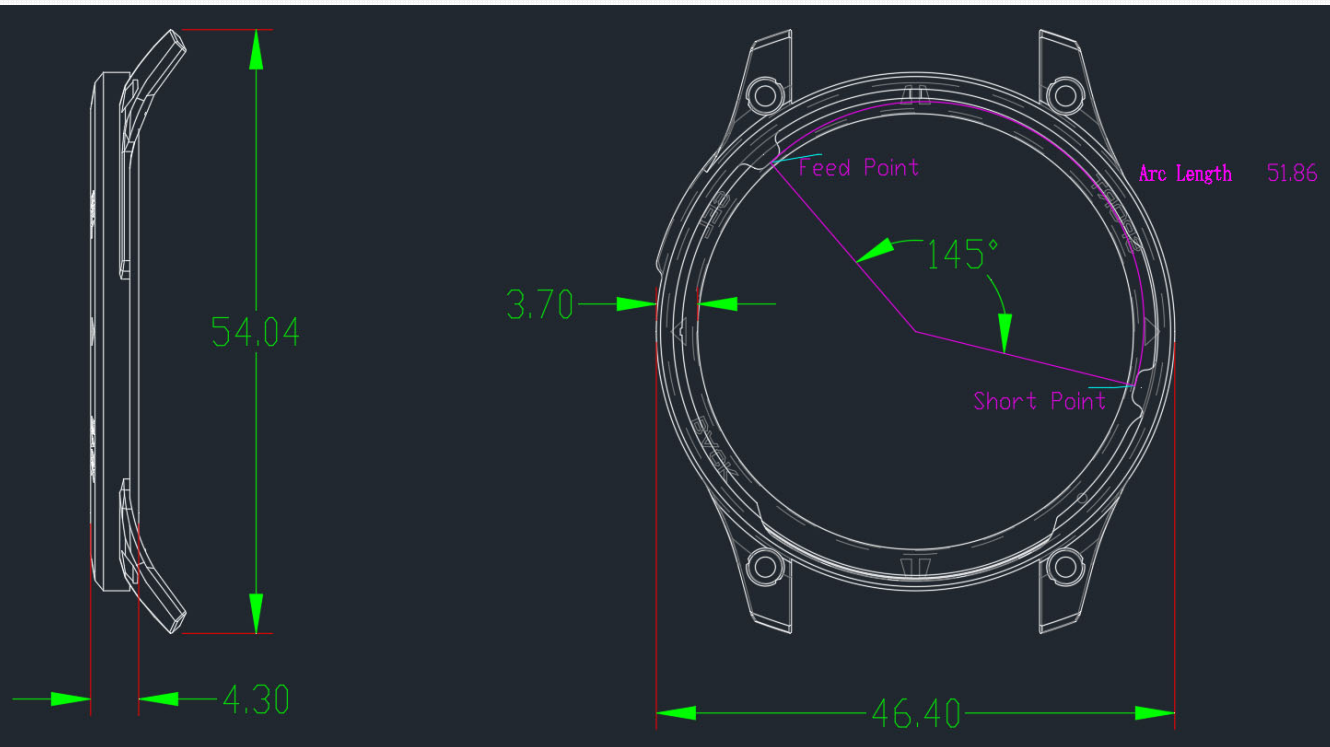
2450MHz
Gain:-6.13dBi



2500MHz
Gain:-5.70dBi



Small:



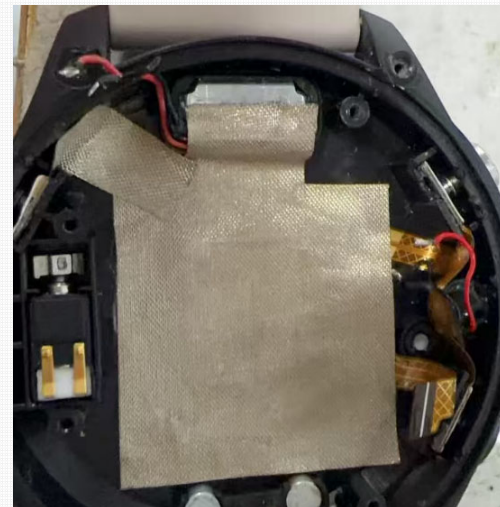
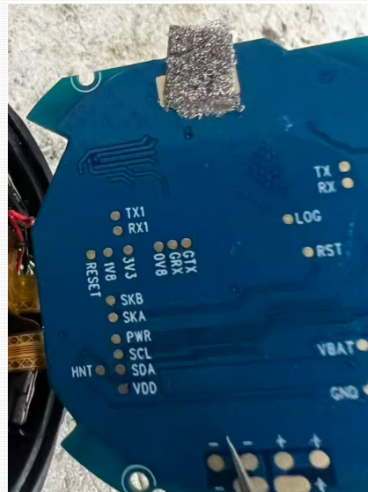
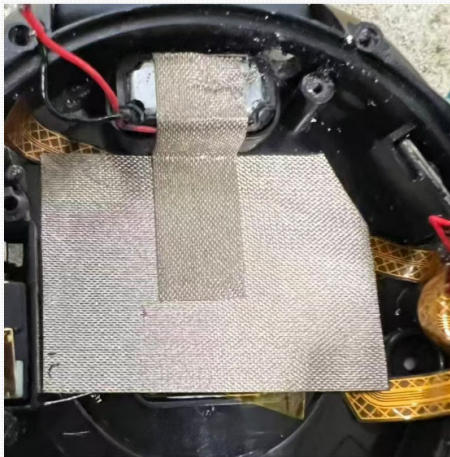
1The positions of the antenna feed point and the ground short-circuit point are shown in the upper-left diagram.

2Based on the overall structure of the watch, the metal bezel of the watch is used as the radiation source, and the dimensions of the bezel...46.45mm * 4.35mm;As shown in the lower-left diagram;

3It features a single antenna—neither externally nor internally independent—and the antenna is integrated into the metal bezel structure of the watch.



Environmental treatment:



Attach conductive fabric to the battery back cover and ground it to the speaker; then, attach conductive sponge to the motherboard and ground it to the motherboard. FPCIt affects the star value and needs to be grounded by climbing the wall according to the image.



Overview

Planning to summarize

1, Please carefully verify whether the matching circuit mentioned in the report has been modified and whether the environmental processing has been implemented, as these factors will directly affect antenna performance.

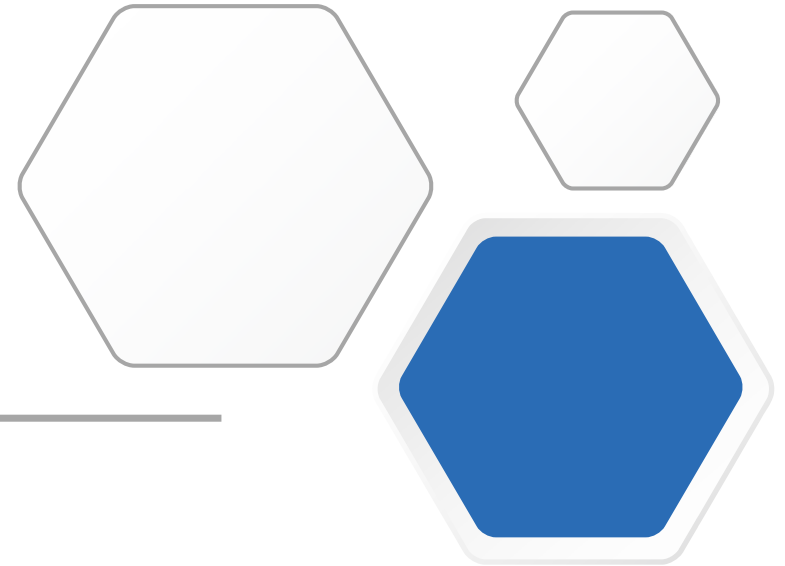
2, The parameters provided in this report are solely those supplied by the customer for the company's test and adjustment samples and do not reflect the final mass-production status of your company's ultimate project.

3, If your company has any prototype units that have undergone the latest trial production or have been updated (e.g., material changes, software updates, environmental changes, etc.), please submit them to our company as soon as possible for verification to confirm whether the antenna performance has been affected.

4, If your company needs to send the devices to a third party for retesting or to the customer for testing, please be sure to hand over the machines requiring testing to our company for testing and confirmation. This is because factors such as motherboard consistency, assembly consistency, and variations in antenna assembly can all lead to deviations in antenna parameters.

THANK YOU

May you have a peaceful heart in this
bustling and noisy world. —Tuo Pin IoT



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