

Dongguan KeXun
Electronics Co., LTD

Sample
acknowledgment

Parts Approval Sheet

Manufacturer: Kexun
Electronics_____

Part name: dual frequency
PCB antenna 3dBi-
478-1 37RF gray
length 180, no
buckle, KX__

Supplier

Parts Name

Model/specification: Customer material number:_____

Type/ Spec Parts No .

Brand: Sample quantity: 10 pcs _____

Brand Quantity

Sample date: 2024.9.19 Document number:_____

Send out Date Document No.

Date of acknowledgement: Version: _____

Approve Date Version

Supplier		Customer	
Approved By	Prepared By	Engineering Dept.	Quality Dept.

Specifications catalogue

Electrical parameters— — — — — — — — —3

Mechanical parameters— — — — — — — — —3

Use and storage temperature— — — — — — — — —3

Test equipment— — — — — — — — —4

Structural dimensions— — — — — — — — —5

Reliability test— — — — — — — — —6

Use precautions: requirements for the use environment— —
— — — — — — — — —6

Test data— — — — — — — — —7-9



1. Electrical parameters

frequency range	2.4-2.5GHz
characteristic impedance	50 Ω
voltage standing-wave ratio	$\leq 2:1$
gain	2.5+/-1dB
power capacity	2W
Polarization form	horizontal
radiation direction	omnidirectional

2. Mechanical parameters

See the line leader	180 $\pm$ 5mm
coax	1.37 Gray line

3. Working/storage temperature

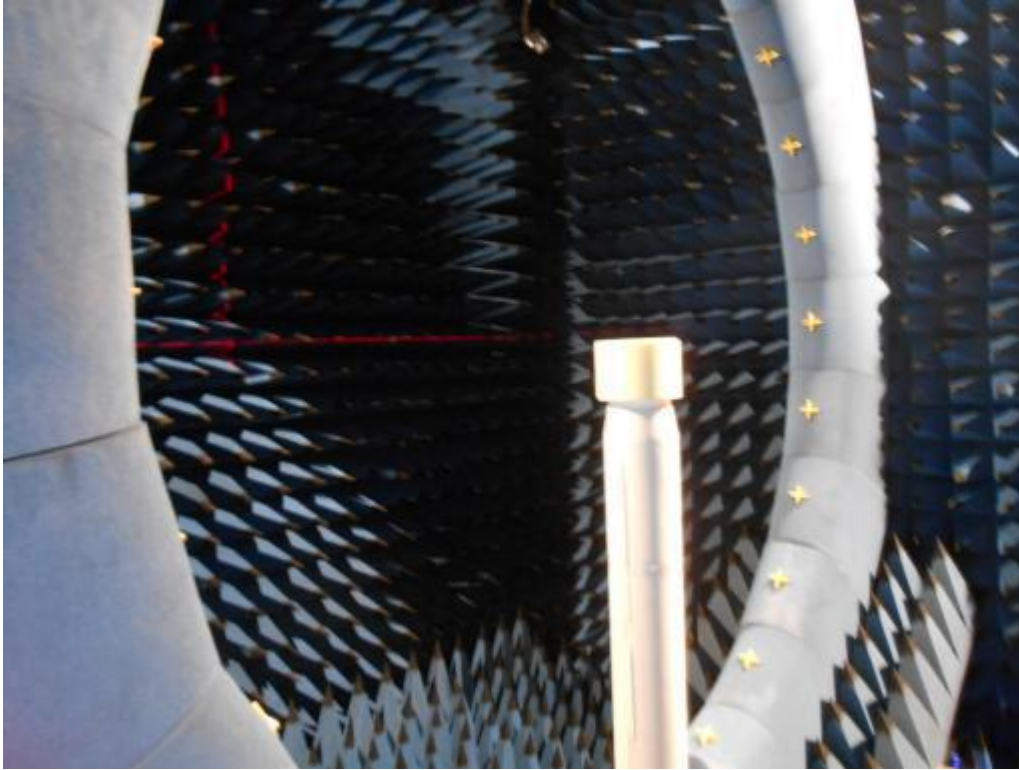
working temperature	-30 $^{\circ}$ C~65 $^{\circ}$ C
storage temperature	-30 $^{\circ}$ C~75 $^{\circ}$ C



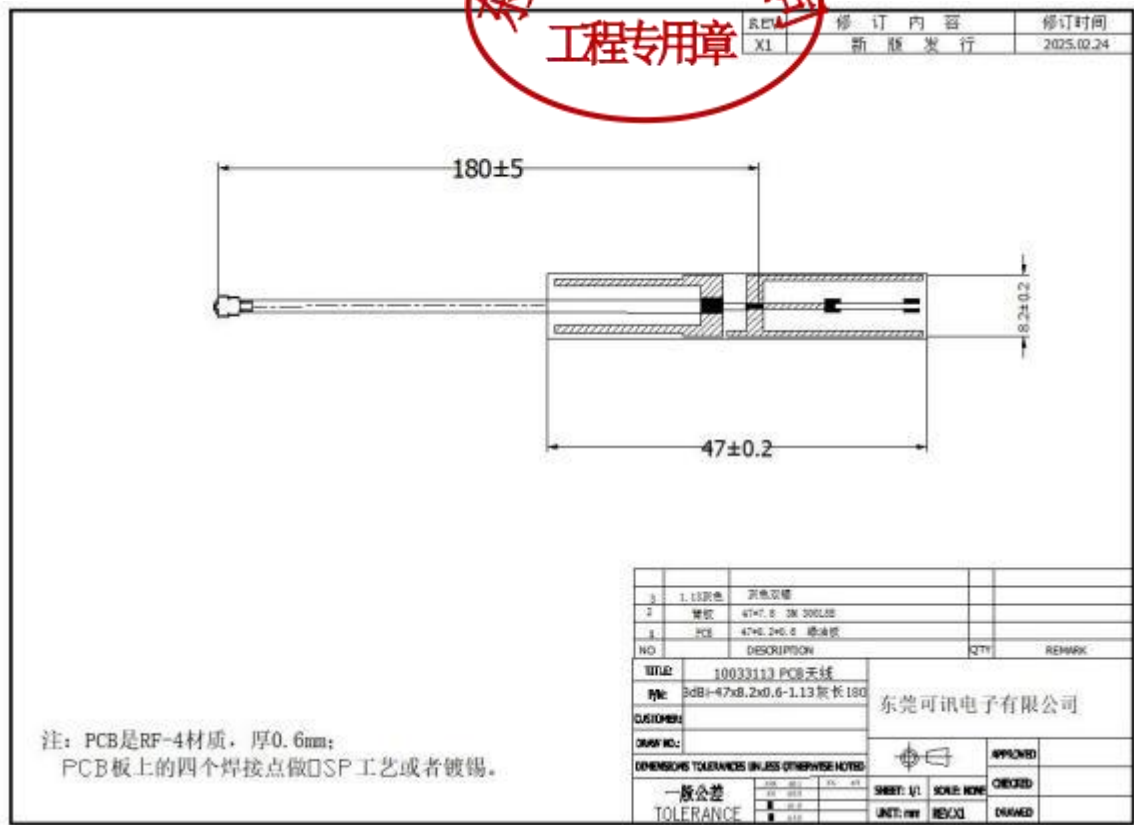
The supplier company is called Ver1.2

Iv. Test equipment:

SATIMO 24SG



5. Structural dimension diagram

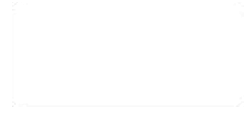


6. Precautions: None

Vii. Environmental and reliability tests

project	experiment condition	performance requirement	Test equipment
Cold storage	Temperature-30℃±2℃/humidity 0%/RH/time 48H	There was no effect on appearance and function after the test	Constant temperature and humidity test machine
High temperature and humidity storage	Temperature-70℃, humidity 90~95%/RH time 48H	There was no effect on appearance and function after the test	Constant temperature and humidity test machine
temperature ictus	Product environment: -35℃ for 2H, then transferred to 80℃ for 2H, a total of 12 cycles for 48H	There was no effect on appearance and function after the test	Hot and cold impact testing machine

The supplier company is called Ver1.2



Viii. Test data

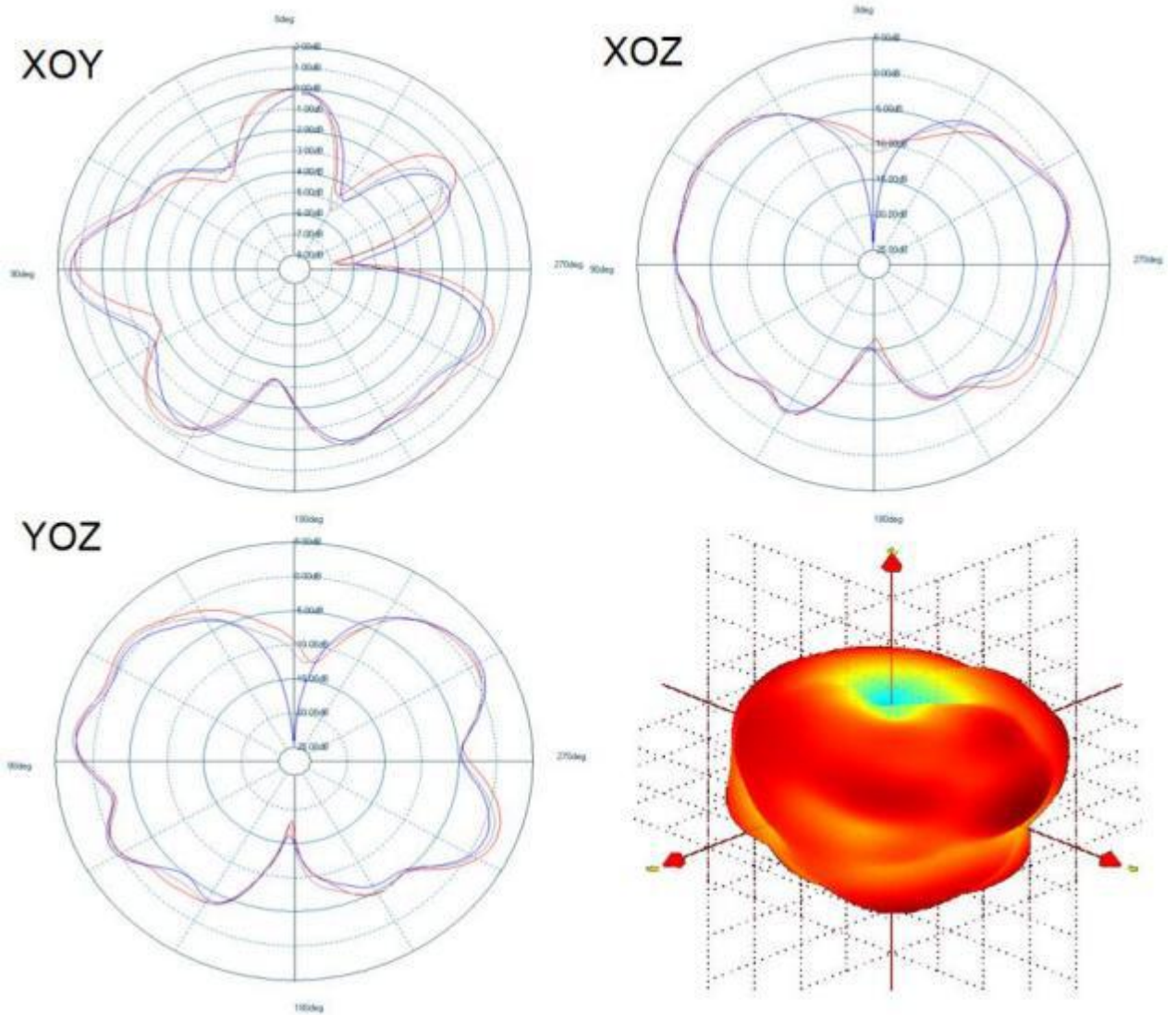
1. Return loss and standing wave ratio (2 GHz)



2. Benefits and gains

Frequency	X-Z plane		Y-Z plane		X-Y plane		E-total	Efficiency
	Phi=0		Phi=90		theta=90			
(MHz)	Peak Gain	Average Gain	Peak Gain	Average Gain	Peak Gain	Average Gain	(dBi)	(%)
2400	2.01	-2.39	2.42	-2.25	1.96	2.03	2.19	51%
2450	2.09	-2.11	2.17	-2.17	1.90	2.09	2.22	60%
2500	2.16	-2.19	2.36	-2.18	2.03	1.96	1.89	53%

3 2D/3D Radiation Pattern Results



Dongguan Kexun Electronics Co., Ltd

Sample acknowledgment

Parts Approval Sheet

Manufacturer: Ketex
Electronics

Supplier

Part name: dual-frequency PCB antenna 3 dBi-478
-137RF gray length 180 without
buckle, KX

Parts Name

Model / Specification:— Customer No.:_____

Type/Spec

Parts No.

brand:_____

Sample quantity: 10 pcs

Brand

Quantity

Sample delivery date: September 19, 2024 document number:___

Send out Date

Document No.

Admit date:

edition: _____

Approve Date

Version

Supplier

Customer

Approved By

Prepared By

Engineering Dept.

Quality Dept.

Liang Xing

Wang Li

Specification catalogue

Electrical

parameters- - - - - — — — — —

— - - - - -3 mechanical

parameters- - - - - -3

Use and storage

temperature- - - - -

- - - - - -4

structural

dimensions — — — — —

— — — — — 5 reliability

experiment- - - - - -6

Use environment

requirements- - - - - -6 test

data- - - - -

- -7-9



I. Electrical parameters

Frequency range	2.4-2.5GHz
Characteristic impedance	50 Ω
Voltage standing-wave ratio	$\leq 2:1$
Gain	2.5+/-1dB
Power capacity	2W
Polarized form	Horizontal
Radiation direction	Omnidirectional

2. Mechanical parameters

See line long	180 $\pm$ 5mm
Coax	1.37 Gray line

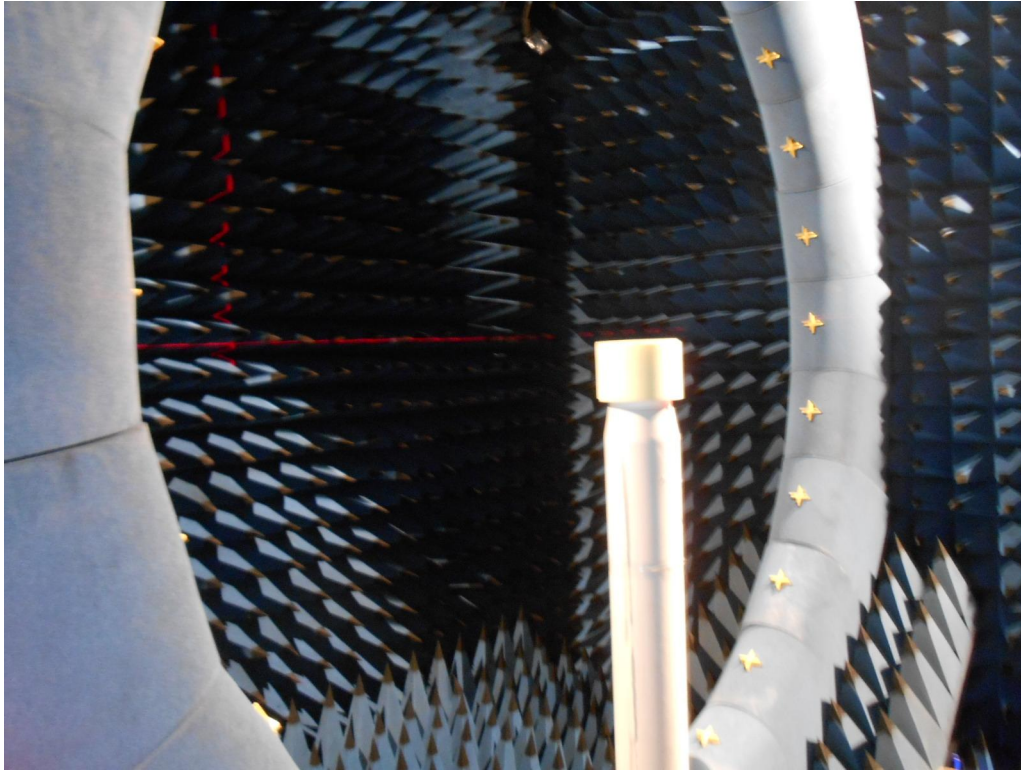
III. Working / storage temperature

Working temperature	-30 $^{\circ}$ C $\sim$ 65 $^{\circ}$ C
Storage temperature	-30 $^{\circ}$ C $\sim$ 75 $^{\circ}$ C

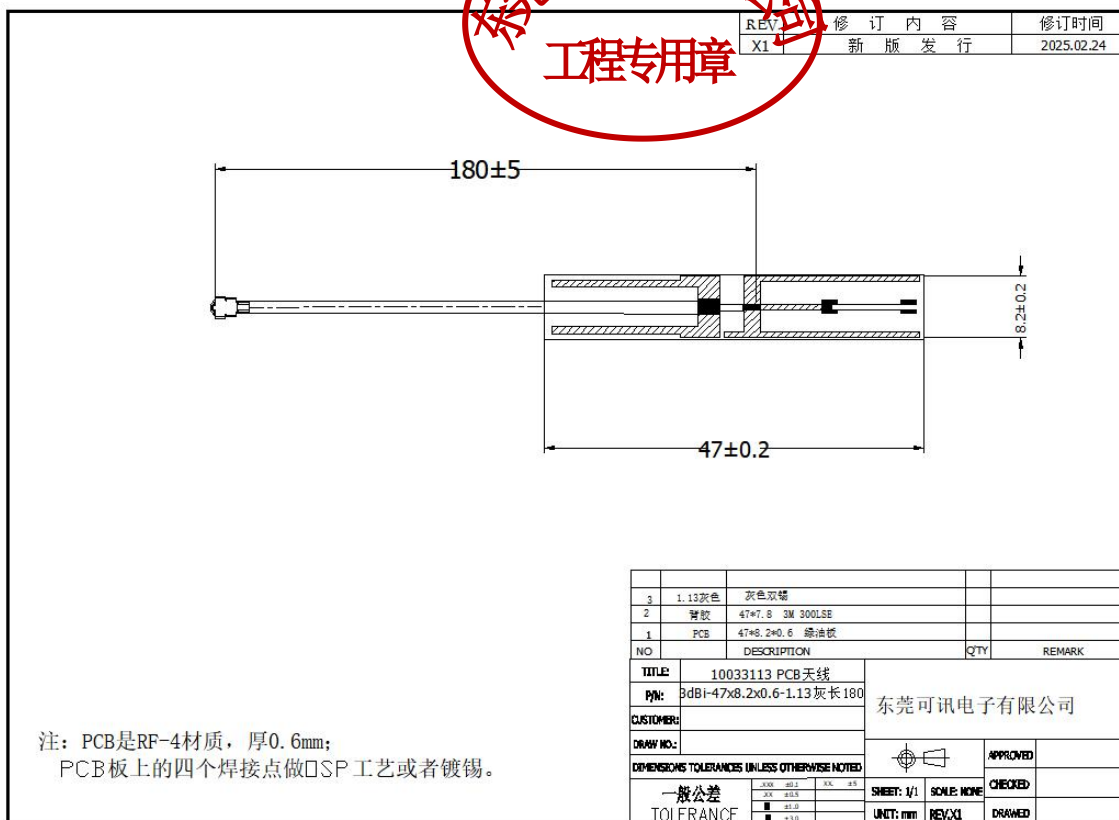


Iv. Test equipment:

SATIMO 24SG



V. Structural size diagram



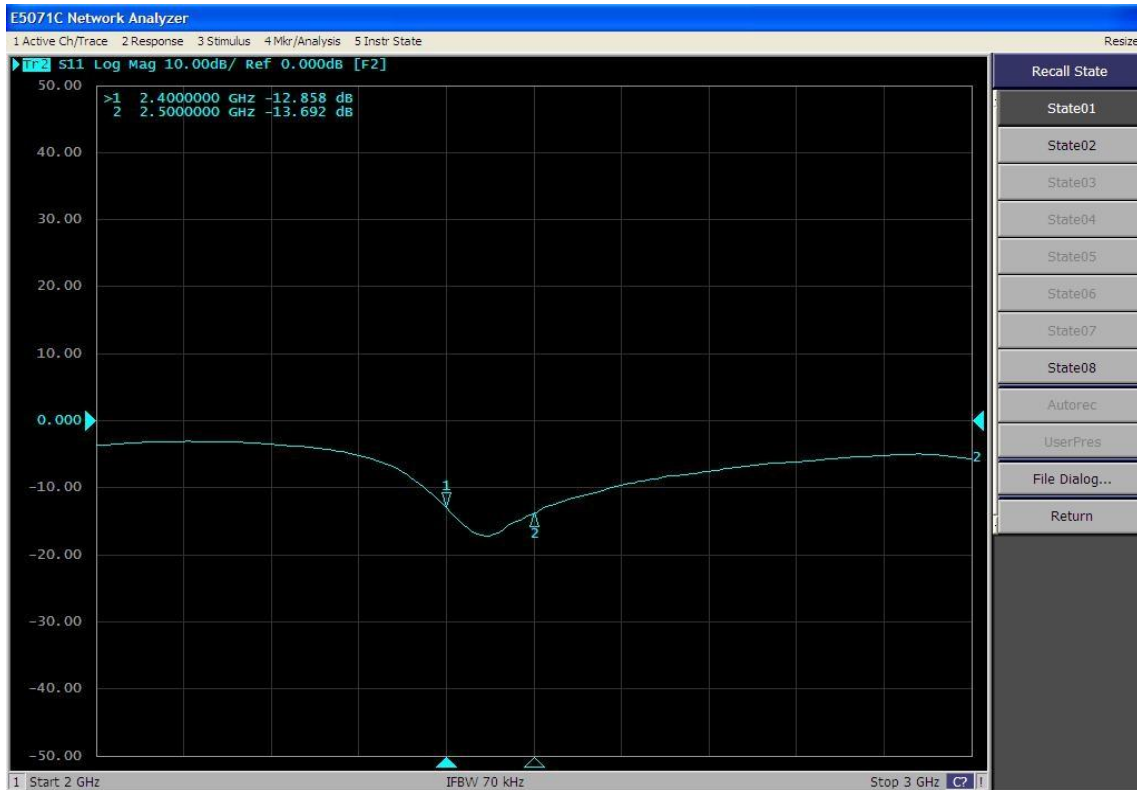
Vi. Notes for use: No

Vii. Environment and reliability experiment

Project	Experiment condition	Performance requirement	Test / test the equipment
Low temperature storage	Temperature-30 ± 2 / humidity 0% / RH / time 48H	No impact on the appearance and functional tests after the test	Constant temperature and humidity testing machine
High temperature and high humidity storage	Temperature-70 , humidity 90~95% / RH time 48H	No impact on the appearance and functional tests after the test	Constant temperature and humidity testing machine
Temperature ictus	Product environment: -35 for 2H to 80 for 2H for 12 cycles of 48H	No impact on the appearance and functional tests after the test	Cold and hot shock test machine

VIII. Test data

1、 Echo loss to standing wave ratio (2GHz)



2、 Benefit and gain

Frequency	X-Z plane		Y-Z plane		X-Y plane		E-total	Efficiency
	Phi=0		Phi=90		theta=90			
(MHz)	Peak Gain	Average Gain	Peak Gain	Average Gain	Peak Gain	Average Gain	(dBi)	(%)
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3 2D/3D Radiation Pattern Results

