Shenzhen Maya Communication Equipment Co., LTD

SPECIFICATION FOR APPROVAL

(Product acceptance letter)

product name: **FP C**

Product model (original factory model): **ER 02201**

The Customer's Item Name is:

The Customer's "Specification and Model":

Customer's Material Code for all items:

Change Content CV:

order number	Content before the change	Change of the content	Change date	edition	page number	person liable
1	editio princeps		2024.1.6	A 1		Feng Guojun

Name of the supplier: Shenzhen Maya Communication Equipment Co., LTD		
Supplier address: 202,2nd Floor, Building 1, Guanghui Science Park, No.13, Minqing Road, Longhua District, Shenzhen		
Contact number: 0755-36517075	**Fax: 0755-82916227**	**Email: 446080430@qq.com**
(Signature of the Supplier)		
Responsible person / Date	Review / Date	Approval / Date

This admission includes the following: (indispensable)
One, the cover
2. Parameters and specifications
3. Structural size diagram
4. BOM outside
V. Production process flow table
Vi. Certification and test status

Customer Name (Company name): Shenzhen Oni Electronics Co., Ltd
The buyer (customer) determines the result: ☐ qualified ☐ unqualified
Demander (customer) recognition (please return the entire recognition bookmark after confirmation)

Development & Design Engineer / Date	**SQE, Engineer / Date**	Head of the Purchasing Department / Date	Development Manager approval / date

Shenzhen Maya Communication Equipment Co., LTD

catalogue

Shenzhen Maya Communication Equipment Co., LTD

1. Frequband for customer antenna debugging and design

frequency	frequency range
W IFI	WIFI :2.4G

drawing of complete machine

Antenna diagram

3. Electric performance

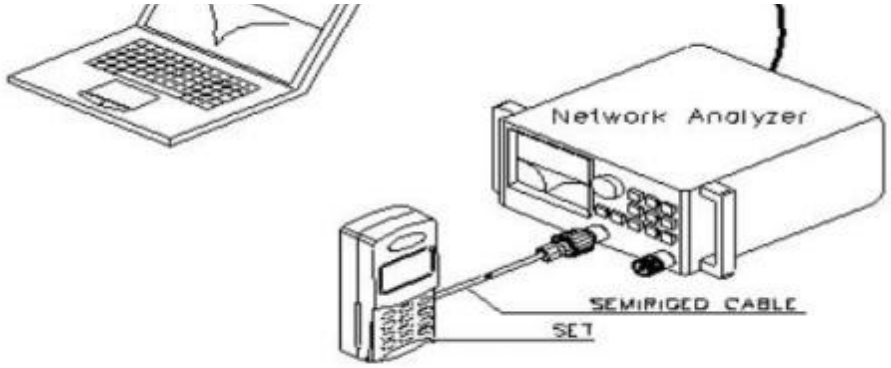
3.1 Description of the test method and the data

implementor name	use
Vector Network Analyzer	S 11/Impedance / Passive Test
Agilent 8960 SP 6010 R &S CMU 200	Mobile phone mobile communication equipment test including GSM, GPRS, EDGE, CDMA2000,1 xEV-DO, TD-SCDMA, WCDMA, and HSDPA
R &S CMW 500 MT 8820C	Containing TD-SCDMA, WCDMA, and HSDPA, LTE, WIFI, GPS mobile phone mobile communication equipment test
Agilent E 4438C	Test for the active GPS
MVG Chamber	Passive Test / OTA active Test / Efficiency /Gain

3.2 Passive Test Report (Passive Test Report)

Test equipment: network analyzer

Test method: use a 50 ohm CABLE cable to export the data from the instrument test port, use the SMA connector of the hand mechanism after the calibration part, and record the data such as echo loss or standing wave ratio corresponding to the relevant frequency point.



3.3 Active Test Report (Active Test Report)

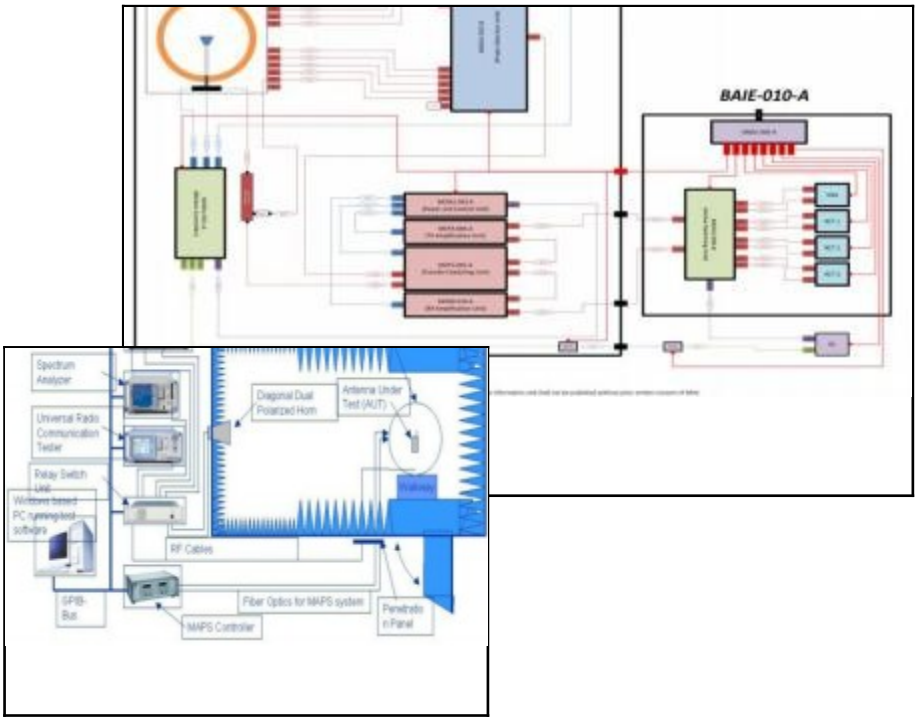
TRP /TIS

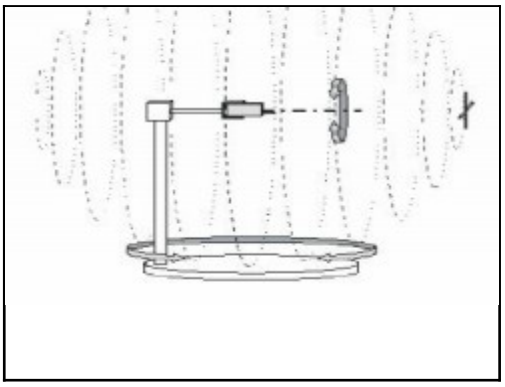
Test tools: comprehensive tester, network analyzer, full radio far field ETS, The French MVG SG24LT (Satmio) near-field 3D microwave dark chamber, High-precision positioning system and its controller and computer test environment with automatic test program: temperature 22℃ ± 3℃, Humidity 60% ± 15% test method: test method and calculation of TRP of system software during the TRP test, The DUT (Device Under Test) is in the maximum transmitting power state, Select high school, low three channels for testing, Controlling the position of the DUT through the positioning system, With 15 degrees as the step length, Measure the effective radiation power (EIRP) at each point in the three-dimensional space, By integrating the average over the sphere, The calculation formula is as follows:

$$TRP \cong \frac{\pi}{2NM}\sum_{i=1}^{N-1}\sum_{j=0}^{M-1}\left[EiRP_{\theta}(\theta_i,\phi_j)+EiRP(\theta_i,\phi_j)\right]\sin(\theta_i)$$

In the TIS test, DUT is in the maximum transmitting power state, and three channels, high and low, are selected for the test. By controlling the position of DUT, measuring the receiving sensitivity of each point in the 3-dimensional space, and calculate the average value on the sphere by integrating. The calculation formula is as follows:

$$TIS \cong \frac{}{\pi\sum_{i=1}^{N-1}\sum_{j=0}^{M-1}\left[\frac{1}{EIS_{\theta}(\theta_i,\phi_j)}+\frac{1}{EIS_{\phi}(\theta_i,\phi_j)}\right]\sin(\theta_i)}$$





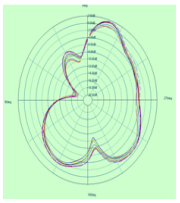
3.4 Active OTA TRP / TIS data

BAND	B			C		
CHANNAL	L	M	H	L	M	H
TRP	14.8	15.23	15.72	12.22	13.26	13.82
TIS			-82.66			-70.92

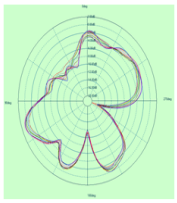
Frequency	Efficiency	Gain . dB
2400000000	42%	2.74
2410000000	42%	2.86
2420000000	43%	3.07
2430000000	44%	3.03
2440000000	45%	2.74
2450000000	45%	2.82
2460000000	47%	2.85
2470000000	48%	2.55
2480000000	48%	2.30
2490000000	48%	2.51
2500000000	50%	2.59

3.5. The passive direction map

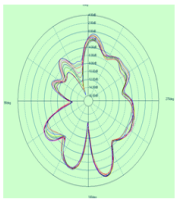
Azimuth 0°



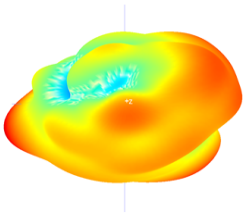
Azimuth 90°



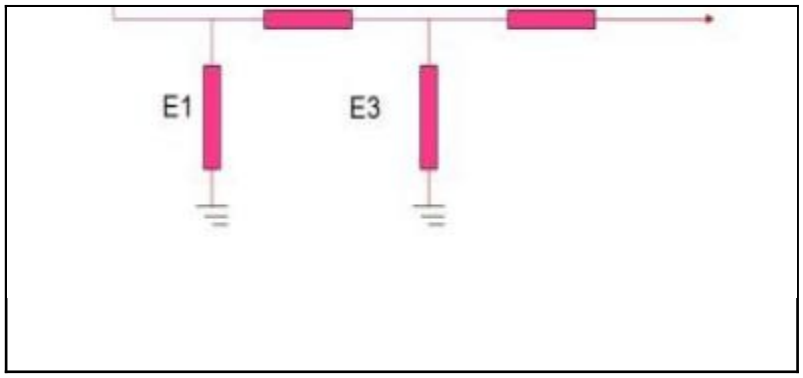
H-Plane (Elevation 90°)



3D view Frequency
2450MHz



4. Matching circuit description

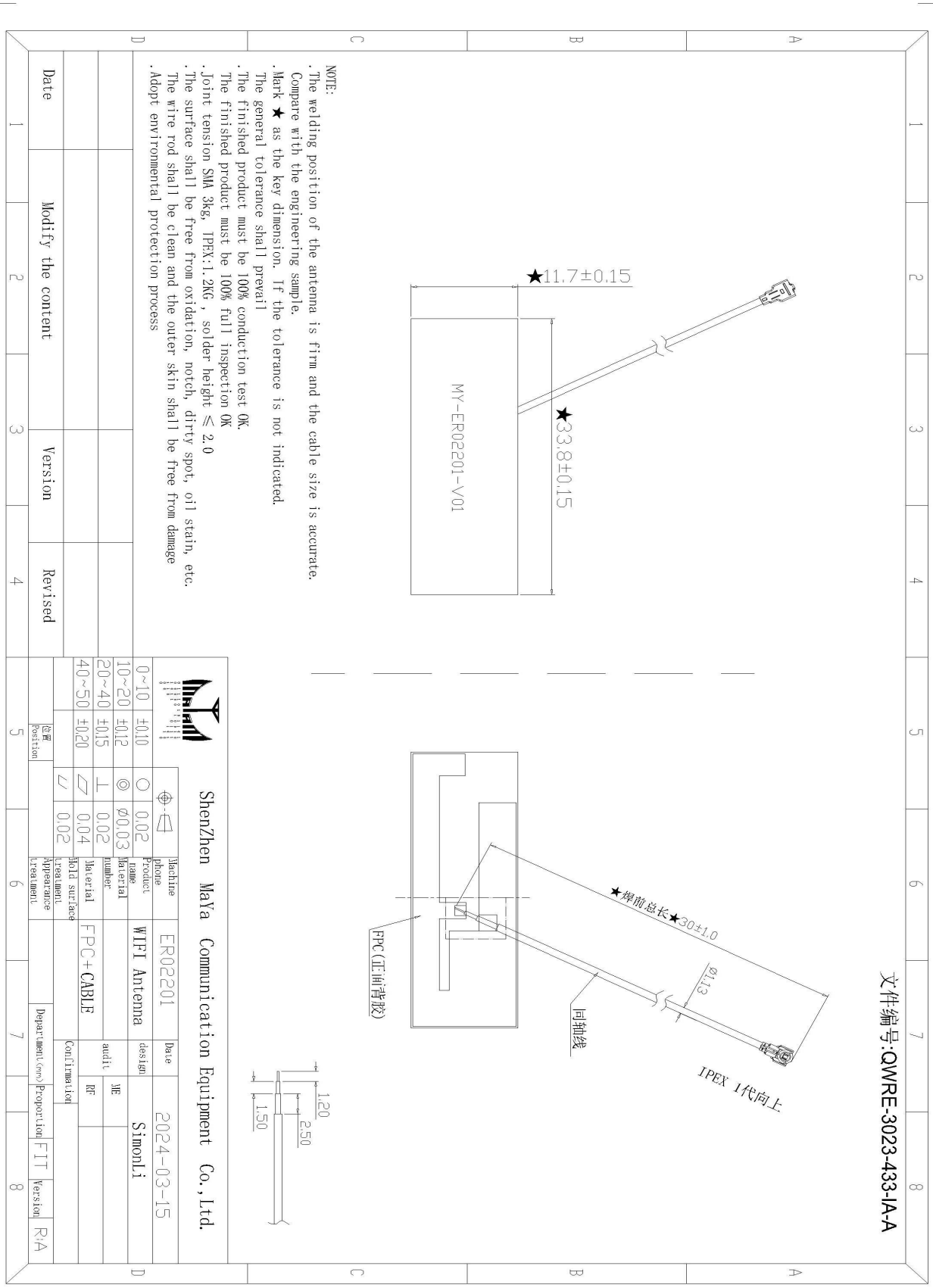


Note: Our company has adjusted the matching circuit of the antenna.

5. Environmental treatment

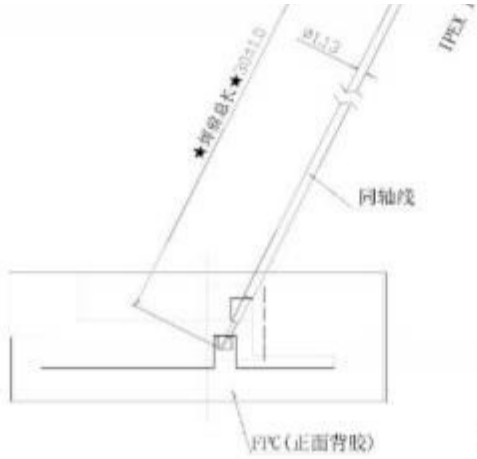
WIFI Antenna assembly diagram

6. Structural drawings



7. Sample size test report

material quality	FPC antenna		graphic:
project name	ER 02201		
The number of samples	5 PCS		
The sample date	2024.1.6		
I. Appearance inspection:			
Visually inspect the items		casual inspection	result
1. Dirty surface impurities		5PCS	0 K
2. Gel			0 K
3. Waste			0 K
4. Rip			0 K
5. Gold surface oxidation			0 K
6. Ink (black)			0 K
Ii. Reliability test (5 PCS):			



test item	standard	1	2	3	4	5	result
1. The adhesion test	The ink must not fall off	not have	not have	not have	not have	not have	0 K
2. Salt spray test status	There is no corrosion in gold surface	not have	not have	not have	not have	not have	0 K
3. Wear-resistant test	Do not leak the substrate						0 K
4. Screen print content	MY -ER 02201-V 01						0 K

3. Dimension measurement (randomly selected 5 PCS): Site reference value (mm) tolerance + (mm)			common difference - (mm)	1	2	3	4	5	detection result
1	**11.7**	**0.15**	**0.15**	**11.67**	**11.69**	**11.72**	**11.73**	**11.75**	OK
2	**33.8**	**0.15**	**0.15**	**33.79**	**33.81**	**33.83**	**33.85**	**33.86**	OK
3	**30**	**1.0**	**1.0**	**30.29**	**30.31**	**30.34**	**30.36**	**30.37**	OK
4									
5									
6									

8. Certification test status (fill in the instructions: if there are relevant test certification, please mark in brackets and indicate the corresponding identification Certificate or report number)

() UL certification or report number:
() VDE Certification or Report number:
() CE Certification or Report number:
() FCC Certification or Report number:
(√) R O HS Certification or Report Number: _No .NGBML 2105022606 ___
(√) REACH Certification or report number: No.NGBML 2105023708 ____
() EMC Certification or Report Number:
() CCC Certification or Report Number:
() SRRC Certification or Report number:
() Other certification or report number:
() No product certification