



深圳市东信通电子科技有限公司

ShenZhen Eastong Electronic technology Co., LTD

APPROVAL SHEET
FOR
新迪泰 XDT-AITOYS904
(2.4G band internal antenna)

Issued by		Checked by	
Confirmed by		Date	2026-07-22
Customer Confirm			

Project: 新迪泰 XDT-AITOYS904		Author: 许小荣	File Name: 新迪泰 XDT-AITOYS904-APP-RA
Date: 2026-07-22			
Rev:	Language:	Check:	
A	ENG		
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Revision History

Date	Revision	Description of Changes
2026-07-22	R:A	Antenna performance approved by customer

1 SUMMARY

2 GENERAL DESCRIPTION

2.1 Definitions

3 MECHANICAL DESCRIPTION

4 ELECTRICAL PERFORMANCE

4.1 Set-up

- 4.1.1 VSWR and return loss
- 4.1.2 Efficiency, Gain and TRP/TIS
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4.2 Measurement Data

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1 Summary

This report summarizes the electrical results of the proposed antenna to support the XDT-AITOYS904 program. We test the antenna with the latest version handset .

2 General Description

2.1 Definitions

VSWR: Voltage Standing Wave Rate

3 Mechanical Description

4 Electrical Performance

4.1 Set-up

4.1.1 VSWR and return loss

VSWR measurements (S_{11}) were performed using an Agilent E5070B Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

4.1.2 Efficiency, Gain and TRP/TIS

The gain of the antenna was measured in Dong Xin's 3D anechoic chamber in Shenzhen. The chamber is capable of doing tests from 380MHz to 6GHz. Coaxial chokes on the feed cable were used to mitigate surface currents. The measurement results are calibrated using dipole standards. For TRP and TIS the chamber uses a Agilent 8960 to establish the connection with the mobile device. During TRP tests the 8960 reads the power received through the chamber probes whilst during TIS tests the 8960 transmits through the probe. All data is afterwards corrected by a calibration table.

4.1.3 Matching Circuit Description

匹配未修改

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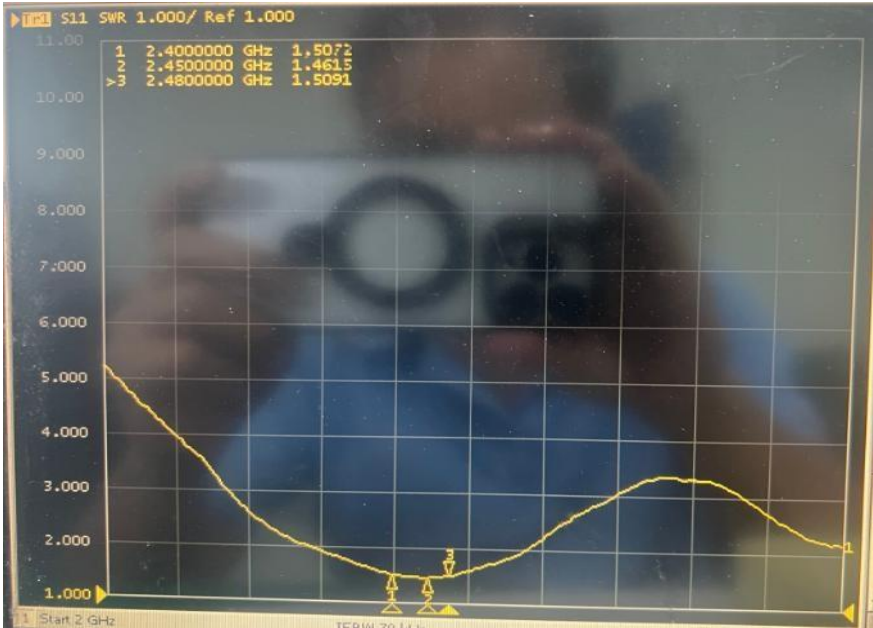
4.2 Measurement Data

Effective Radiated Power Summation

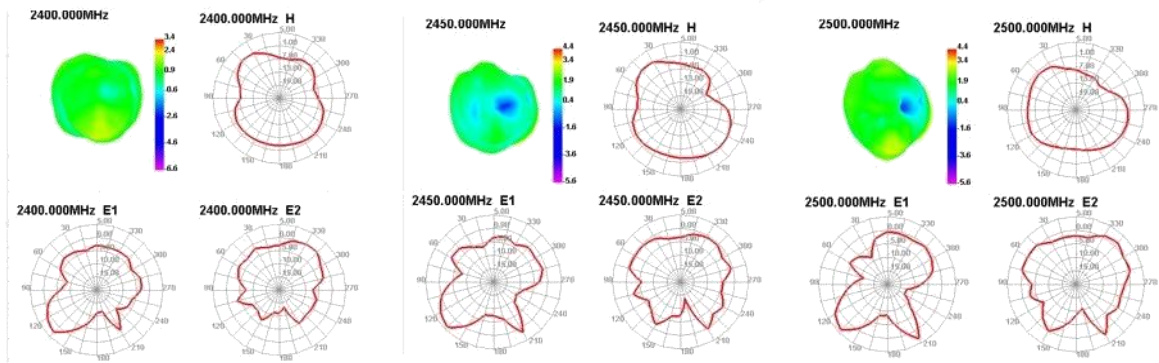
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	49.08	-3.09	3.38	1.23
2410	51.11	-2.92	3.62	1.47
2420	51.42	-2.89	3.61	1.46
2430	52.98	-2.76	3.69	1.54
2440	57.46	-2.41	3.98	1.83
2450	64.36	-1.91	4.42	2.27
2460	63.91	-1.94	4.4	2.25
2470	63.02	-2.01	4.37	2.22
2480	64.35	-1.91	4.53	2.38
2490	64.53	-1.9	4.48	2.33
2500	64.22	-1.92	4.35	2.2

WIFI	2.4G		
Let	L	M	H
TRP	16.2	16.5	16.0
TIS	-80.2	-80.6	-80.1

S11



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天线位置

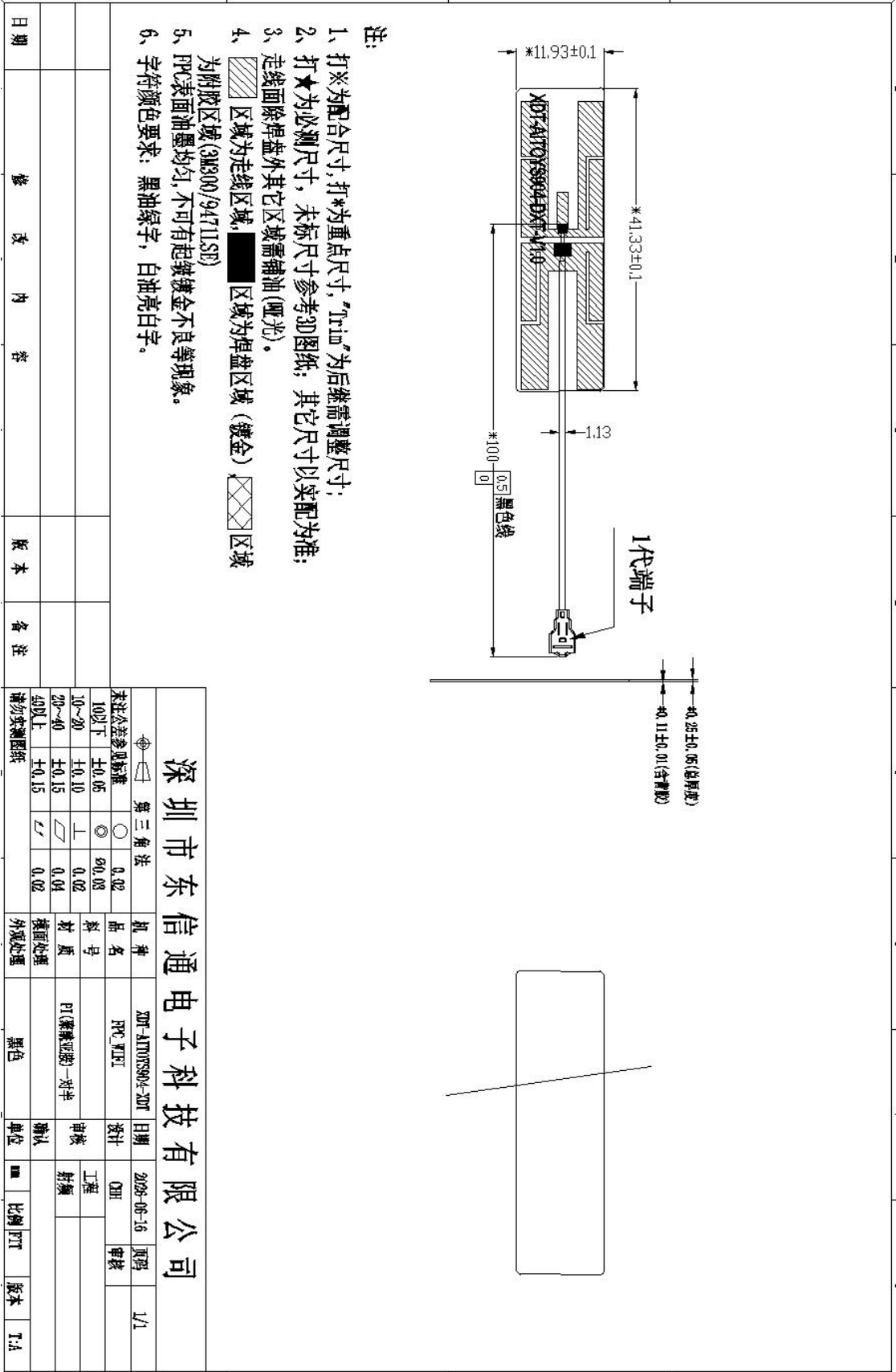


天线辐射方向：下图所示方向会更强



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图纸:



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