



深圳市东信通电子科技有限公司

ShenZhen Eastong Electronic technology Co., LTD

APPROVAL SHEET
FOR
驰腾 A18415TFM
(LTE band internal antenna)

Issued by		Checked by	
Confirmed by		Date	2025-08-26
Customer Confirm			

Project: 驰腾 A18415TFM		Author: 李凯	File Name: 驰腾 A18415TFM- APP-RA
Date: 2025-08-26			
Rev:	Language:	Check:	
A	ENG		
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Revision History

Date	Revision	Description of Changes
2025-08-26	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
- 4.1.3 Matching Circuit Description

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- 4.2.1 VSWR
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6 CONCLUSION

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1 Summary

This report summarizes the electrical results of the proposed antenna to support the A18415TFM 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

No matching.

4.2 Measurement Data

Effective Radiated Power Summation

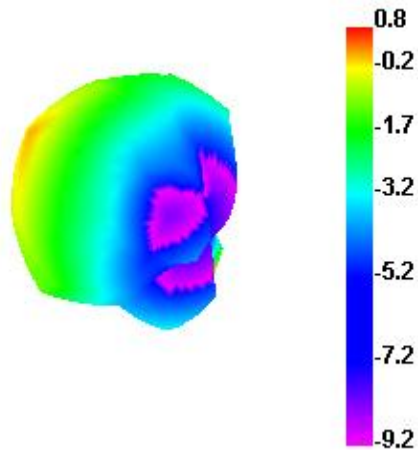
5 Mechanical drawing

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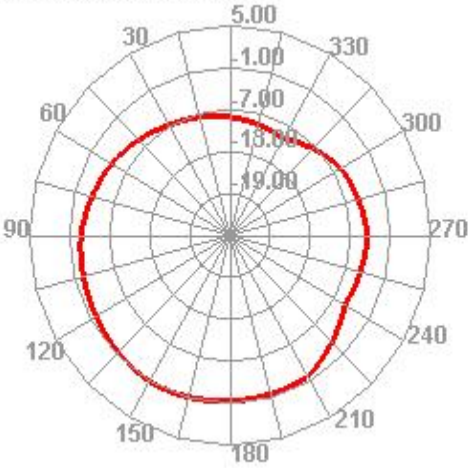
BT 天线效率，增益：

Freq (MHz)	Effi (%)	Gain (dBi)
2450	32.46	0.84

2450.000MHz



2450.000MHz H

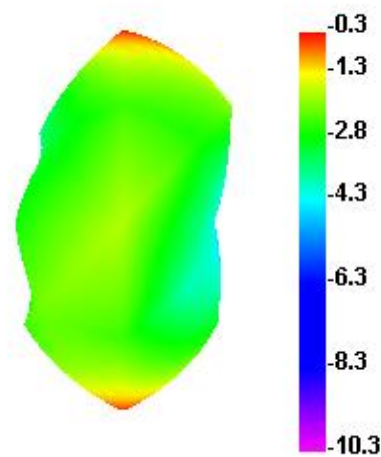


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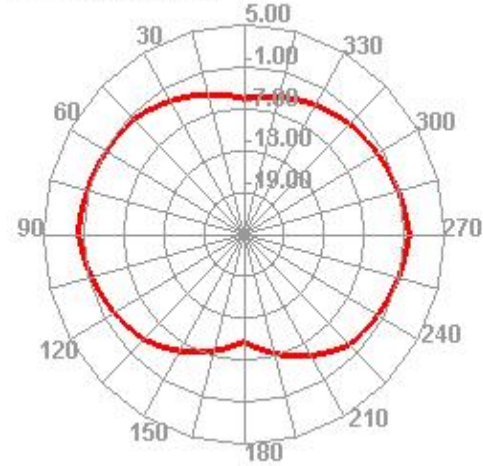
主天线效率，增益：

Freq (MHz)	Effi (%)	Gain (dBi)
2G: 850	38.14	-1.7
2G: 900	30.78	-1.3
2G: 1800	28.63	1.4
2G: 1900	29.45	2.0
3G: 1900	29.45	2.0
3G: 850	38.14	-1.7
3G: 900	30.78	-1.3
4G: B2 (1900)	29.45	2.0
4G: B4 (1700)	28.63	1.6
4G: B5 (850)	38.14	-1.7
4G: B7 (2600)	25.71	-1.7
4G: B8 (900)	30.78	-1.3
4G: B17 (700)	32.43	-0.3
4G: B28A (700)	32.43	-0.3
4G: B28B (700)	32.43	-0.3

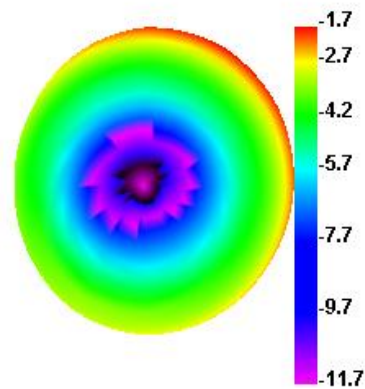
700.000MHz



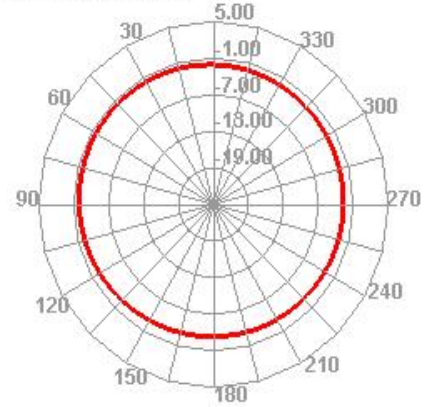
700.000MHz H



850.000MHz

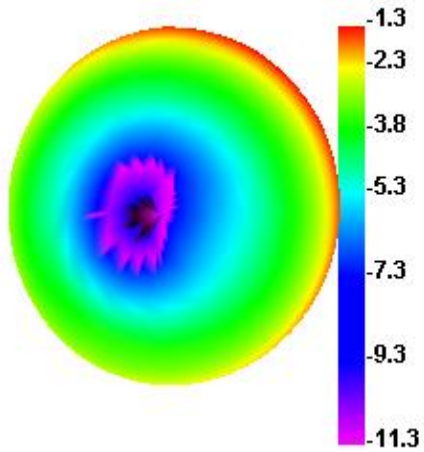


850.000MHz H

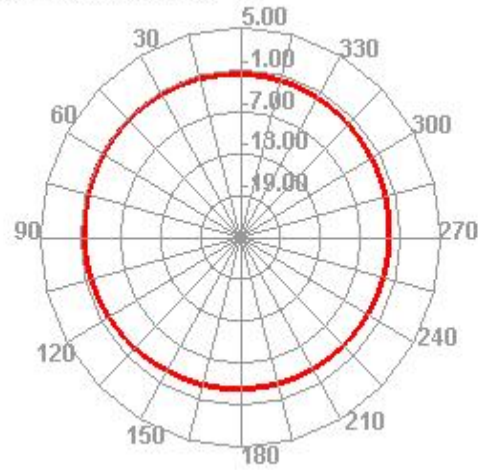


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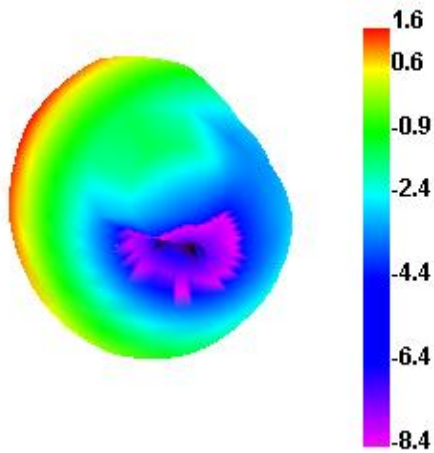
900.000MHz



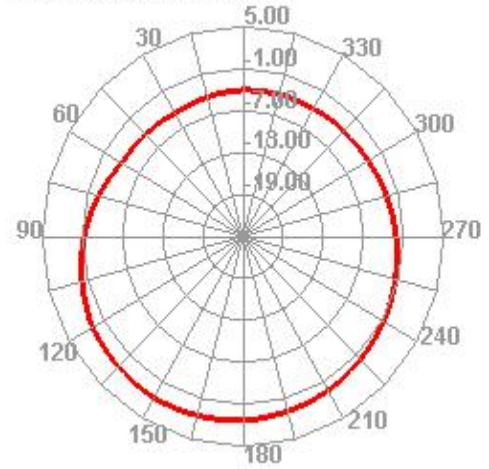
900.000MHz H



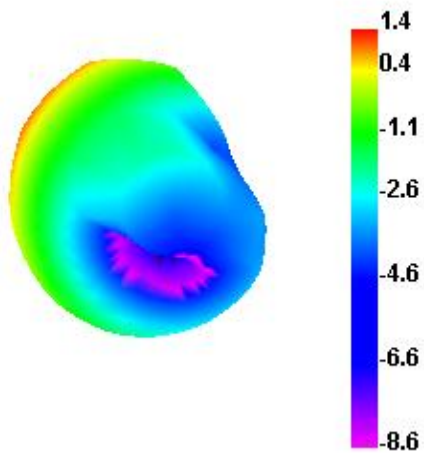
1700.000MHz



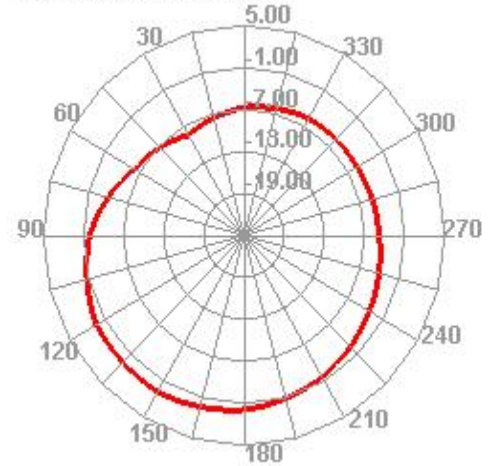
1700.000MHz H



1800.000MHz

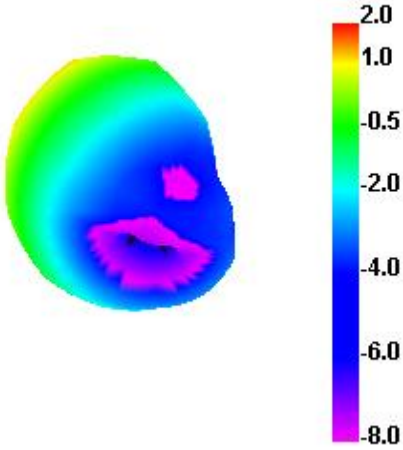


1800.000MHz H

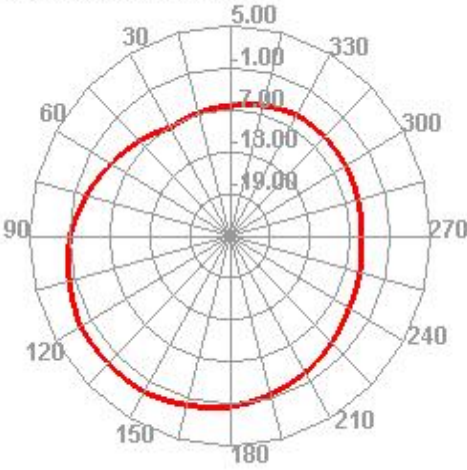


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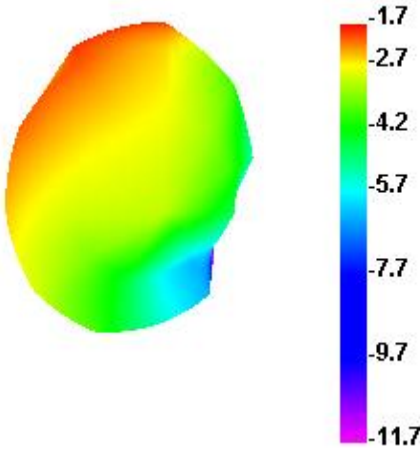
1900.000MHz



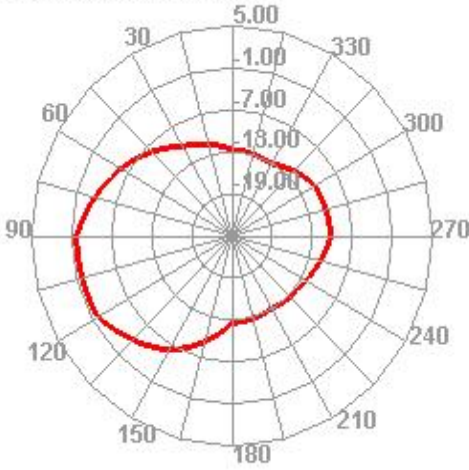
1900.000MHz H



2600.000MHz

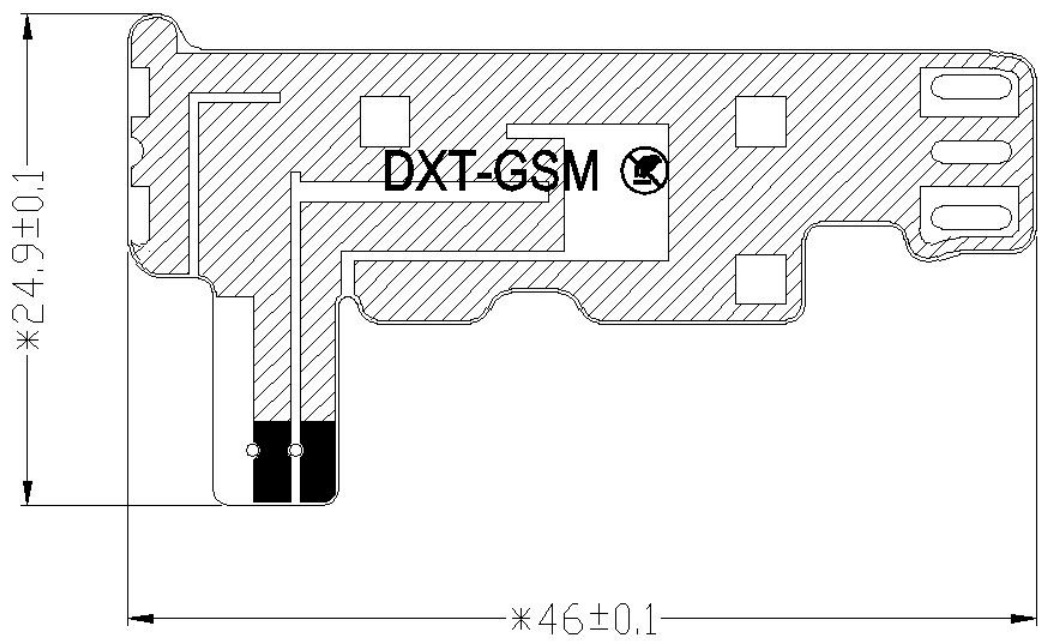


2600.000MHz H

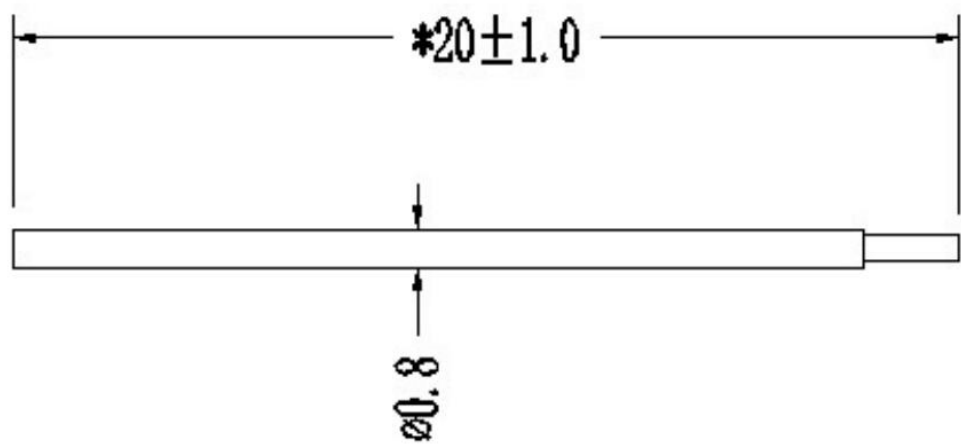


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主天线:



蓝牙天线:



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