



ShenZhen Eastong Electronic technology Co., LTD

APPROVAL SHEET FOR N02 Pro (WIFI band internal antenna)

| | | | |
|-----------------------------|--|-------------------|-------------------|
| Issued by | | Checked by | |
| Confirmed by | | Date | 2024-06-28 |
| Customer Confirm | | | |

| | | | | |
|--|--|----------------|----------------------------------|--|
| Project: N02 Pro | | Author: Li Kai | File Name: N02 Pro-APP-RA | |
| Date: 2024-06-28 | | | | |
| Rev: A | | Language: ENG | | |
| Check: | | | | |
| CONFIDENTIAL ShenZhen Eastong Electronic technology Co., LTD | | | | |

Revision History

| Date | Revision | Description of Changes |
|------------|----------|--|
| 2024-06-28 | 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

4.2 Measurement Data

- 4.2.1 VSWR
- 4.2.2 Active result

5 MECHANICAL DRAWING

6 CONCLUSION

| | | | |
|--|-----------|----------------|-------------------------------------|
| Project: N02 Pro | | Author: Li Kai | File Name: N02 Pro-APP-RA |
| Date: 2024-06-28 | | | |
| Rev: | Language: | Check: | |
| A | ENG | | |
| CONFIDENTIAL ShenZhen Eastong Electronic technology Co., LTD | | | |

1 Summary

This report summarizes the electrical results of the proposed antenna to support the N02 Pro 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

| | | | | |
|--|-----------|----------------|-------------------------------------|--|
| Project: N02 Pro | | Author: Li Kai | File Name: N02 Pro-APP-RA | |
| Date: 2024-06-28 | | | | |
| Rev: | Language: | Check: | | |
| A | ENG | | | |
| CONFIDENTIAL ShenZhen Eastong Electronic technology Co., LTD | | | | |

Address: 409-411, Shanghai E-commerce Port, No. 9 Huancheng Road, Yangmei Community, Bantian Street, Longgang District, Shenzhen

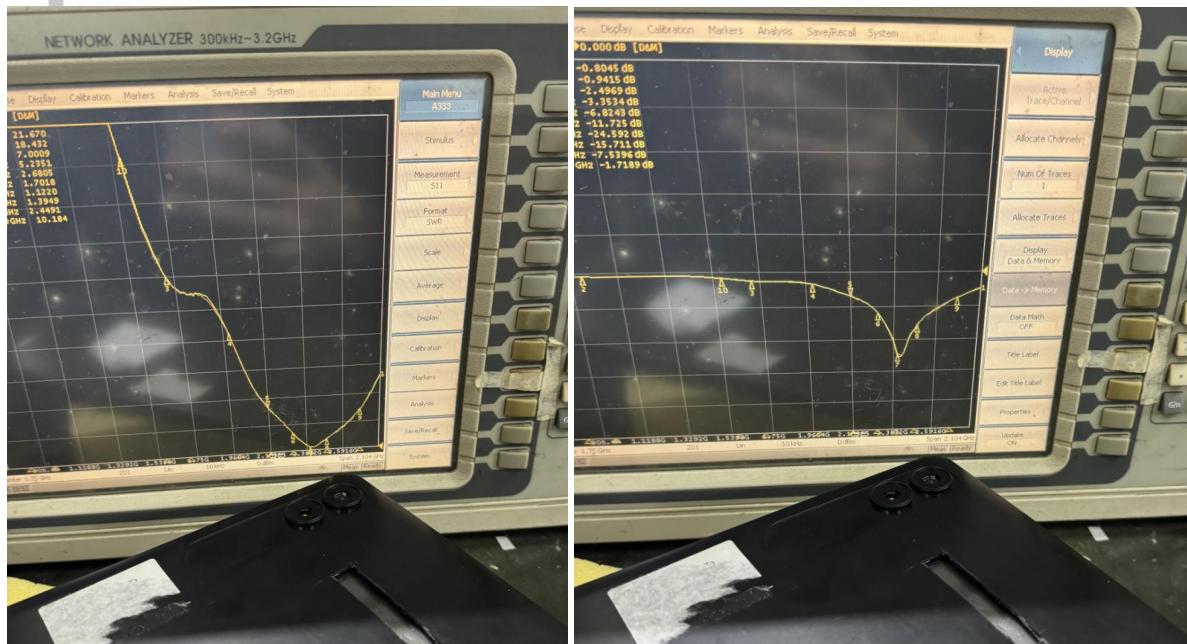
Antenna type: PIFA

Antenna Max. Peak Gain:

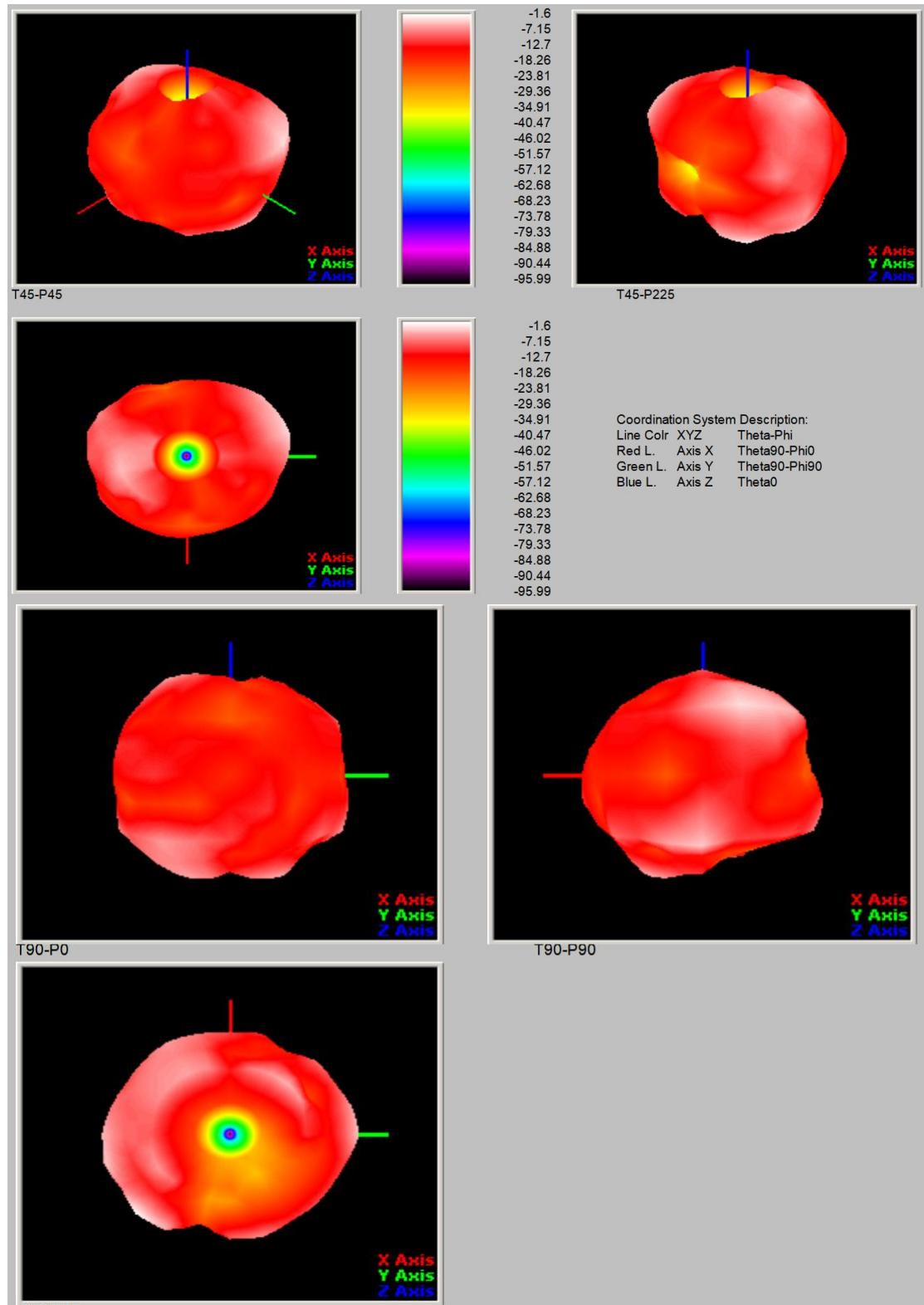
2.4G: 0.53dBi

5G: 0.28dBi

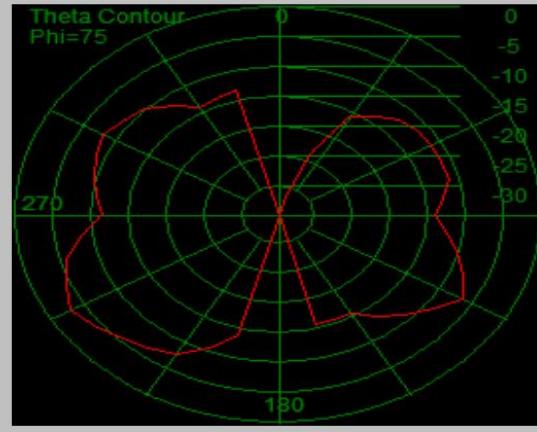
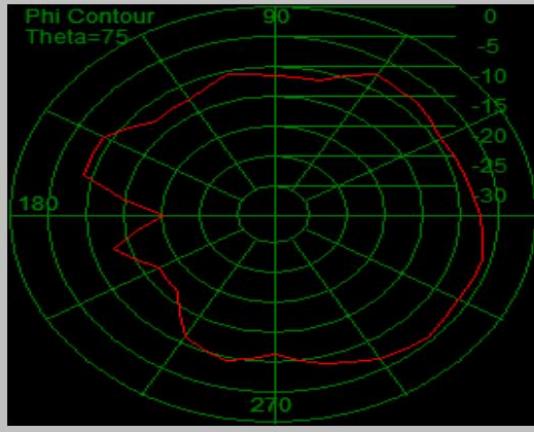
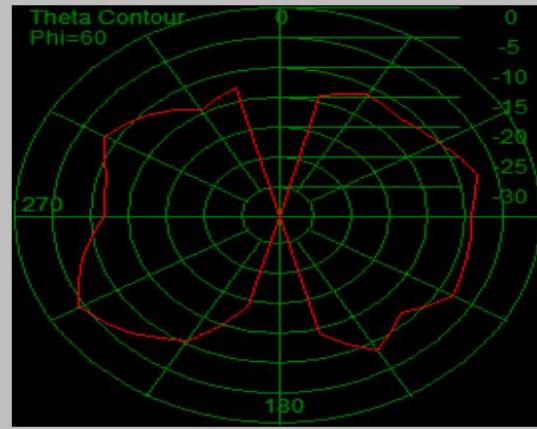
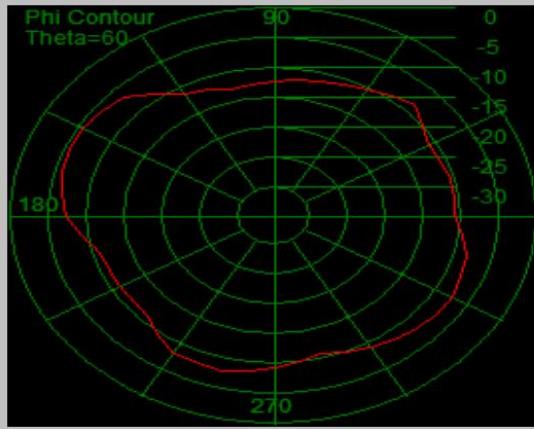
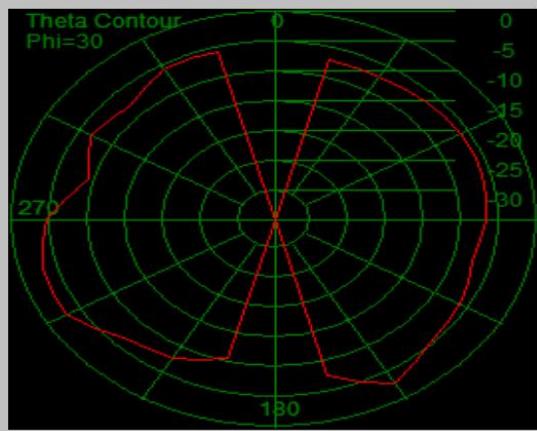
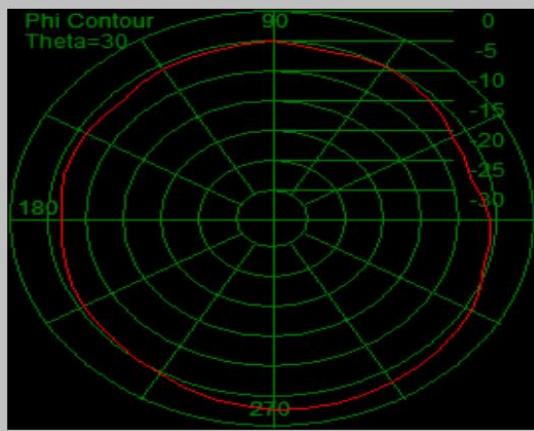
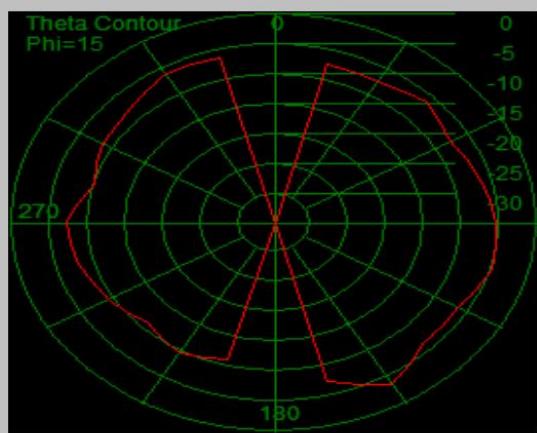
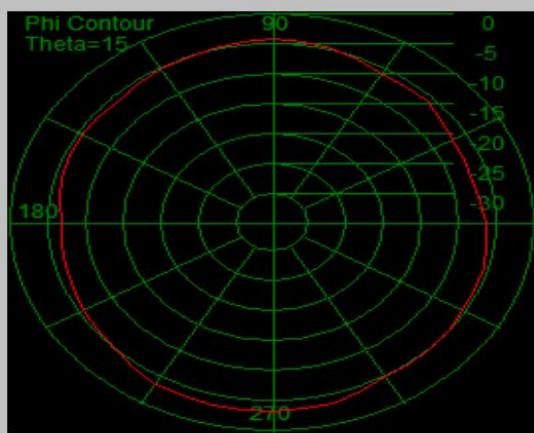
| WIFI | 2.4G | | | 5.8G | | |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Let | 1 | 6 | 12 | 36 | 60 | 161 |
| TRP | 15.7 | 15.4 | 15.8 | 13.6 | 13.2 | 12.4 |
| TIS | -84.6 | -84.4 | -84.2 | -72.6 | -72.5 | -72.2 |



| | | |
|---|----------------|----------------|
| Project: N02 Pro | Author: Li Kai | File Name: |
| Date: 2024-06-28 | | N02 Pro-APP-RA |
| Rev: | Language: | Check: |
| A | ENG | |
| CONFIDENTIAL | | |
| ShenZhen Eastong Electronic technology Co., LTD | | |



| | | | | | |
|---|-----------|----------------|-------------------------------------|--|--|
| Project: N02 Pro | | Author: Li Kai | File Name: N02 Pro-APP-RA | | |
| Date: 2024-06-28 | | | | | |
| Rev: | Language: | Check: | | | |
| A | ENG | | | | |
| CONFIDENTIAL | | | | | |
| ShenZhen Eastong Electronic technology Co., LTD | | | | | |

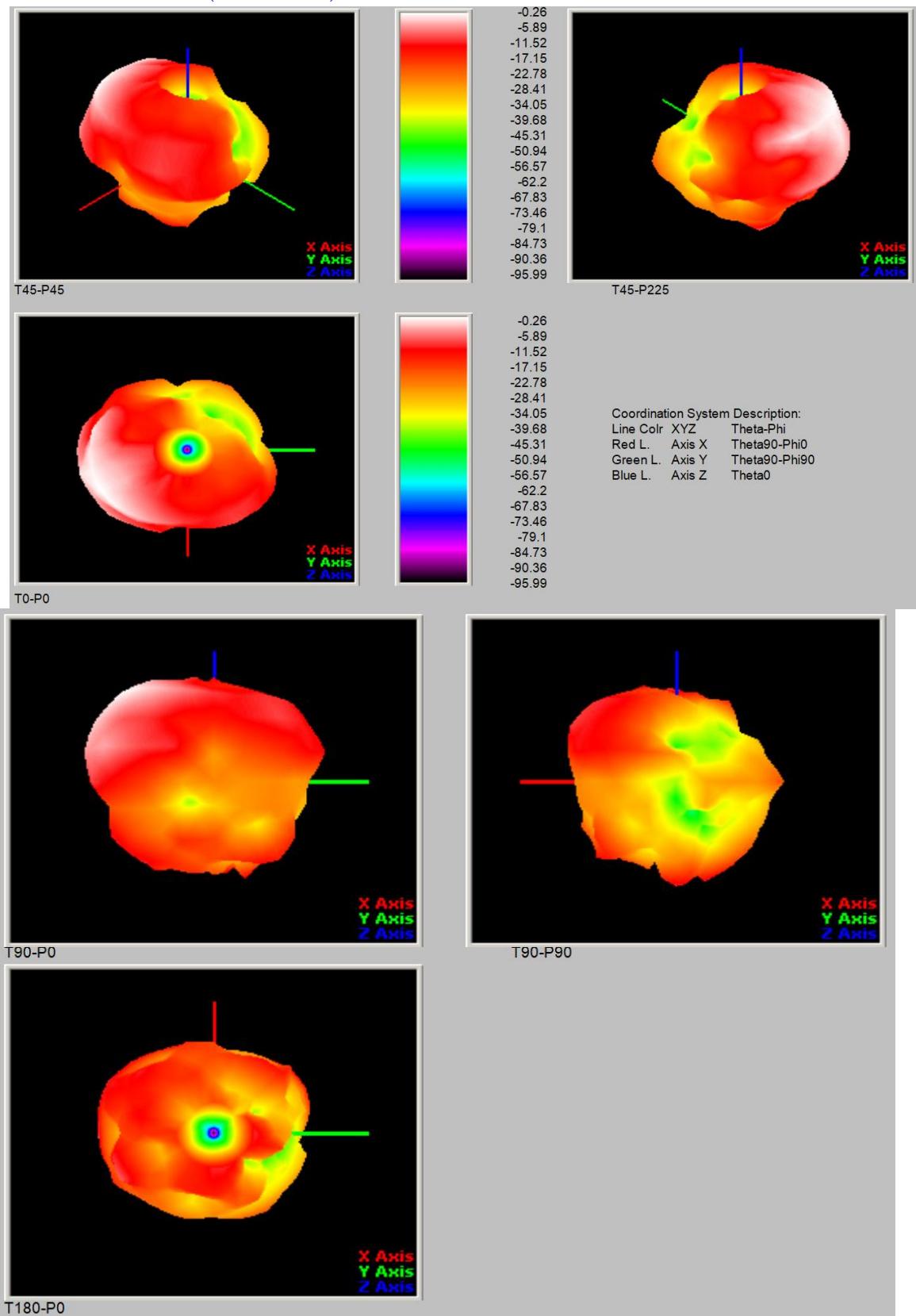


| | |
|------------------|-----------|
| Project: N02 Pro | |
| Date: 2024-06-28 | |
| Rev: | Language: |
| A | ENG |

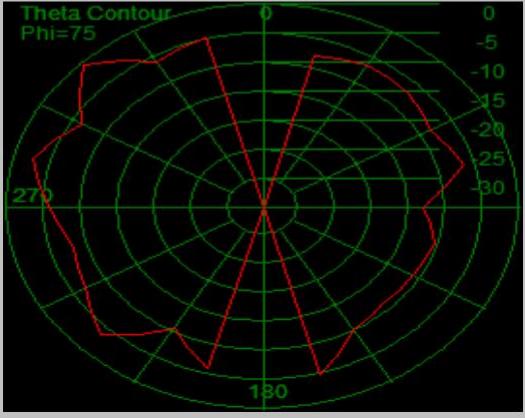
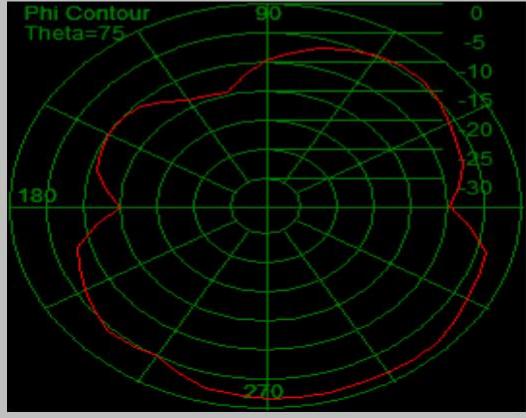
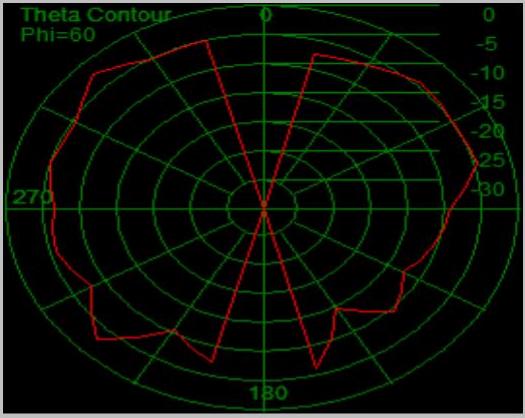
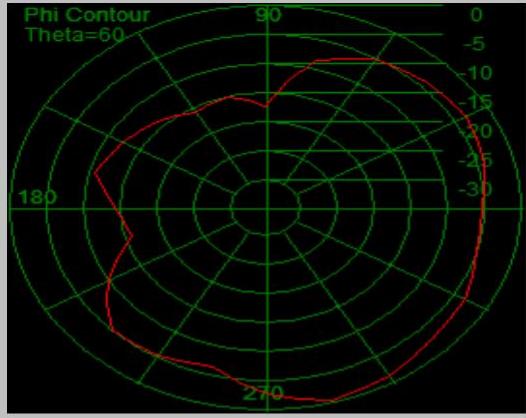
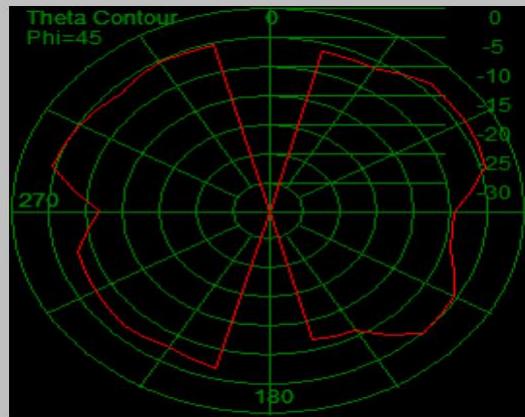
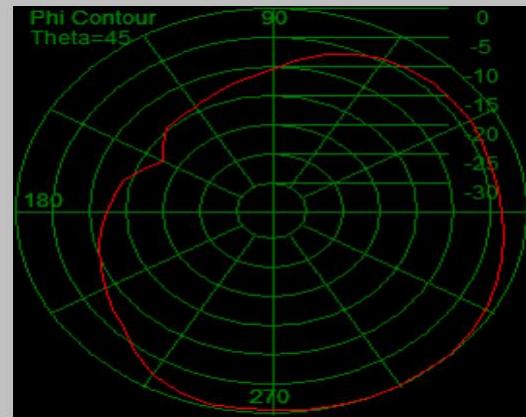
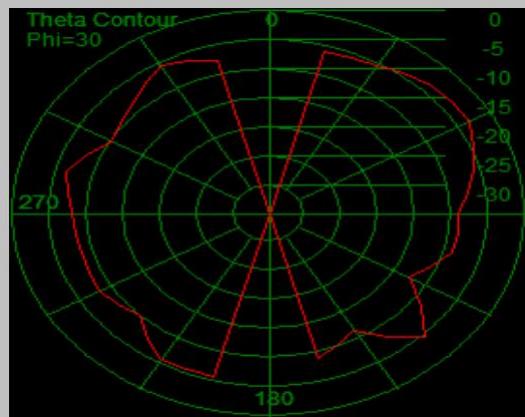
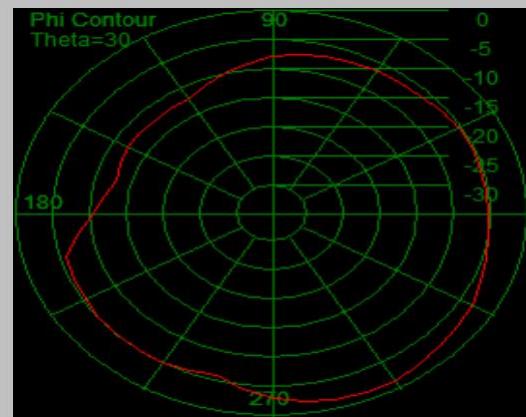
Author: Li Kai
File Name:
N02 Pro-APP-RA

CONFIDENTIAL
ShenZhen Eastong Electronic technology Co., LTD

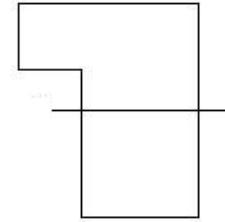
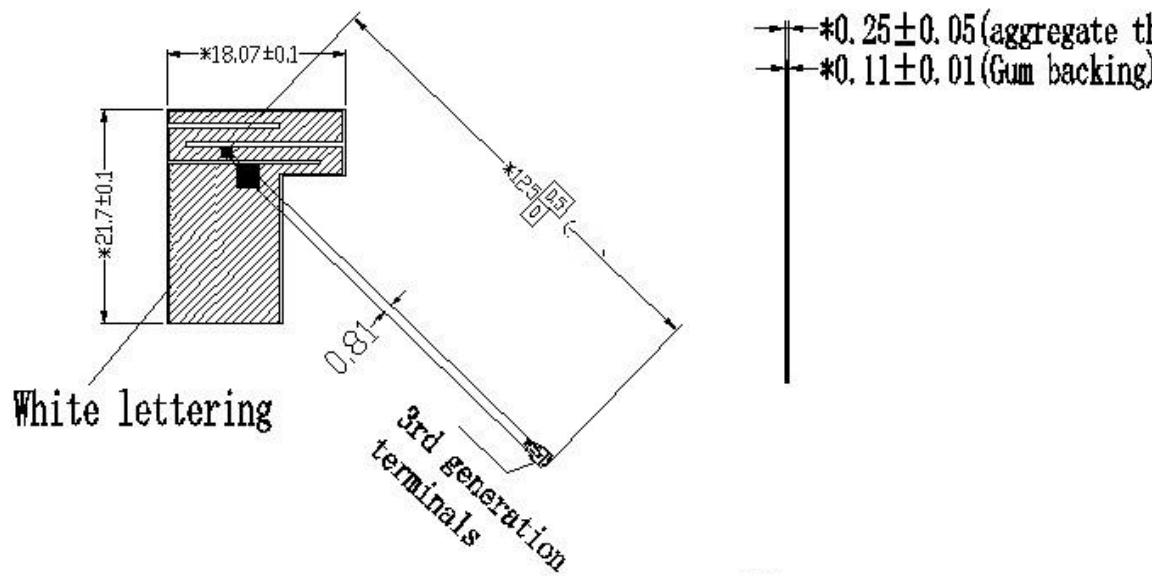
5745MHZ~5825MHZ (WIFI 5.8G)



| | | | |
|---|-----------|----------------|-------------------------------------|
| Project: N02 Pro | | Author: Li Kai | File Name: N02 Pro-APP-RA |
| Date: 2024-06-28 | | | |
| Rev: | Language: | Check: | |
| A | ENG | | |
| CONFIDENTIAL | | | |
| ShenZhen Eastong Electronic technology Co., LTD | | | |



| | | |
|---|----------------|------------|
| Project: N02 Pro | Author: Li Kai | File Name: |
| Date: 2024-06-28 | | |
| Rev: | Language: | Check: |
| A | ENG | |
| CONFIDENTIAL | | |
| ShenZhen Eastong Electronic technology Co., LTD | | |



ShenZhen Eastong Electronic technology Co., LTD

| Trigonometry | | | | Model | DXT-WIFI-V1.0 | date | 2024-03-06 | | |
|-------------------------|-------|---|-------|----------------------|------------------------|---------|------------|--|----|
| | ○ | ○ | ○ | Name | PC | | | | |
| 10~ | ±0.05 | ○ | ±0.03 | | | | | | |
| 10~20 | ±0.10 | + | 0.02 | | | | | | |
| 20~40 | ±0.15 | △ | 0.04 | texture of material | PI(Polyimide) one-half | | | | |
| 40~ | ±0.15 | △ | 0.02 | | | | | | |
| Do Not Measure Drawings | | | | Appearance Treatment | black | Company | Fit | | RA |

| | | | |
|------------------|----------------|------------|----------------|
| Project: N02 Pro | Author: Li Kai | File Name: | N02 Pro-APP-RA |
| Date: 2024-06-28 | | | |
| Rev: | Language: | Check: | |
| A | ENG | | |

CONFIDENTIAL

ShenZhen Eastong Electronic technology Co., LTD