



Shenzhen xingtong wireless technology co.,
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Address: 3/F, Building A1, Qiangrongdong Industrial Zone,
Jiuwei, Xixiang, Baoan District, Shenzhen

SPECIFICATION

Project Name: NE133Q

R

Product part number: ANT-NE133-WIFI-DRX-XT001

| | | |
|----------------------|----------------------|----------------------|
| Product part number: | Product part number: | Product part number: |
| Huangjiajun | Wu Yanlong | 2024-02-27 |

Customer confirmation:

| |
|---|
| Customer Name: Beijing Dashang Technology Co., Ltd |
| Approval : |
| Date : |
| Notes : |

Please sign and stamp on behalf of your company and return a copy to our company for filing. Thank you for your cooperation!



| | |
|----------------|--------------------|
| Date | 2024-02-27 |
| Version | A0 |
| File number | XT-YF-004 |
| Product model | NE133-DRX/WIFI-ANT |
| Product number | |

Shenzhen Xingtong Wieress Technology Co., Ltd

Product model NE133-DRX/WIFI-ANT

Product number

1.Product Constrution:

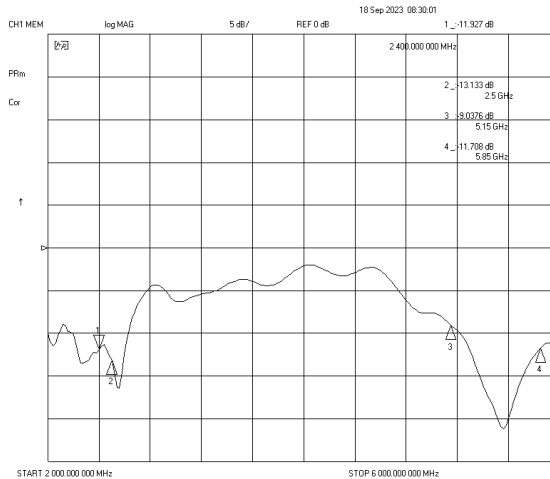
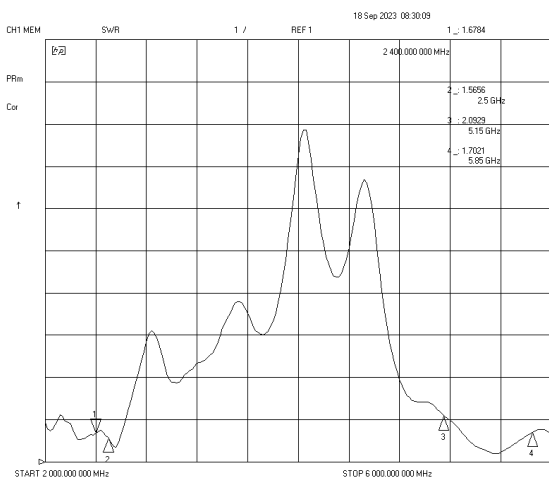
- 1. Antenna material: FPC
- 2. Back glue model: 3M9471
- 3. Antenna size: 30.55 * 20.4 (tolerance ± 0.1)
- 4. Coaxial line size: 195mm ∅ 0.81-3rd generation IPEX
- 4. Appearance treatment: Surface antioxidant treatment

2. parameters

- Scope of use: Customer supplied machines
- Antenna impedance: 50 ohms
- Polarization mode: horizontal/vertical
- Installation method: Connect the IPEX terminal wire to the motherboard
- Packaging method: Use PE bag+packaging box

3.S11 value of antenna (S11)

- 3.1: Antenna standing wave ratio/return loss value



- 3.2: Antenna parameters:

| Frequency point | 2400mhz | 2500mhz | 5150Mhz | 5850Mhz |
|-----------------|---------|---------|---------|---------|
| SWR(dbm) | 1.67 | 1.56 | 2.09 | 1.70 |
| LOG (db) | -11.92 | -11.13 | -9.03 | -11.70 |



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4. Antenna performance (OTA)

■ 4.1: Antenna matching suggestions

The antenna cannot be subjected to vector impedance modulation.

■ 4.2: Antenna OTA/efficiency/gain (testing instruments: network analyzer, oscilloscope, customer supplied engineering prototype, various standard cards, etc.)

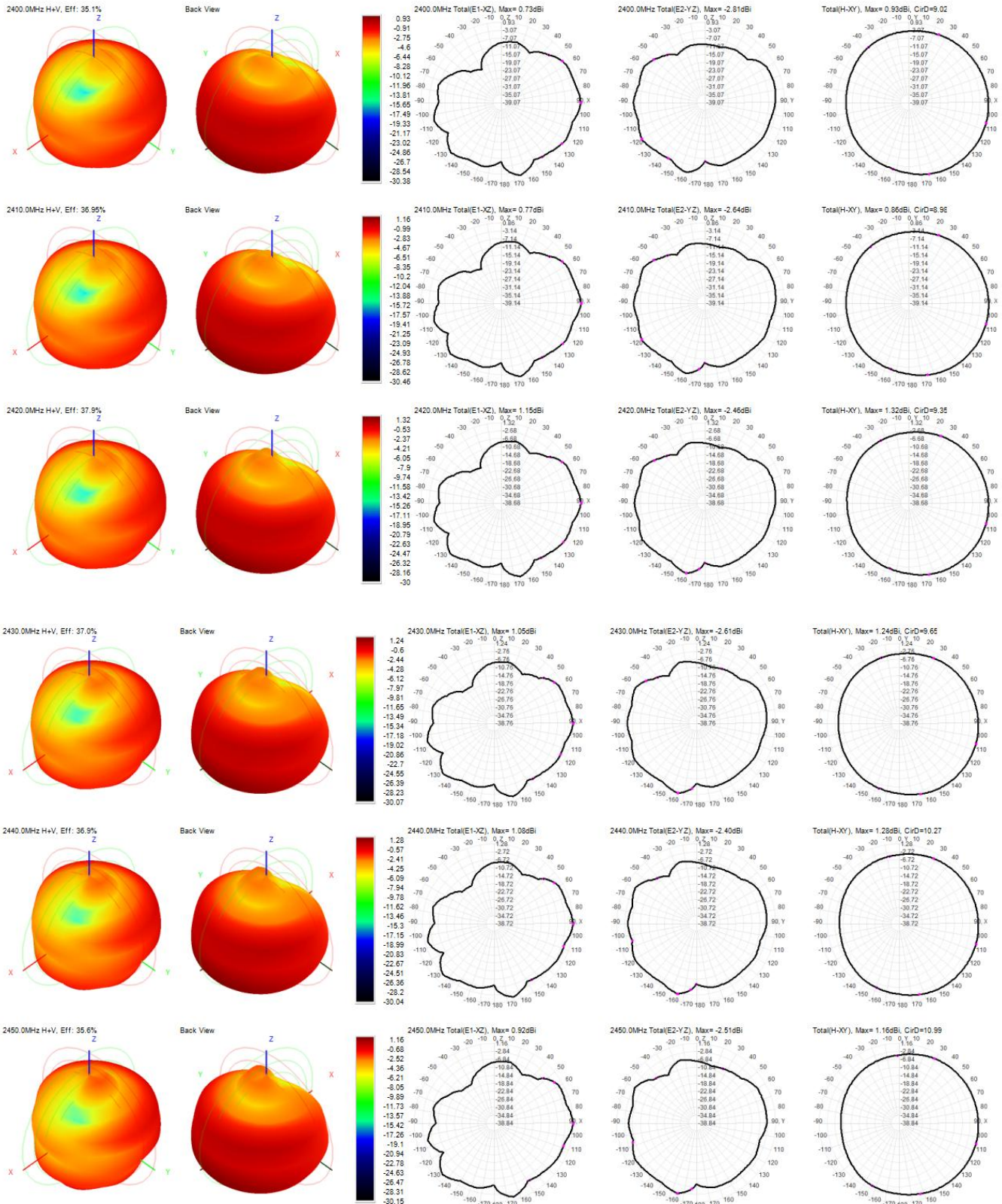
4.2.1: 2.4G-WIFI/BT-2D

| Frequency ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Efficiency (dBi) | -4.55 | -4.32 | -4.21 | -4.32 | -4.33 | -4.48 | -4.57 | -4.80 | -5.03 | -5.43 | -5.91 |
| Gain (dBi) | 0.93 | 1.16 | 1.32 | 1.24 | 1.28 | 1.16 | 1.11 | 0.92 | 0.73 | 0.37 | -0.06 |
| Efficiency (%) | 35.06 | 36.95 | 37.93 | 36.97 | 36.94 | 35.63 | 34.90 | 33.14 | 31.42 | 28.64 | 25.67 |
| Directivity (dB) | 5.48 | 5.42 | 5.53 | 5.56 | 5.60 | 5.64 | 5.68 | 5.71 | 5.76 | 5.80 | 5.85 |
| Peak Gain Position (Theta) | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 |
| Peak Gain Position (Phi) | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 195.00 | 180.00 |
| Efficiency ThetaPol (%) | 32.32 | 33.02 | 34.69 | 33.51 | 33.32 | 31.72 | 30.85 | 29.19 | 27.40 | 24.84 | 22.04 |
| Efficiency PhiPol (%) | 2.74 | 2.93 | 3.25 | 3.46 | 3.62 | 3.91 | 4.05 | 3.95 | 4.02 | 3.80 | 3.63 |
| Upper Hem. Efficiency (%) | 16.04 | 17.80 | 17.06 | 16.61 | 16.56 | 15.86 | 15.36 | 14.36 | 13.49 | 12.24 | 10.99 |
| Lower Hem. Efficiency (%) | 19.01 | 19.15 | 20.88 | 20.36 | 20.37 | 19.77 | 19.54 | 18.78 | 17.94 | 16.40 | 14.69 |

4.2.2: 5.8G-WIFI-2D

| Frequency ID | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 5150.0 | 5200.0 | 5250.0 | 5300.0 | 5350.0 | 5400.0 | 5450.0 | 5500.0 | 5550.0 | 5600.0 | 5650.0 | 5700.0 | 5750.0 | 5800.0 | 5850.0 |
| Efficiency (dBi) | -4.01 | -3.20 | -2.97 | -3.78 | -3.44 | -2.95 | -4.02 | -3.85 | -2.83 | -4.12 | -4.02 | -3.08 | -3.77 | -4.46 | -2.86 |
| Gain (dBi) | 1.48 | 1.46 | 2.08 | 1.48 | 2.53 | 2.48 | 2.00 | 2.09 | 3.08 | 1.78 | 1.28 | 1.79 | 1.64 | 1.02 | 2.58 |
| Efficiency (%) | 39.72 | 47.88 | 50.52 | 41.86 | 45.26 | 50.72 | 39.61 | 41.21 | 52.17 | 38.73 | 39.61 | 49.22 | 42.00 | 35.78 | 51.72 |
| Directivity (dB) | 4.49 | 4.66 | 5.05 | 5.26 | 5.97 | 5.43 | 6.02 | 5.94 | 5.90 | 4.90 | 5.30 | 4.86 | 5.40 | 5.48 | 5.44 |
| Peak Gain Position (Theta) | 90.00 | 75.00 | 75.00 | 90.00 | 75.00 | 60.00 | 60.00 | 60.00 | 60.00 | 90.00 | 90.00 | 60.00 | 75.00 | 90.00 | 75.00 |
| Peak Gain Position (Phi) | 30.00 | 15.00 | 30.00 | 30.00 | 30.00 | 15.00 | 15.00 | 15.00 | 15.00 | 45.00 | 45.00 | 15.00 | 165.00 | 45.00 | 45.00 |
| Efficiency ThetaPol (%) | 17.62 | 21.75 | 22.62 | 19.00 | 20.53 | 24.15 | 19.63 | 20.98 | 27.15 | 20.38 | 20.82 | 26.50 | 21.82 | 18.75 | 27.28 |
| Efficiency PhiPol (%) | 22.10 | 26.14 | 27.90 | 22.86 | 24.73 | 26.57 | 19.97 | 20.23 | 25.02 | 18.35 | 18.79 | 22.72 | 20.17 | 17.03 | 24.44 |
| Upper Hem. Efficiency (%) | 23.41 | 28.09 | 29.68 | 24.56 | 25.90 | 28.34 | 21.49 | 22.60 | 27.92 | 20.56 | 21.28 | 26.28 | 22.55 | 19.10 | 26.29 |
| Lower Hem. Efficiency (%) | 16.31 | 19.79 | 20.83 | 17.29 | 19.36 | 22.38 | 18.12 | 18.60 | 24.26 | 18.17 | 18.33 | 22.94 | 19.44 | 16.68 | 25.43 |

4.2.3: WIFI OTA-2. 4G-3D





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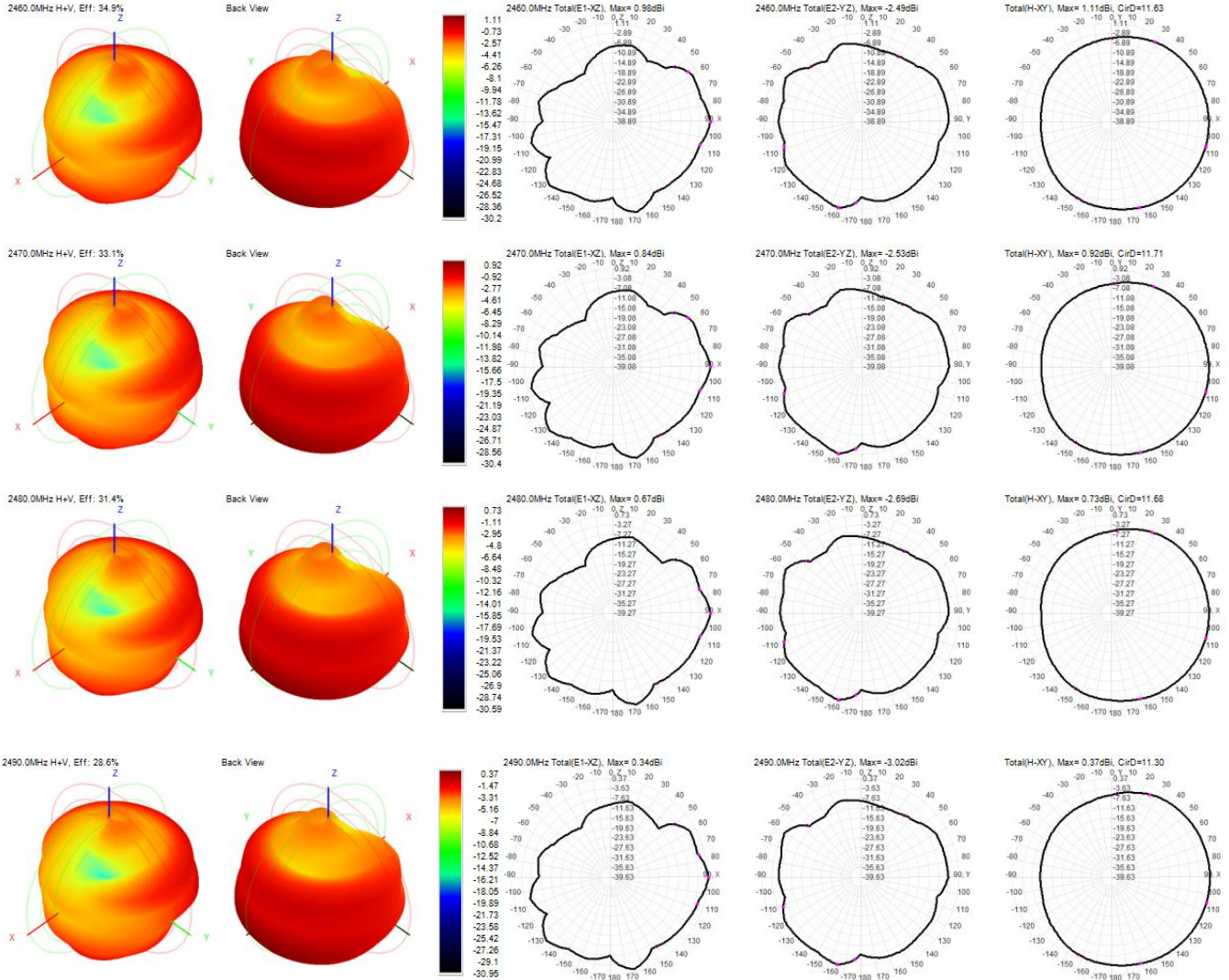
XT-YF-004

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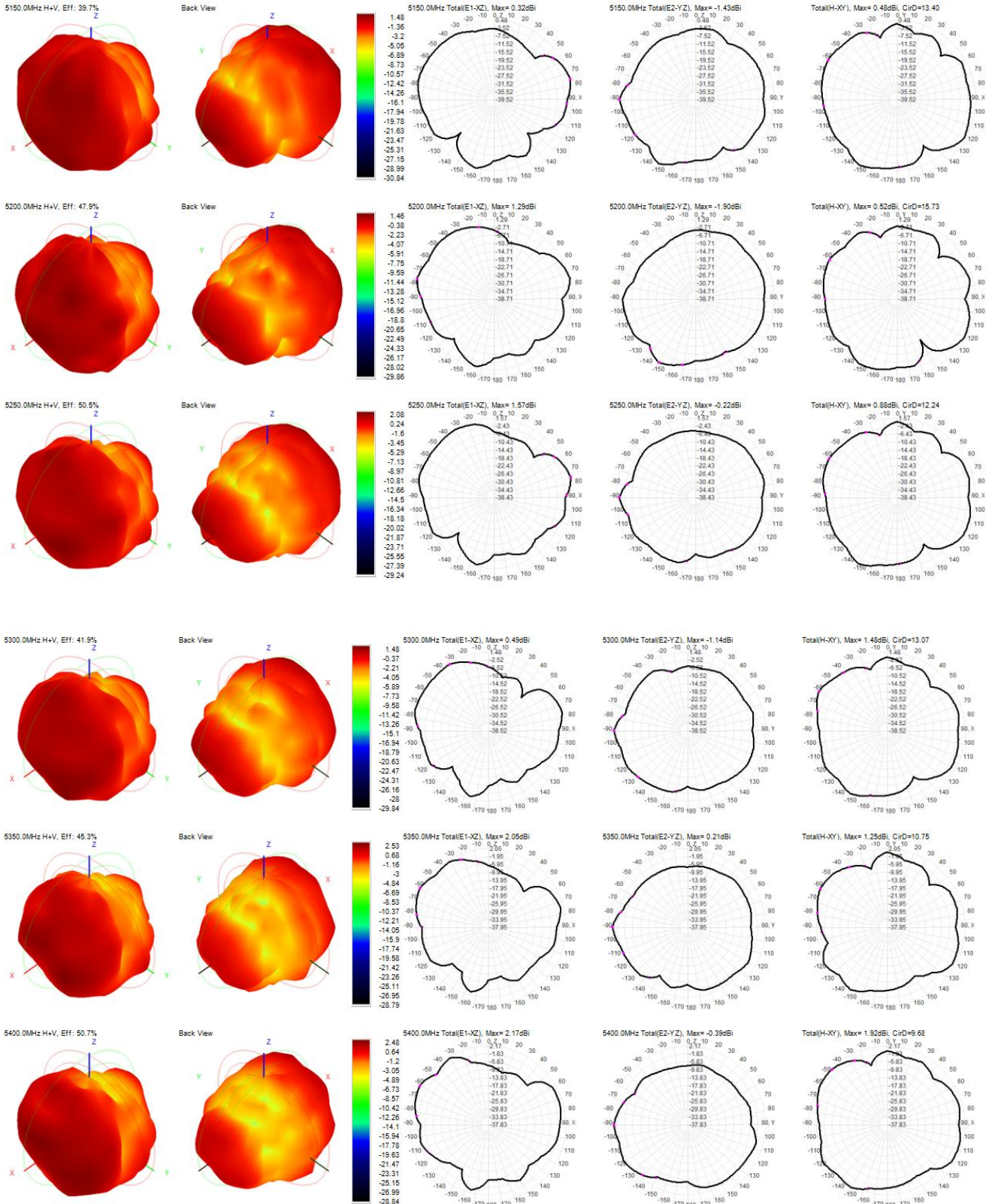
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4.2.4: WIFI-OTA-5.8G-3D





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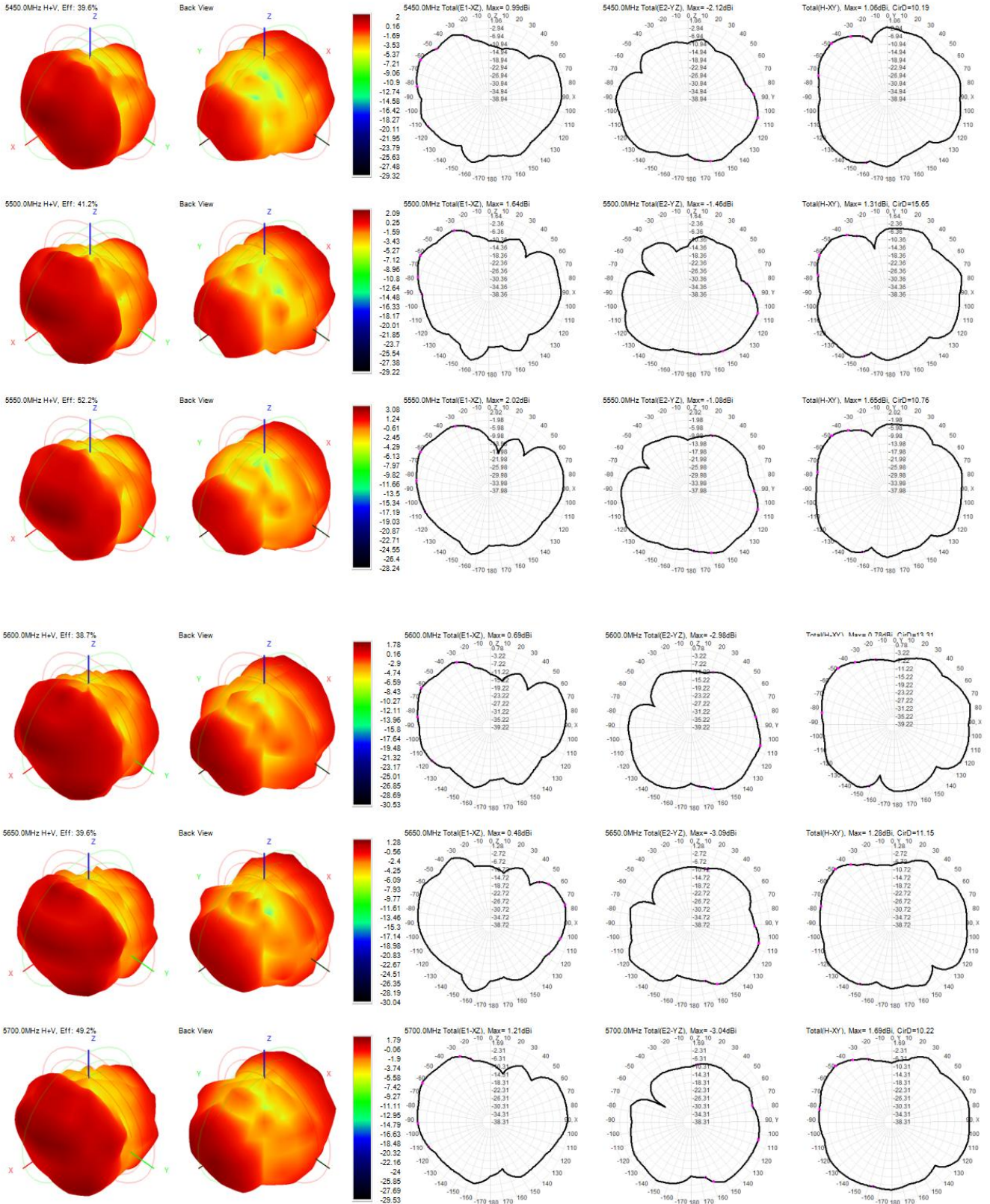
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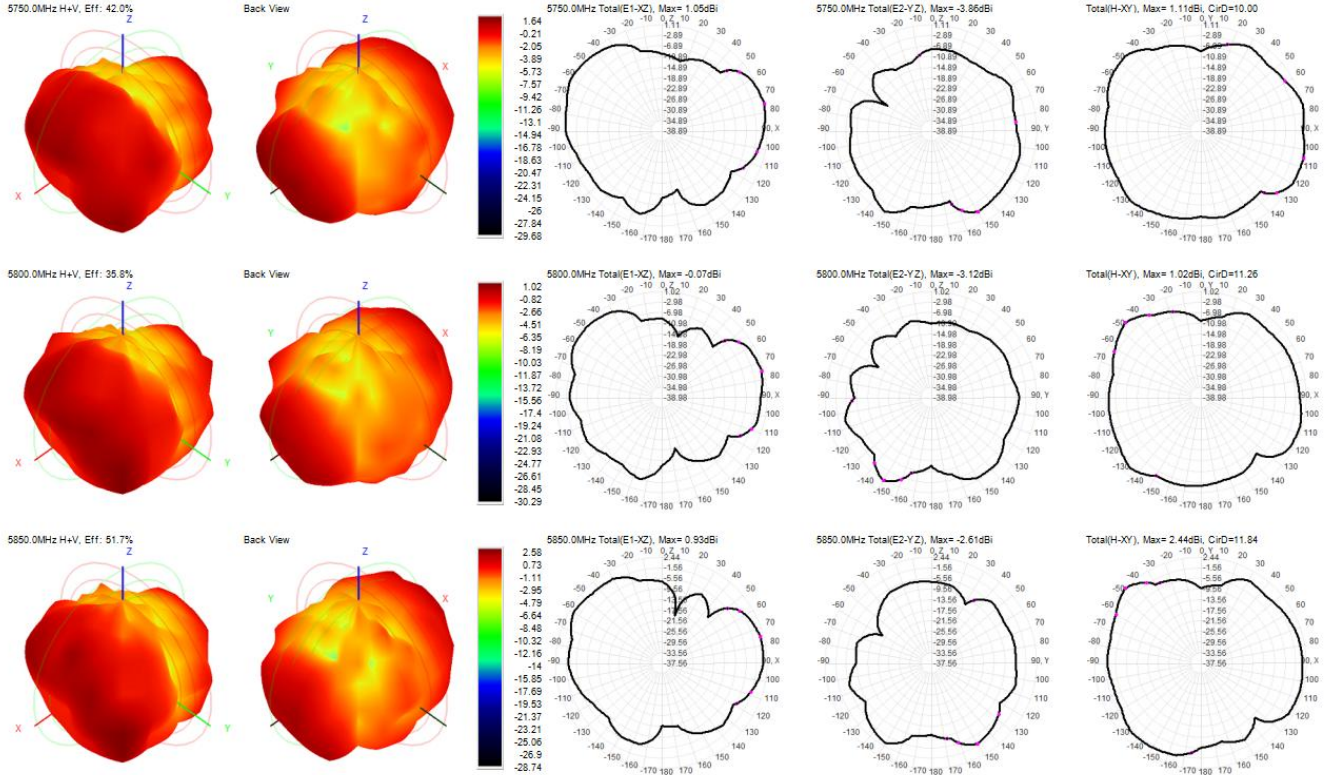
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5. Attached image:

■ 5.1: Finished antenna diagram

