

ANT SPECIFICATION

PRODUCT NAME : Antenna
Wireless Type : Z-22 @ZigBee 2.4GHz
MODEL NAME : N/A
TRADE NAME : N/A
BRAND NAME : N/A

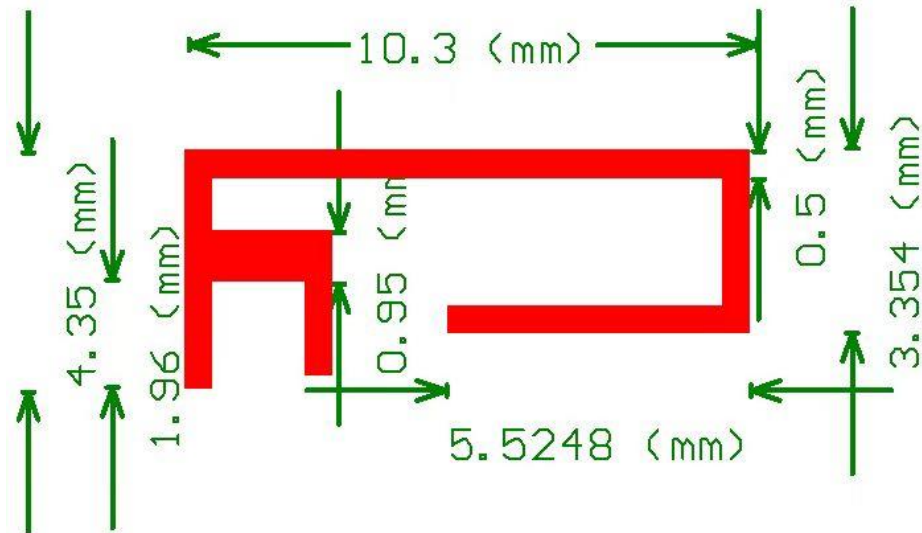
1. Technical Information

Provide by manufacturer.

2. Manufacturer Information

| | |
|------------------------------|----------------------------------------------------------------------------------------------------------------|
| Manufacturer: | SHENZHEN HEIMAN TECHNOLOGY CO.,LTD. |
| Manufacturer Address: | 101, NO.4 DAFU INDUSTRIAL PARK, KUKENG COMMUNITY, GUANLAN STREET, LONGHUA DISTRICT, SHENZHEN, GUANGDONG, CHINA |

3. Antenna size diagram



4. Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals

| Item | Measurement Uncertainty(dB) |
|------------------------------------------------------|-----------------------------|
| Gain | ±0.5 |
| VSWR | ±0.2 |
| Measurement Uncertainty(95% Confidence Interval) K=2 | |

5. Gain

| Frequency | Efficiency(%) |
|---------------------|---------------------|
| Frequency Gain(dBi) | Frequency Gain(dBi) |
| 2405 MHz -2.41 | 2405 MHz -2.41 |
| 2410 MHz -2.27 | 2410 MHz -2.27 |
| 2415 MHz -2.35 | 2415 MHz -2.35 |
| 2420 MHz -2.31 | 2420 MHz -2.31 |
| 2425 MHz -2.34 | 2425 MHz -2.34 |
| 2430 MHz -2.41 | 2430 MHz -2.41 |
| 2435 MHz -2.29 | 2435 MHz -2.29 |
| 2440 MHz -2.31 | 2440 MHz -2.31 |
| 2445 MHz -2.24 | 2445 MHz -2.24 |
| 2450 MHz -2.10 | 2450 MHz -2.10 |
| 2455 MHz -2.03 | 2455 MHz -2.03 |
| 2460 MHz -1.92 | 2460 MHz -1.92 |
| 2465 MHz -1.92 | 2465 MHz -1.92 |
| 2470 MHz -1.77 | 2470 MHz -1.77 |
| 2475 MHz -1.61 | 2475 MHz -1.61 |

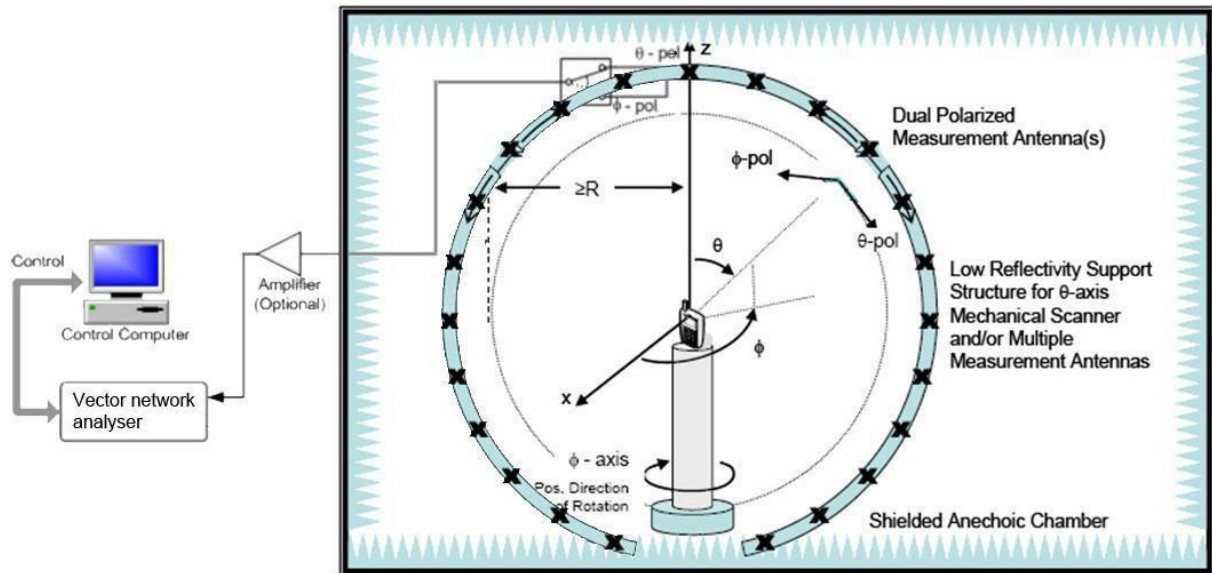
6. Efficiency

| Frequency | Efficiency(%) |
|-----------|---------------|
| 2405 MHz | 31.11 |
| 2410 MHz | 30.84 |
| 2415 MHz | 30.28 |
| 2420 MHz | 30.70 |
| 2425 MHz | 30.28 |
| 2430 MHz | 30.60 |
| 2435 MHz | 31.13 |
| 2440 MHz | 31.90 |
| 2445 MHz | 32.57 |
| 2450 MHz | 33.55 |
| 2455 MHz | 34.46 |
| 2460 MHz | 35.16 |
| 2465 MHz | 35.89 |
| 2470 MHz | 36.36 |
| 2475 MHz | 37.04 |
| 2480 MHz | 37.60 |

7.VSWR

| Frequency | VSWR |
|-----------|------|
| 2405 MHz | 2.30 |
| 2410 MHz | 2.22 |
| 2415 MHz | 2.16 |
| 2420 MHz | 2.11 |
| 2425 MHz | 2.05 |
| 2430 MHz | 1.99 |
| 2435 MHz | 1.94 |
| 2440 MHz | 1.90 |
| 2445 MHz | 1.86 |
| 2450 MHz | 1.81 |
| 2455 MHz | 1.77 |
| 2460 MHz | 1.74 |
| 2465 MHz | 1.71 |
| 2470 MHz | 1.69 |
| 2475 MHz | 1.66 |
| 2480 MHz | 1.64 |

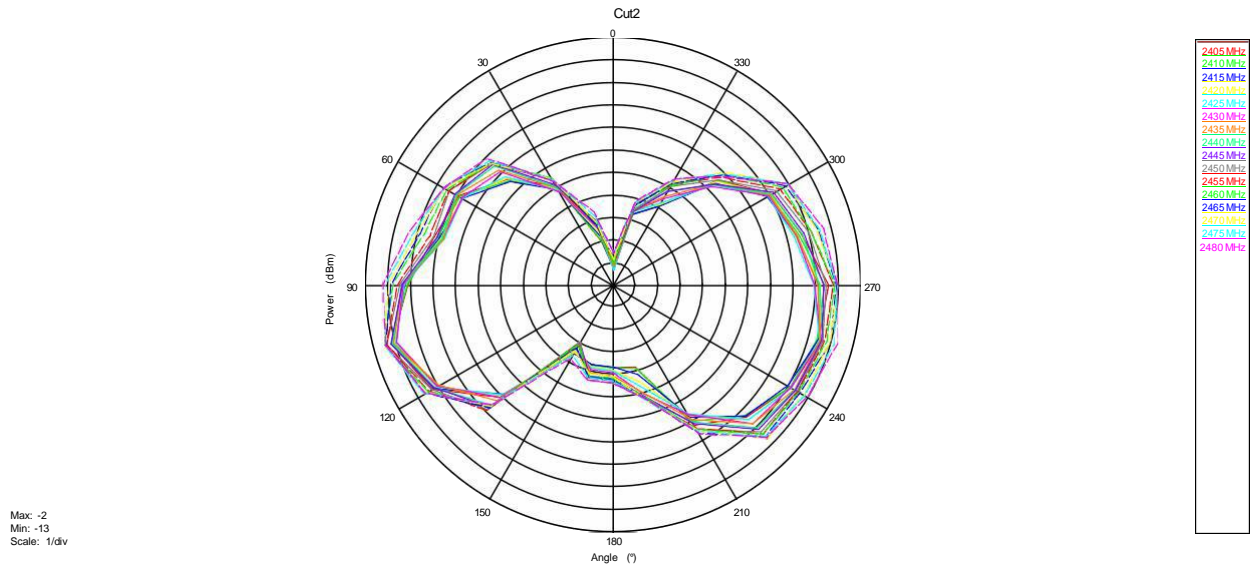
8. Photographs



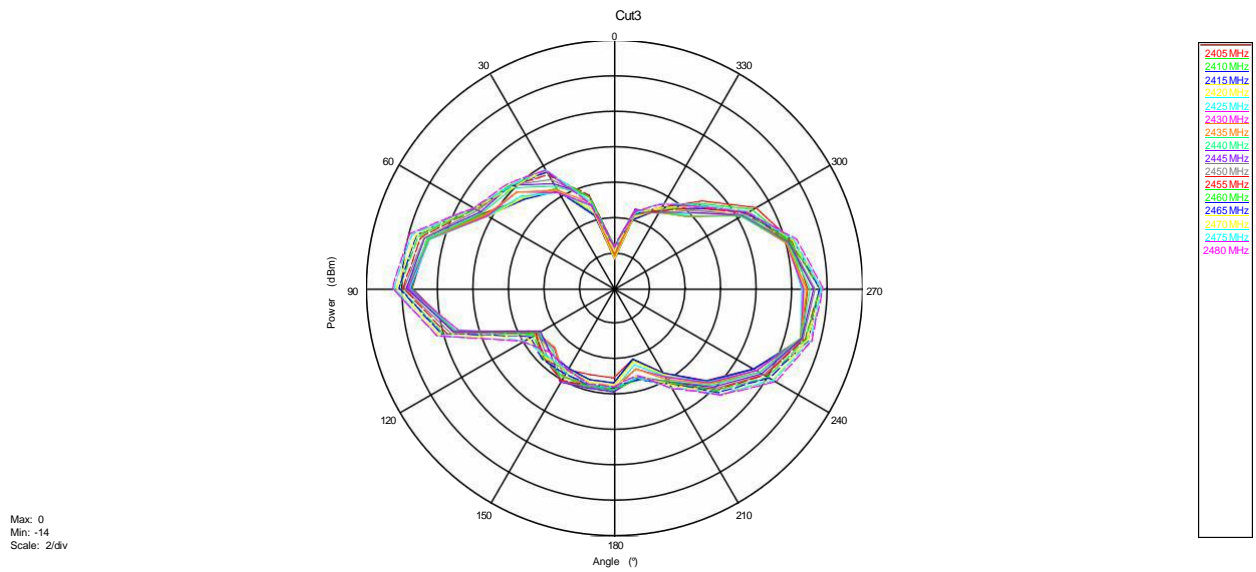
9. Figures

1. 2D Radiation Pattern

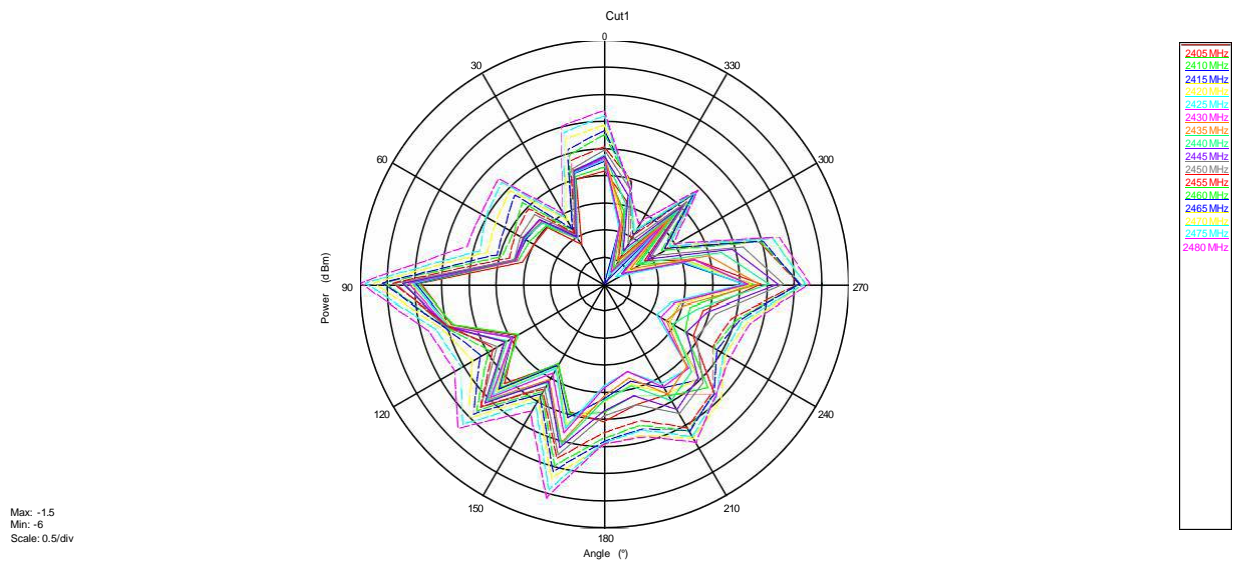
Phi=0°



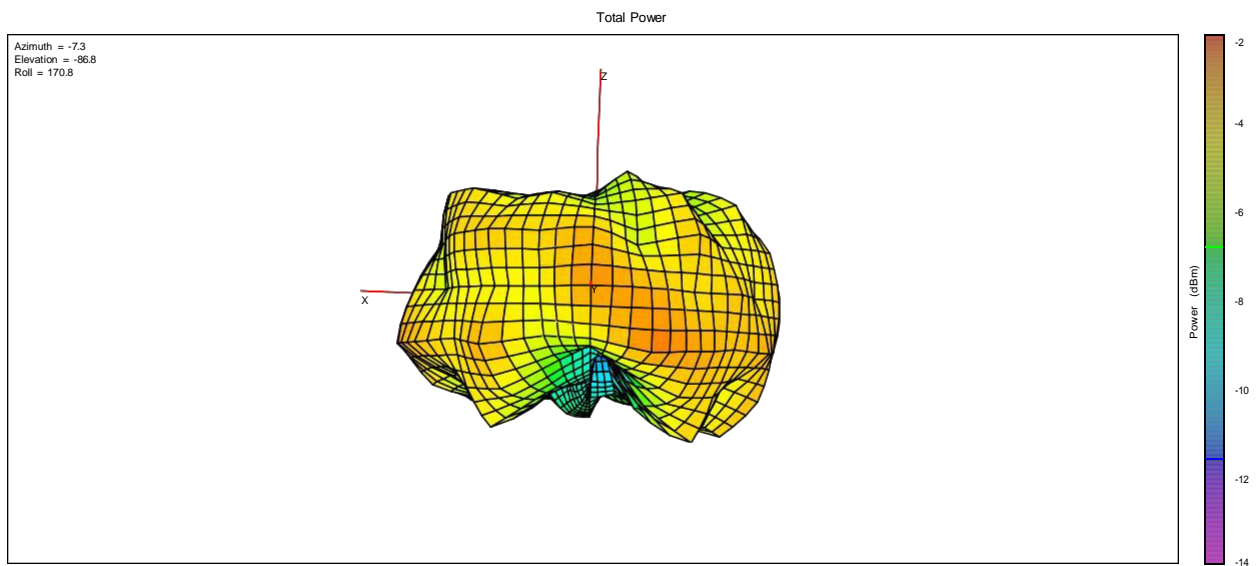
Phi=90°



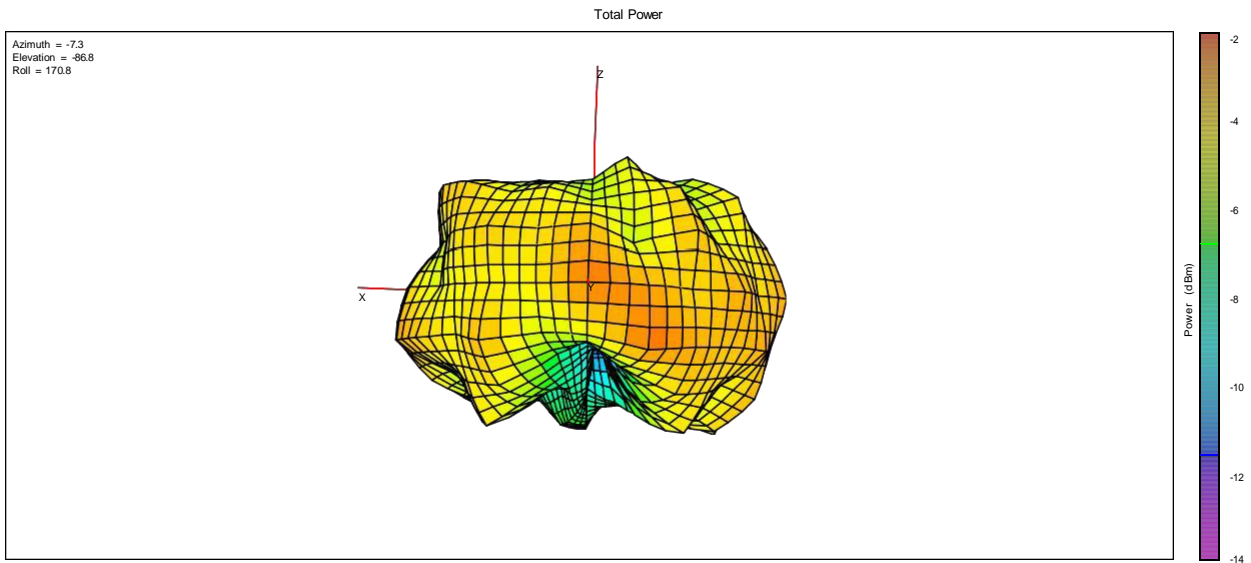
Theta=90°



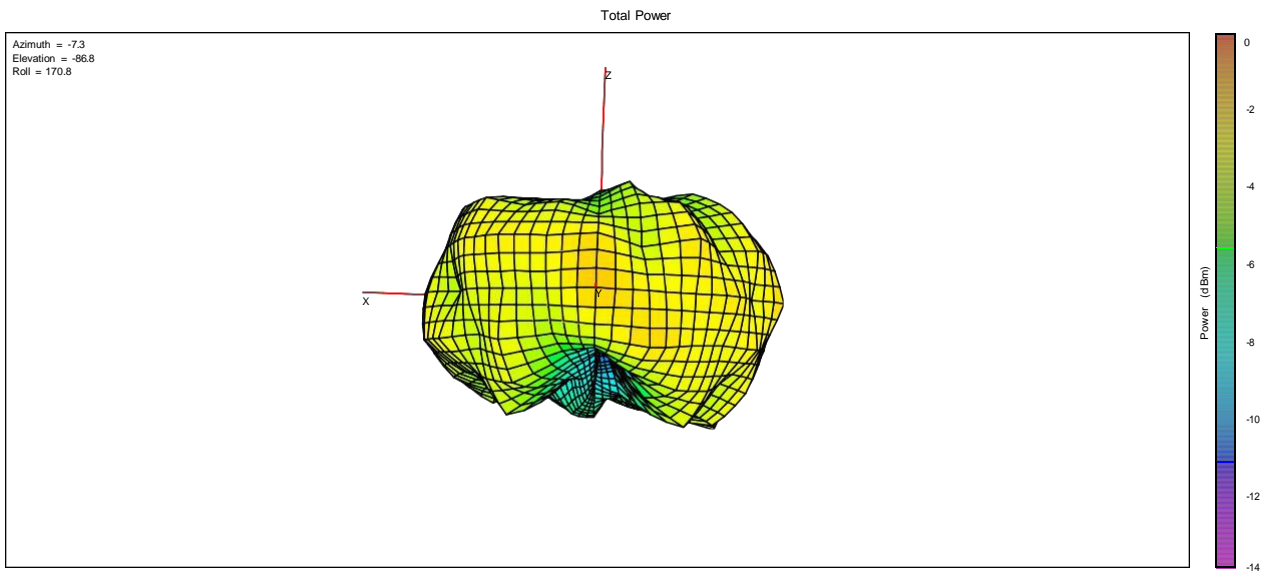
2. 3D Radiation Pattern



2405MHz

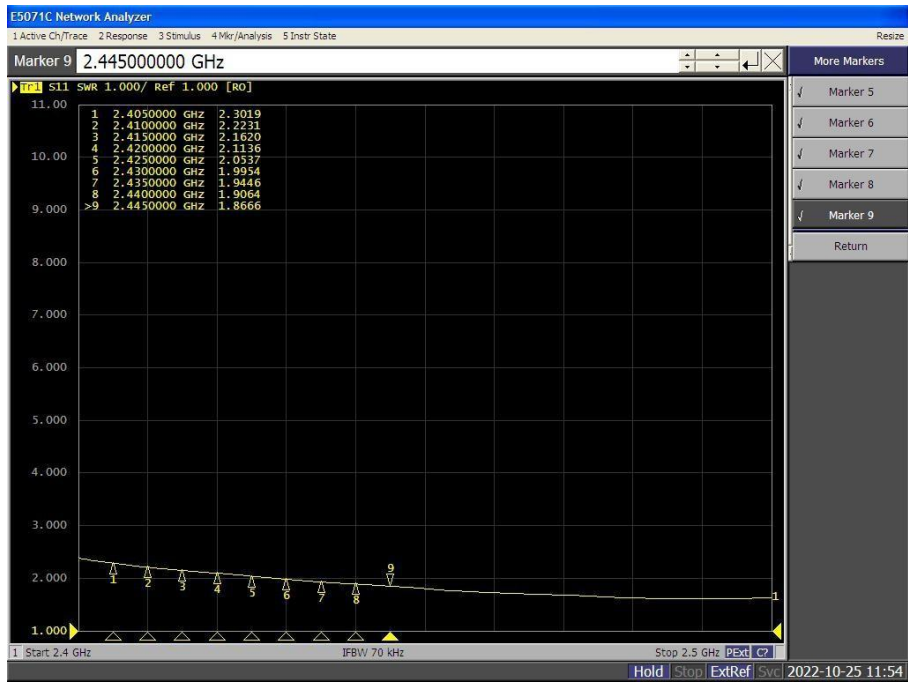


2440MHz



2480MHz

3. VSWR



10. Test environment

