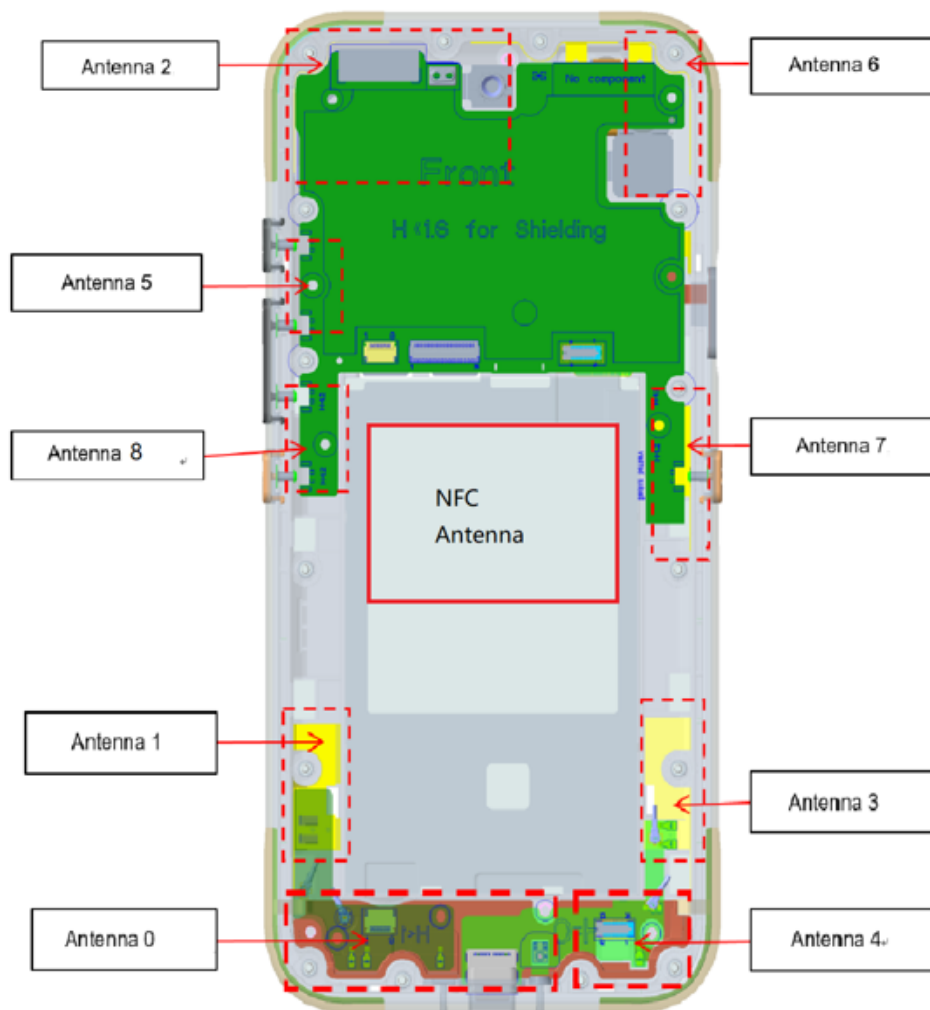


**Product General Information:**

|                                       |                                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Name                          | Juniper AR4                                                                                                                                           |
| Antenna Model Name                    | BMZ50002722                                                                                                                                           |
| Type and shape of antenna             | PIFA Antenna                                                                                                                                          |
| Directional characteristics           | Omni-directional                                                                                                                                      |
| Deflection Characteristics Of Antenna | Linear                                                                                                                                                |
| Type of connection with transmitter   | Antenna shrapnel                                                                                                                                      |
| Manufacturer                          | Haitong Communication Electronics Co., Ltd.<br>Room A405, Building A, Jingmeng Hi-Tech, No. 5,<br>Shangdi East Road, Haidian District, Beijing, China |
| Produced by                           | Haitong Communication Electronics Co., Ltd.<br>Room A405, Building A, Jingmeng Hi-Tech, No. 5,<br>Shangdi East Road, Haidian District, Beijing, China |

## 1. Antenna Distribution



Front view (Front cover removed)

| Antenna No. | Function                | Frequency       | RF Bands/frequency                                                                   |
|-------------|-------------------------|-----------------|--------------------------------------------------------------------------------------|
| Ant 0       | LB TRX0                 | 617 – 960 MHz   | LTE: B5/B26, B8, B12, B13, B14, B19, B20, B28, B71<br>FR1: n5, n28, n71              |
|             | MHB TRX0                | 1710–2200 MHz   | LTE: B1, B2 (25), B3, B4 (B66), B7, B30, B38, B40, B41<br>FR1: n1, n2, n25, n41, n66 |
| Ant 1       | MHB MIMO PRX            | 1710–2690 MHz   | LTE: B1, B2 (25), B3, B4 (B66), B7, B30, B38, B40, B41<br>FR1: n1, n2, n25, n41, n66 |
|             | n77/n78/n79<br>DRX      | 3300 – 5000 MHz | FR1: n77, n78, n79                                                                   |
| Ant 2       | LB DRx                  | 617 – 960 MHz   | LTE: B5/B26, B8, B12, B13, B14, B19, B20, B28, B71<br>FR1: n5, n28, n71              |
|             | MHB DRx                 | 1710–2690 MHz   | LTE: B1, B2 (25), B3, B4 (B66), B7, B30, B38, B40, B41<br>FR1: n1, n2, n25, n41, n66 |
| Ant 3       | MHB MIMO DRX            | 1710–2690 MHz   | LTE: B1, B2 (25), B3, B4 (B66), B7, B30, B38, B40, B41<br>FR1: n1, n2, n25, n41, n66 |
| Ant 4       | n77/n78/n79<br>MIMO PRX | 3300 – 5000 MHz | FR1: n77, n78, n79                                                                   |

|       |                         |                 |                    |
|-------|-------------------------|-----------------|--------------------|
| Ant 5 | GPS L5                  | 1166 – 1229 MHz | L5                 |
|       | n77/n78/n79<br>MIMO DRX | 3300 – 5000 MHz | FR1: n77, n78, n79 |
| Ant 6 | GPS L1                  | 1565 – 1610 MHz | L1                 |
|       | 2.4G WLAN<br>CHO/BT     | 2401 – 2495 MHz | 2.4G WIFI          |
|       | 5G WLAN CH0             | 5150 – 7125 MHz | 5G WIFI            |
| Ant 7 | n77/n78/n79<br>TRX      | 3300 – 4200 MHz | FR1: n77, n78, n79 |
|       |                         |                 |                    |
| Ant 8 | 2.4G WLAN<br>CH1        | 2401 – 2495 MHz | 2.4G WIFI          |
|       | 5G WLAN CH1             | 5150 – 7125 MHz | 5G WIFI            |
|       |                         |                 |                    |

## 2. Antenna Gain: (Main frequency)

| ANTO                 |           |                    |
|----------------------|-----------|--------------------|
| Frequency Band (MHz) |           | Antenna Gain (dBi) |
| LTE-FDD-B1           | 1920-1980 | -0.81              |
| LTE-FDD-B2           | 1850-1910 | -0.63              |
| LTE-FDD-B3           | 1710-1785 | -2.15              |
| LTE-FDD-B4           | 1710-1755 | -2.32              |
| LTE-FDD-B5           | 824-849   | -2.36              |
| LTE-FDD-B7           | 2500-2570 | 0.6                |
| LTE-FDD-B8           | 880-915   | -2.97              |
| LTE-FDD-B12          | 699-716   | -4.18              |
| LTE-FDD-B13          | 777-787   | -3.37              |
| LTE-FDD-B14          | 788-798   | -3.17              |
| LTE-FDD-B19          | 830-845   | -2.36              |
| LTE-FDD-B20          | 832-862   | -2.34              |
| LTE-FDD-B25          | 1850-1915 | -0.63              |
| LTE-FDD-B26          | 814-849   | -2.36              |
| LTE-FDD-B28          | 703-748   | -4.04              |
| LTE-FDD-B30          | 2305-2315 | 1.6                |
| LTE-FDD-B66          | 1710-1780 | -2.15              |
| LTE-FDD-B71          | 663-698   | -4.12              |
| LTE-TDD-B38          | 2570-2620 | 0.26               |
| LTE-TDD-B40          | 2300-2400 | 1.97               |
| LTE-TDD-B41          | 2496-2690 | 0.6                |

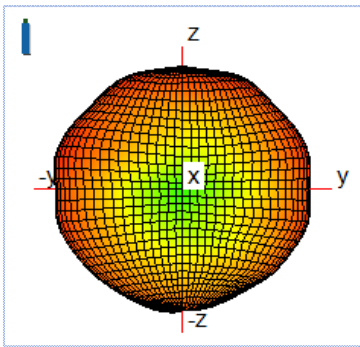
| ANT7                 |           |                   |
|----------------------|-----------|-------------------|
| Frequency Band (MHz) |           | Antenna Gain(dBi) |
| NR-TDD-N77           | 3300-4200 | -0.38             |
| NR-TDD-N78           | 3300-3800 | -0.38             |
| NR-TDD-N79           | 4400-5000 | -3.14             |

| ANT6 (WLAN-CH0)      |           |                   |
|----------------------|-----------|-------------------|
| Frequency Band (MHz) |           | Antenna Gain(dBi) |
| WIFI-B               | 2400-2500 | 1.24              |
| WIFI-A               | 5150-5850 | -1.48             |
| WIFI-6E              | 5925-6425 | -1.64             |
|                      | 6425-6525 | -5.07             |
|                      | 6525-6875 | -6.92             |
|                      | 6875-7125 | -6.26             |

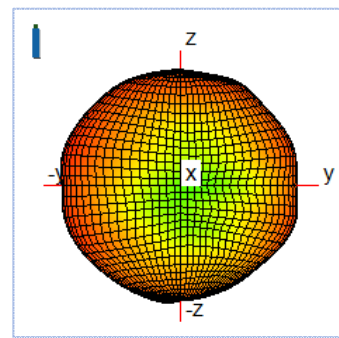
| ANT8 (WLAN-CH1)      |           |                   |
|----------------------|-----------|-------------------|
| Frequency Band (MHz) |           | Antenna Gain(dBi) |
| WIFI-B               | 2400-2500 | -3.21             |
| WIFI-A               | 5150-5850 | 2.74              |
| WIFI-6E              | 5925-6425 | -0.55             |
|                      | 6425-6525 | -1.44             |
|                      | 6525-6875 | -1.77             |
|                      | 6875-7125 | -2.93             |

### 3. 3D Map

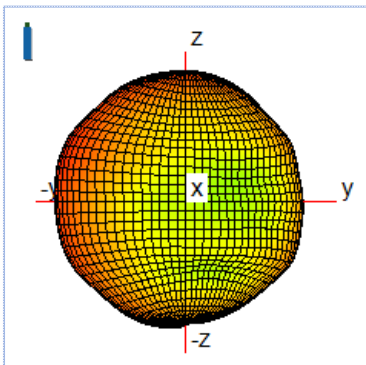
680MHz



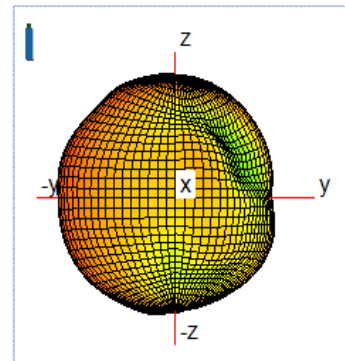
700MHz



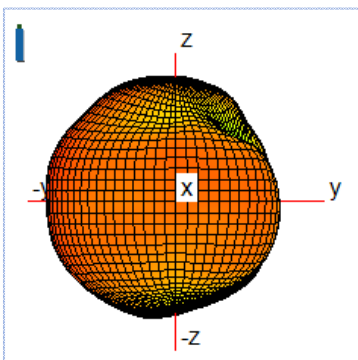
780MHz



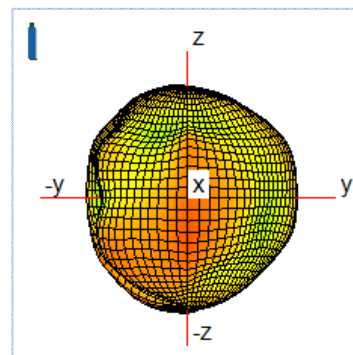
840MHz



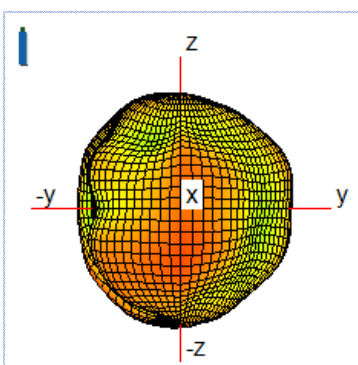
900MHz



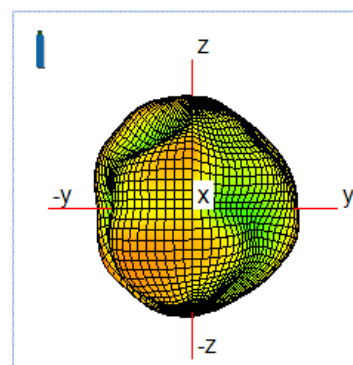
1720MHz



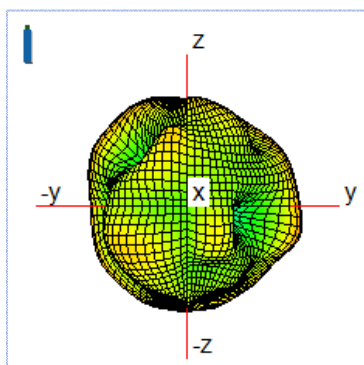
1740MHz



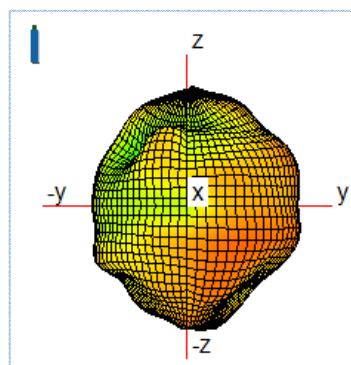
1880MHz



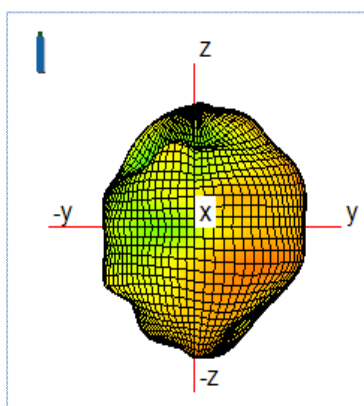
1940MHz



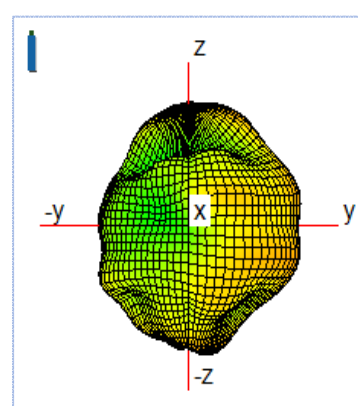
2320MHz



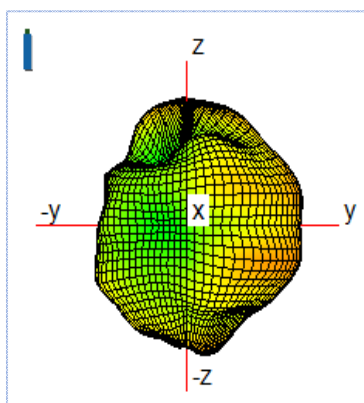
2340MHz



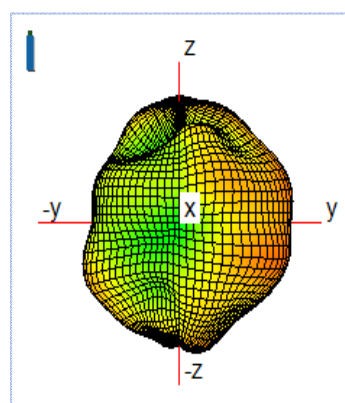
2500MHz



2580MHz

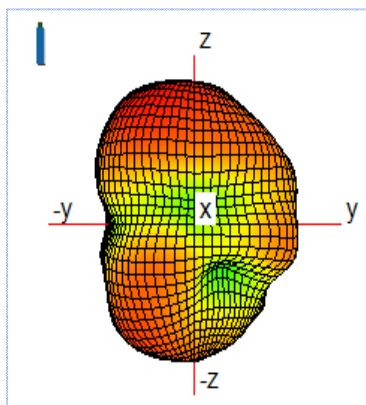


2680MHz

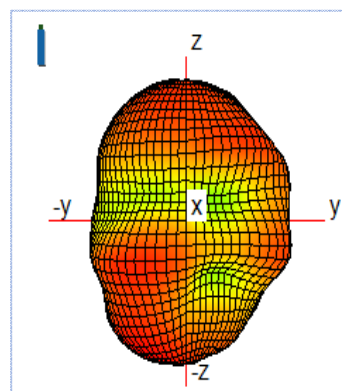




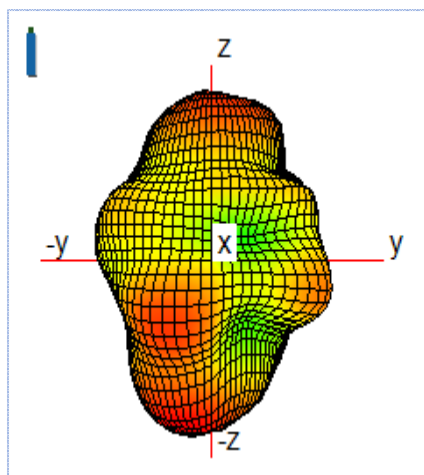
3350MHz



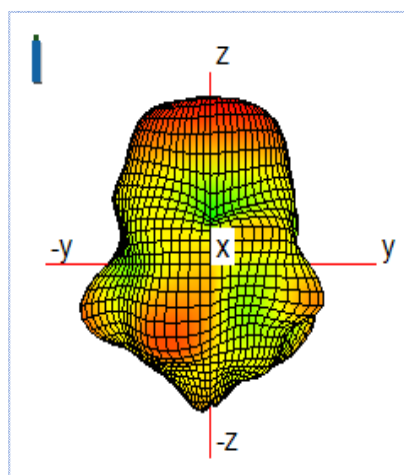
3550MHz



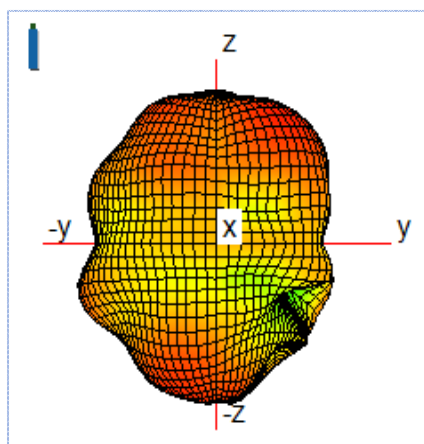
3750MHz



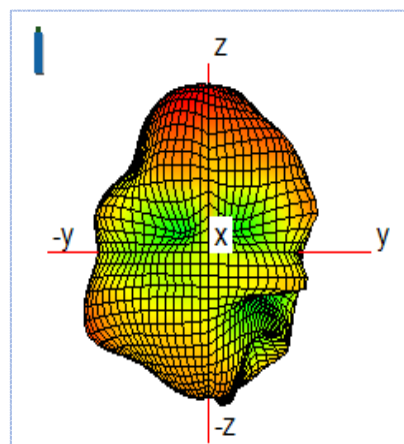
4150MHz



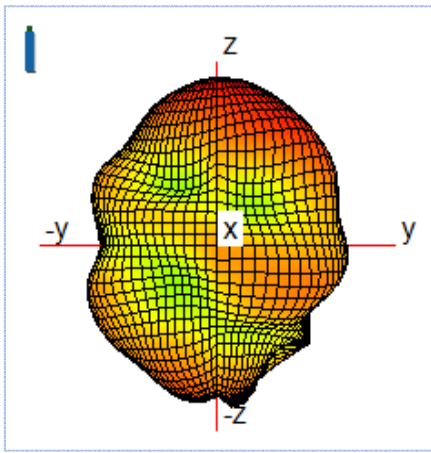
4450MHz



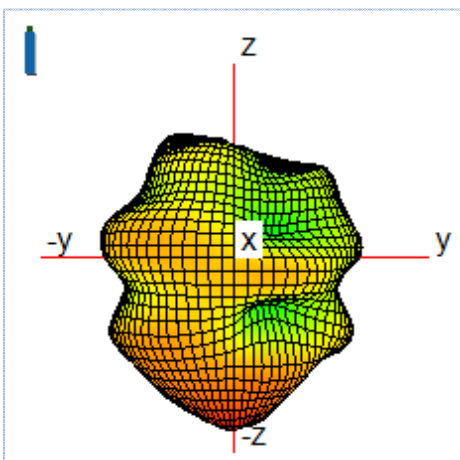
4700MHz



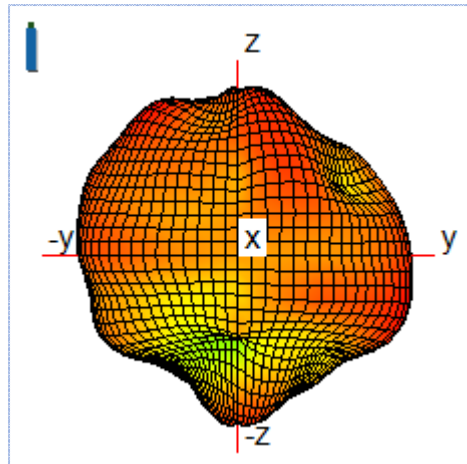
4950MHz



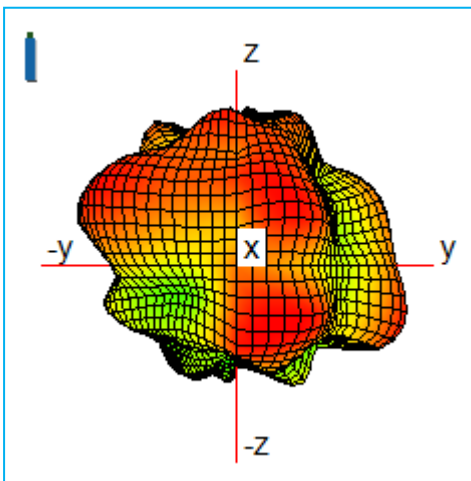
2450MHz(WLAN-CH0)



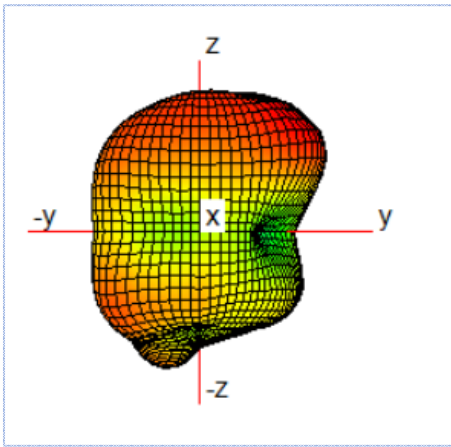
5500MHz(WLAN-CH0)



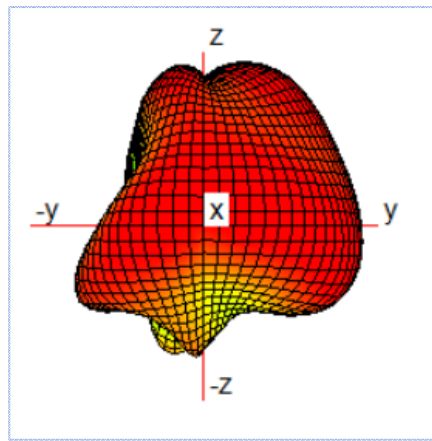
6520MHz(WLAN-CH0)



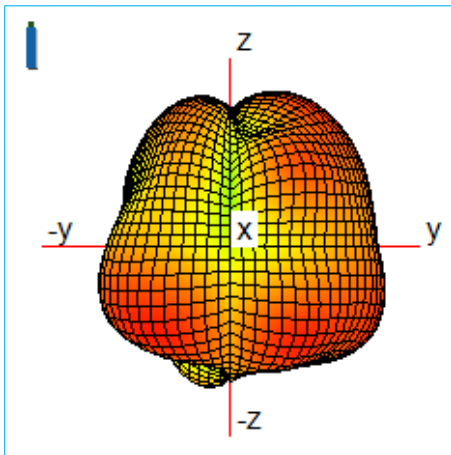
2450MHz(WLAN-CH1)



5500MHz(WLAN-CH1)



6520MHz(WLAN-CH1)



4. Antenna Pattern

