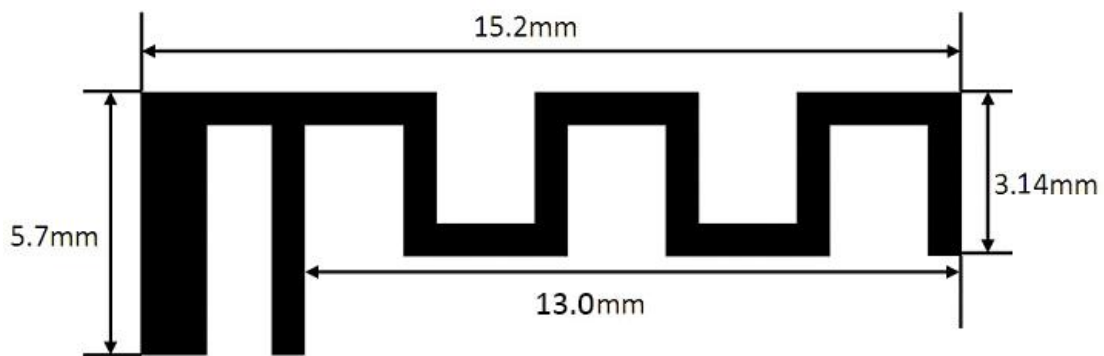


## Antenna Specification

Product : PCB ANT  
Model Name : 20248BHS03  
Manufacture : Shenzhen Hasware Technology Development Co.,Ltd  
Test Item : Antenna gain; Radiation pattern and efficiency  
Antenna Type : PCB Antenna  
Frequency Range : 2400MHz-2500MHz

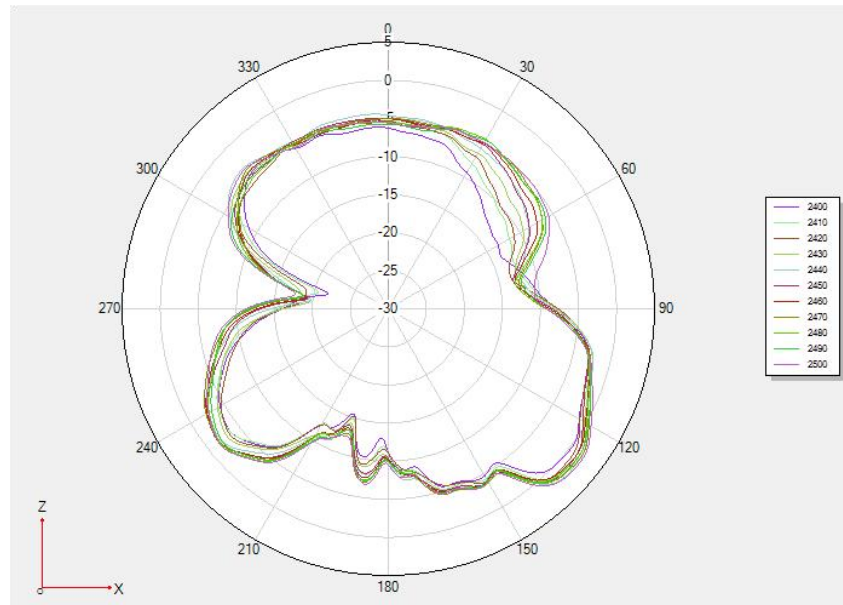


## Test Data

| Frequency/MHz | Efficiency / dB | Efficiency / % | Max Gain/dBi | Avg Gain/dBi |
|---------------|-----------------|----------------|--------------|--------------|
| 2400          | -3.84           | 41.30          | 3.25         | -3.84        |
| 2410          | -3.24           | 47.42          | 4.03         | -3.24        |
| 2420          | -3.13           | 48.64          | 4.30         | -3.13        |
| 2430          | -2.75           | 53.09          | 4.44         | -2.75        |
| 2440          | -2.33           | 58.48          | 4.54         | -2.33        |
| 2450          | -2.39           | 57.68          | 4.26         | -2.39        |
| 2460          | -2.43           | 57.15          | 4.21         | -2.43        |
| 2470          | -2.21           | 60.12          | 4.32         | -2.21        |
| 2480          | -2.19           | 60.39          | 4.12         | -2.19        |
| 2490          | -2.25           | 59.57          | 3.79         | -2.25        |
| 2500          | -2.10           | 61.66          | 3.74         | -2.10        |

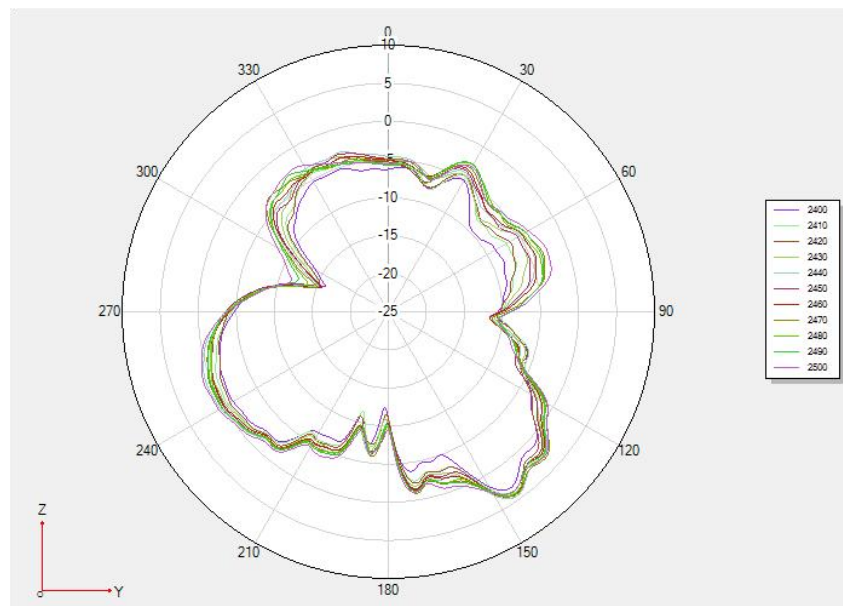
(1) X-Z Plane:

V  $\Phi=0$



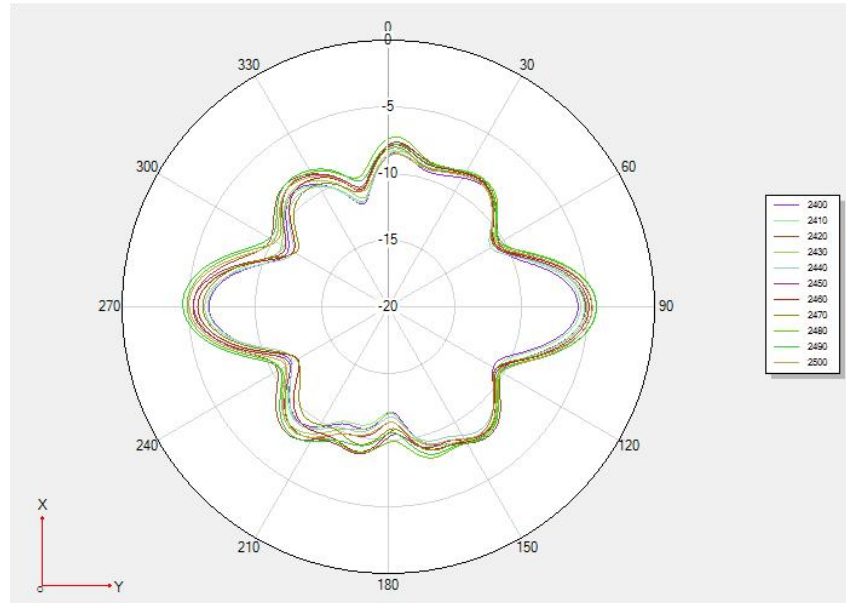
(2) Y-Z Plane:

V  $\Phi=90$

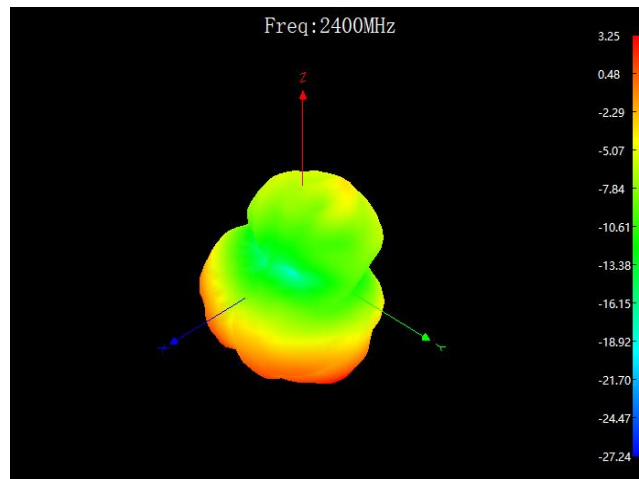


(3) X-Y Plane:

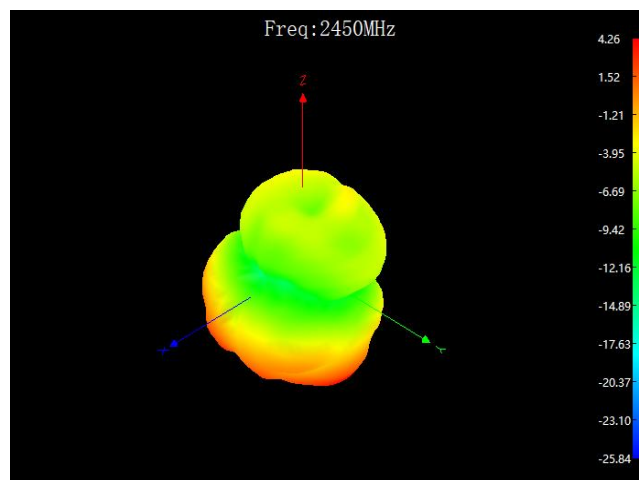
H  $\Theta=90$



3D Pattern for 2400MHz



3D Pattern for 2450MHz



### 3D Pattern for 2500MHz

