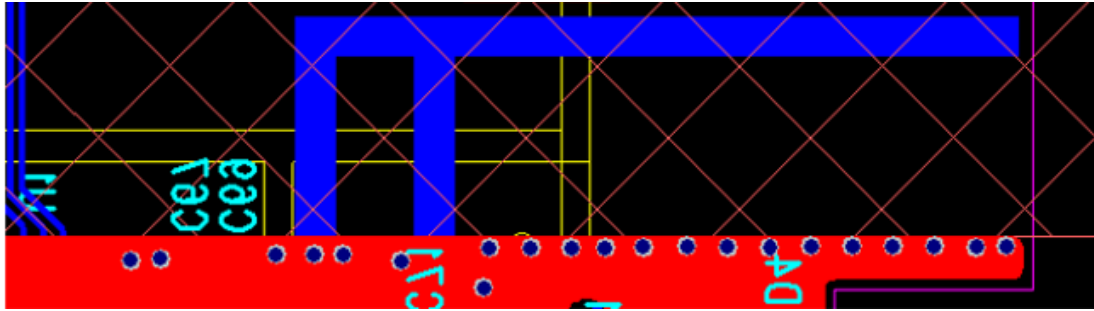


1: Antenna model: Inverted F antenna (IFA)

2: Antenna type: PCB submerged plate antenna

3: Gain: 1.5dB

4: Antenna dimensions are shown in Figure 1



**Figure 1 18.2\*5.5mm**

**5: Antenna efficiency**

| Freq<br>(MHz) | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
|---------------|-------------|--------------|---------------|
| 2400          | 36.8        | -4.3         | 0.8           |
| 2410          | 40.3        | -3.9         | 1.3           |
| 2420          | 40.4        | -3.8         | 1.4           |
| 2430          | 41.6        | -3.8         | 1.5           |
| 2440          | 40.5        | -3.7         | 1.4           |
| 2450          | 40.7        | -3.7         | 1.4           |
| 2460          | 41.2        | -3.8         | 1.5           |
| 2470          | 40.0        | -4           | 1.4           |
| 2480          | 38.0        | -4.2         | 1.1           |
| 2490          | 35.9        | -4.5         | 0.9           |
| 2500          | 34          | -4.7         | 0.7           |

6. The antenna performance is shown in FIG. li, where the operating band covers the entire 2.4G ISM band.



Figure 2

7: The 2D and 3D gains are as follows, reaching around 1.5dB:

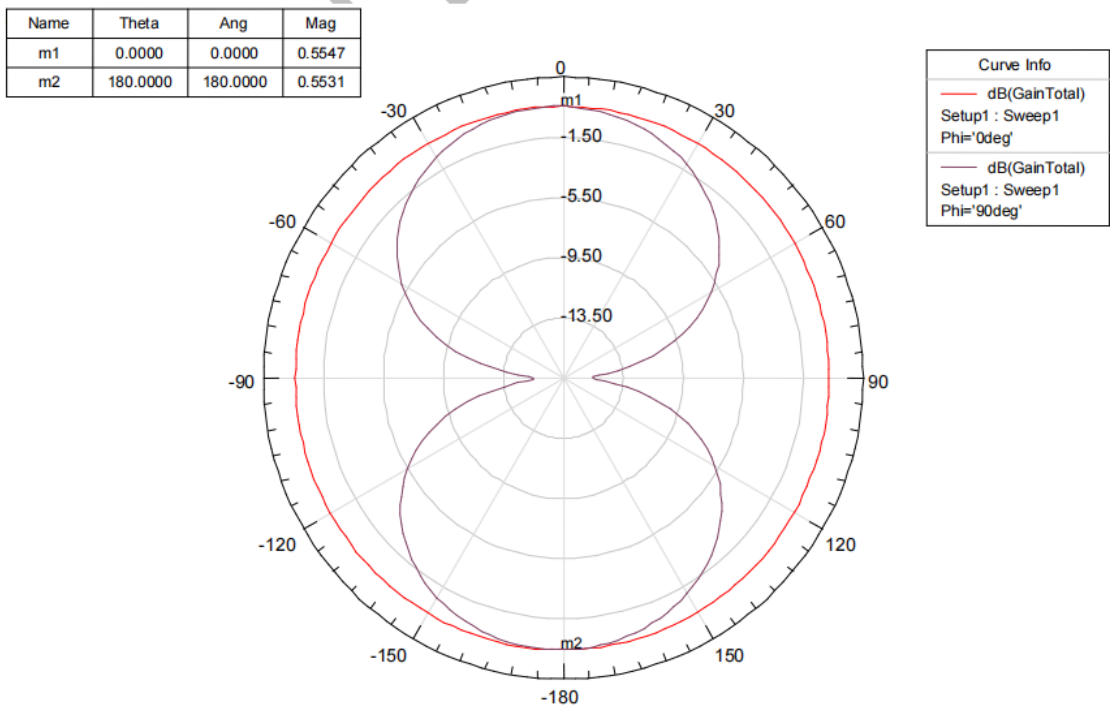


Figure 3

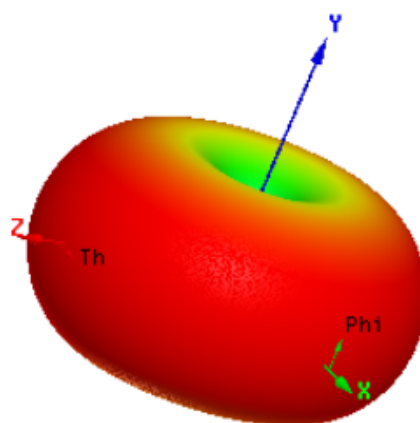
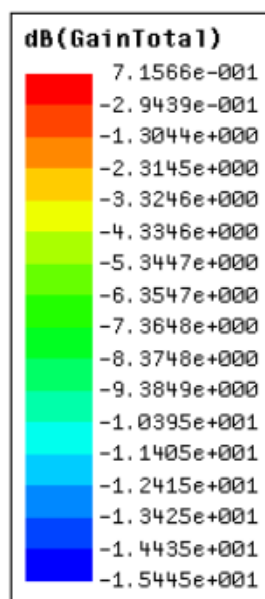


FIG. 4 Antenna gain