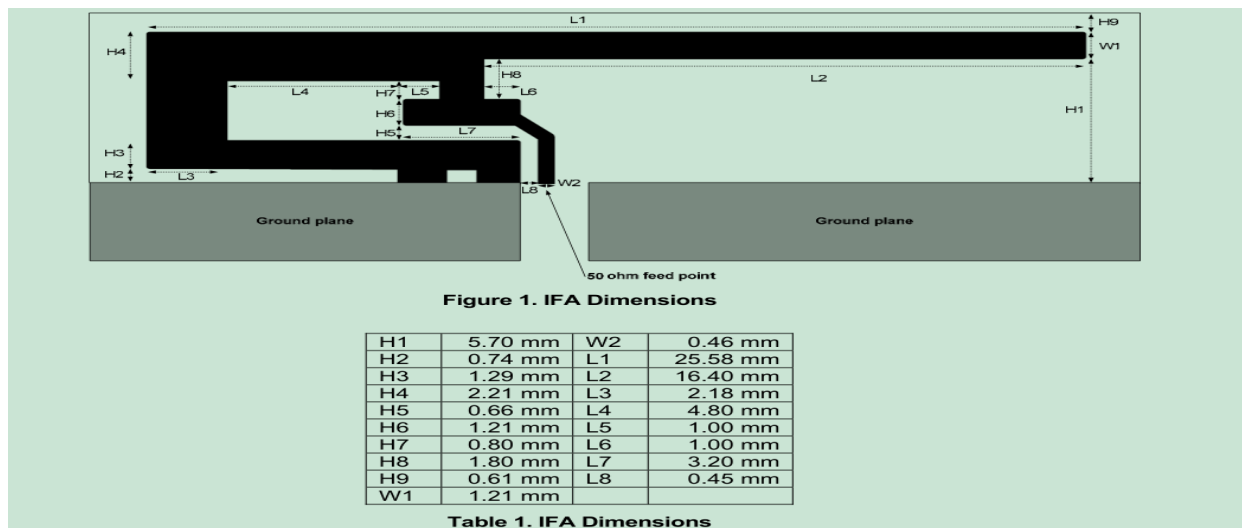


Test Company	TA Technology (Shanghai) Co., Ltd.
Test Address	Building 1, No. 400, Fangchun Road, China (Shanghai) Pilot Free Trade Zone
Test Date	2020/7/24
Test Instrument	Keysight E5071B

### antenna design specification

Antenna dimensions as blow picture show: the material is FR4 and the thickness is 1.6 mm of PCB.

ANT1:



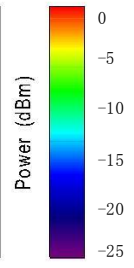
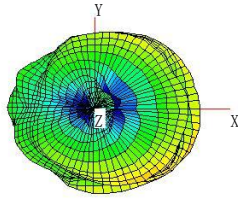
### Gain and Efficiency

Frequency (MHz)	Efficiency(%)	Gain(dBi)
2300	13.17	-1.57
2320	19.08	-0.76
2340	22.65	-0.41
2360	22.62	-0.12
2380	18.03	-0.42
2400	14.86	-0.93
2420	12.54	-1.17
2440	9.92	-2.03
2460	7.46	-2.47
2480	6.11	-2.98
2500	5.39	-3.83

### 3D and 1D Radiation Patterns

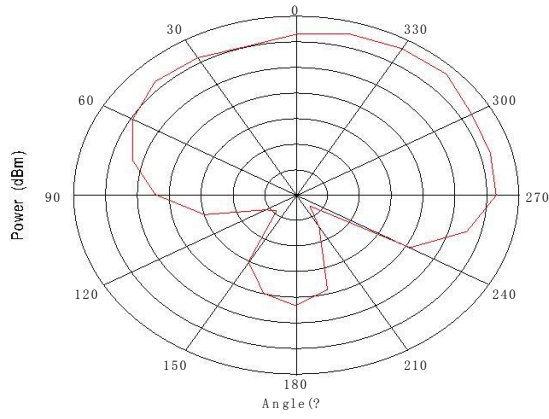
### Total

Azimuth=0.0  
Elevation=0.0  
Roll=0.0



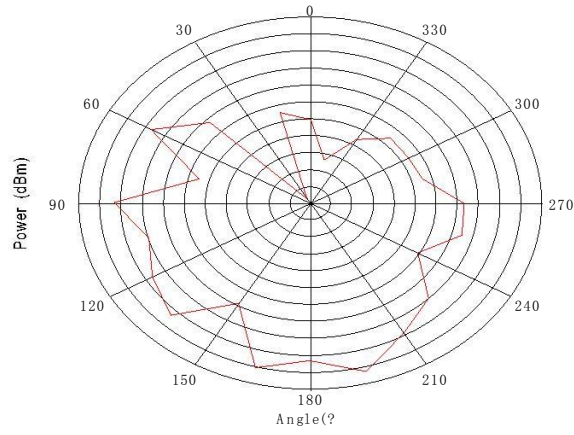
### 2440M TRP 1

Cut1



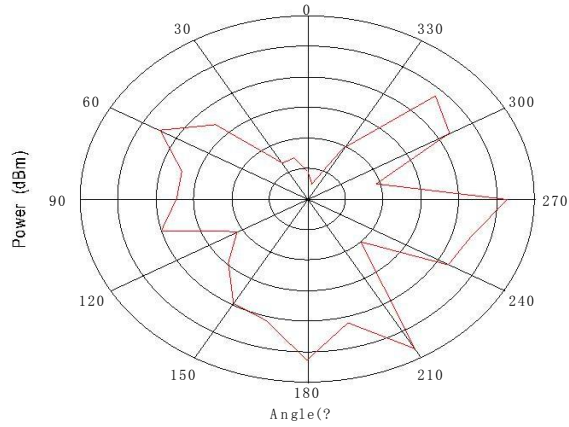
Max:-2  
Min:-16  
Scale:2/div

Cut2



Max:0  
Min:-22  
Scale:2/div

Cut3



Max:-2  
Min:-14  
Scale:2/div