



2. 4G Antenna specification&Test report

Yichip Microelectronics

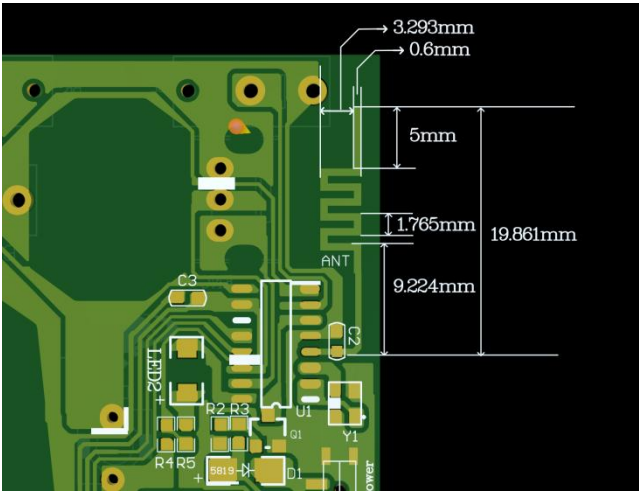
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Manufacturer	Company	Dongguan Zhuotong Electronics Co., Ltd.
Manufacturer	Address	2nd Floor, No. 2 Jintan 7th Street, Danwu Village, Shijie Town, Dongguan City.
Test	Date	2020/7/24
Test Instrument		Keysight E5071B
Antenna type		PCB Antenna type
Max Gain(dBi)		3.55dBi

Antenna design specification

Antennadimensionsas blow picture show: the material is FR4 and the thickness is 1.6mm of PCB.

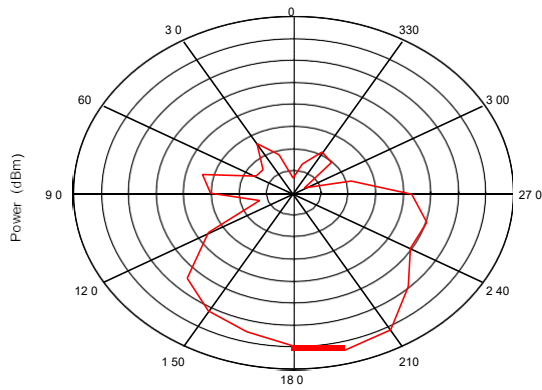
Gai'n and Efficiency



Frequency (MHz)	Efficiency(%)	Gain(dBi)
2402	12.77	-2.33
2410	20.15	-0.40
2415	25.71	0.95
2420	30.32	1.59
2430	30.90	1.63
2440	33.26	2.52
2450	38.93	3.55
2455	38.73	3.34
2460	36.32	2.93
2465	35.23	2.87
2470	35.82	2.53
2475	33.02	1.93
2480	31.62	1.42

3D and 1D Radiation Patterns

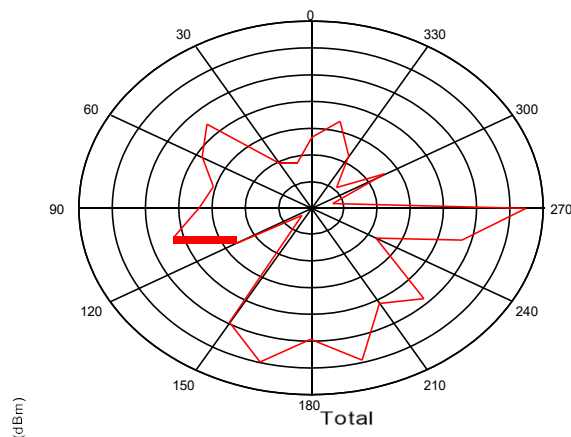
Cut1



Max: 4
Min: -4
Scale: 1/div

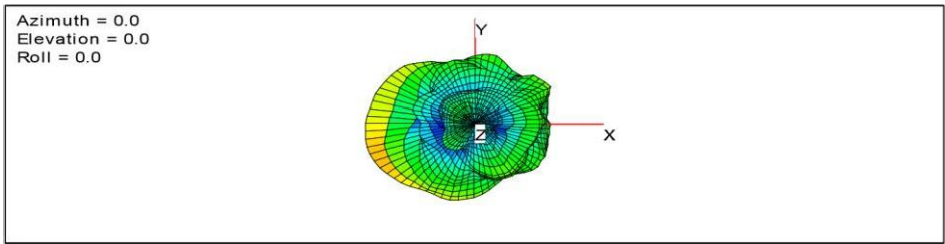
Angle

Cut2

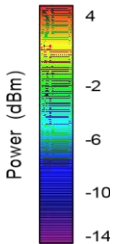


(dBm)

Total



Azimuth = 0.0
Elevation = 0.0
Roll = 0.0

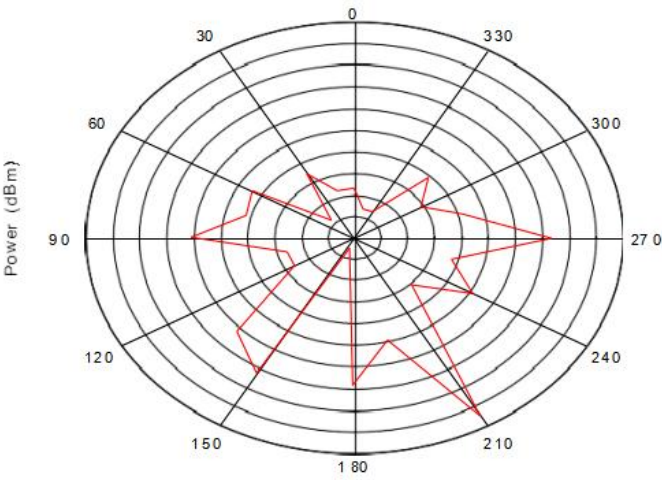


Max: 4
Min: -10
Scale: 2/div

Angle

Cut3

Max: 3
Min: -7
Scale: 1/div



Angle