#### **Antenna Specification**

# Antenna Description:

Antenna type	PCB antenna
Model	QRA-C4-ANT-V1.1
Frequency range	2402MHz~2480MHz
Manufacturer	Guangzhou Changlian Information Technology Co., Ltd
Address	1st Floor, No. 5 Kehui Fourth Street, Huangpu District, Guangzhou

# Antenna Efficiency and Gain:

Frequency(MHz)	Effi(%)	Gain(dBi)
2400	48.5	1.45
2450	51.2	1.60
2500	50.7	1.57

### Antenna Photo:

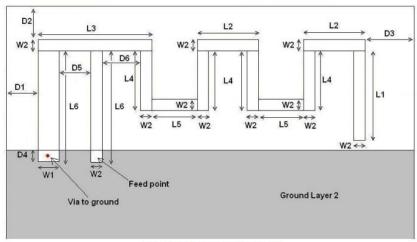
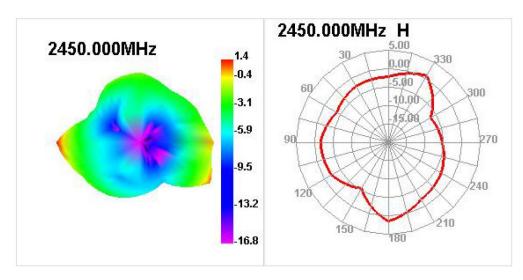
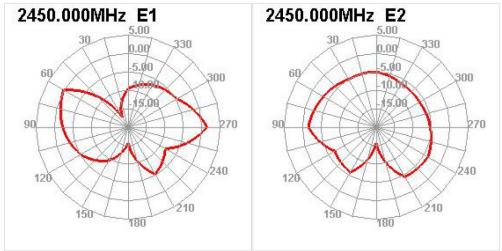


Figure 3: Antenna Dimensions

L1	3.94 mm
L2	2.70 mm
L3	5.00 mm
L4	2.64 mm
L5	2.00 mm
L6	4.90 mm
W1	0.90 mm
W2	0.50 mm
D1	0.50 mm
D2	0.30 mm
D3	0.30 mm
D4	0.50 mm
D5	1.40mm
D6	1.70 mm

#### Radiation Characteristic:



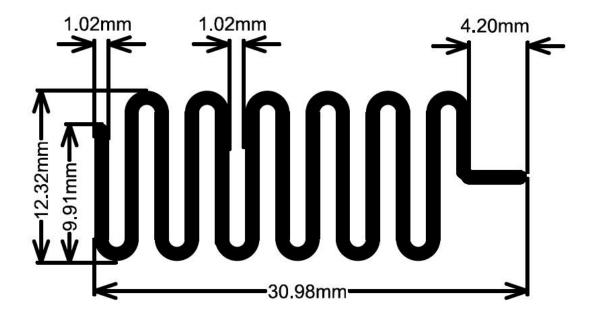


#### **Antenna Specification**

### Antenna Description:

Antenna type	PCB antenna
Model	QRA-C4-ANT-V2.4
Frequency range	420MHz~450MHz
Manufacturer	Guangzhou Changlian Information Technology Co., Ltd
Address	1st Floor, No. 5 Kehui Fourth Street, Huangpu District, Guangzhou

#### Antenna Photo:



# Antenna Efficiency and Gain:

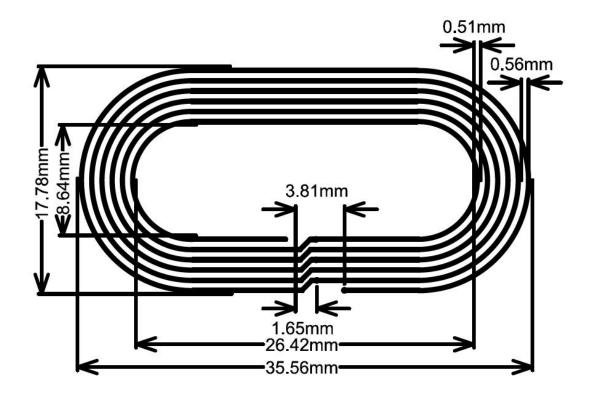
Frequency(MHz)	420	430	440	450
Efficiency (%)	64.81	65.36	68.29	70.15
Gain(dBi)	0.42	0.50	0.46	0.48

### **Antenna Specification**

# Antenna Description:

Antenna type	PCB antenna
Model	QRA-C4-ANT-V3.2
Frequency range	13.56MHz
Manufacturer	Guangzhou Changlian Information Technology Co., Ltd
Address	1st Floor, No. 5 Kehui Fourth Street, Huangpu District, Guangzhou

### Antenna Photo:



# Antenna Efficiency and Gain:

Frequency(MHz)	13.56
Efficiency (%)	62.7
Gain(dBi)	0.50