



**SUNNYWAY**



## **Lime CAT1 WiFi Antenna**

**PN: SW20056IB80-3**

### **Features**

- Antenna for 2400~2500MHz.
- Antenna type: FPC
- Antenna for 2.4G WIFI applications

**Sunnyway Technology**

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## 1. Electrical Specifications

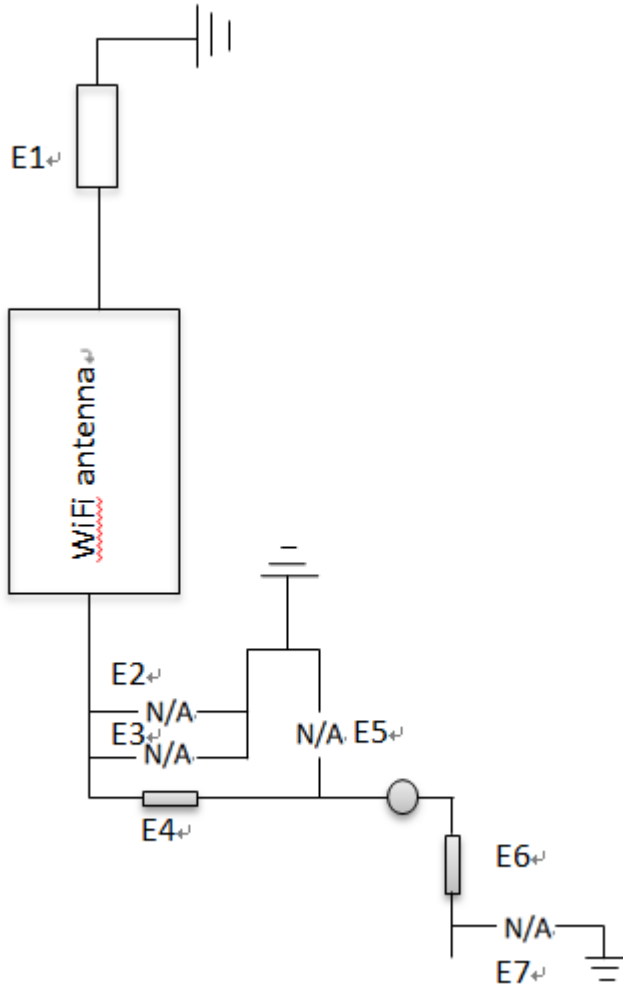
Standards	WiFi
Frequency range (MHz)	2400~2500
Peak Gain (dBi)	1.0~3.2
Average Gain (dB)	-3.0~-2.0
VSWR	<1.9
Return Loss	<-10.4
Efficiency (%)	49.8~62.5
Polarization mode	Linear
Radiation pattern	Omni-Directional
Output impedance ( $\Omega$ )	50
Max. Input Power(W)	25

**Note:**

All antenna parameters are debugged based on main board QDM001-NA-V1.3



## 2. Matching Circuit

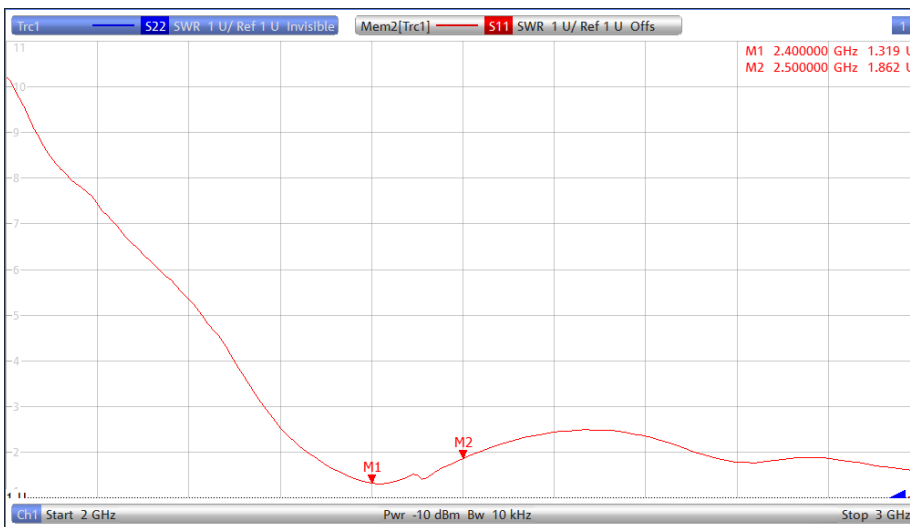


Component	Main antenna
E1	0Ω
E2	N/A
E3	N/A
E4	0Ω
E5	N/A
E6	0Ω
E7	N/A

### 3. Antenna parameters

FRE (MHz)	2400	2500
VSWR	1.3	1.9
Return Loss	-17.2	-10.4
Eff (%)	54.5	62.1
Average Gain(dB)	-2.6	-2.1

#### 3.1 VSWR





### 3.2 Return Loss

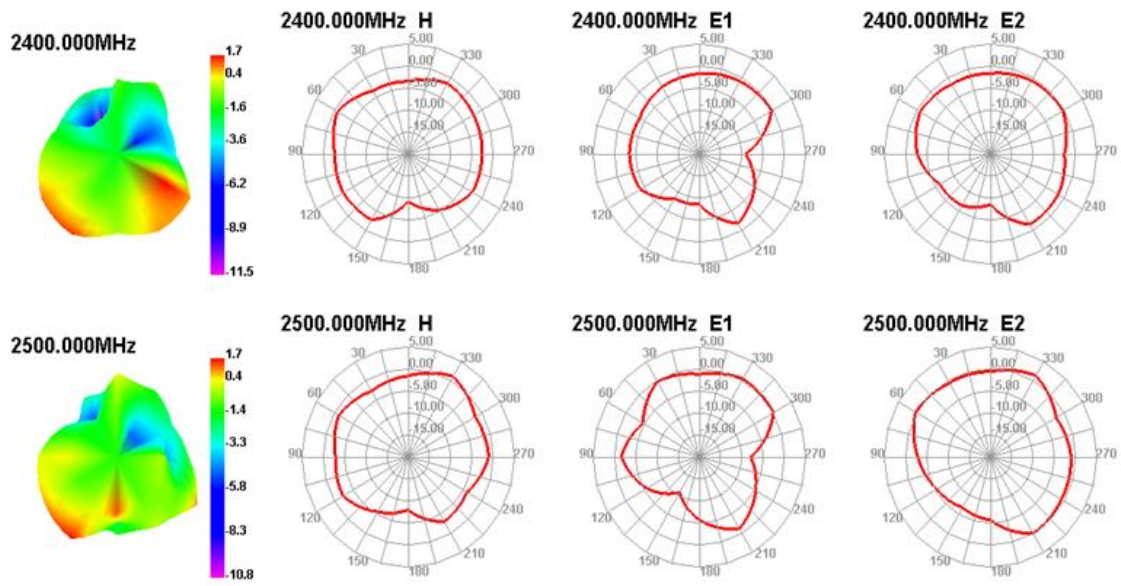


### 3.3 Passive data

Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	54.51	-2.64	1.67
2410	54.08	-2.67	1.32
2420	54.41	-2.64	1.01
2430	55.15	-2.58	1.95
2440	54.12	-2.67	2.34
2450	49.78	-3.03	3.2
2460	55.16	-2.58	2.41
2470	55.74	-2.54	2.49
2480	58.75	-2.31	1.51
2490	62.53	-2.04	1.69
2500	62.05	-2.07	1.67



### 3.4 Directional pattern





### 4. Active test data

Band	TRP			TIS		
WIFI B	16.44	15.9	15.43	-80.92	-81.03	-80.91
WIFI G	13.8	13.53	12.58	-67.5	-67	-66.62
WIFI N	14.19	13.61	12.54	-64.46	-64.25	-64.13

### 5. Antenna Drawing

