

Wi-Fi Antenna (TJ-015) Engineering Specification

1. Features

- *Stable and reliable performances in 2.4&5.8 GHz bands
- *Low profile and compact size
- *RoHS compliance
- *SMT processes compatible

2. Applications

- *Wi-Fi CERTIFIED applications
- *Wireless communication devices when IEEE802.11 /b/g/n/a/ac functions are needed.
- *IoT applications

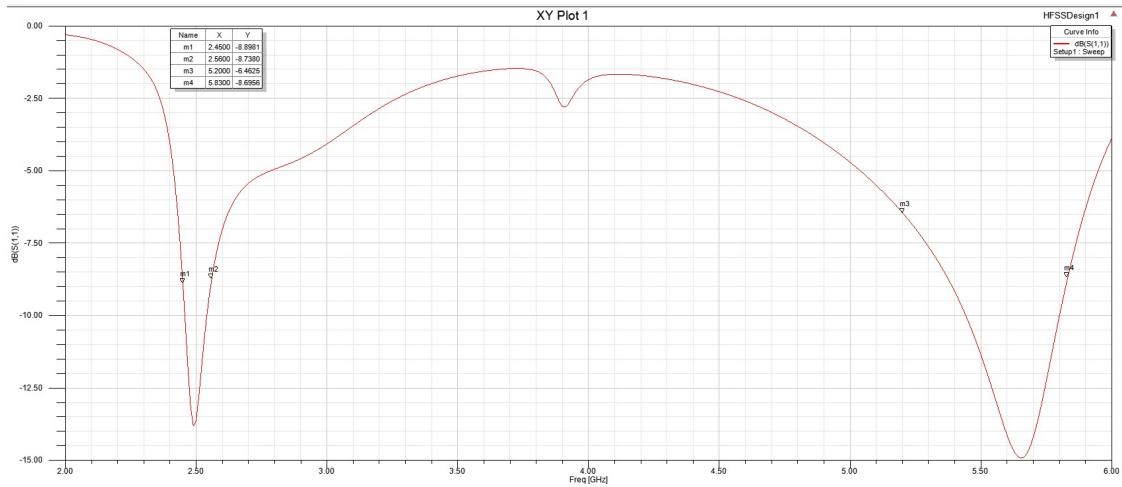
3. Description

Unictron's TJ-015 chip antenna is designed for Wi-Fi CERTIFIED applications, covering both **2400-2500/5100-5800** MHz frequency bands. Fabricated with proprietary design and processes, TJ-015 shows excellent performance and is fully compatible with SMT processes which can decrease the assembly cost and improve device's quality and consistency.

4-1. Electrical Table (2400~2484 MHz Band)

Characteristics	Specifications	Unit
Working Frequency	2400-2500/5100-5800MHz	MHz
VSWR	2 Max. (typical)	
Characteristic Impedance	50	
Peak Gain	2.51 (typical)	dBi
Efficiency	64 (typical)	%

5. Return Loss & VSWR



6. Gain efficiency test data

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	47.06	-3.27	0.57
2405	45.6	-3.41	0.36
2410	49.46	-3.06	0.81
2415	45.94	-3.38	0.44
2420	48.96	-3.1	0.76
2425	52.72	-2.78	1.07
2430	52.54	-2.79	1.05
2435	52.67	-2.78	1.01
2440	54.42	-2.64	1.09
2445	55.15	-2.58	1.09
2450	51.83	-2.85	0.68
2455	55.4	-2.56	0.98
2460	52.21	-2.82	0.72
2465	51.49	-2.88	0.76
2470	49.3	-3.07	0.55
2475	53.32	-2.73	0.92
2480	54.14	-2.66	0.98
2485	53.75	-2.7	0.92
2490	59.49	-2.26	1.4
2495	56.31	-2.49	1.23
2500	55.03	-2.59	1.15

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5000	23.32	-6.32	-0.82
5050	26.74	-5.73	-0.56
5100	28.01	-5.53	-0.24
5150	31.95	-4.95	0.34
5200	34.45	-4.63	1.06
5250	43.87	-3.58	1.45
5300	46.46	-3.33	1.73
5350	48.73	-3.12	2.24
5400	48.1	-3.18	2.51
5450	43.31	-3.63	1.8
5500	43.9	-3.58	1.88
5550	35.27	-4.53	1.07
5600	24.47	-6.11	0.48
5650	23.92	-6.21	0.22
5700	22.03	-6.57	-0.16
5750	20.32	-6.92	-0.92
5800	19.69	-7.06	-0.97
5850	22.56	-6.47	-0.57
5900	19.45	-7.11	-0.47

7. Directional test data

