

WIFI antenna Datasheet

Manufacturer: Titoma Manufacturing Ltd
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New Taipei City, 22101, Taiwan



I. Description

Titoma WIFI T-antenna operates in the standard bands for 802.11 b/g/n/ac WLAN networks.

It incorporates a double-side adhesive tape and a coaxial cable to use with U.FL/I-PEX/UMCC connectors.

II. Applications

This antenna can be used to communicate via WIFI, BLE, BT, ZigBee and any other 2.4GHz proprietary protocols devices as well as 5GHz WLAN network devices

III. Specifications summary

Description	Value
Frequency /bands	Lower (2.40 - 2.50 GHz) / Upper (5.100 ~ 5.900 GHz)
Peak Gain	+0.17dBi / +4.08dBi
Radiation pattern	Omnidirectional
Impedance	50 Ω nominal
Operating Temperature	- 40 °C to 85 °C
Max power	1W (+30dBm)
Dimensions	41.3mm x 9mm
Cable length	100mm

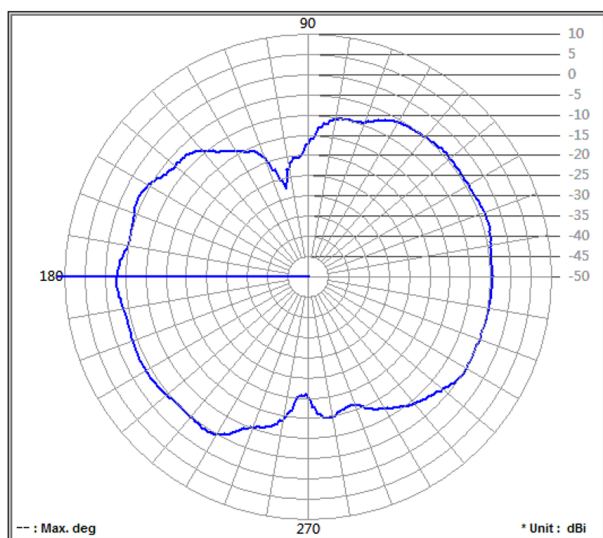
IV. Gain table

Test / Position	3D Gain / FS	
	2400-2500	5100-5900
Frequency (MHz)		
Ant. Port Input Pwr. (dBm)	0.00	0.00
Peak Gain (dBi)	+0.17	+4.08
Average Gain (dBi)	-3.82	-0.95
Directivity (dBi)	+3.99	+5.03
Efficiency (%)	41.5	80.4

V. Radiation pattern (2D plots)

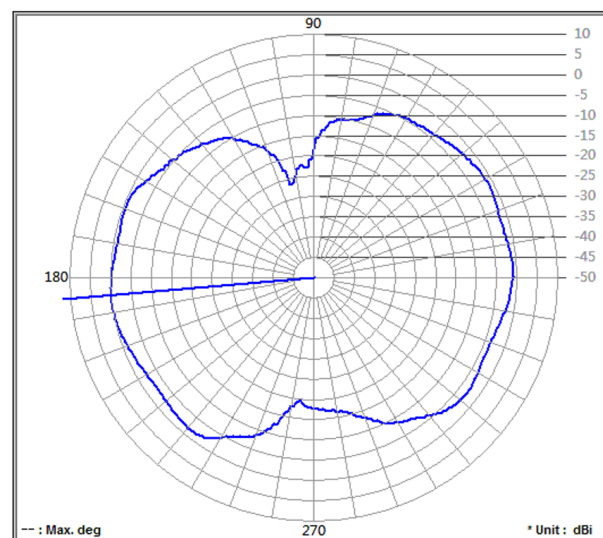
- Lower band - Horizontal

2400MHz



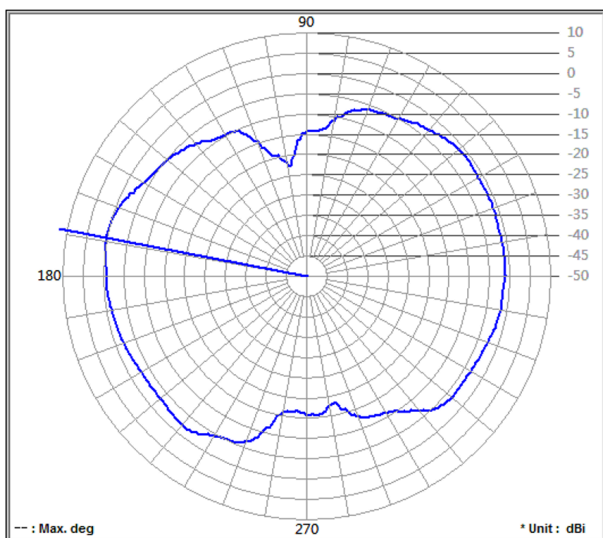
Frequency (MHz): 2400.00 Antenna Polarity: Horizontal Average Value (dBi): -6.32
Maximum Value (dBi): -2.82 Maximum Value (degree): 180
Minimum Value (dBi): -27.61 Minimum Value (degree): 104

2450MHz



Frequency (MHz): 2450.00 Antenna Polarity: Horizontal Average Value (dBi): -3.82
Maximum Value (dBi): 0.02 Maximum Value (degree): 185
Minimum Value (dBi): -26.30 Minimum Value (degree): 103

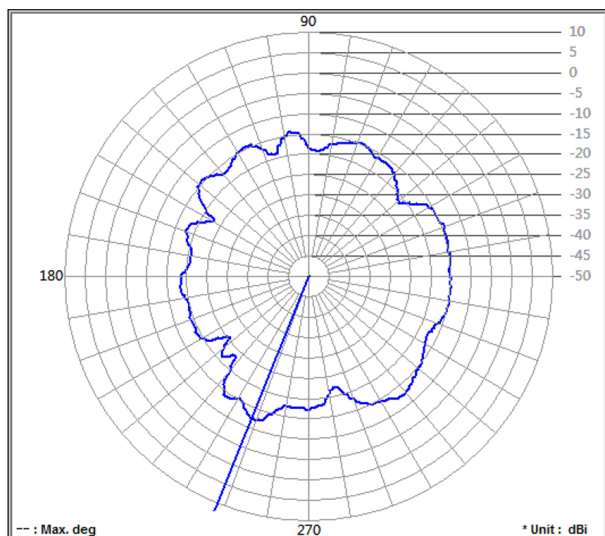
2500MHz



Frequency (MHz): 2500.00 Antenna Polarity: Horizontal Average Value (dBi): -3.86
Maximum Value (dBi): 0.17 Maximum Value (degree): 169
Minimum Value (dBi): -22.56 Minimum Value (degree): 98

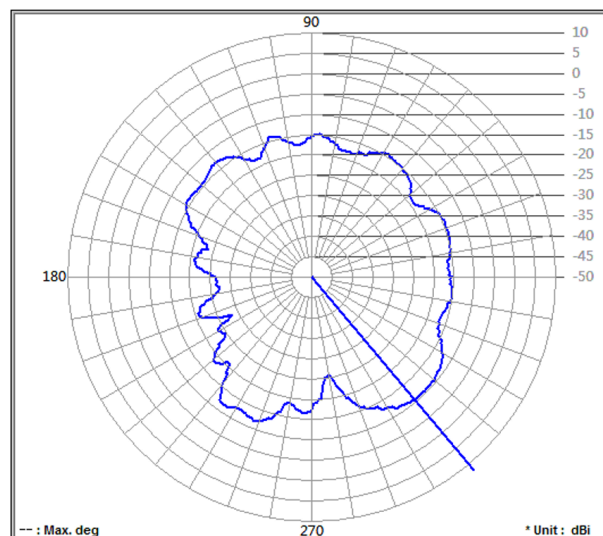
- Lower band - Vertical

2400MHz



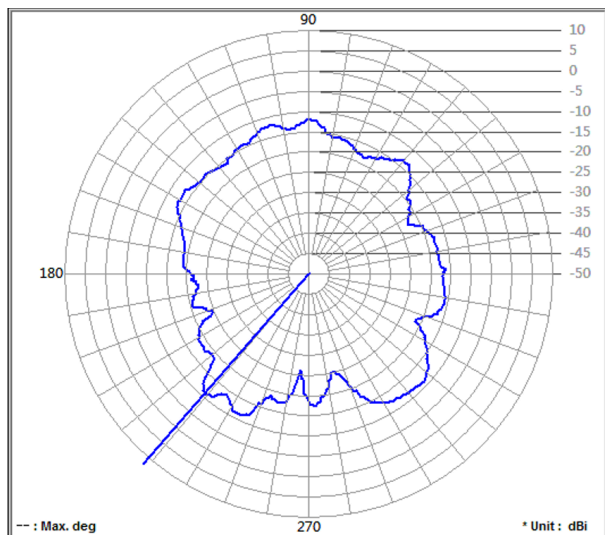
Frequency (MHz) : 2400.00 Antenna Polarity : Vertical Average Value (dBi) : -16.44
Maximum Value (dBi) : -12.29 Maximum Value (degree) : 248
Minimum Value (dBi) : -25.56 Minimum Value (degree) : 218

2450MHz



Frequency (MHz) : 2450.00 Antenna Polarity : Vertical Average Value (dBi) : -15.53
Maximum Value (dBi) : -10.62 Maximum Value (degree) : 310
Minimum Value (dBi) : -28.49 Minimum Value (degree) : 205

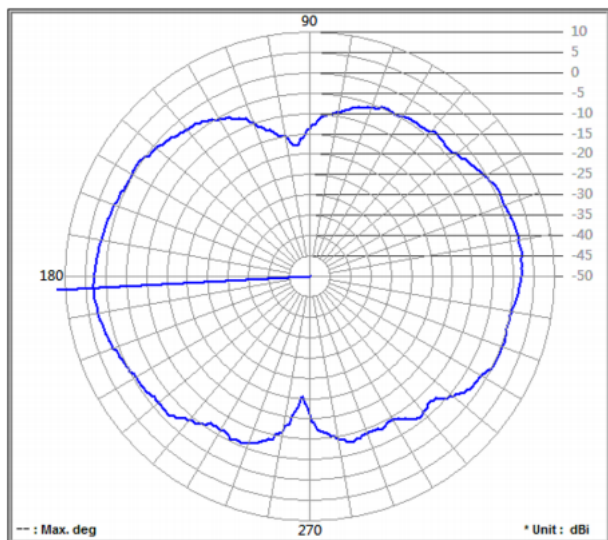
2500MHz



Frequency (MHz) : 2500.00 Antenna Polarity : Vertical Average Value (dBi) : -15.62
Maximum Value (dBi) : -11.10 Maximum Value (degree) : 229
Minimum Value (dBi) : -26.20 Minimum Value (degree) : 265

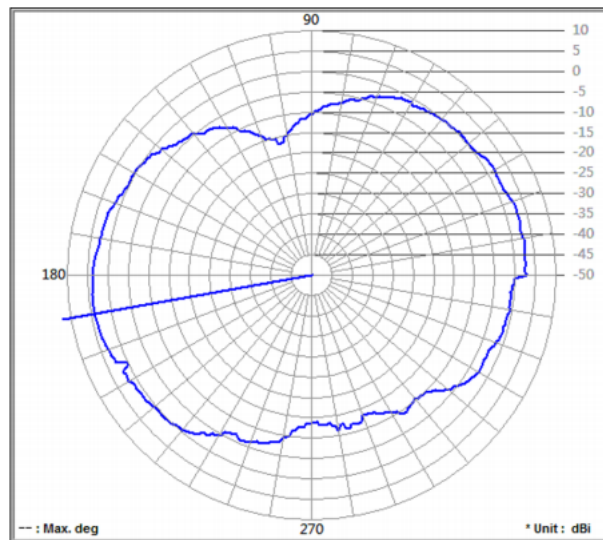
● Upper band - Horizontal

5100MHz



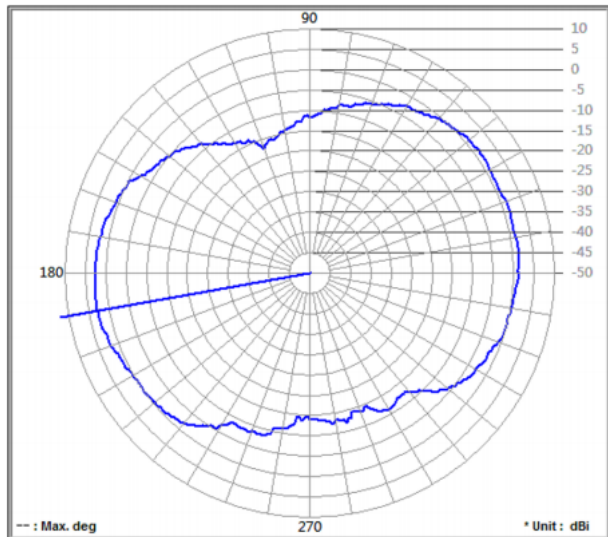
Frequency (MHz): 5100.00 Antenna Polarity: Horizontal Average Value (dB): -1.72
Maximum Value (dBi): 2.97 Maximum Value (degree): 183
Minimum Value (dB): -20.26 Minimum Value (degree): 266

5500MHz



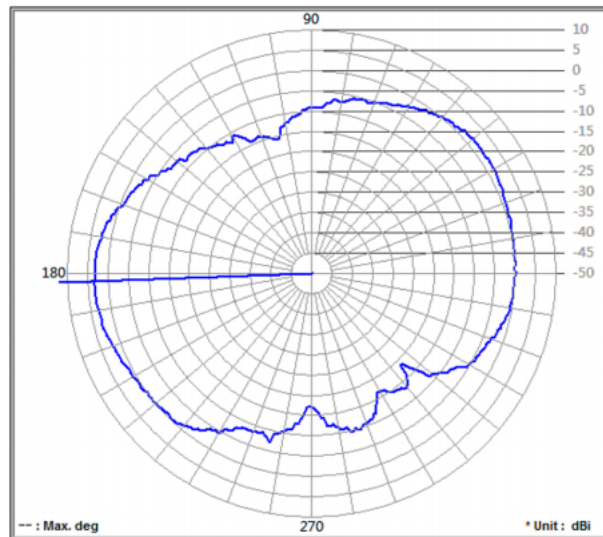
Frequency (MHz): 5500.00 Antenna Polarity: Horizontal Average Value (dB): -0.95
Maximum Value (dBi): 4.08 Maximum Value (degree): 190
Minimum Value (dB): -46.93 Minimum Value (degree): 102

5700MHz



Frequency (MHz): 5700.00 Antenna Polarity: Horizontal Average Value (dB): -1.87
Maximum Value (dBi): 2.93 Maximum Value (degree): 190
Minimum Value (dB): -47.75 Minimum Value (degree): 110

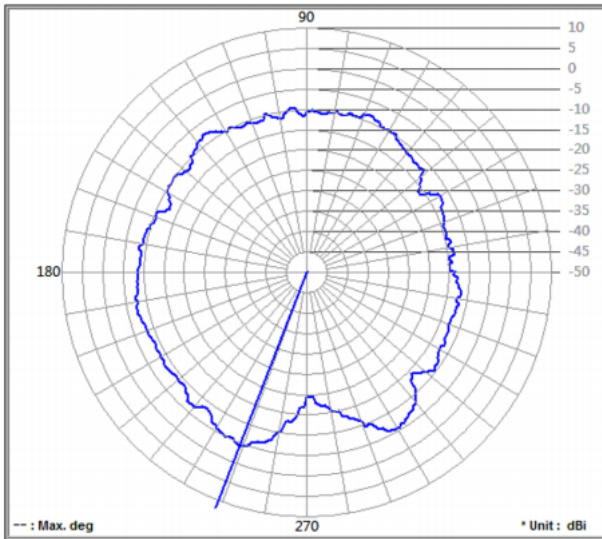
5900MHz



Frequency (MHz): 5900.00 Antenna Polarity: Horizontal Average Value (dB): -1.19
Maximum Value (dBi): 3.37 Maximum Value (degree): 182
Minimum Value (dB): -48.56 Minimum Value (degree): 314

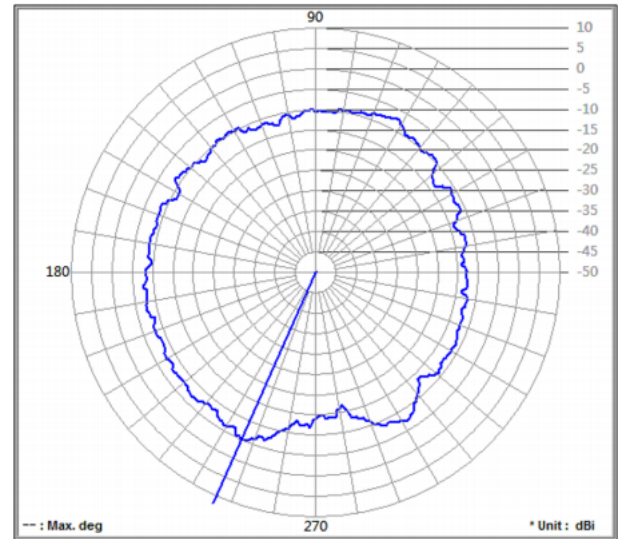
● Upper band-Vertical

5100MHz



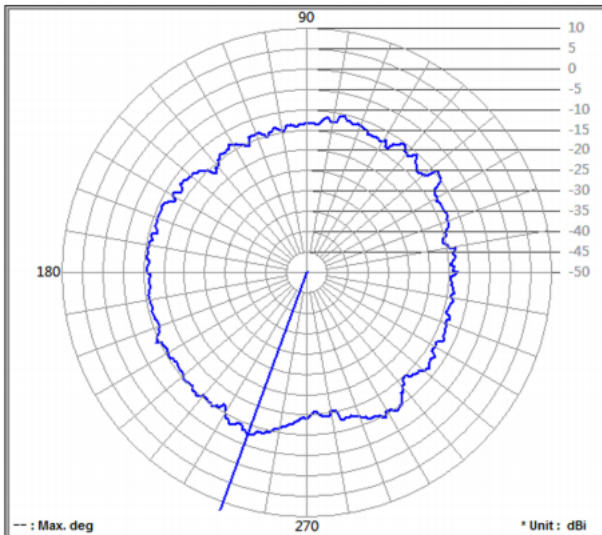
Frequency (MHz): 5100.00 Antenna Polarity: Vertical Average Value (dB): -9.83
Maximum Value (dB): 4.24 Maximum Value (degree): 249
Minimum Value (dB): -19.70 Minimum Value (degree): 271

5500MHz



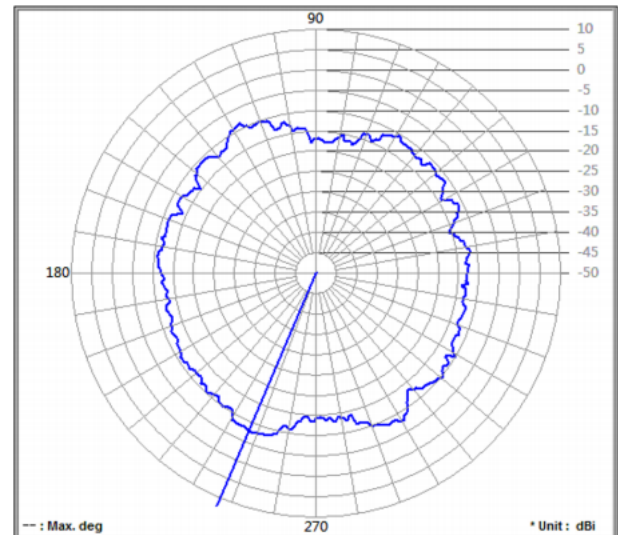
Frequency (MHz): 5500.00 Antenna Polarity: Vertical Average Value (dB): -9.79
Maximum Value (dB): 4.95 Maximum Value (degree): 246
Minimum Value (dB): -16.72 Minimum Value (degree): 281

5700MHz



Frequency (MHz): 5700.00 Antenna Polarity: Vertical Average Value (dB): -42.01
Maximum Value (dB): -7.40 Maximum Value (degree): 250
Minimum Value (dB): -16.99 Minimum Value (degree): 132

5900MHz



Frequency (MHz): 5900.00 Antenna Polarity: Vertical Average Value (dB): -41.74
Maximum Value (dB): -7.72 Maximum Value (degree): 247
Minimum Value (dB): -17.99 Minimum Value (degree): 92