

# AT9520 Series

## Multilayer Chip Antenna

### Features

- ❖ Monolithic SMD with small, low-profile and light-weight type.
- ❖ Wide bandwidth

### Applications

- ❖ 2.4GHz WLAN, Home RF, Bluetooth Modules, etc.



### Specifications

Part Number	Frequency Range (MHz)	Peak Gain (XZ-V)	Average Gain (XZ-V)	VSWR	Impedance
<b>AT9520-B2R4GAA</b>	2400~2500	3.0 dBi typ.	1.0 dBi typ.	2 max.	50 $\Omega$

Q'ty/Reel (pcs) : 1000pcs  
 Operating Temperature Range : -40 ~ +85 °C  
 Storage Temperature Range : -40 ~ +85 °C  
 Power Capacity : 3W max.

### Part Number

AT   9520   -   B   2R4   GAA   □  
 ①   ②   ③   ④   ⑤   ⑥

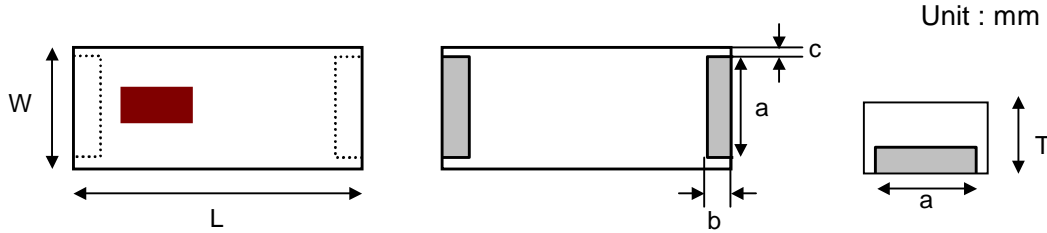
① Type	AT : Antenna	② Dimensions ( L x W )	9.5x 2.0 mm
③ Material Code	B	④ Frequency Range	2R4=2400MHz
⑤ Specification Code	GAA	⑥ Packaging	T: Tape & Reel B: Bulk

### Terminal Configuration



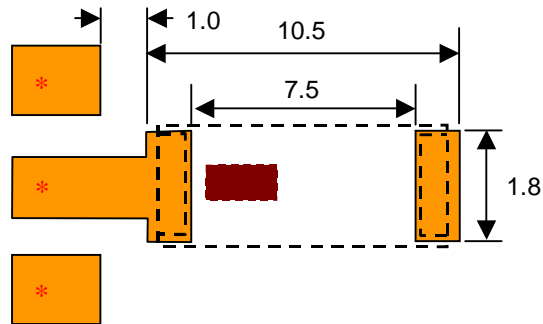
No.	Terminal Name	No.	Terminal Name
①	Feeding Point	②	NC

## Dimensions and Recommended PC Board Pattern

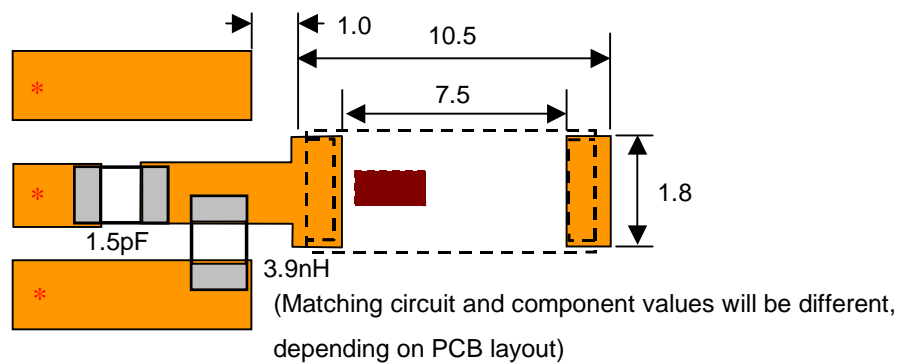


Mark	L	W	T	a	b	c
Dimensions	9.5±0.2	2.0±0.2	1.2+ 0.1/-0.2	1.35±0.20	1.1±0.1	0.25±0.1

### (a) Without Matching Circuits (Moderate Bandwidth)



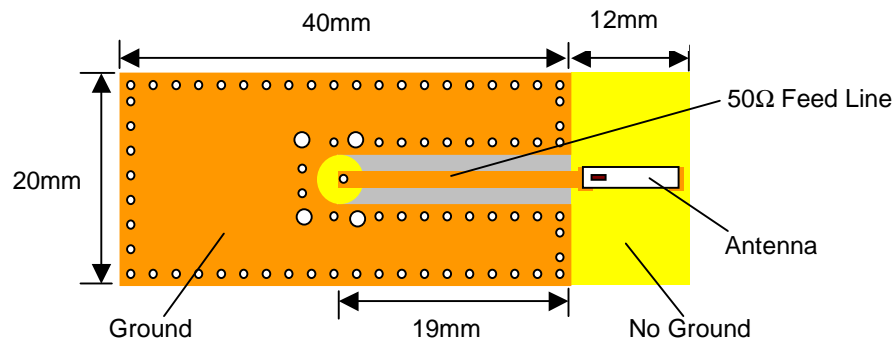
### (b) With Matching Circuits (Wide Bandwidth)



\*Line width should be designed to match  $50\Omega$  characteristic impedance, depending on PCB material and thickness.

**Typical Electrical Characteristics (T=25°C)**

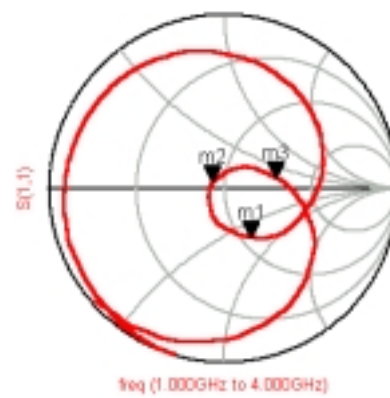
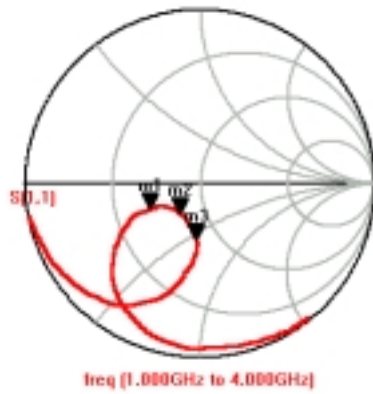
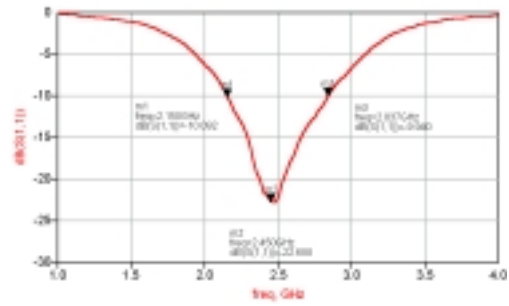
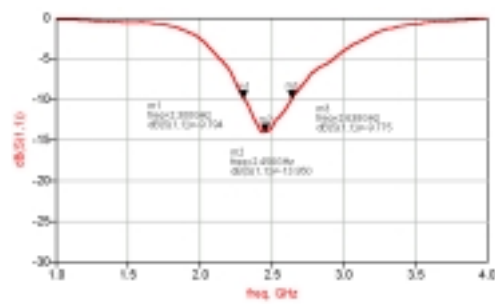
❖ Test Board



❖ Return Loss

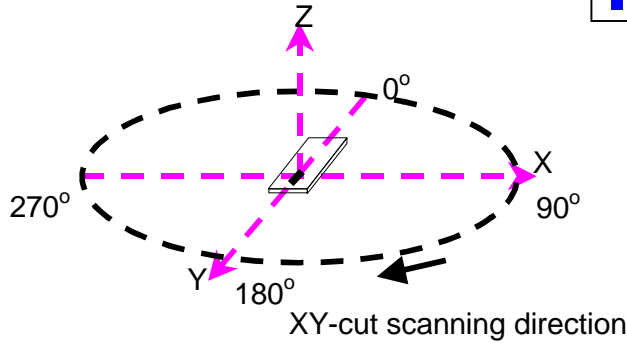
(a) Without Matching Circuits

(b) With Matching Circuits

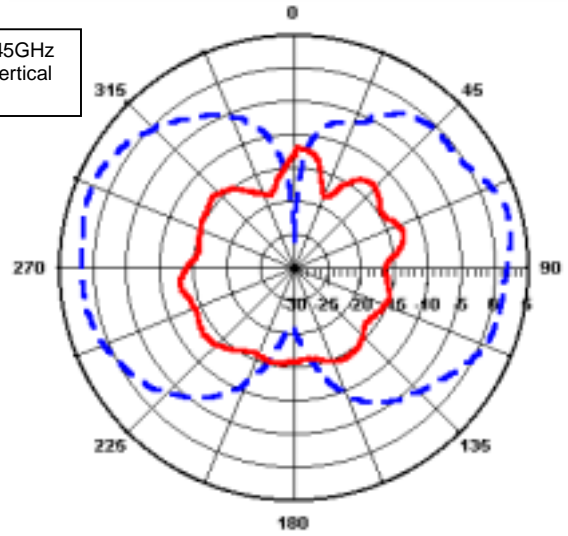


❖ Radiation Patterns

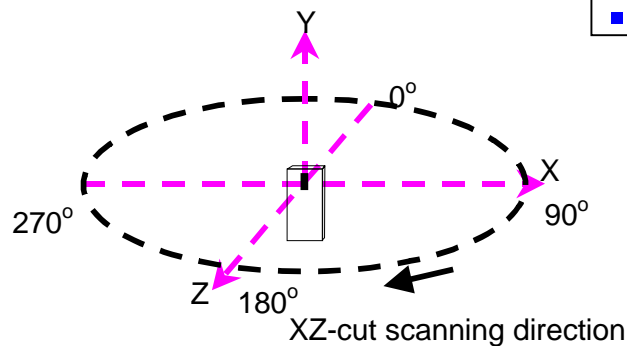
XY-V/XY-H



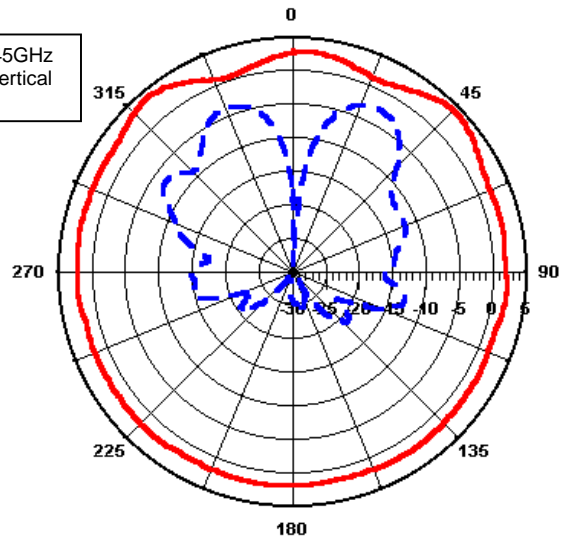
XY cut @2.45GHz  
— Vertical  
- - - Horizontal



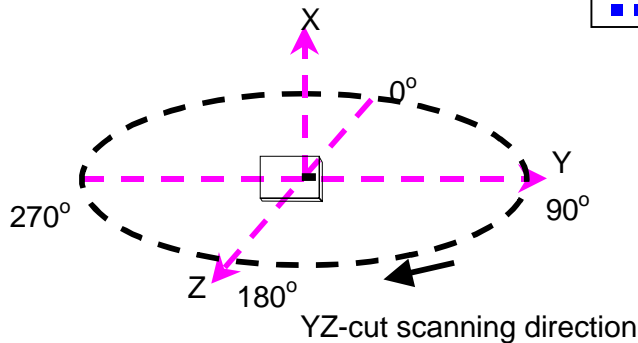
XZ-V/XZ-H



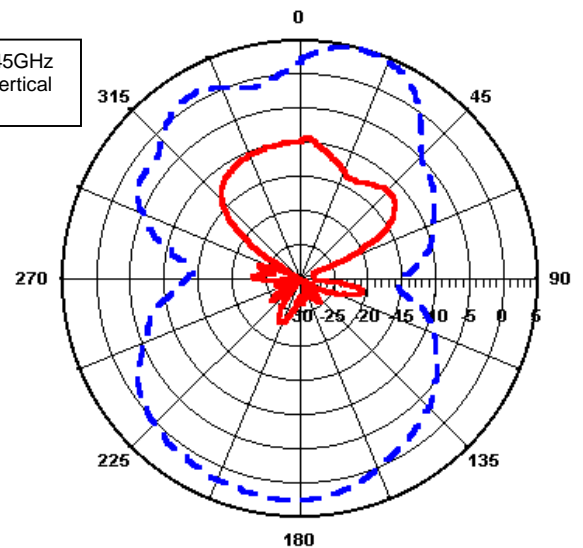
XZ cut @2.45GHz  
— Vertical  
- - - Horizontal



YZ-V/YZ-H



YZ cut @2.45GHz  
— Vertical  
- - - Horizontal



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