

# 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</b> <b>-B2R4HAA_</b>	2400~2500	1.3 dBi typ.	0.6 dBi typ.	2 max.	50 Ω

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   HAA   □   /LF  
 ①   ②   ③   ④   ⑤   ⑥   ⑦

① Type	AT : Antenna	② Dimensions ( L x W )	9.5× 2.0 mm
③ Material Code	B	④ Frequency Range	2R4=2400MHz
⑤ Specification Code	HAA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	=lead-containing /LF=lead-free		

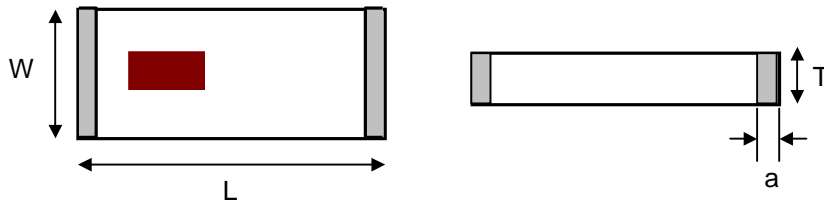
### Terminal Configuration



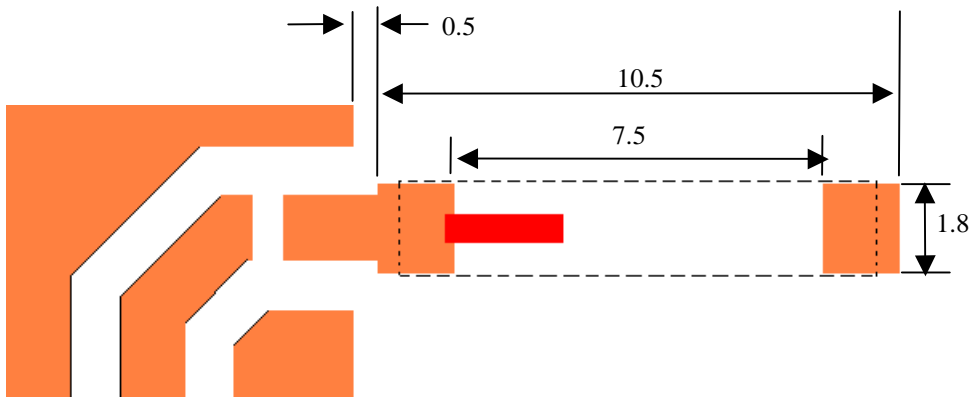
No.	Terminal Name	No.	Terminal Name
①	Feeding Point	②	NC

**Dimensions and Recommended PC Board Pattern**

Unit : mm



Mark	L	W	T	a
Dimensions	9.5±0.2	2.0±0.2	1.2 +0.1/-0.2	0.5±0.3

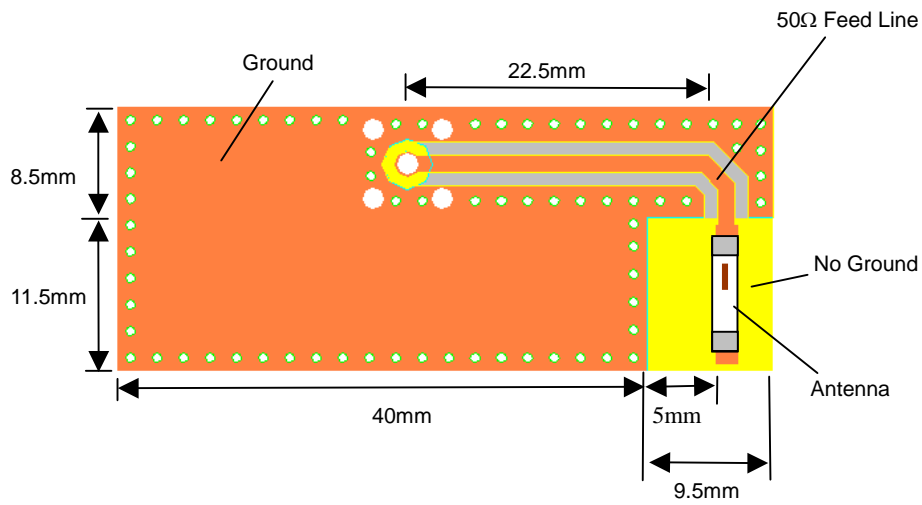


(Matching circuit and component values will be different, depending on PCB layout)

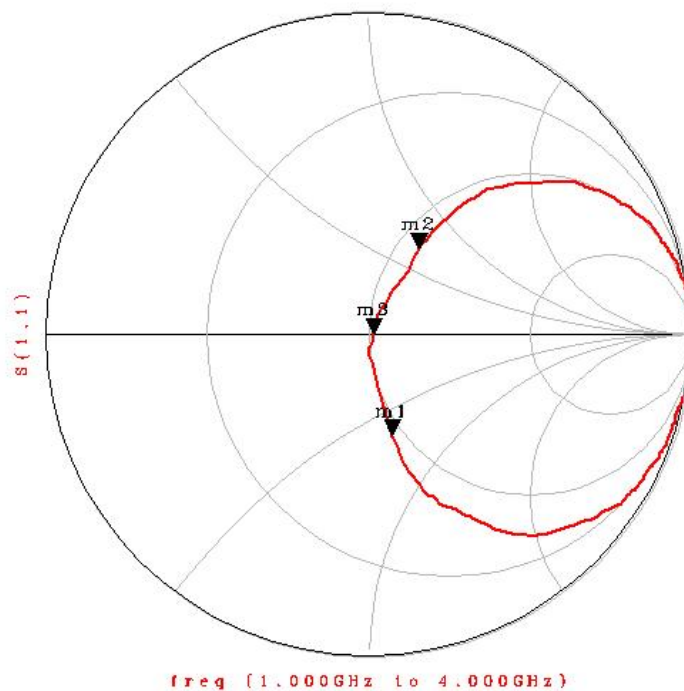
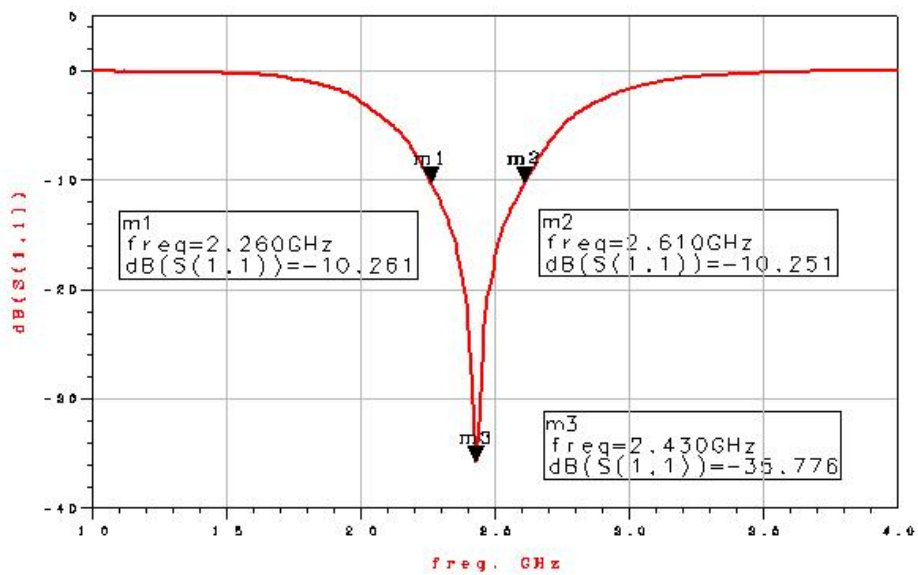
\*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

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

### ❖ Test Board



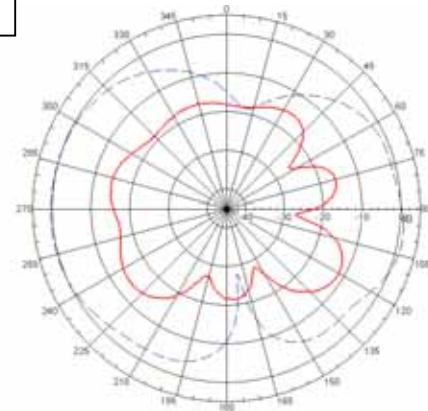
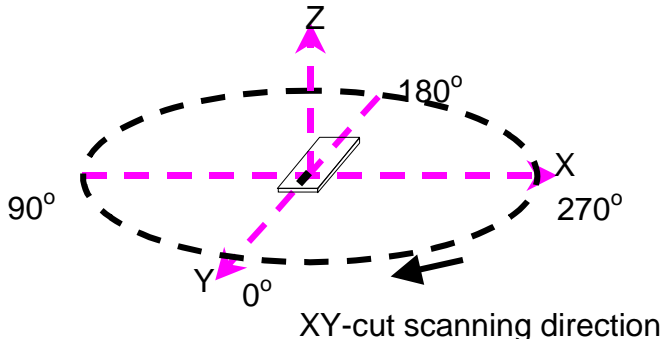
### ❖ Return Loss



❖ Radiation Patterns

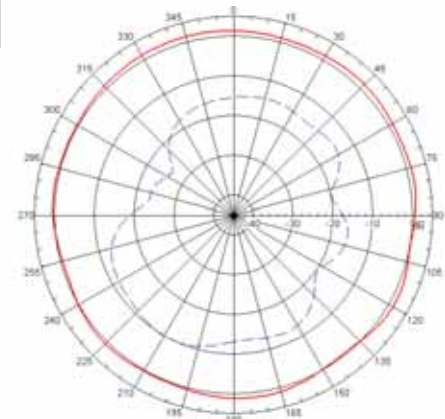
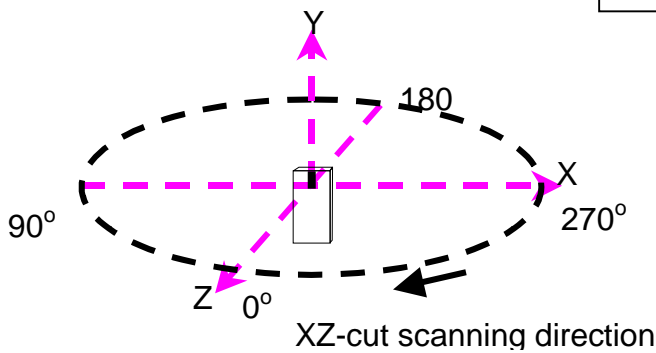
XY-V/XY-H

XY cut @2.45GHz  
— Vertical  
⋯ Horizontal



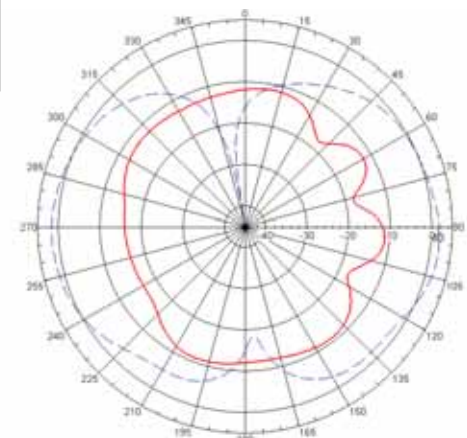
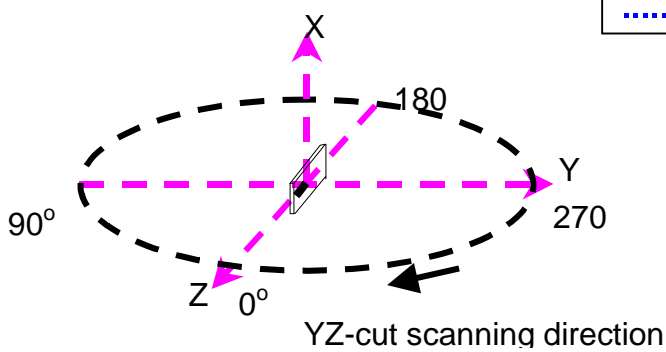
XZ-V/XZ-H

XZ cut @2.45GHz  
— Vertical  
⋯ Horizontal



YZ-V/YZ-H

YZ cut @2.45GHz  
— Vertical  
⋯ Horizontal



**Advanced Ceramic X Corp.**

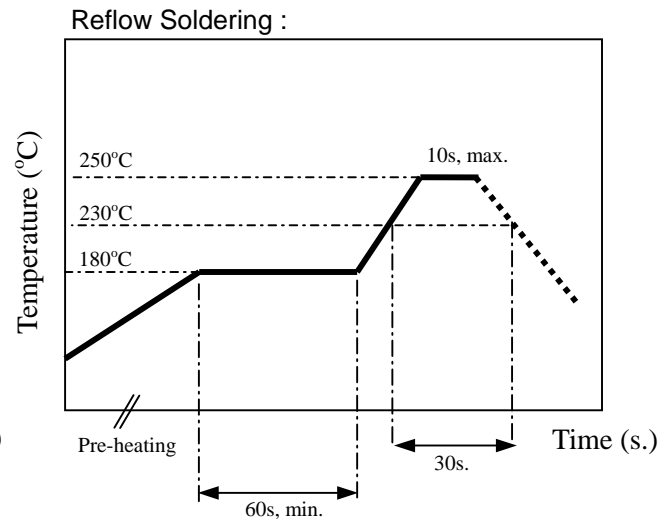
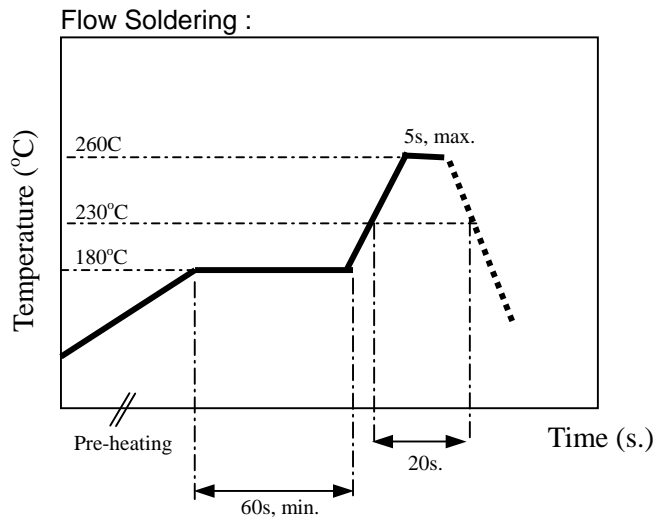
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## Soldering Conditions

### ❖ Typical Soldering Profile for Lead-free Process



### Notes

❖ The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.