

# AT3216 Series

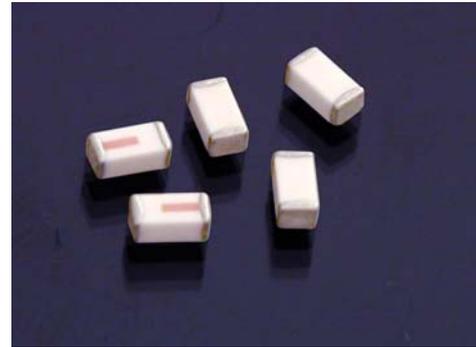
## Multilayer Chip Antenna

### Features

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

### Applications

- ❖ Bluetooth/Wireless LAN/Home RF
- ❖ ISM band 2.4GHz applications



### Specifications

Part Number	Frequency Range (MHz)	Peak Gain (XZ-V)	Average Gain (XZ-V)	VSWR	Impedance
<b>AT3216</b> <b>-B2R7HAA</b>	2400 ~ 2500	0.5 dBi typ.	-0.5 dBi typ.	2 max.	50 Ω

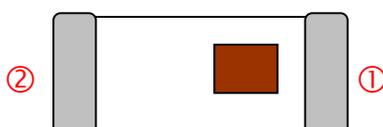
Q'ty/Reel (pcs) : 3,000pcs  
 Operating Temperature Range : -40 ~ +85 °C  
 Storage Temperature Range : -40 ~ +85 °C  
 Power Capacity : 3W max.

### Part Number

**AT**   **3216**   -   **B**   **2R7**   **HAA**   **□**   **□**  
 ①   ②   ③   ④   ⑤   ⑥   ⑦

① Type	AT : Antenna	② Dimensions ( L x W )	3.2x 1.6 mm
③ Material Code	B	④ Frequency Range	2R7=2700MHz
⑤ Specification Code	HAA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	=lead-containing /LF=lead-free		

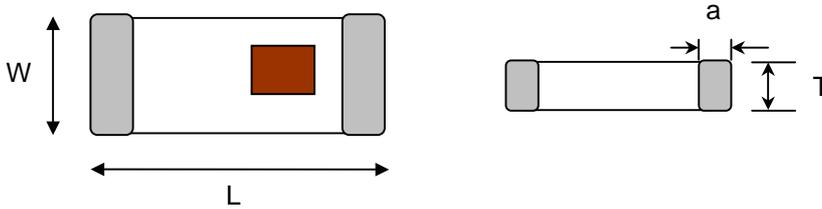
### Terminal Configuration



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

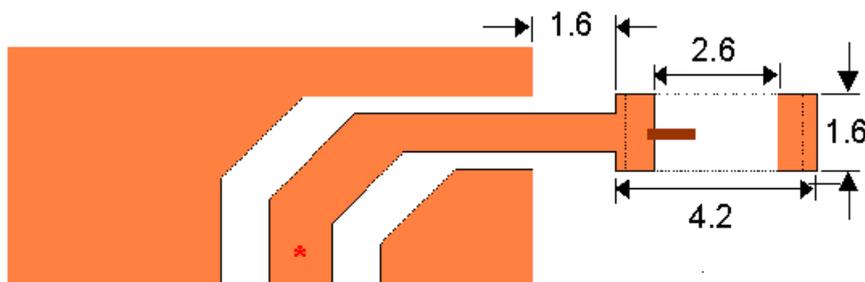
**Dimensions and Recommended PC Board Pattern**

Unit : mm

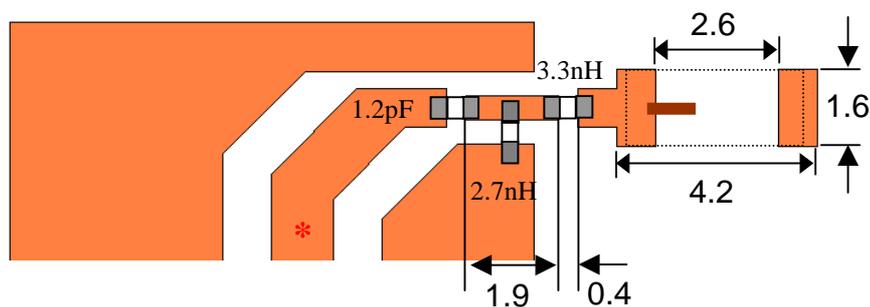


Mark	L	W	T	a
Dimensions	3.2±0.2	1.6±0.2	1.3+ 0.1/-0.2	0.5±0.3

(a) Without Matching Circuits



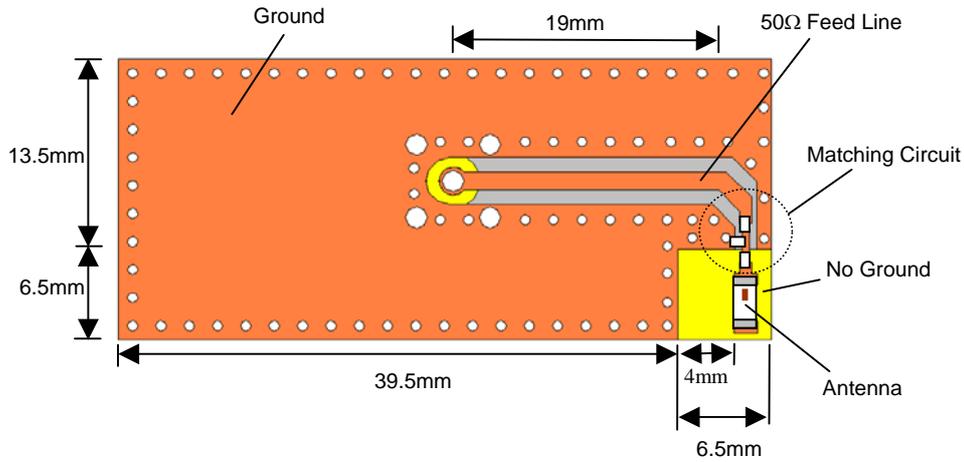
(b) With Matching Circuits



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

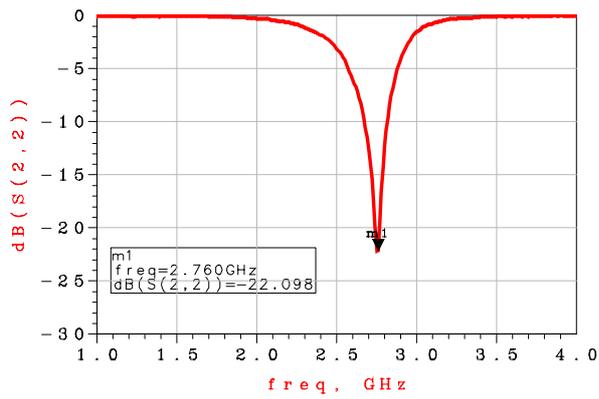
**Typical Electrical Characteristics (T=25°C)**

❖ Test Board

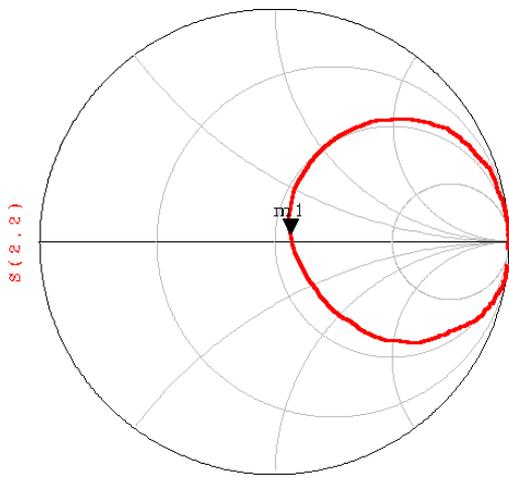
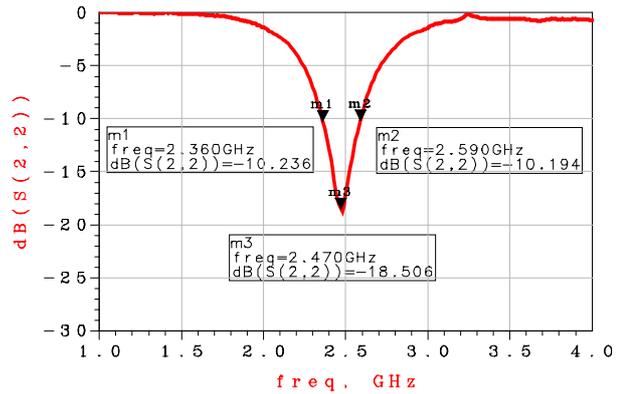


❖ Return Loss

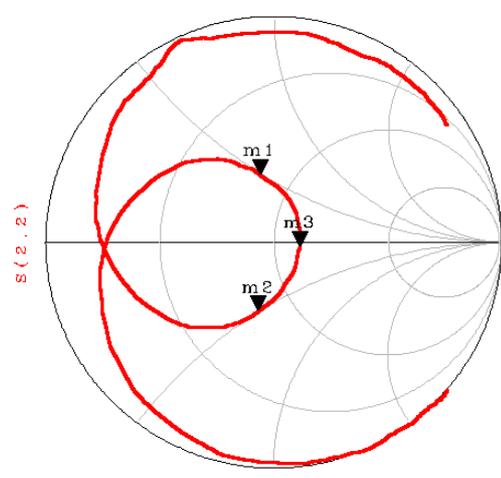
(a) Without Matching Circuits



(b) With Matching Circuits



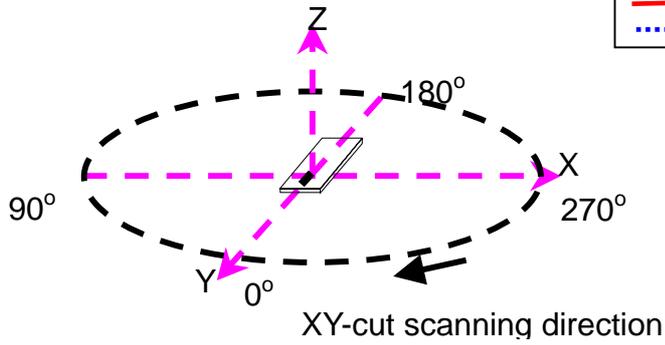
freq (1.000GHz to 4.000GHz)



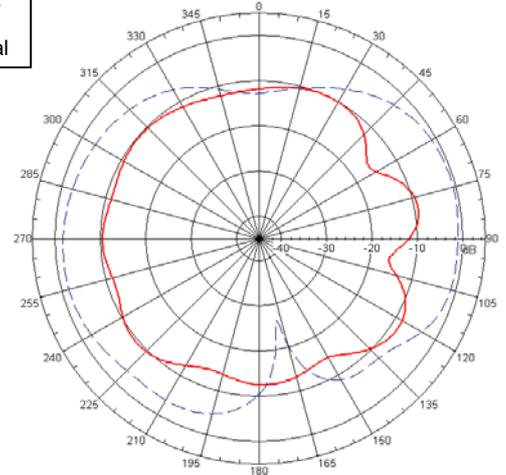
freq (1.000GHz to 4.000GHz)

Radiation Patterns

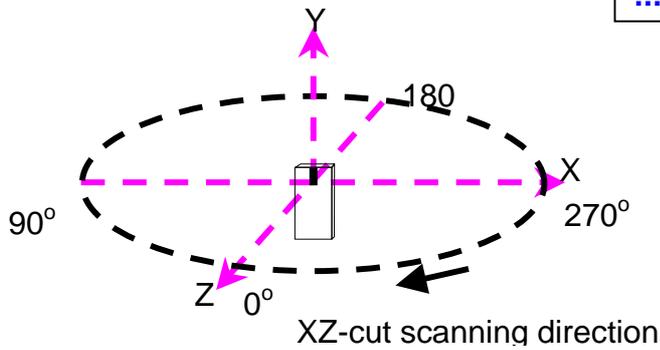
XY-V/XY-H



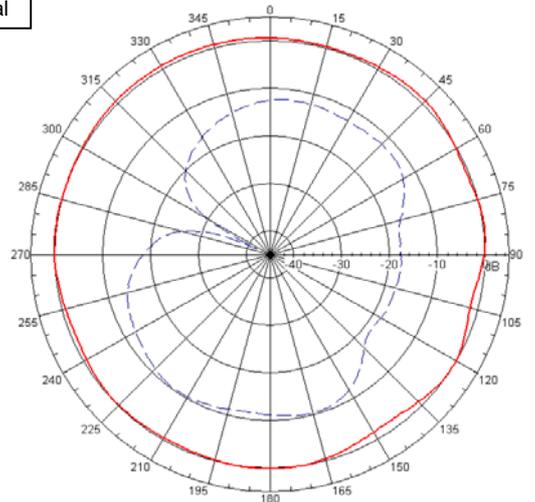
XY cut @2.45GHz  
— Vertical  
⋯ Horizontal



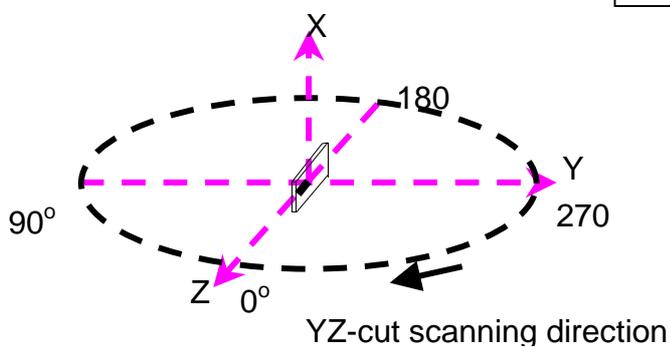
XZ-V/XZ-H



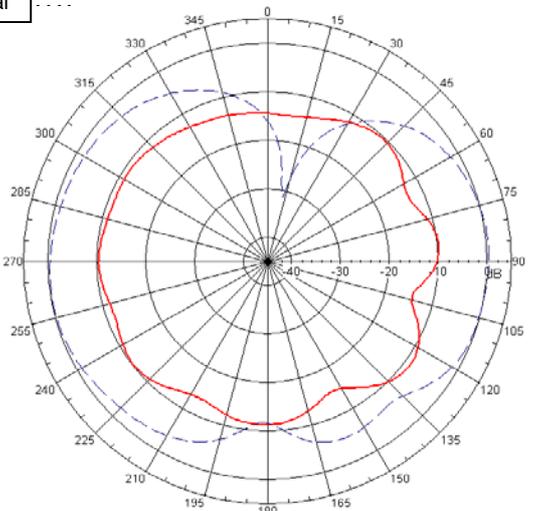
XZ cut @2.45GHz  
— Vertical  
⋯ Horizontal



YZ-V/YZ-H



YZ cut @2.45GHz  
— Vertical  
⋯ Horizontal



**Advanced Ceramic X Corp.**

16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan

TEL:886-3-5987008 FAX:886-3-5987001

E-mail: [acx@acxc.com.tw](mailto:acx@acxc.com.tw) <http://www.acxc.com.tw>