

# AT3216 Series (Preliminary)

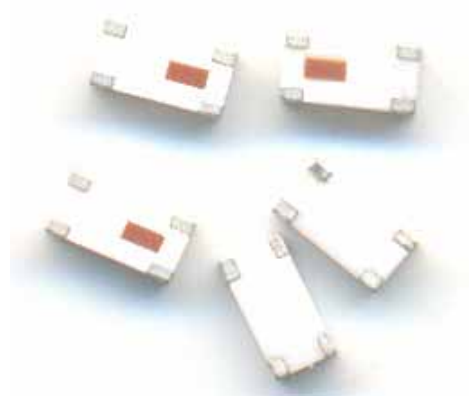
## Multilayer Chip Antenna

### 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-total) | Average Gain (XZ-total) | VSWR     | Impedance |
|-----------------------------------|-----------------------|----------------------|-------------------------|----------|-----------|
| <b>AT3216</b><br><b>-T2R4PAA_</b> | 2400 ~ 2500           | 1.5 dBi typ.         | -1.0 dBi typ.           | 3.0 max. | 50 Ω      |

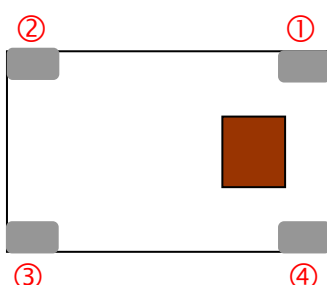
Q'ty/Reel (pcs) : 3,000pcs  
 Operating Temperature Range : -40 ~ +85 °C  
 Storage Temperature Range : +5 ~ +35 °C, Humidity 45~75%RH  
 Storage Period : 12 months max.  
 Power Capacity : 2W max.

### Part Number

AT   3216   -   T   2R4   PAA   □   □  
 ①   ②   ③   ④   ⑤   ⑥   ⑦

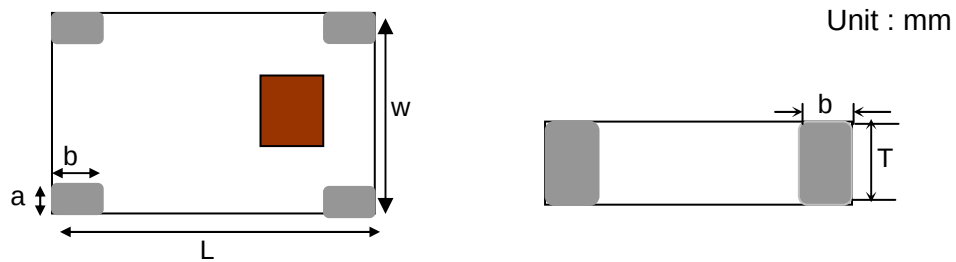
|                      |                                   |                        |                           |
|----------------------|-----------------------------------|------------------------|---------------------------|
| ① Type               | AT : Antenna                      | ② Dimensions ( L × W ) | 3.2× 1.6 mm               |
| ③ Material Code      | T                                 | ④ Frequency Range      | 2R4=2400MHz               |
| ⑤ Specification Code | PAA                               | ⑥ Packaging            | T: Tape & Reel<br>B: Bulk |
| ⑦ Soldering          | =lead-containing<br>/LF=lead-free |                        |                           |

### Terminal Configuration



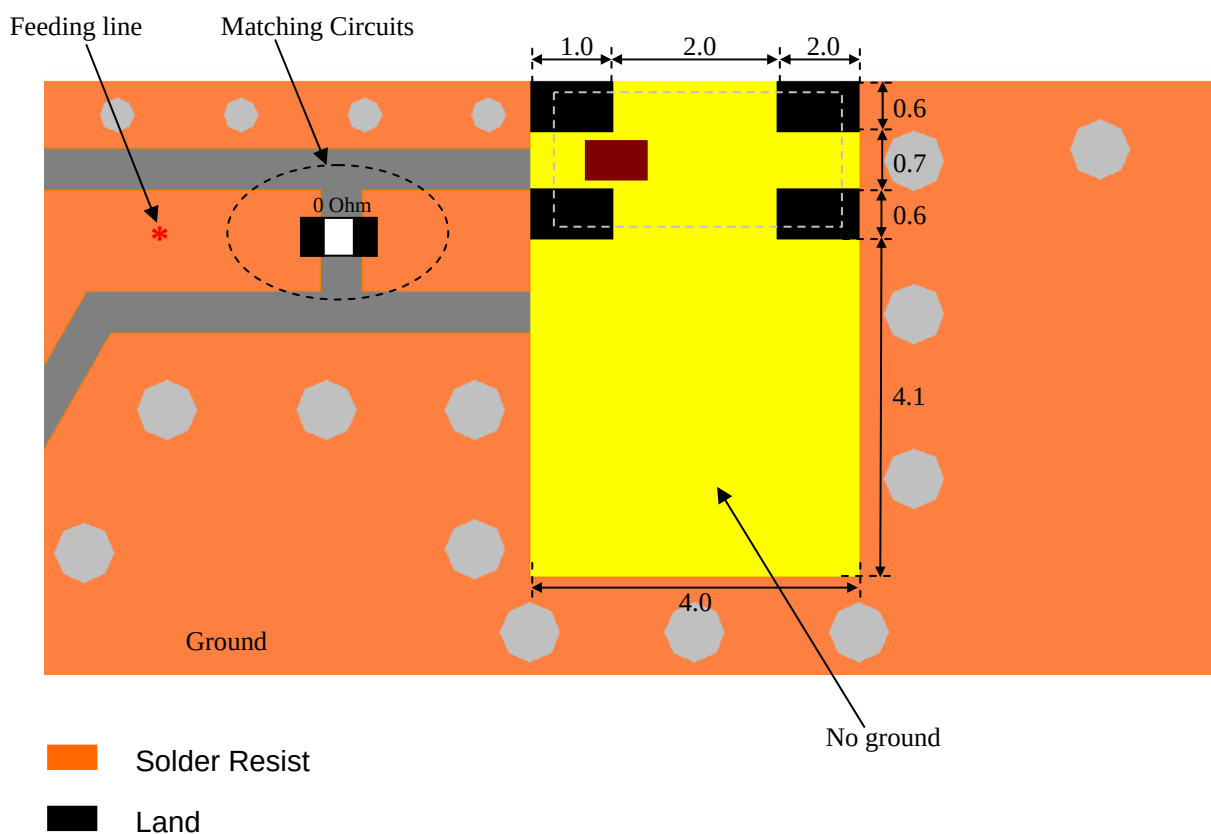
| No. | Terminal Name | No. | Terminal Name |
|-----|---------------|-----|---------------|
| ①   | Feeding Point | ②   | GND           |
| ③   | GND           | ④   | GND           |

## Dimensions and Recommended PC Board Pattern



| Mark       | L             | W             | T             | a                      | b             |
|------------|---------------|---------------|---------------|------------------------|---------------|
| Dimensions | $3.2 \pm 0.2$ | $1.6 \pm 0.2$ | $1.2 \pm 0.2$ | $0.3 \pm 0.1$<br>/-0.2 | $0.5 \pm 0.2$ |

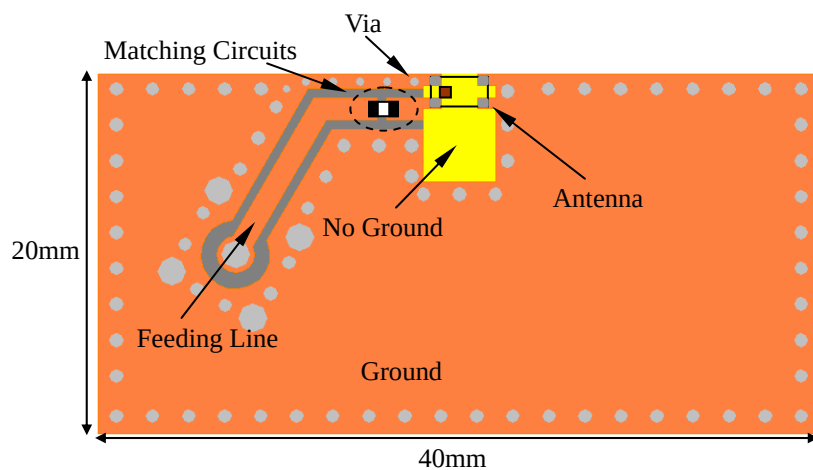
❖ Without Matching Circuits - Unit in mm



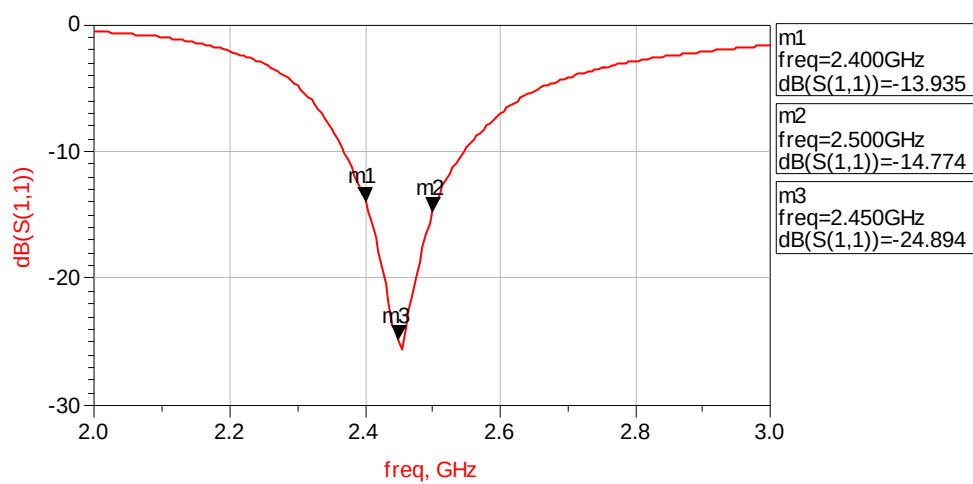
\*Line width should be designed to match  $50\Omega$  characteristic impedance, depending on PCB material and thickness.

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

### ❖ Test Board

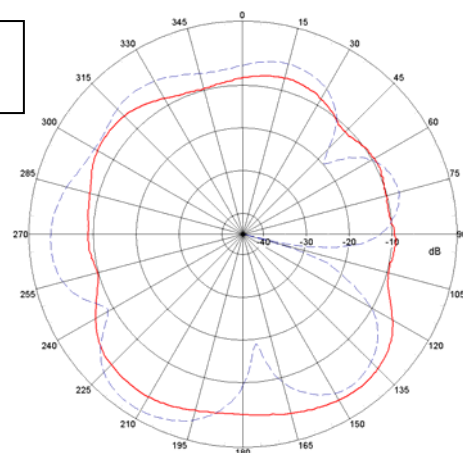
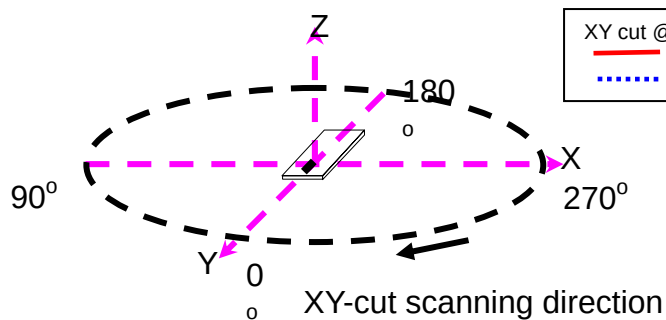


### ❖ Return Loss-without matching circuits

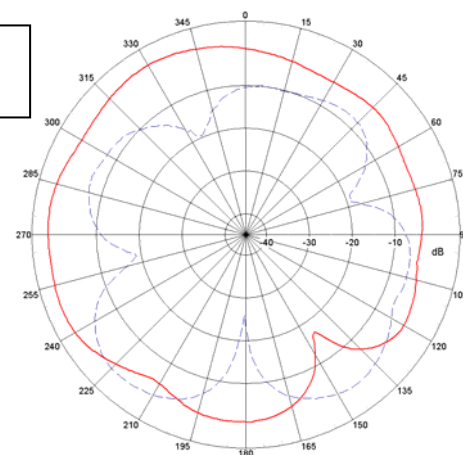
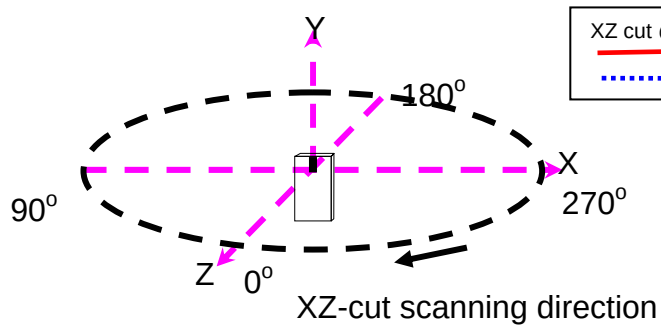


❖ Radiation Patterns

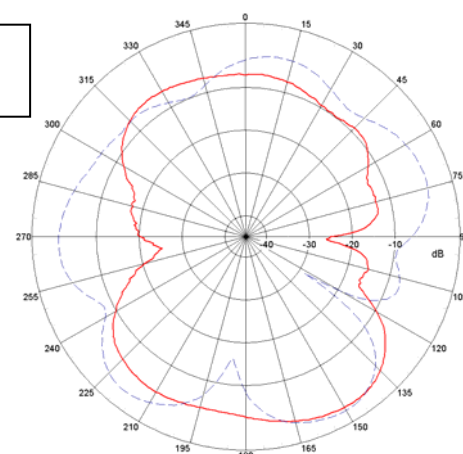
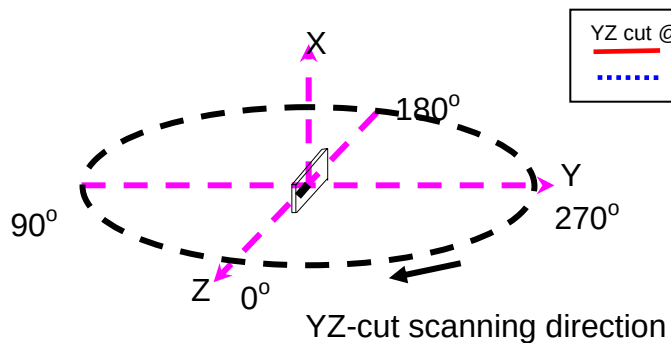
XY-V/XY-H



XZ-V/XZ-H



YZ-V/YZ-H



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