

# Multilayer Chip Antenna

## Features

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



## Applications

- Bluetooth/Wireless Lan/Home RF
- ISM band 2.4 GHz applications

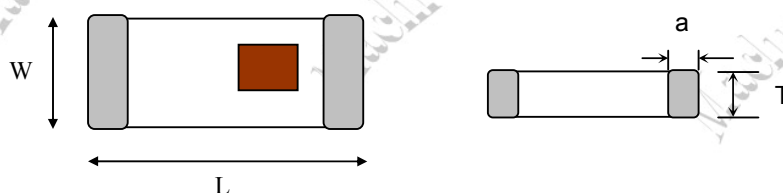
## Part Number Systems

**MAT - 3216 - B - 2R7 - HAA - LF**

(1) (2) (3) (4) (5) (6)

(1)	Product series	(2)	Dimensions (L x W): 3.2 x 1.6 mm
(3)	Material code	(4)	Frequency Range: 2R7 = 2700MHz
(5)	Specification code	(6)	ROHs Compliant

## Shape And Dimensions



Unit: mm

Type	L	W	T	a
3216	3.2 ± 0.2	1.6 ± 0.2	1.3 ± 0.1/0.2	0.5 ± 0.3

MAT-3216 -Series		Electrical Characteristics				
Part Number	Frequency Range (MHz)	Peak Gain (XZ-V)	Average Gain (XZ-V)	VSWR	Impedance	Power Capacity
MAT-3216-B-2R7-HAA-LF	2400 ~ 2500	0.5 dBi typ.	-0.5 dBi typ.	2 Max	50 Ω	3W Max

\*All specifications are subjected to change without prior notice.

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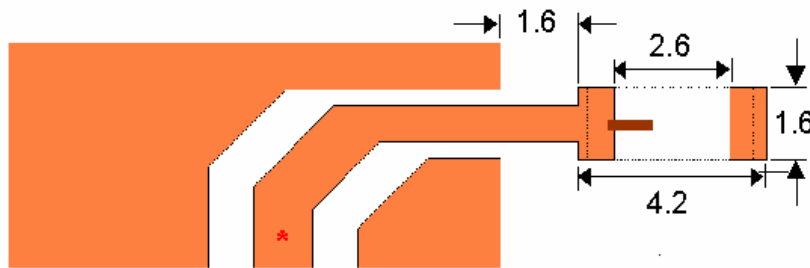
## Terminal Configuration



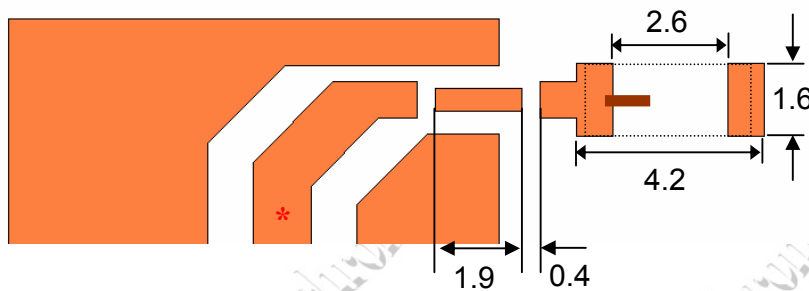
No.	Terminal Name	No.	Terminal Name
1	Feeding Point	2	NC

## Recommended PC Board Pattern (Unit: mm)

(a) Without Matching Circuits



(b) With Matching Circuits

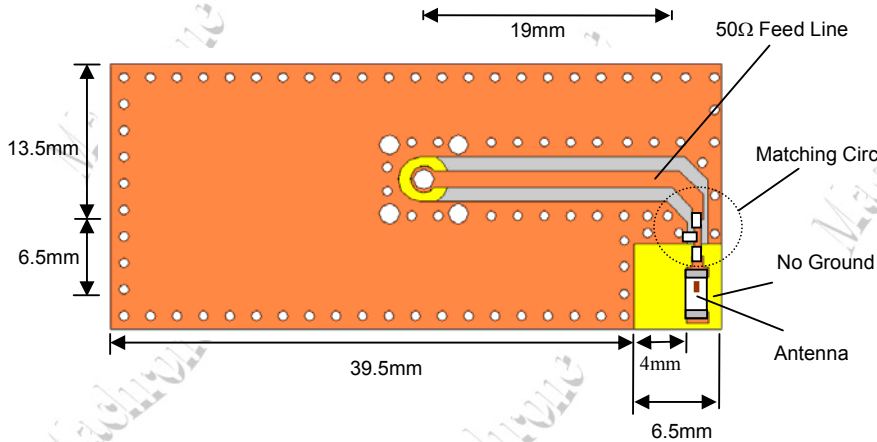


\*Line width should be designed to match  $50 \Omega$  characteristic impedance, depending on PCB material and thickness.

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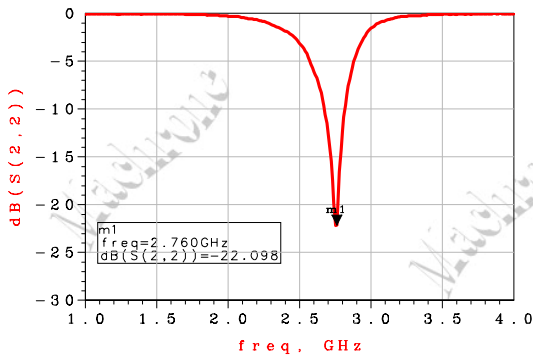
## Typical Electrical Characteristics (T = 25°C)

### ❖ Test Board

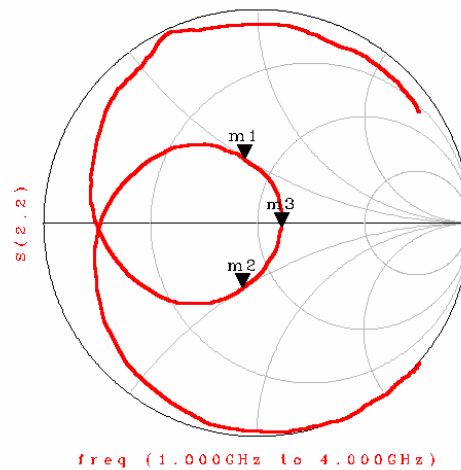
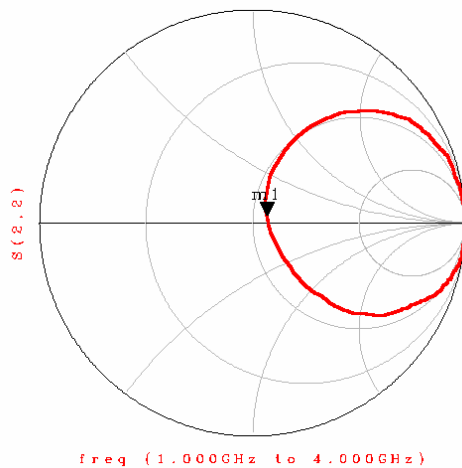
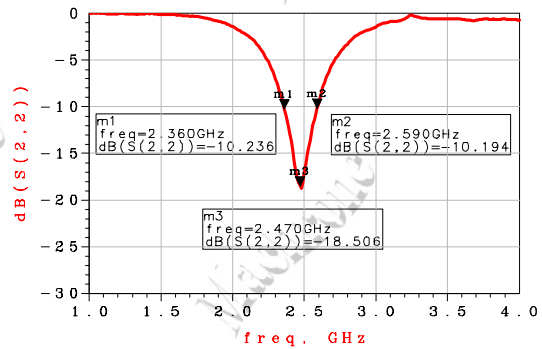


### ❖ Return Loss

(a) Without Matching Circuits



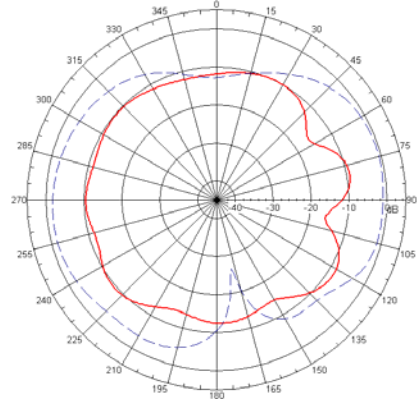
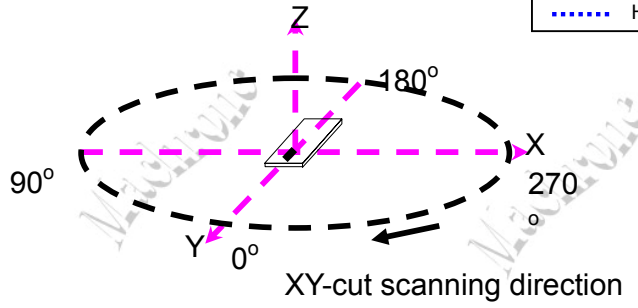
(b) With Matching Circuits



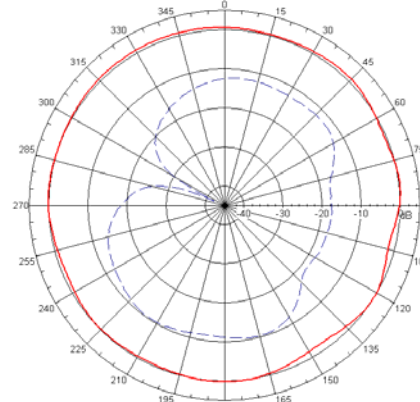
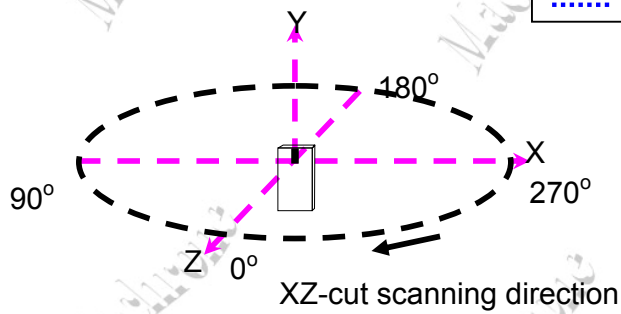
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## ❖ Radiation Patterns

XY-V/XY-H



XZ-V/XZ-H



YZ-V/YZ-H

