

# Multilayer Chip Antenna

## Features

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



## Applications

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

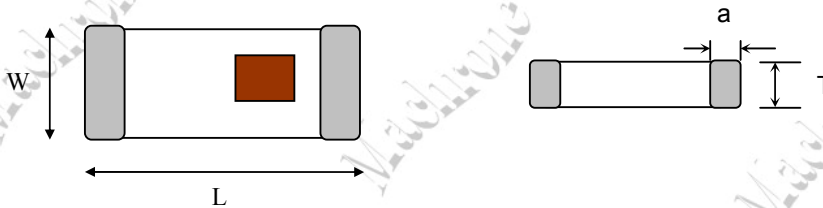
## Part Number Systems

**MAT - 7020 - B - 2R4 - HAA - LF**

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

(1)	Product series	(2)	Dimensions (L x W): 7.0 x 2.0 mm
(3)	Material code	(4)	Frequency Range: 2R4 = 2400MHz
(5)	Specification code	(6)	ROHs Compliant

## Shape And Dimensions



Unit: mm

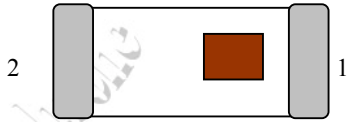
Type	L	W	T	a
7020	7.0 ± 0.2	2.0 ± 0.2	1.2 +0.1/-0.2	0.5 ± 0.3

MAT-7020 -Series		Electrical Characteristics				
Part Number	Frequency Range (MHz)	Peak Gain (dBi typ.)	Average Gain (dBi typ.)	VSWR	Impedance	Power Capacity
MAT-7020-B-2R4-HAA-LF	2400 ~ 2500	2.0 (XZ-V)	0.5 (XZ-V)	2 Max	50 Ω	3W Max

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

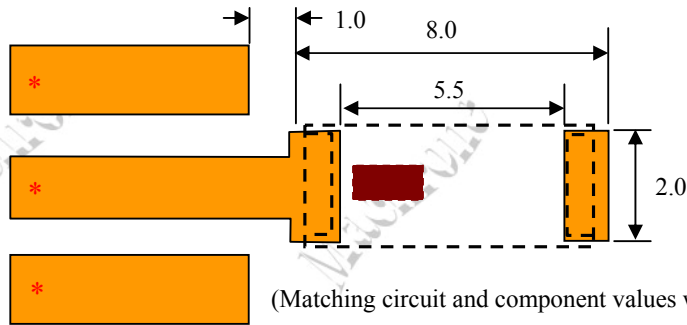
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## Terminal Configuration



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

## Recommended PC Board Pattern (Unit: mm)

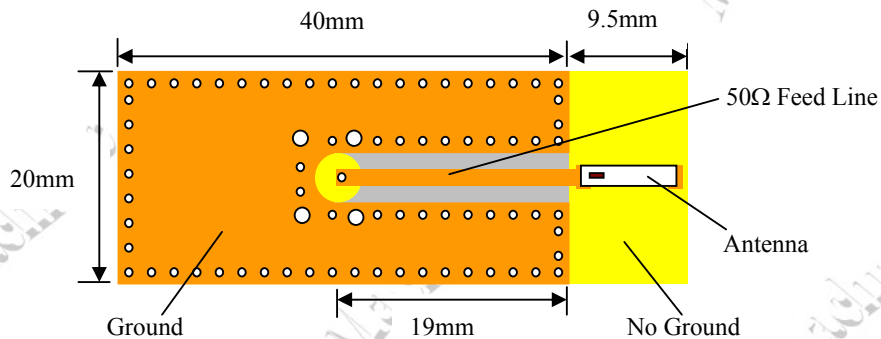


(Matching circuit and component values will be different, depending on PCB layout)

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

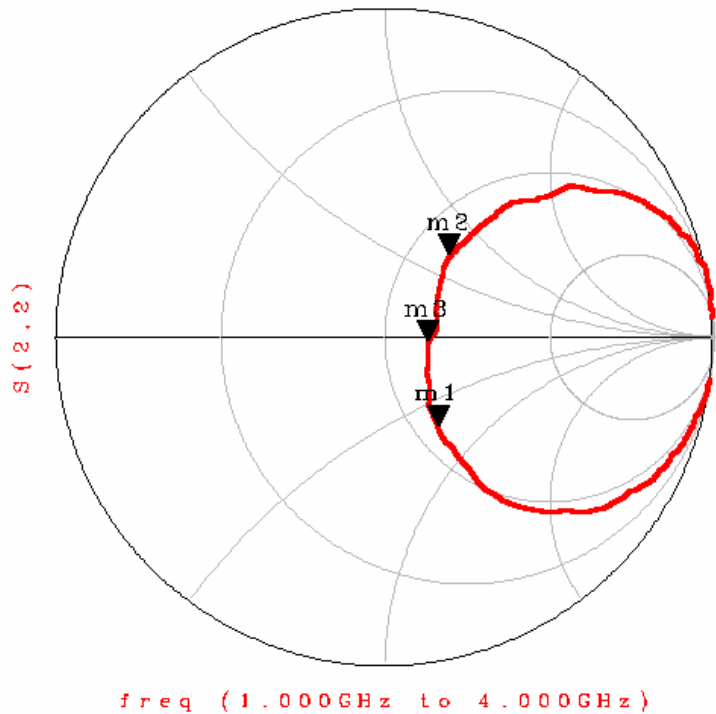
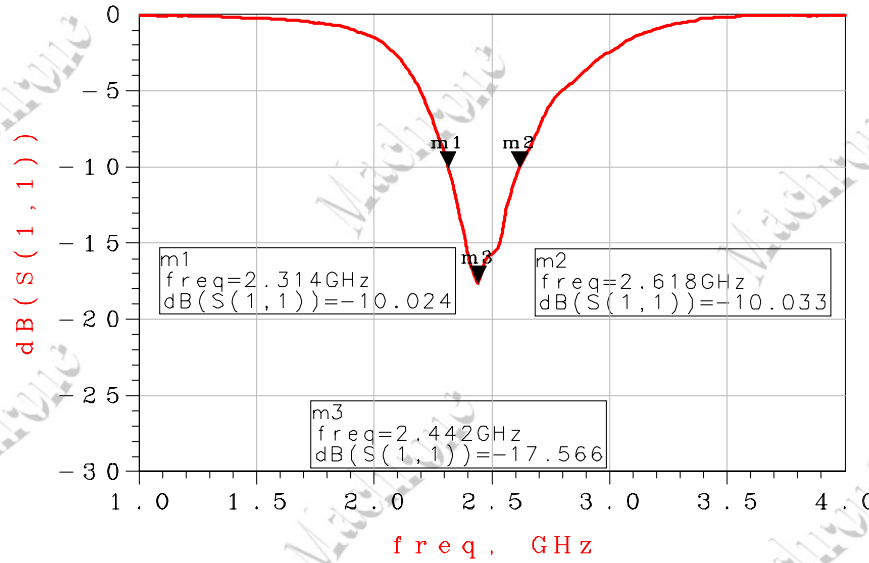
## Typical Electrical Characteristics (T = 25°C)

### ❖ Test Board



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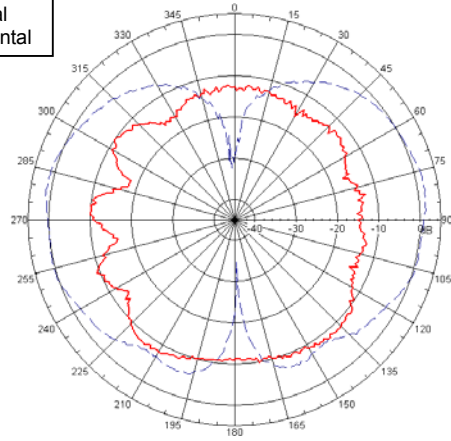
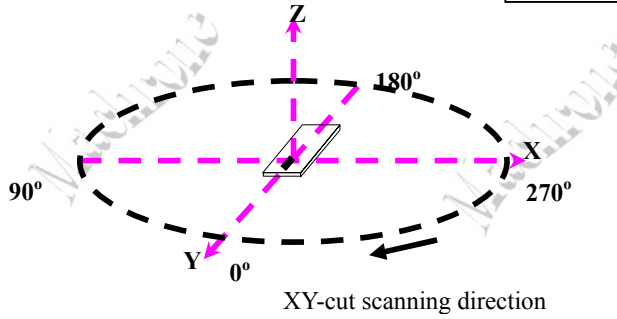
## ❖ Return Loss



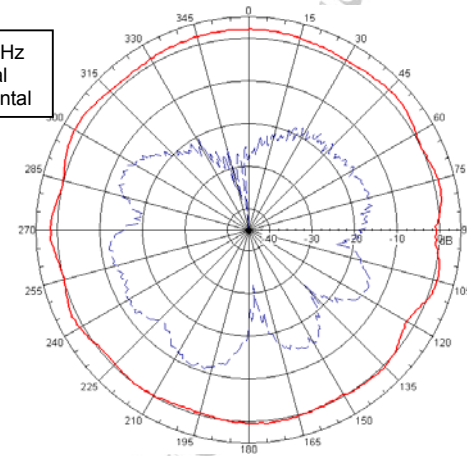
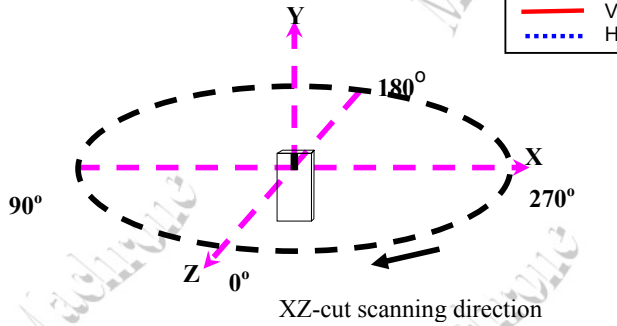
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## ❖ Radiation patterns

XY-V/XY-H



XZ-V/XZ-H



YZ-V/YZ-H

