

AT1005 Series 【Preliminary】

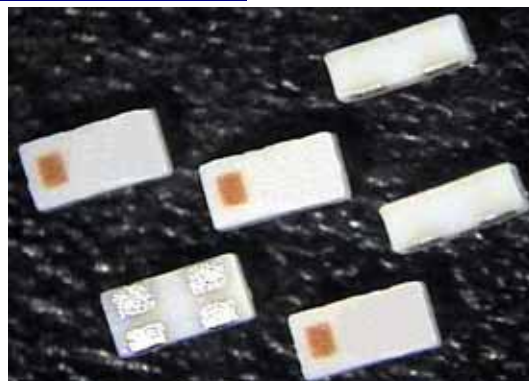
Multilayer Chip Antenna

Features

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

Applications

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



Specifications

Part Number	Frequency Range (MHz)	Peak Gain (dBi typ.)	Average Gain (dBi typ.)	VSWR	Impedance
AT1005-T2R4LGA_	2400~2500	1.0 (XZ-Total)	-1.5 (XZ-Total)	3.0 max.	50

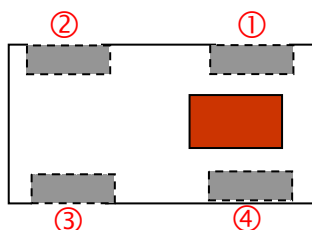
Q'ty/Reel (pcs) : 10,000 pcs
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : +5 ~ +35 °C, Humidity 45~75%RH
 Storage Period : 12 months max.
 Power Capacity : 2W max.

Part Number

AT 1005 - T 2R4 LGA □ /LF
 ① ② ③ ④ ⑤ ⑥ ⑦

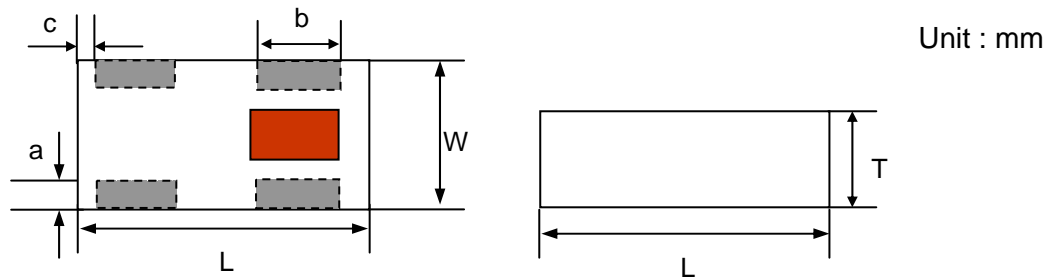
① Type	AT : Antenna	② Dimensions (L x W)	1.0x 0.5 mm
③ Material Code	T	④ Frequency Range	2R4=2450MHz
⑤ Specification Code	LGA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	=lead-containing /LF=lead-free		

Terminal Configuration



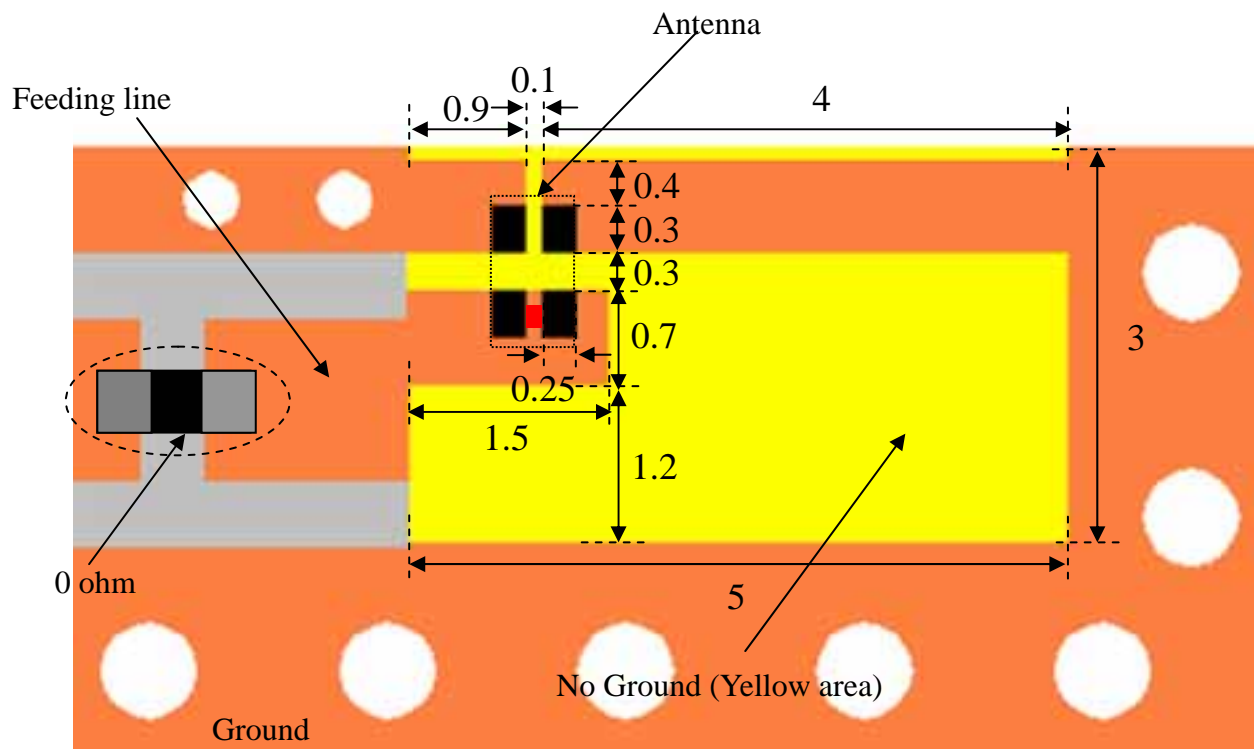
No.	Terminal Name	No.	Terminal Name
①	Feed	③	GND
②	GND	④	Feed

Dimensions and Recommended PC Board Pattern



Mark	L	W	T	a	b	c
Dimensions	1.0± 0.1	0.5± 0.1	0.37 max.	0.175 +0.1/-0.05	0.25 +0.1/-0.05	0.1 +0.1/-0.05

❖Without Matching Circuits (Unit in mm)

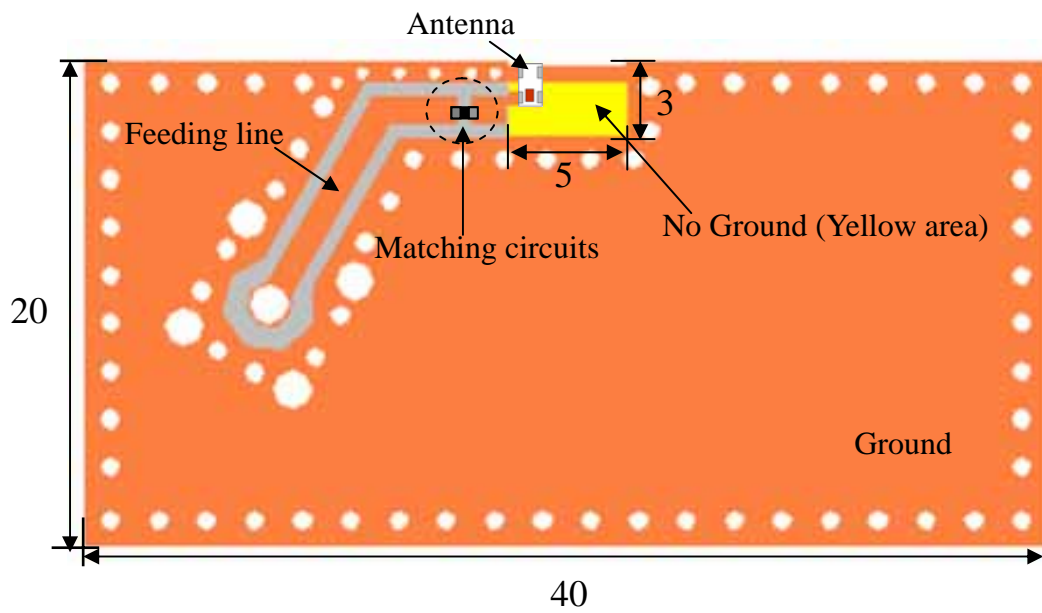


- Solder Resist
- Land

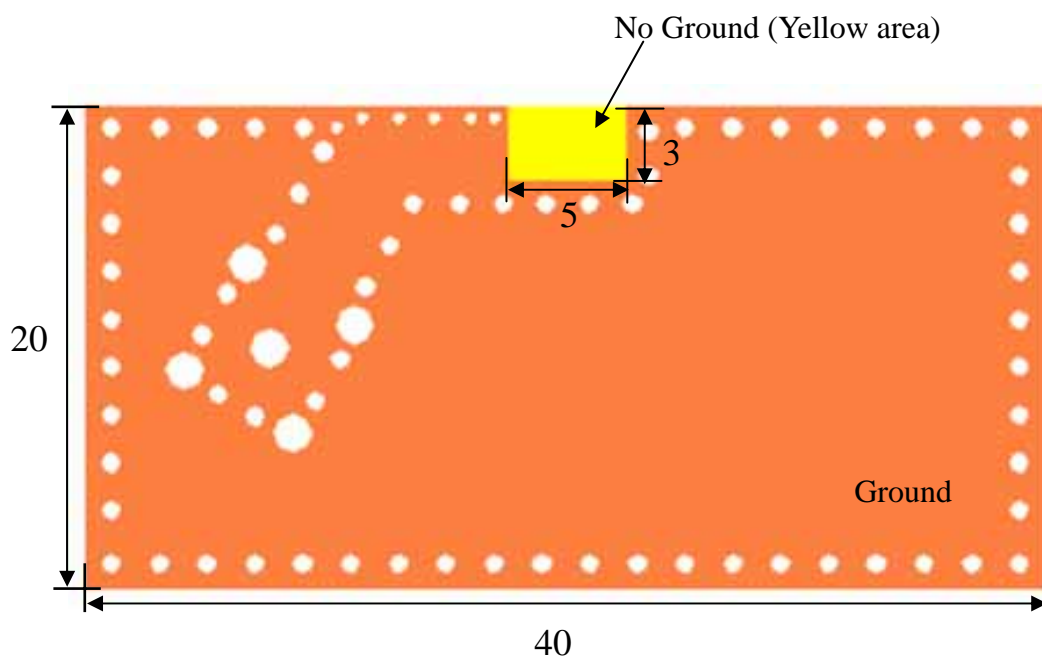
*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Typical Electrical Characteristics (T=25°C)

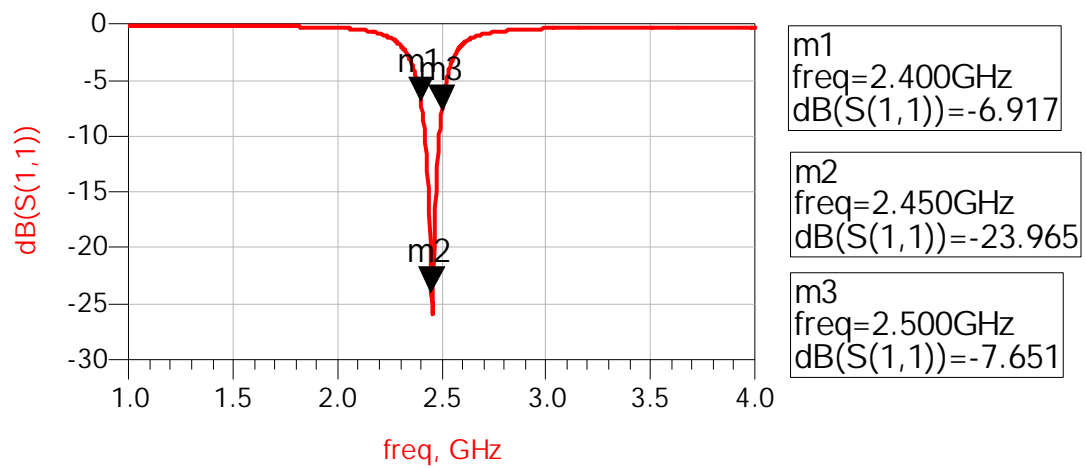
❖ Test Board-Top View (Unit in mm)



❖ Test Board-Bottom View (Unit in mm)

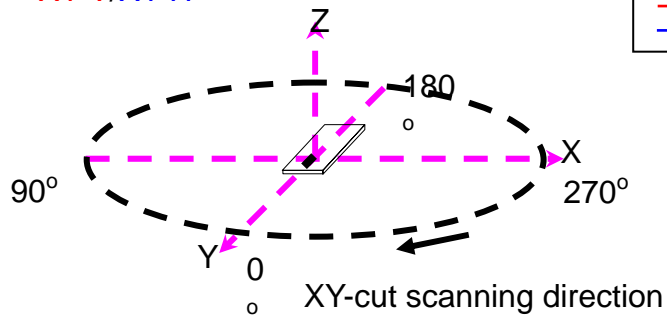


❖ Return Loss / Without Matching Circuits

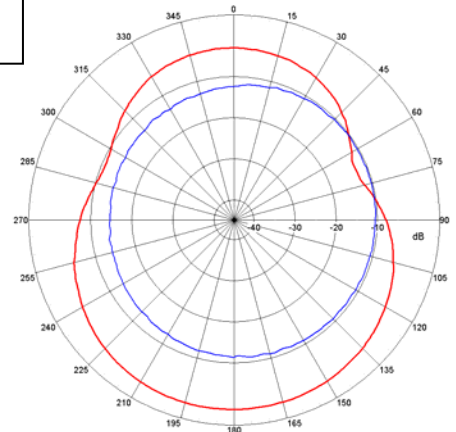


❖ Radiation Patterns

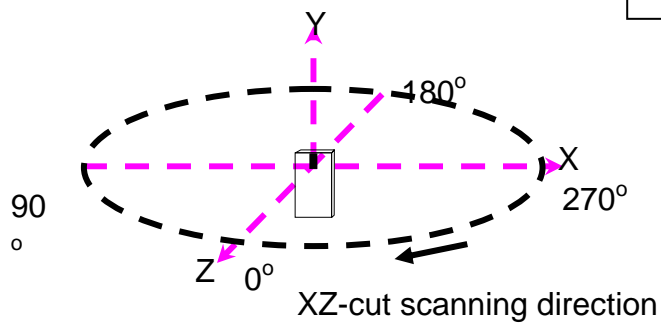
XY-V/XY-H



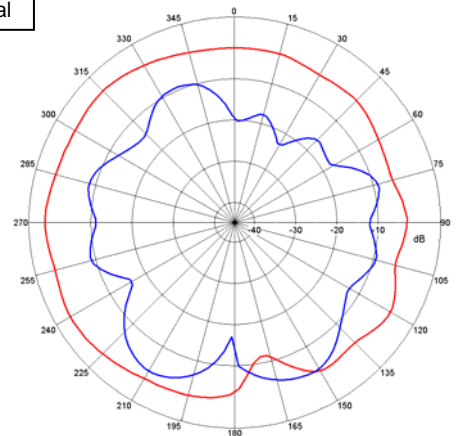
XY cut @2.45GHz
— Vertical
— Horizontal



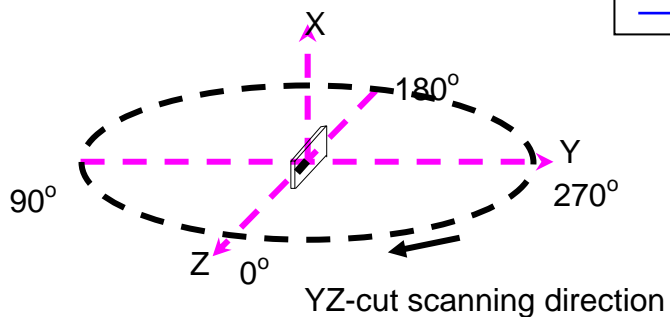
XZ-V/XZ-H



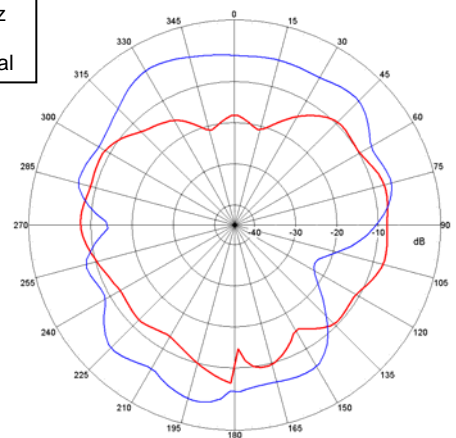
XZ cut @2.45GHz
— Vertical
— Horizontal



YZ-V/YZ-H



YZ cut @2.45GHz
— Vertical
— Horizontal



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