

AT1608 Series

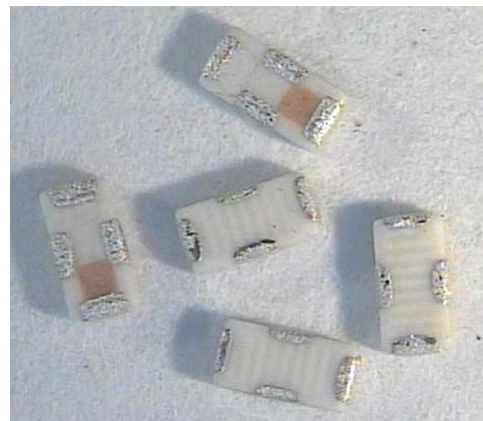
Multilayer Chip Antenna

Features

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

Applications

- ❖ 2400~2500MHz ISM Band Systems



Specifications

Part Number	Frequency Range (MHz)	Peak Gain (dBi typ.)	Average Gain (dBi typ.)	VSWR	Impedance
AT1608-A2R4ZM31_	2400~2480	0.4 (XZ-total)	-2.1 (XZ-total)	3 max.	50 Ω

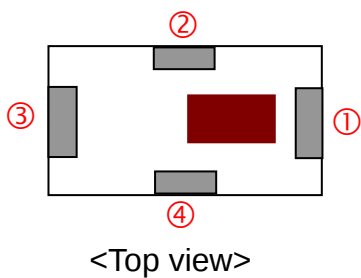
Q'ty/Reel (pcs) : 4,000 pcs
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 3W max.

Part Number

AT 1608 - A 2R4 ZM31 □ □
 ① ② ③ ④ ⑤ ⑥ ⑦

① Type	AT : Antenna	② Dimensions (L × W)	1.6× 0.8 mm
③ Material Code	A	④ Frequency Range	2R4=2400MHz
⑤ Specification Code	ZM31	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

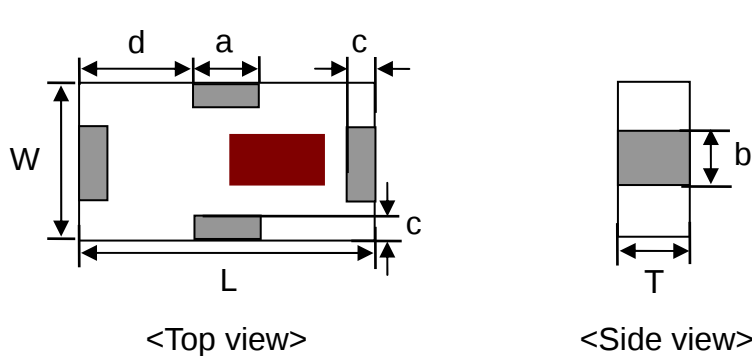
Terminal Configuration



Scenario#1: Antenna on the edge side of PCBA			
No.	Terminal Name	No.	Terminal Name
①	Feeding Point	③	NC
②	GND	④	GND

Scenario#2: Antenna on the corner of PCBA			
No.	Terminal Name	No.	Terminal Name
①	Feeding Point	③	NC
②	NC	④	NC

Dimensions and Recommended PC Board Pattern

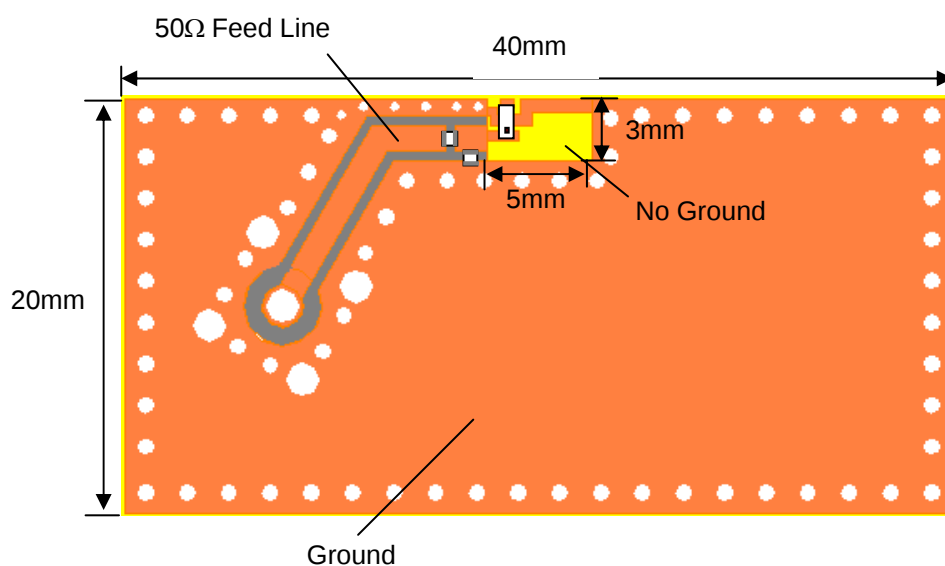


Unit : mm

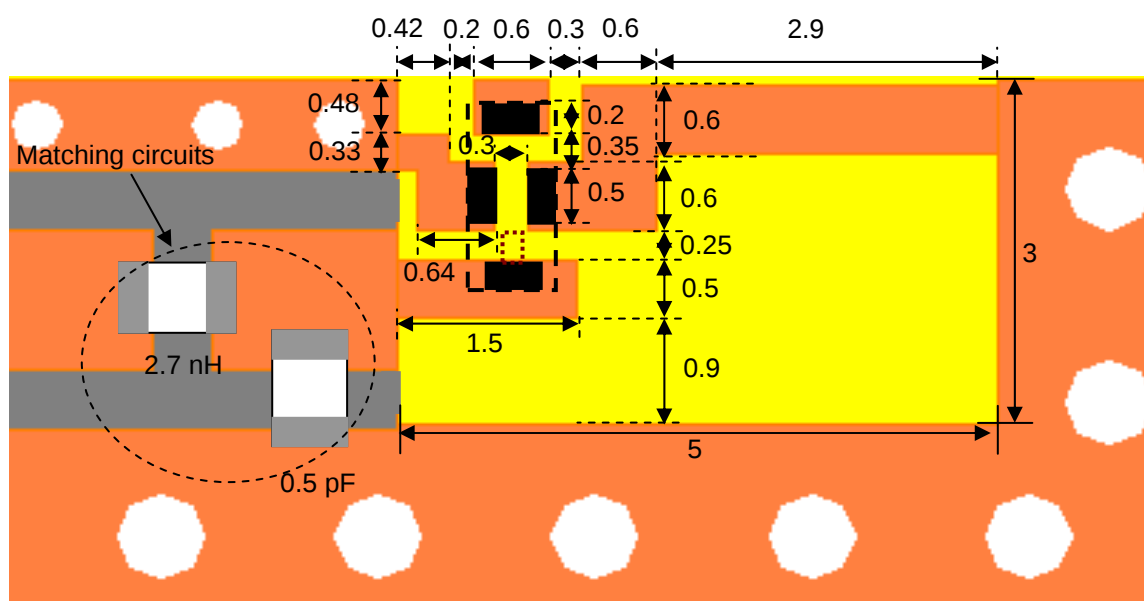
Mark	L	W	T	a	b	c	d
Dimensions	1.6 ±	0.8 ±	0.4 ±	0.5±	0.5±	0.2 ±	0.55 ±
	0.1	0.1	0.1	0.1	0.1	0.05	0.1

Typical Electrical Characteristics (T=25°C)

❖ Test Board-Scenario#1



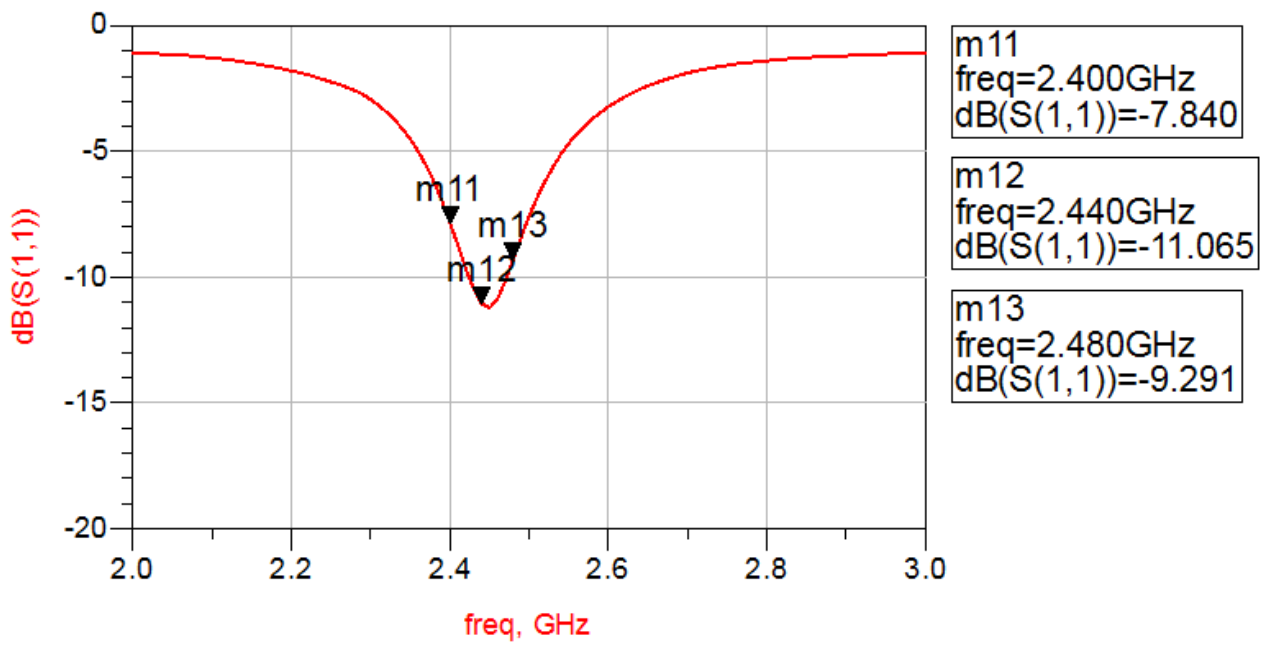
❖ Antenna Footprint With matching- Scenario#1 (Unit in mm)



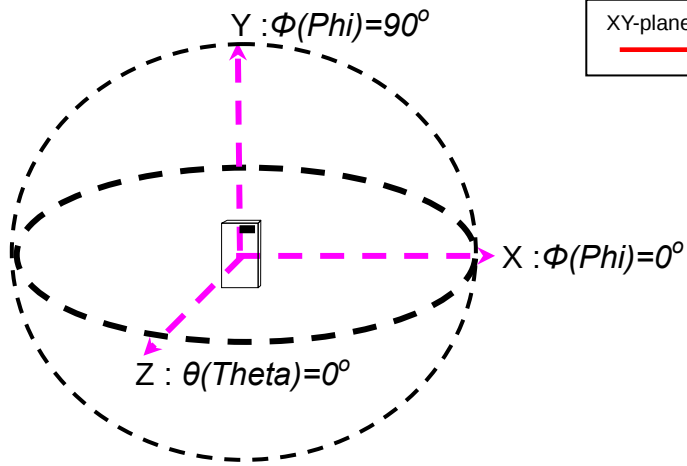
(Matching circuit and component values will be different, depending on PCB layout)

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

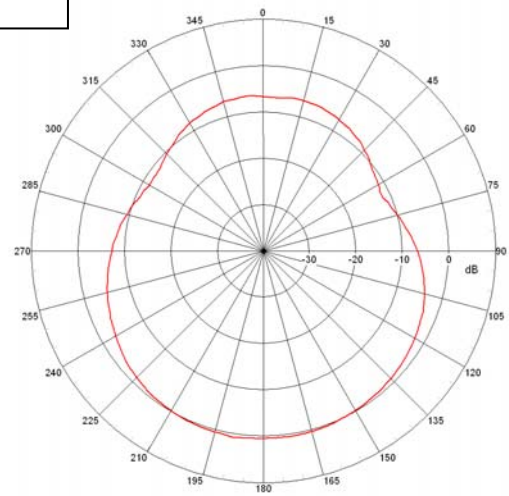
❖ Return Loss (with matching)



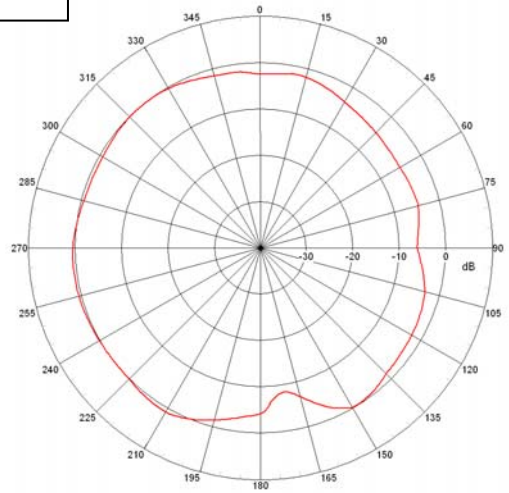
❖Radiation Patterns- (Antenna Efficiency: 49 %)



XY-plane @2402MHz
— Total



XZ-plane @2440MHz
— Total



YZ-plane @2480MHz
— Total

