

# AT7020 Series

## Multilayer Chip Antenna

### Features

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

### Applications

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



### Specifications

Part Number	Frequency Range (MHz)	Peak Gain (dBi typ.)	Average Gain (dBi typ.)	VSWR	Impedance
<b>AT7020-E3R0HBA_</b>	2400~2500	1.3dBi (XZ-V)	-0.5dBi (XZ-V)	2 max.	50 Ω

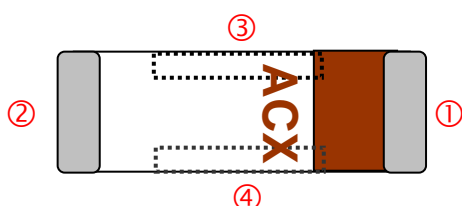
Q'ty/Reel (pcs) : 1,000 pcs  
 Operating Temperature Range : -40 ~ +85 °C  
 Storage Temperature Range : +5 ~ +35 °C, Humidity 45~75%RH  
 Storage Period : 12 months max.  
 Power Capacity : 2W max.

### Part Number

AT    7020    -    E    3R0    HBA    □    □  
 ①       ②       ③       ④       ⑤       ⑥       ⑦

① Type	AT : Antenna	② Dimensions ( L x W )	7.0x 2.0 mm
③ Material Code	E	④ Frequency Range	3R0=3000MHz
⑤ Specification Code	HBA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	=lead-containing /LF=lead-free		

### Terminal Configuration

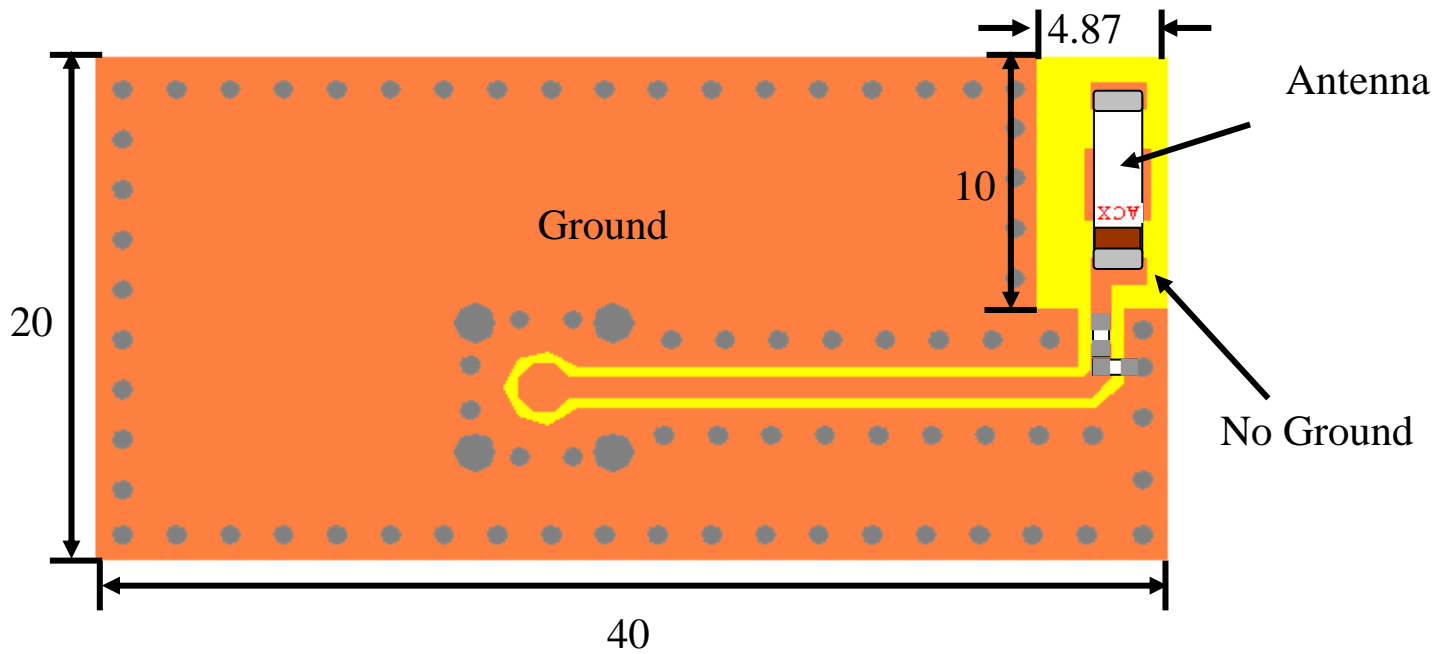


No.	Terminal Name	No.	Terminal Name
①	Feeding Point	③	NC
②	NC	④	NC

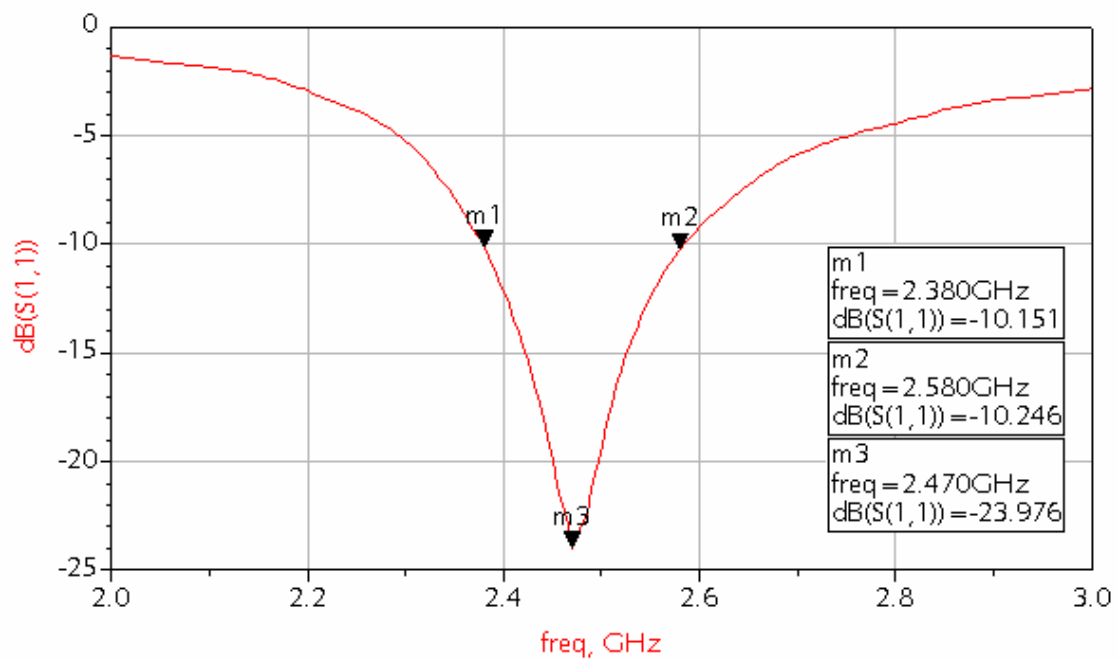


## Typical Electrical Characteristics (T=25°C)

❖ Test Board (Unit in mm)

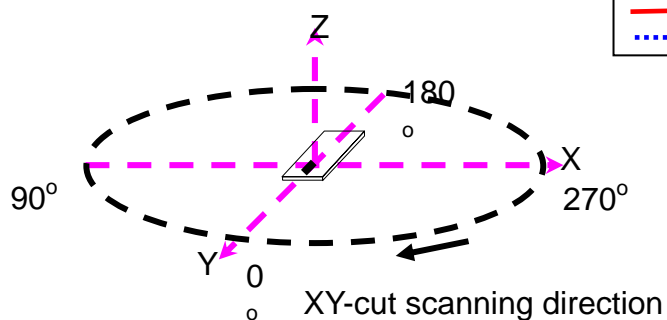


❖ Return Loss/With Matching Circuits

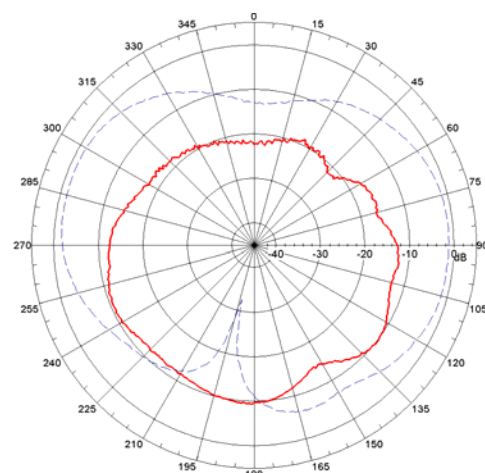


## ❖ Radiation Patterns

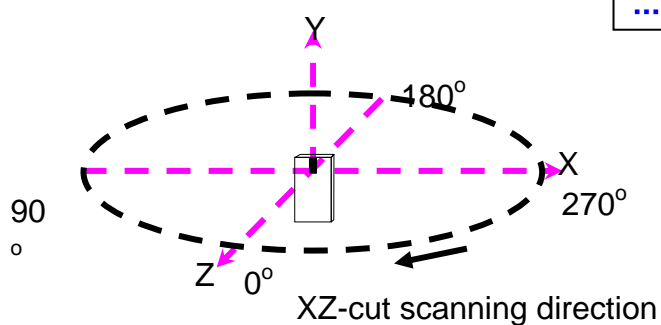
XY-V/XY-H



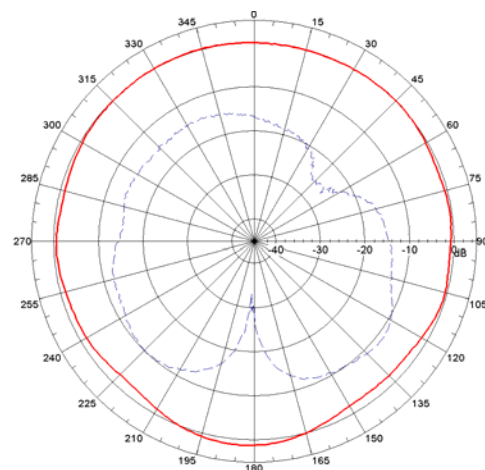
XY cut @2.45GHz  
— Vertical  
... Horizontal



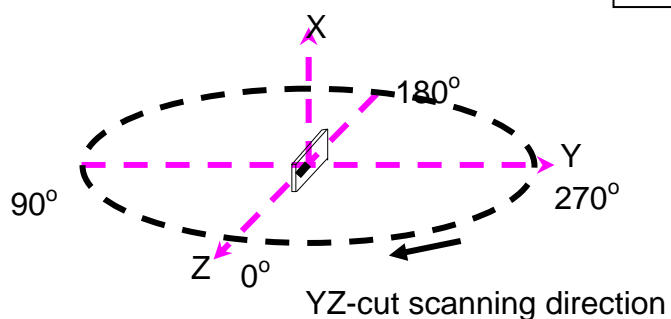
XZ-V/XZ-H



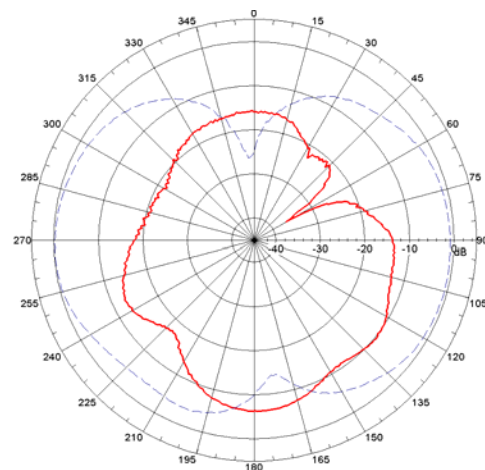
XZ cut @2.45GHz  
— Vertical  
... Horizontal



YZ-V/YZ-H

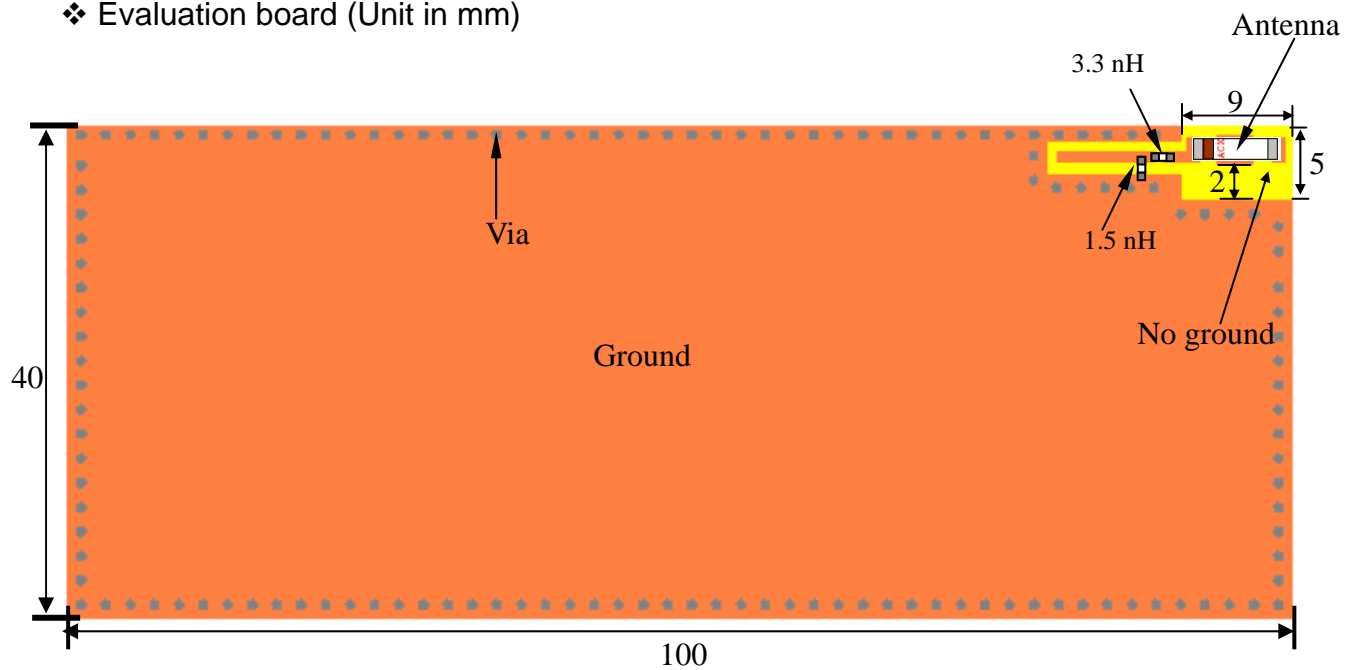


YZ cut @2.45GHz  
— Vertical  
... Horizontal

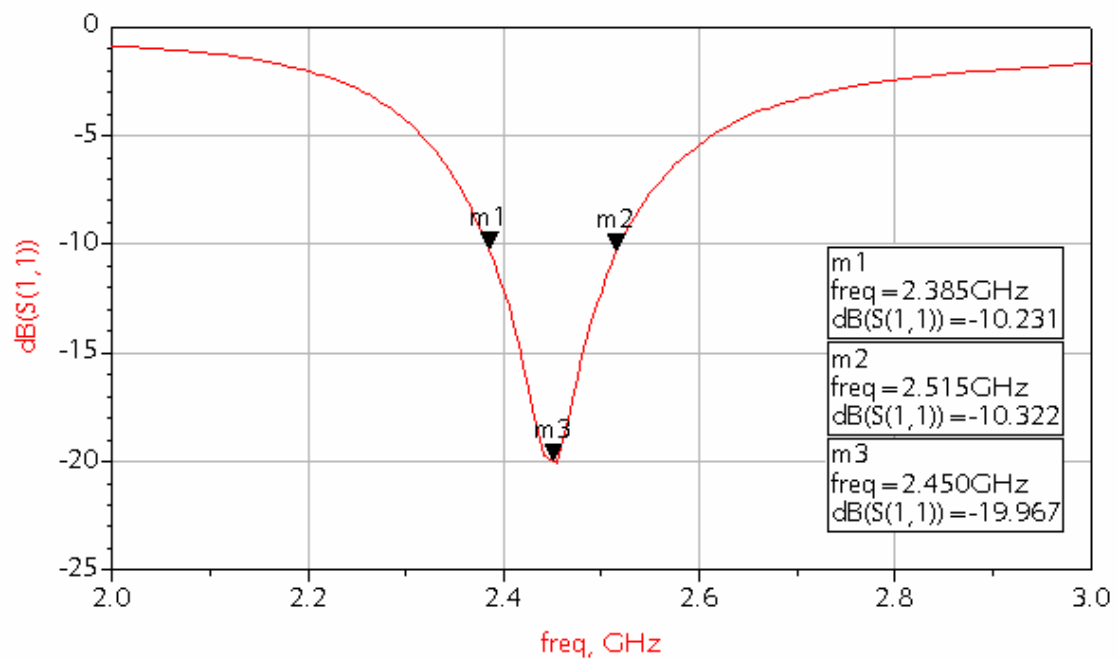


## AT7020-E3R0HBA on mobile phone layout

❖ Evaluation board (Unit in mm)

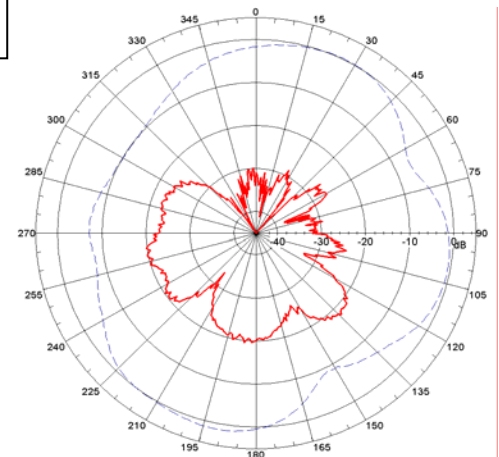
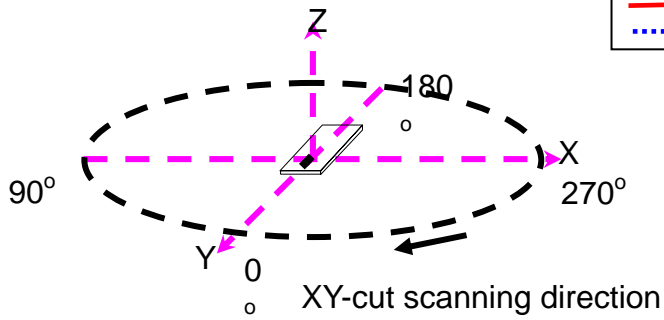


❖ Return Loss/With Matching Circuits

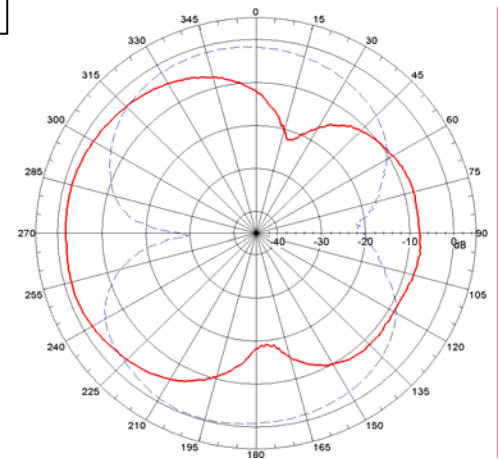
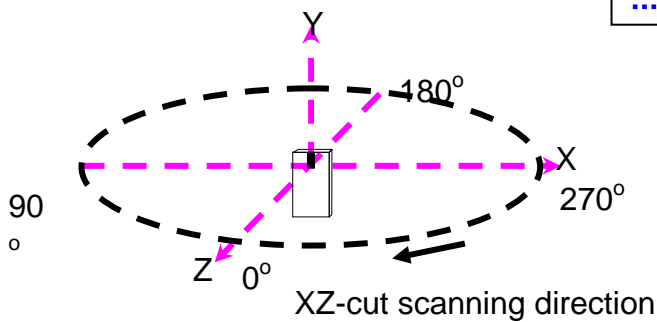


❖ Radiation Patterns

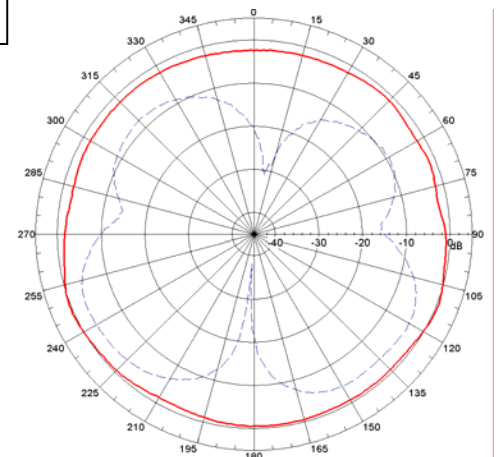
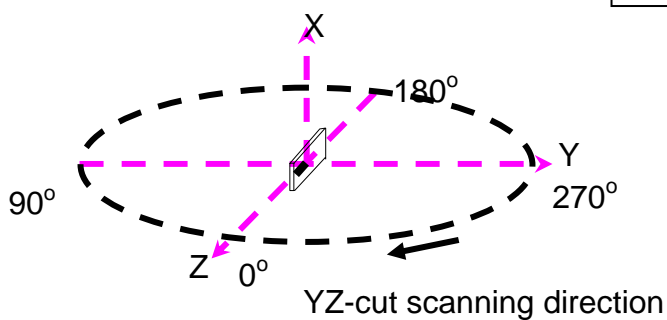
XY-V/XY-H



XZ-V/XZ-H



YZ-V/YZ-H



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