


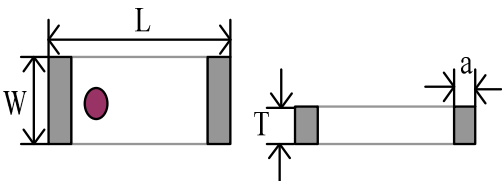
# BT / WiFi Chip Antenna Specification

2.45 GHz Antenna

General Specifications

Part Number	DCA2450- 321605
Frequency Range	2400~2500 MHz
Peak Gain	1.24 dBi typ.
Average Gain	?dBi typ. (XZ-total)
Return Loss	-10dB min
Operating Temperature	-20℃~80℃
Storage Temperature Range	-25℃ to 85℃, Humidity 20% to 70%RH, 12 mos

Input Power	2W max.
No. of Function	Terminal Configuration
Impedance	50 Ω
1 Feeding Point	
2 GND	
3 GND	

	In	mm	
L	0.08128 +0.00508/-0	3.20 +0.20/-0	
W	0.04064 +0.00508/-0	1.60 +0.20/-0	
T	0.0127 +0.00381/-0	0.5 +0.15/-0	
a	0.0127 ±0.00127	0.5 ±0.05	

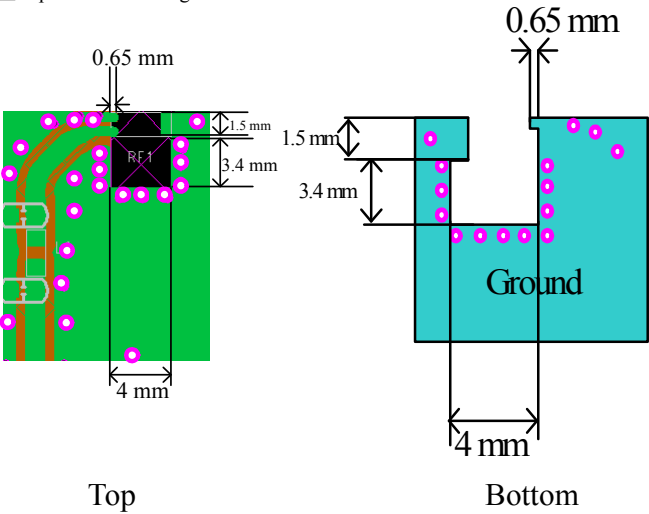
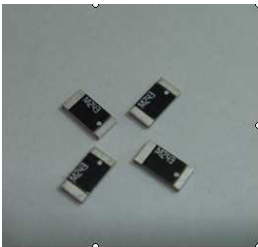
Mechanical Dimensions

Mounting Considerations

Mount these devices with brown mark facing up. Units: mm  
Line width should be designed to provide 50 Ω impedance matching characteristics.

Without Matching Circuits

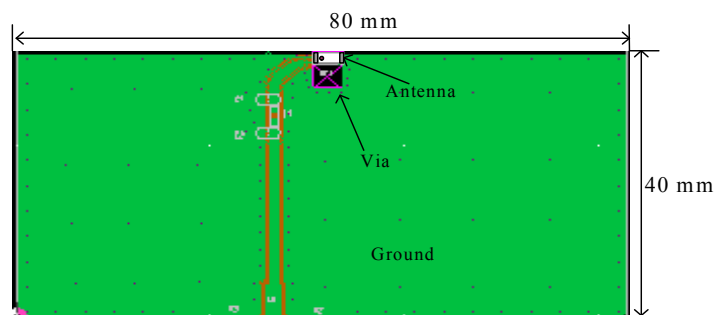
Chip Ant



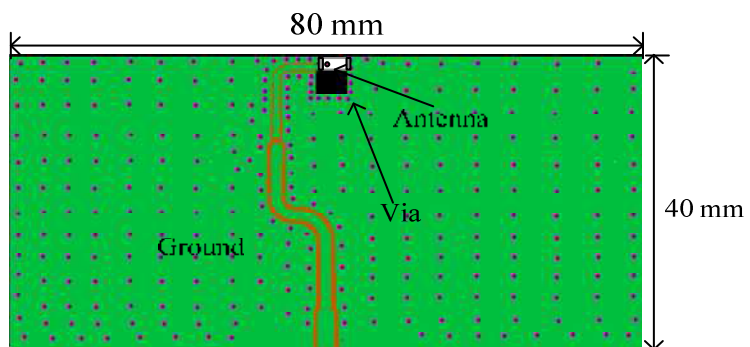
## 2.45 GHz Antenna

Typical Electrical Characteristics (T=25°C)

Test Board1 :

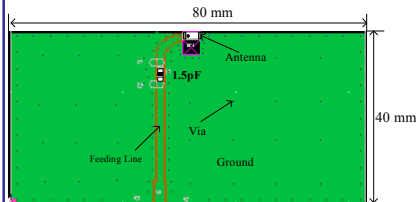


Test Board2 :

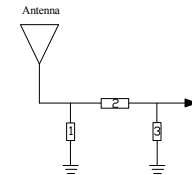


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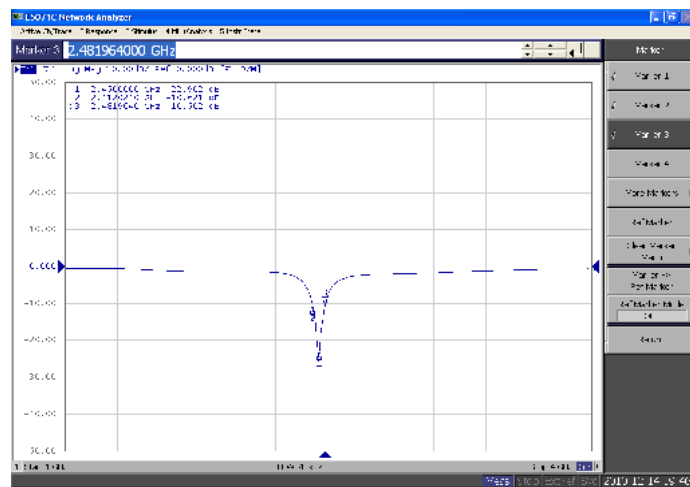
Test Board 1 :



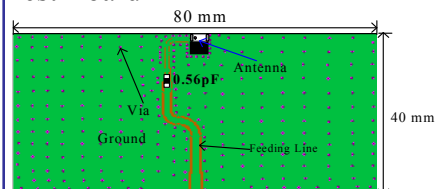
System Matching Circuit Component		
Location	Description	Vendor
1	N/A	
2	1.5pF	NPO 0402
3	N/A	



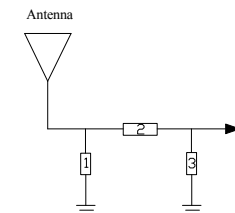
Return Loss(  $S_{11}$  ) :



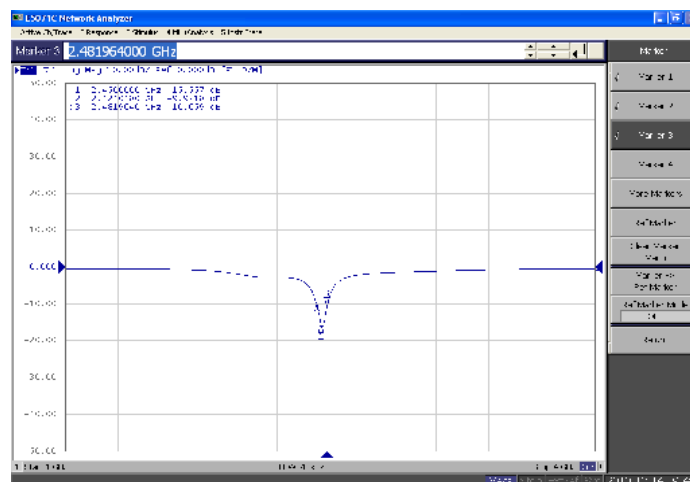
Test Board 2 :



System Matching Circuit Component		
Location	Description	Vendor
1	N/A	
2	0.56pF	NPO 0402
3	N/A	



Return Loss(  $S_{11}$  ) :



2.45 GHz Antenna

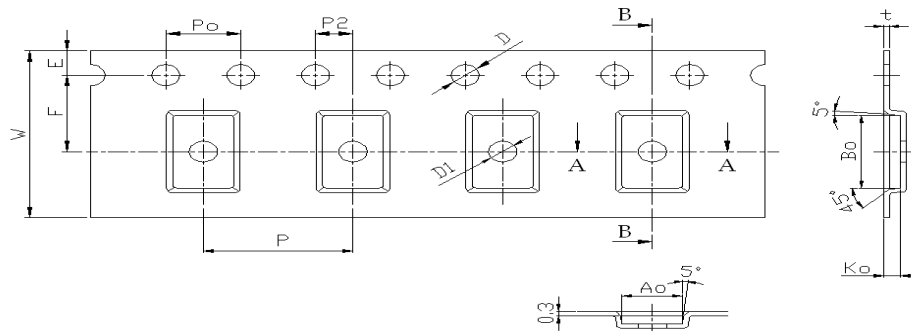
Radiation Pattern

Frequency(GHz)	Efficiency(%)
2.4	68.95
2.45	76.99
2.5	60.31

## 2.45 GHz Antenna

### Packing:

- (1) Quantity/Reel: 6000pcs/Reel
- (2) Plastic tape:



1. Cumulative tolerance of 10 sprocket hole pitch:  $\pm 0.20\text{mm}$
2. Carrier camber not to exceed 1mm in 250mm
3. Ao and Bo measured on a plane above the inside bottom of the pocket.
4. Ko measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
5. All dimensions meet EIA-481-B requirements.
6. Material: ☒ Clear Non Anti-Static Polystyrene.  
☒ Black Conductive Polystyrene.

#### 2.1 Tape Dimensions(unit: mm)

Feature	Specifications	Tolerances
W	12.00	$\pm 0.30$
P	8.00	$\pm 0.10$
E	1.75	$\pm 0.10$
F	5.50	$\pm 0.10$
P2	2.00	$\pm 0.10$
D	1.50	+0.10 -0.00
Po	4.00	$\pm 0.10$
10Po	40.00	$\pm 0.20$

#### 2.2 Pocket Dimensions(unit: mm)

Feature	Specifications	Tolerances
Ao	1.90	$\pm 0.10$
Bo	3.50	$\pm 0.10$
Ko	0.80	$\pm 0.10$
t	0.30	$\pm 0.05$