

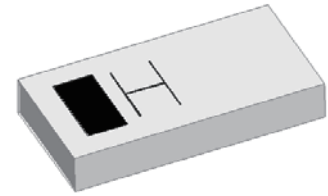
## 2.4GHz 3216 Chip Antenna: ANT3216R24003KL1

### Applications:

WLAN, 802.11b/g, Bluetooth, etc...

### Features

SMD, high reliability, ultra compact, Omni-directional...



### Part number

ANT 3216 R 2400 3K L1  
(1) (2) (3) (4) (5)

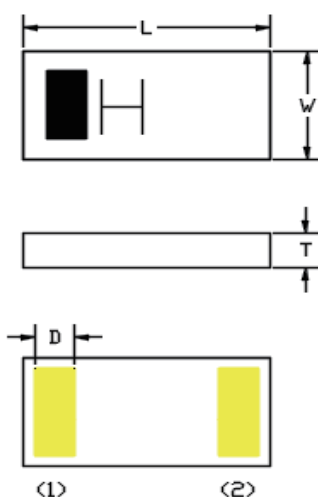
(1) Size Code	3.2x1.6mm
(2) Packing	Tape and reel
(3) Frequency	2.4GHz
(4) Packing Number	3K
(5) Code	L1

### Electrical Specification

Working Frequency Range	2400 ~2.484 MHz
Peak Gain	1.5 dBi (Typ.)
Impedance	50 Ohm
VSWR	2.5 (Max)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Operation Temperature(°C)	-40 ~85°C

The specification is defined on EVB.

### Dimension and Terminal Configuration



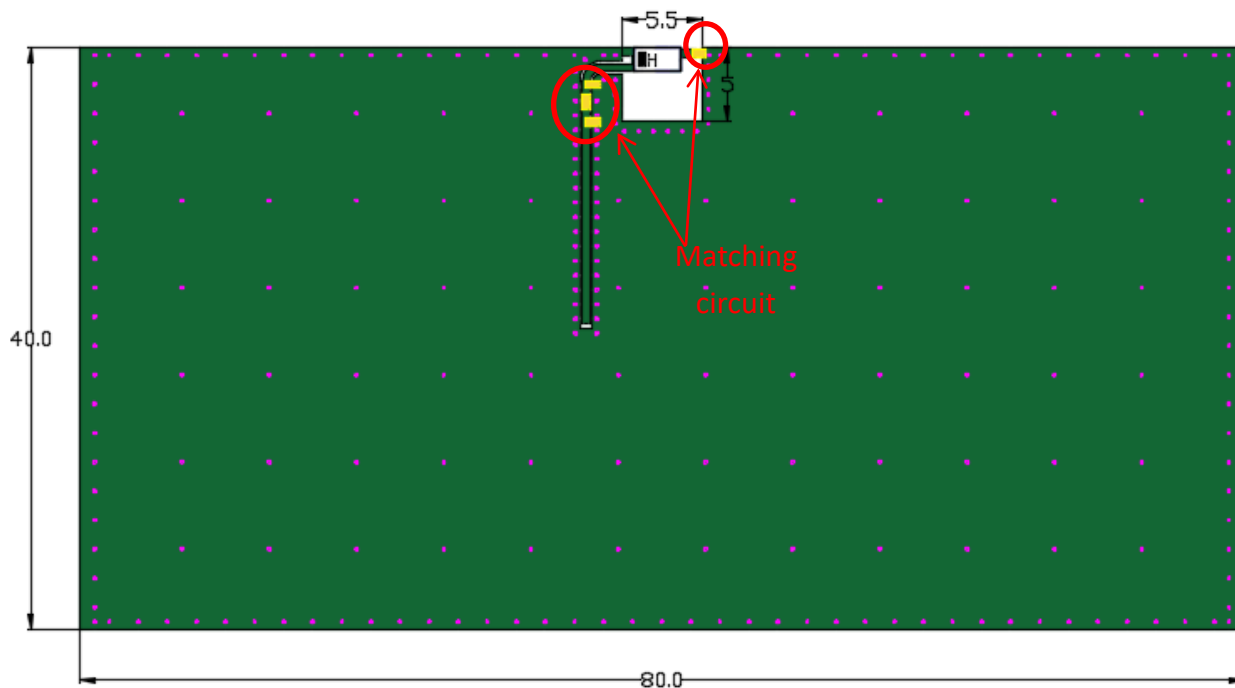
Dimension (mm)	
L	3.20±0.15
W	1.60±0.15
T	0.55±0.10
D	0.50±0.15

No.	Terminal Name
1	Feeding
2	Soldering

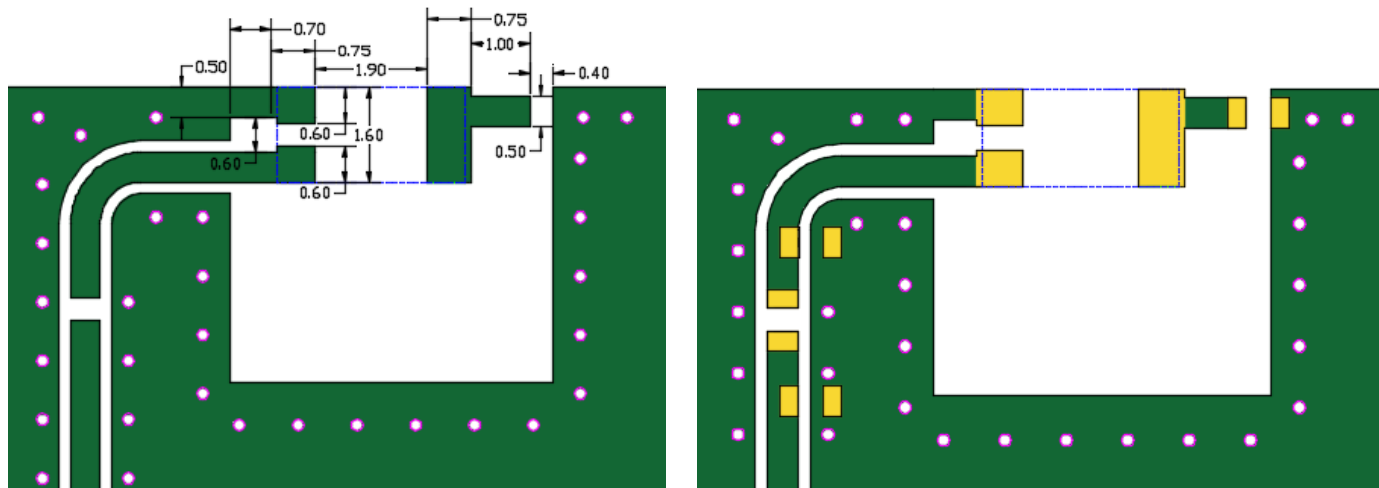
# 2.4GHz 3216 Chip Antenna: ANT3216R24003KL1

## Evaluation Board Reference


### PCB Dimension




### Antenna Layout Reference



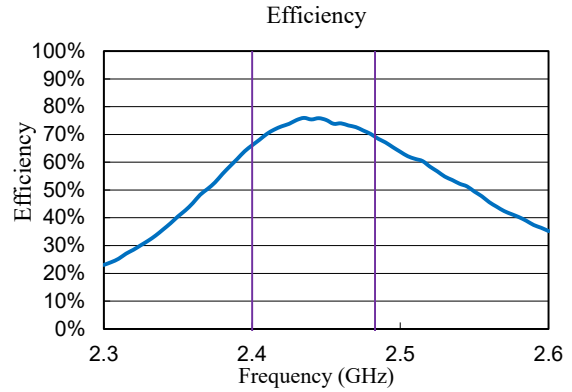
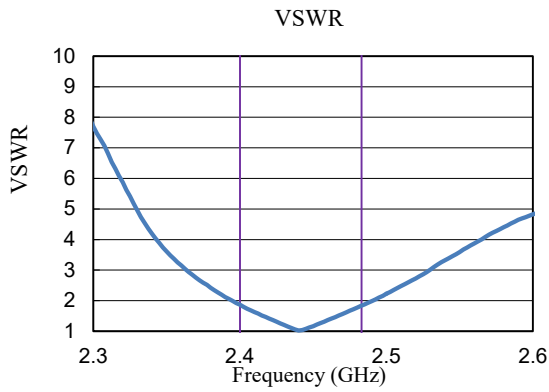
Unit : mm

 : Chip Antenna

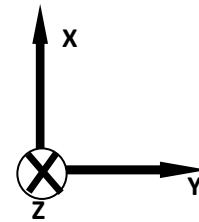
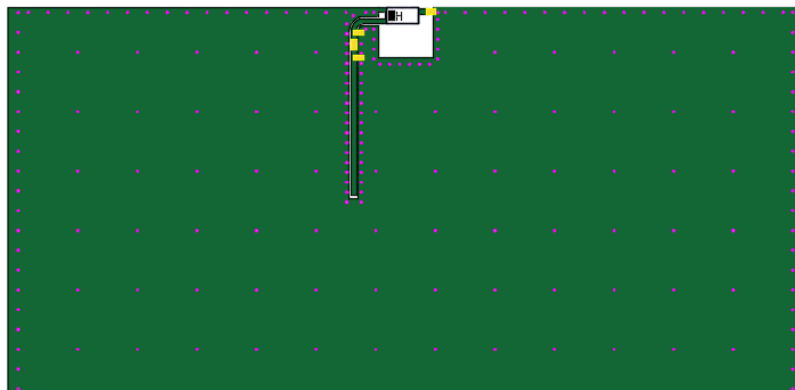
 : Land Pattern

## Electrical Characteristics

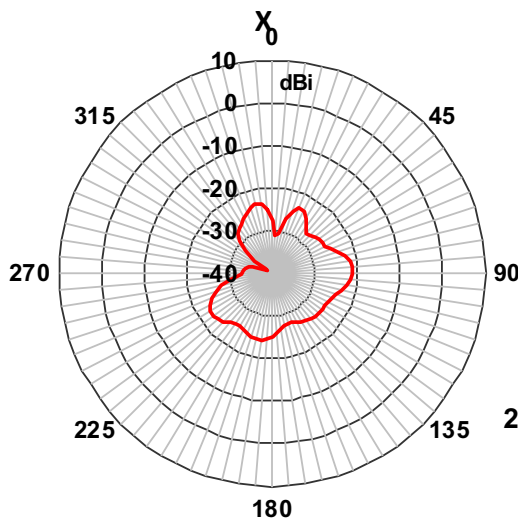
### VSWR&Efficiency



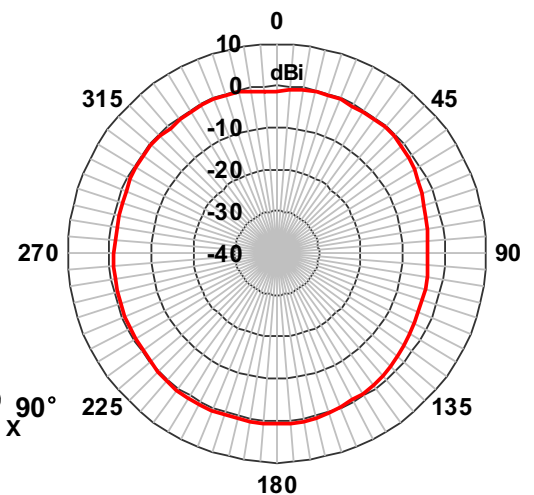
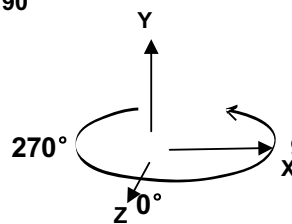
### Radiation Pattern



### ZX-Plane



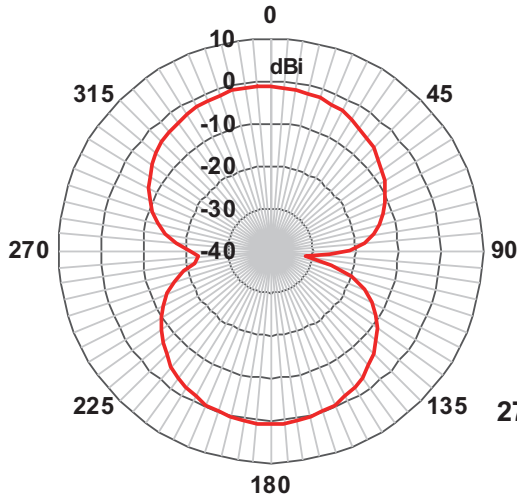
Horizontal Polarization



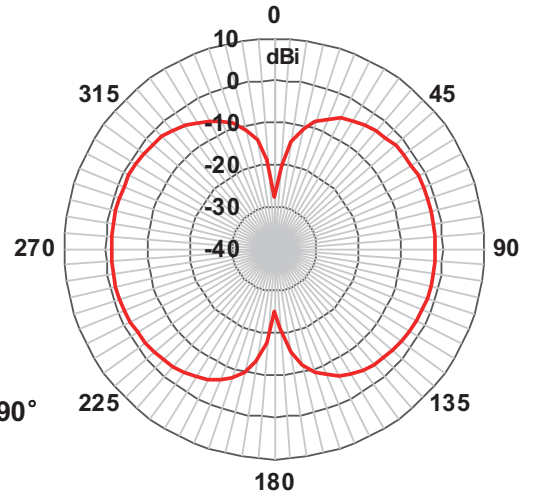
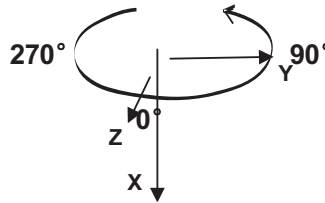
Vertical Polarization

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## ZY-Plane

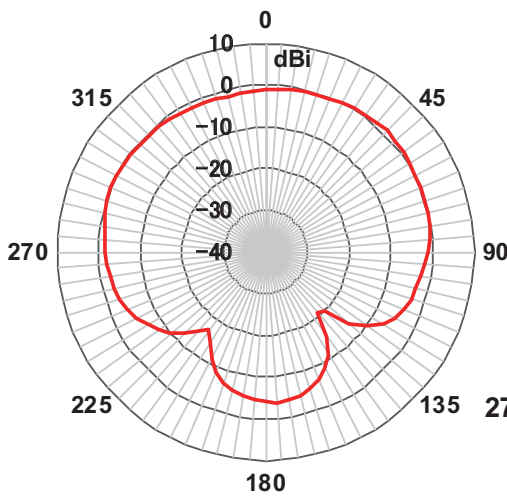


Horizontal Polarization

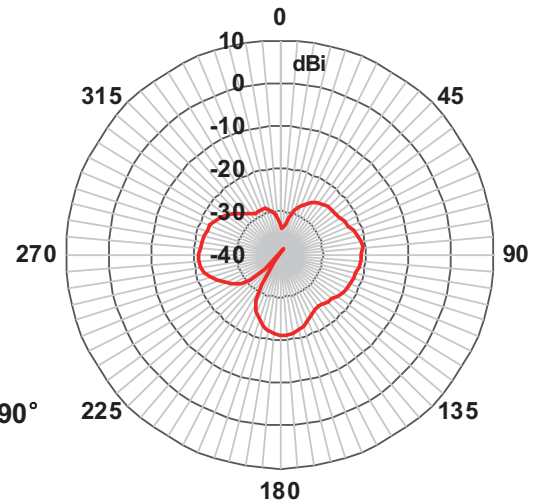
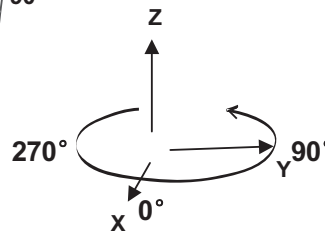


Vertical Polarization

## XY-Plane

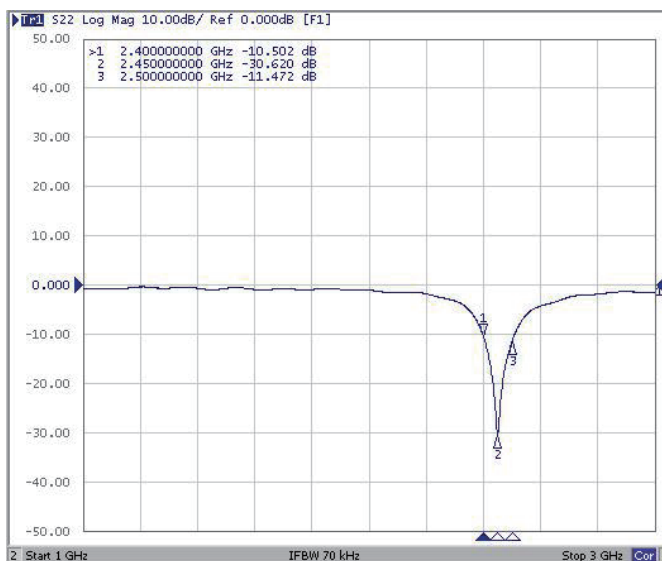


Horizontal Polarization



Vertical Polarization

## Return Loss



	2400MHz	2450MHz	2500MHz
Gain(dBi)	1.5	1.45	1.31

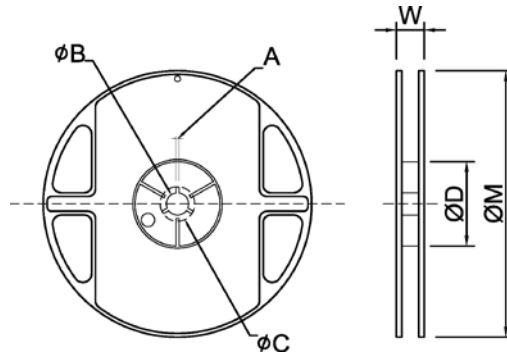
Frequency(MHz)	S11 (dB)
2400	-10.52
2450	-30.72
2500	-11.36

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## Taping Specifications

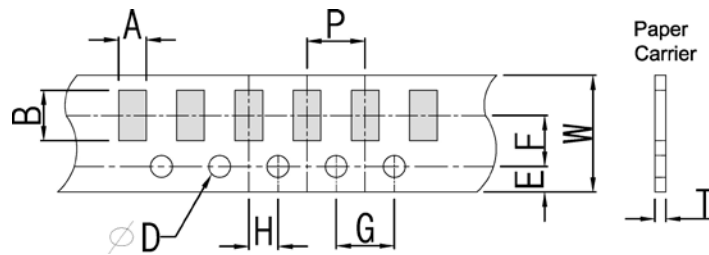
### Reel and Taping Specification

#### Reel Specification



TYPE	SIZE	A	$\phi B$	$\phi C$	$\phi D$	W	$\phi M$	
3216	7"	3K/Reel	2.0±0.5	13.5±1.0	21±1.0	60±1.0	11.5±2.0	178±2.0

#### Taping Specification

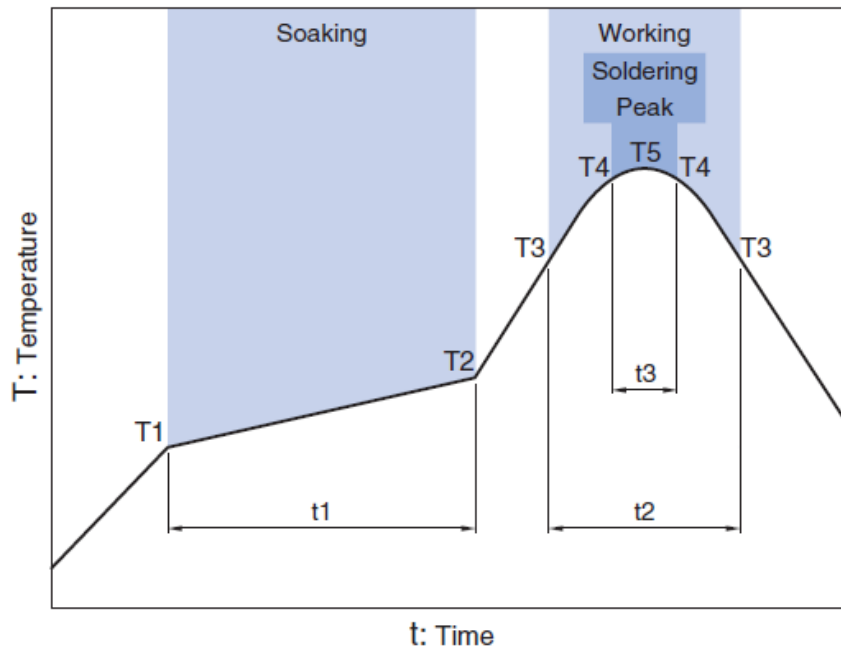


Packaging	Type	A	B	W	E	F	G	H	T	$\phi D$	P
Paper Type	3216	1.90±0.20	3.50±0.20	8.0±0.20	1.75±0.10	3.5±0.05	4.0±0.10	2.0±0.05	0.75±0.10	1.50 +0.10 -0	4.0±0.1

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## Recommended Reflow Profile

Pb free solder



Soaking		Working		Soldering		Peak	
Temp.	Time	Temp.	Time	Temp.	Time	Temp.	
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

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