

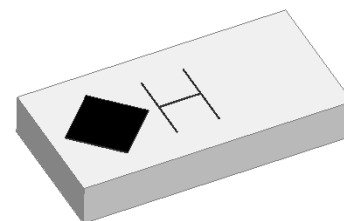
## 2.4/5GHz 3216 Chip Antenna: ANT3216R24503KL1

### Applications:

WLAN, 802.11a, b, c/g, etc...

### Features

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



### Part number

ANT 3216 R 2450 3K L1  
(1) (2) (3) (4) (5)

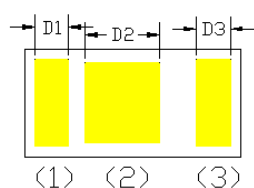
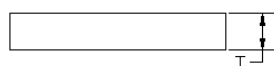
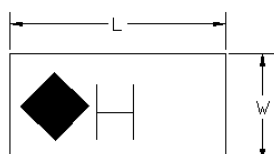
|                    |               |
|--------------------|---------------|
| (1) Size Code      | 3.2x1.6mm     |
| (2) Packing        | Tape and reel |
| (3) Frequency      | 2.4GHz/5GHz   |
| (4) Packing Number | 3K            |
| (5) Code           | L1            |

### Electrical Specification

|                           |                  |               |
|---------------------------|------------------|---------------|
| Working Frequency Range   | 2400 ~2484 MHz   | 5150~5850 MHz |
| Peak Gain                 | 2.8 dBi (Typ.)   | 5.3 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

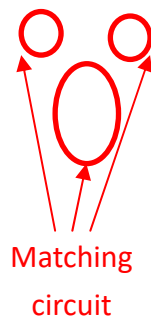


| Dimension (mm) |             |
|----------------|-------------|
| L              | 3.20+/-0.15 |
| W              | 1.60+/-0.15 |
| T              | 0.55+/-0.10 |
| D1             | 0.50+/-0.15 |
| D2             | 1.10+/-0.15 |
| D3             | 0.50+/-0.15 |

| No. | Terminal Name |
|-----|---------------|
| 1   | Ground        |
| 2   | Feeding       |
| 3   | Ground        |

### Evaluation Board Reference

#### PCB Dimension



#### Antenna Layout Reference

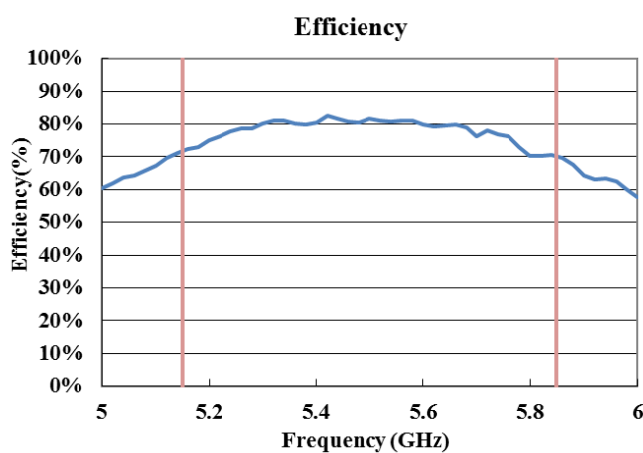
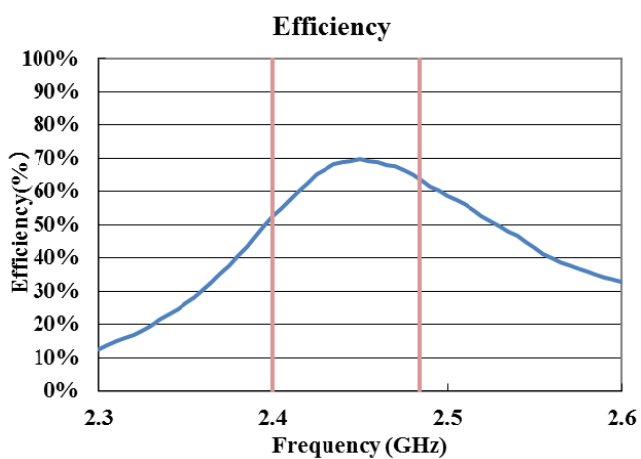
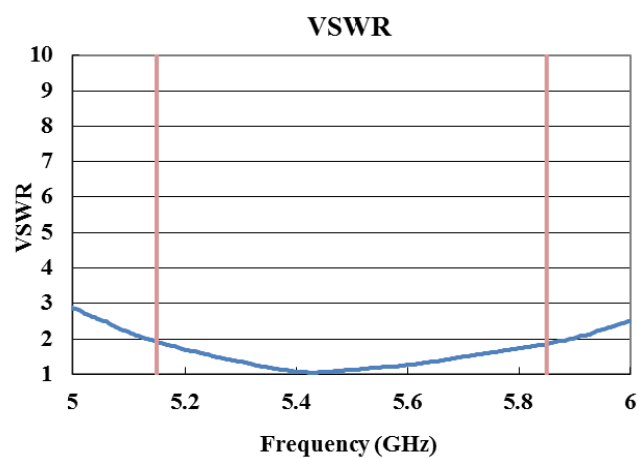
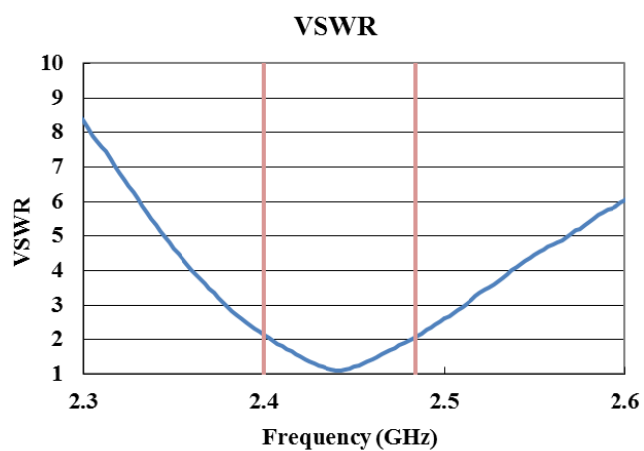
Unit : mm

 Chip Antenna

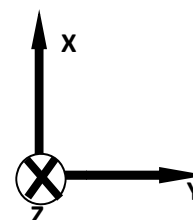
 Land Pattern

## Electrical Characteristics

### VSWR&Efficiency



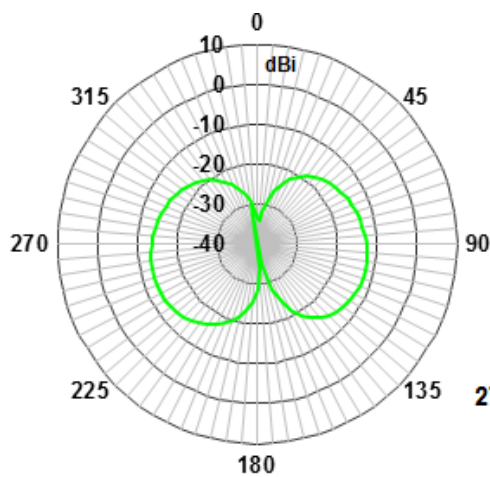
### Radiation Pattern



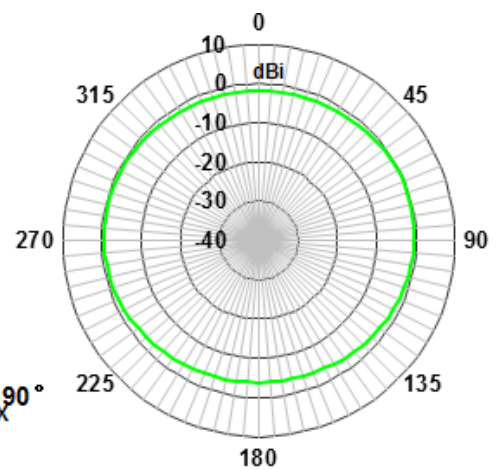
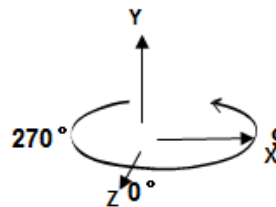
## 2.4/5GHz 3216 Chip Antenna: ANT3216R24503KL1

Frequency=2440MHz

### ZX-Plane

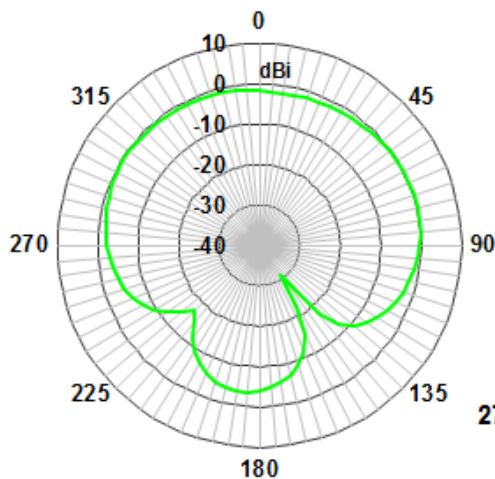


Horizontal Polarization

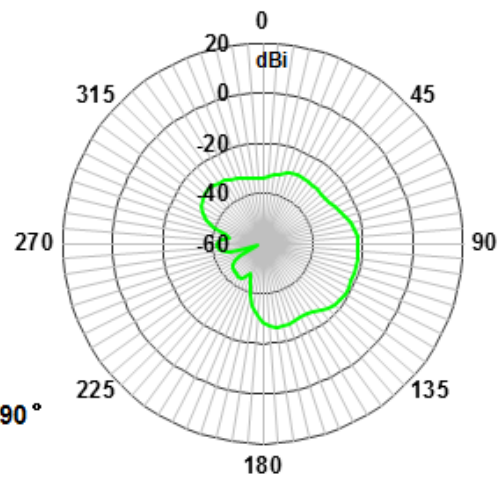
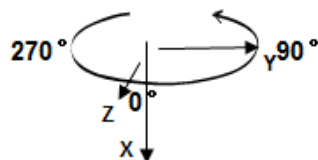


Vertical Polarization

### ZY-Plane

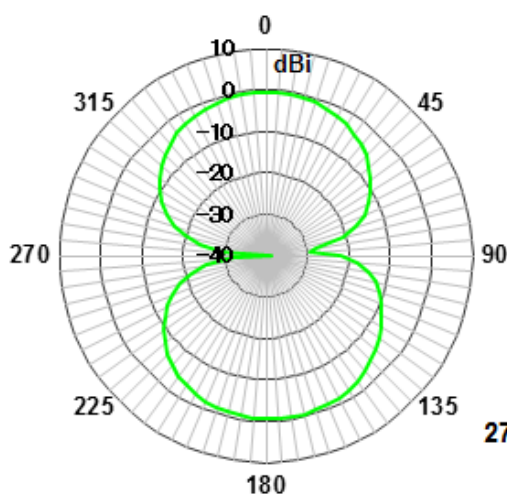


Horizontal Polarization

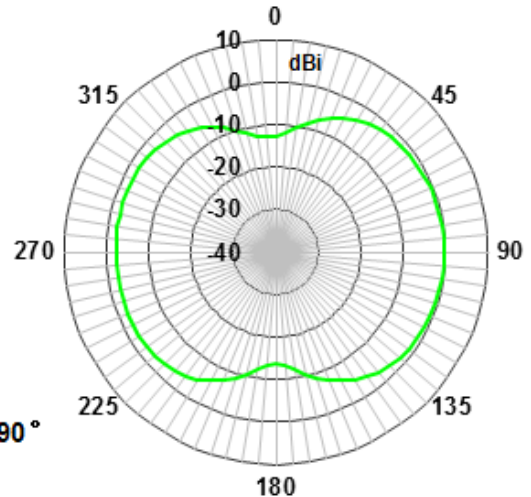
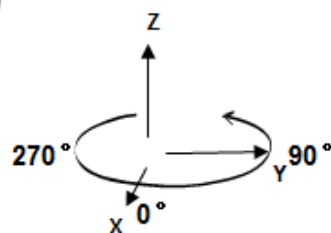


Vertical Polarization

### XY-Plane



Horizontal Polarization

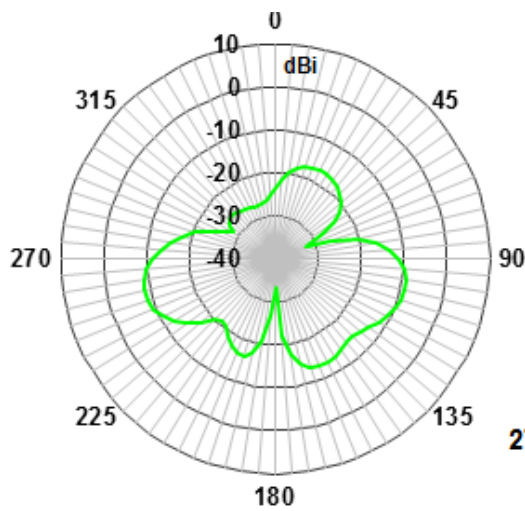


Vertical Polarization

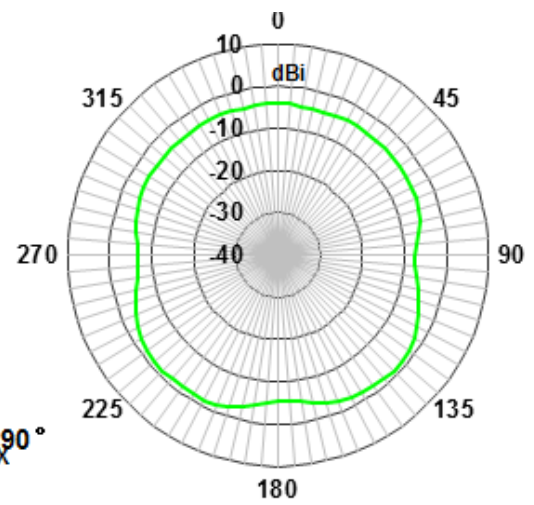
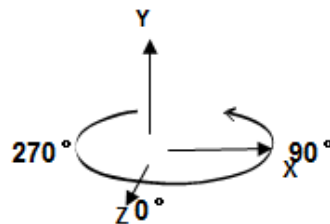
## 2.4/5GHz 3216 Chip Antenna: ANT3216R24503KL1

Frequency=5500MHz

### ZX-Plane

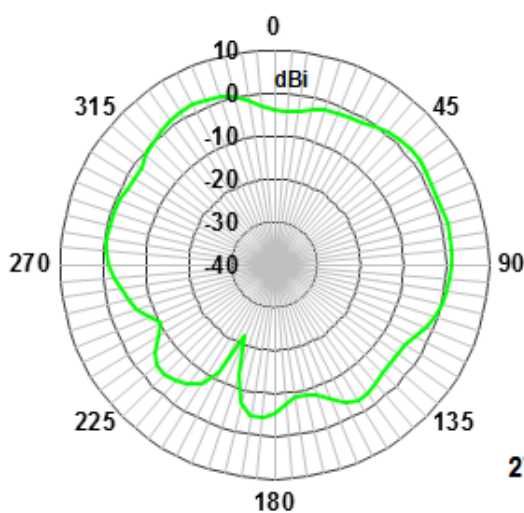


Horizontal Polarization

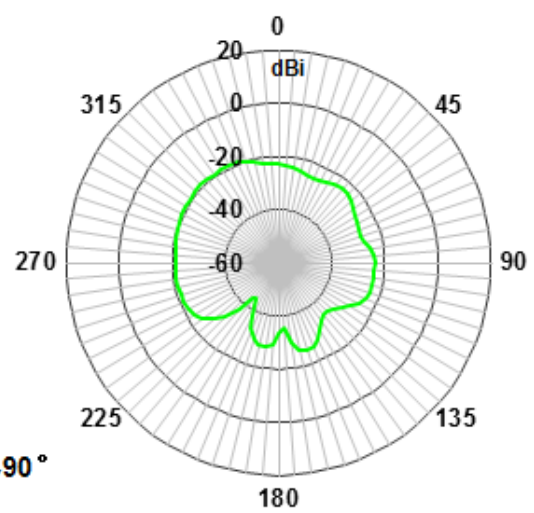
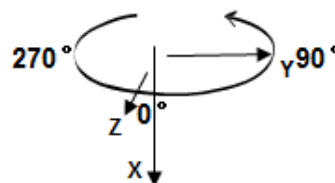


Vertical Polarization

### ZY-Plane

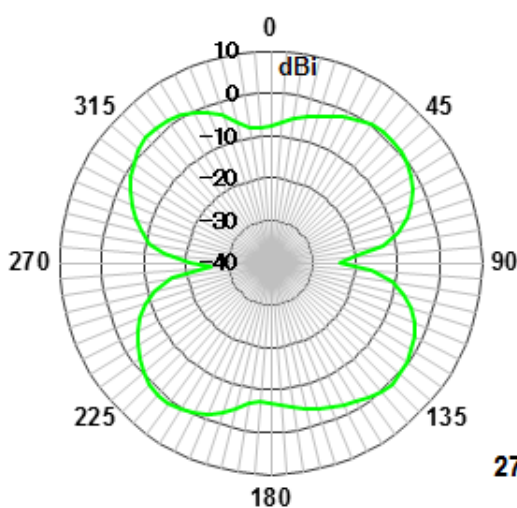


Horizontal Polarization

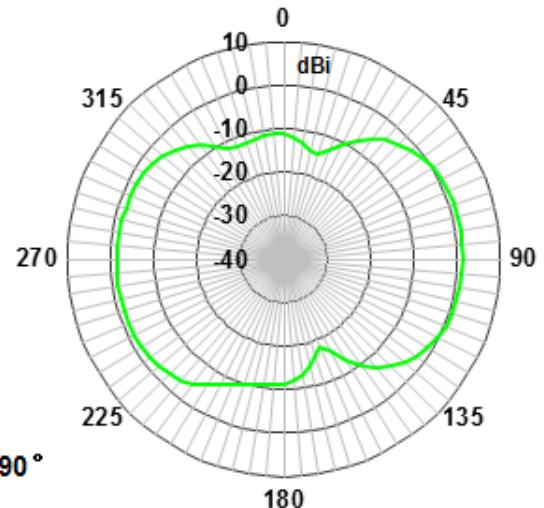
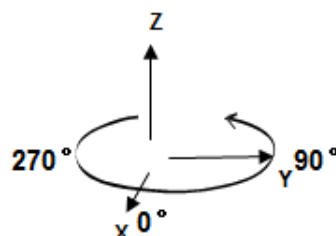


Vertical Polarization

### XY-Plane

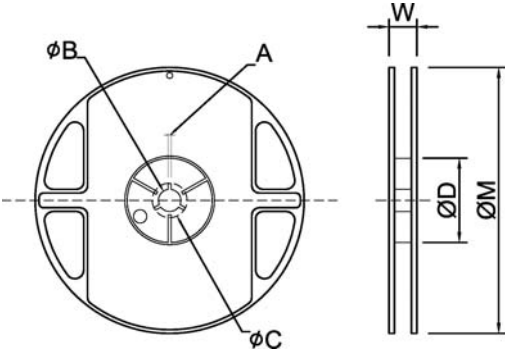


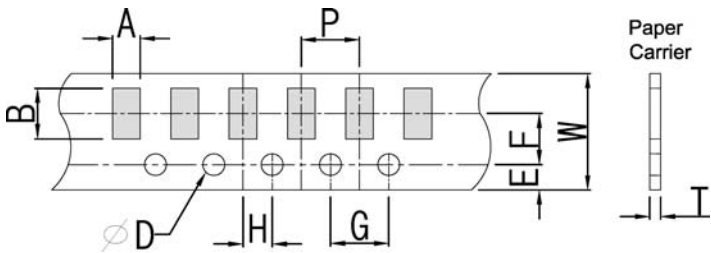
Horizontal Polarization



Vertical Polarization

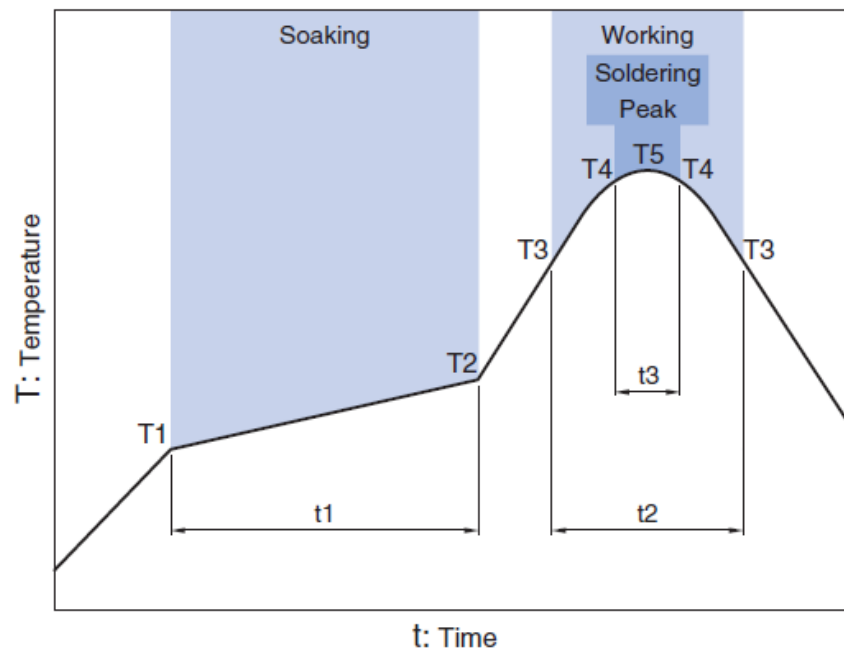
Taping Specifications

| Reel and Taping Specification                                                     |      |         |         |          |        |        |          |         |
|-----------------------------------------------------------------------------------|------|---------|---------|----------|--------|--------|----------|---------|
| Reel Specification                                                                |      |         |         |          |        |        |          |         |
|  |      |         |         |          |        |        |          |         |
| TYPE                                                                              | SIZE |         | A       | ψB       | ψC     | ψD     | W        | ψM      |
| 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         | ψD                  | 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<br>+0.10<br>-0 | 4.0±0.1 |

**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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