

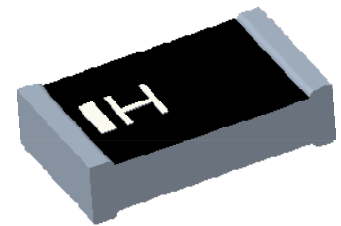
## 2.4GHz 2012Chip Antenna: ANT2012R24005KL2

### Application:

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

### Features

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



### Part number

ANT 2012 R 2400 5K L2  
 (1) (2) (3) (4) (5)

|                    |               |
|--------------------|---------------|
| (1)Size Code       | 2.0x1.2mm     |
| (2) Packing        | Tape and reel |
| (3) Frequency      | 2.4GHz        |
| (4) Packing Number | 5K            |
| (5)Code            | L2            |

### Electrical Specification

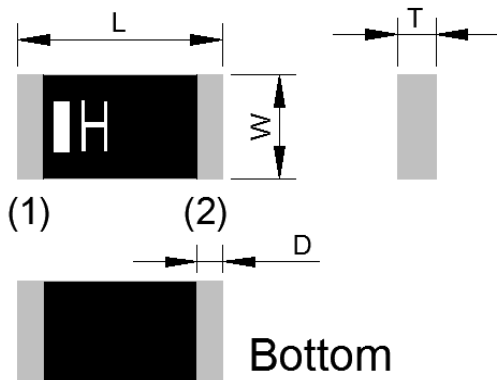
|                           |                  |
|---------------------------|------------------|
| Working Frequency Range   | 2400 ~2484 MHz   |
| Peak Gain                 | 0.8dBi (Typ.)    |
| Impedance                 | 50 Ohm           |
| VSWR                      | 2.5(Max)         |
| Polarization              | Linear           |
| Azimuth Beamwidth         | Omni-directional |
| Operation Temperature(°C) | -40 ~85°C        |

The specification is defined on HEK EVB.

### Dimension and Terminal Configuration

Top

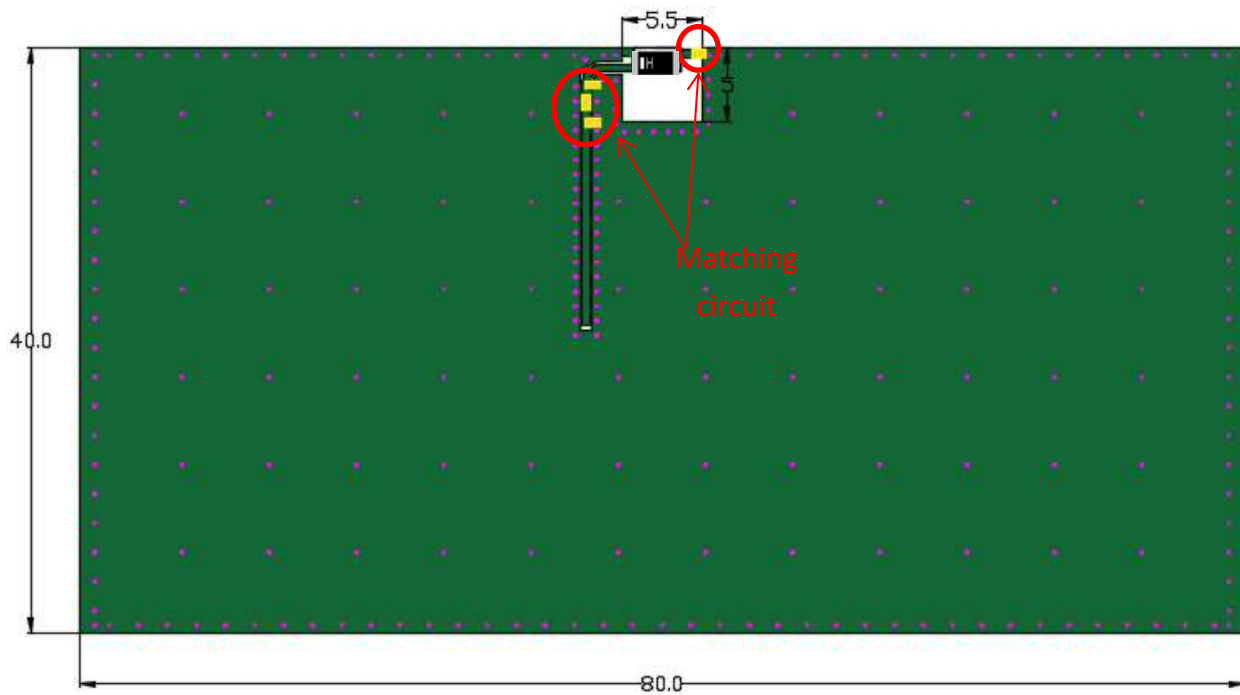
Side



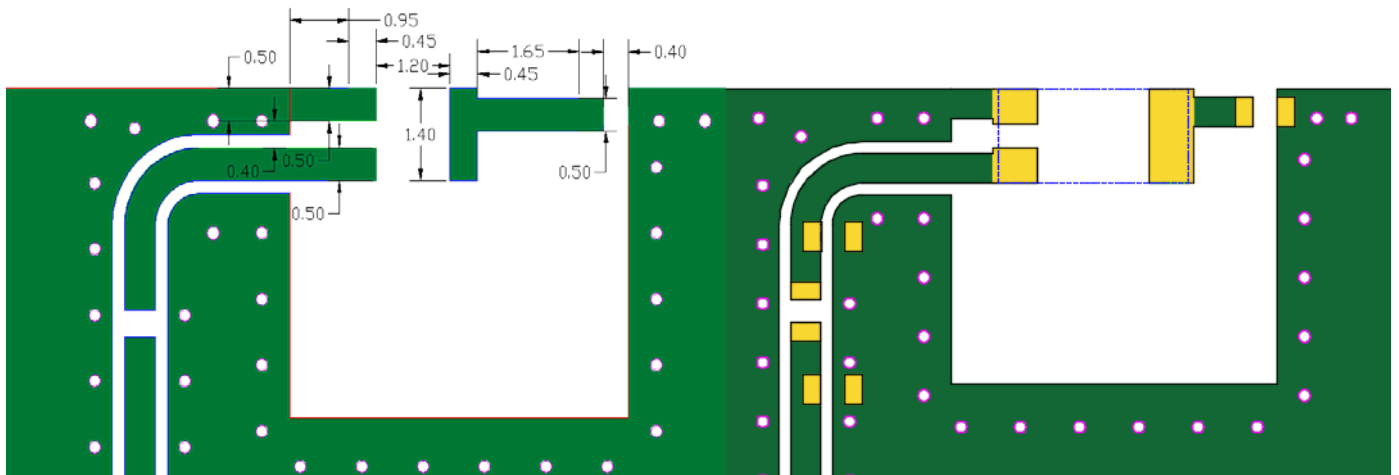
| Dimension (mm) |           |
|----------------|-----------|
| L              | 2.00±0.15 |
| W              | 1.20±0.15 |
| T              | 0.50±0.10 |
| D              | 0.20±0.15 |

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

PCB Dimension



Antenna Layout Reference



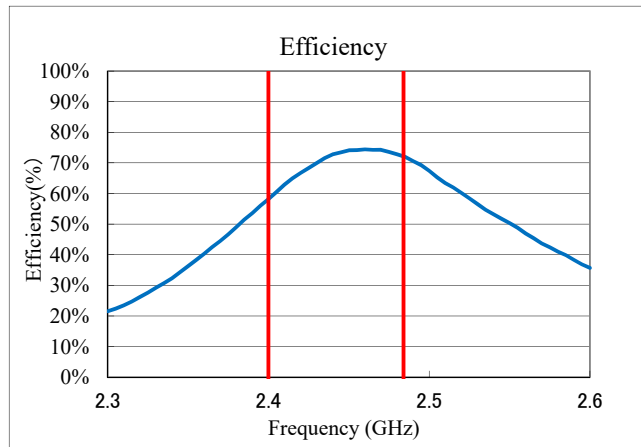
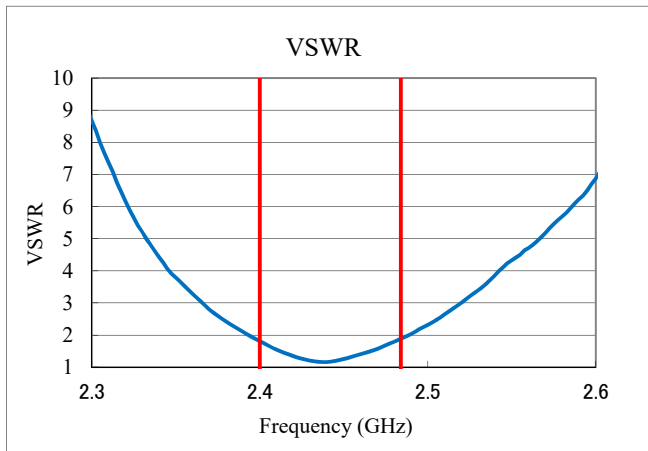
Unit : mm

: Chip Antenna

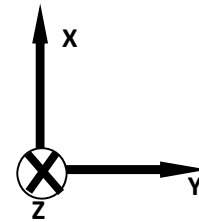
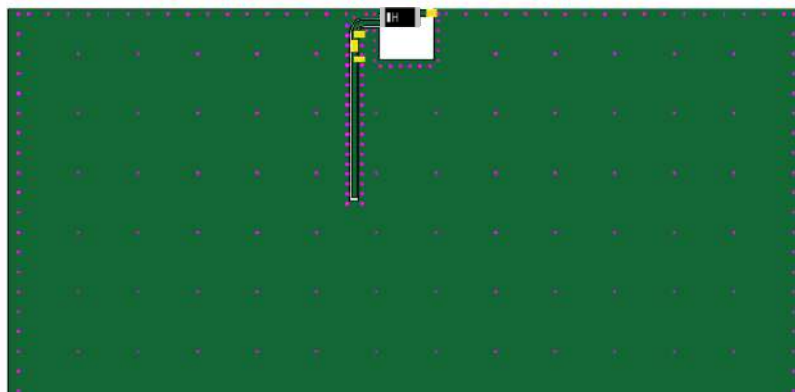
: Land Pattern

## Electrical Characteristics

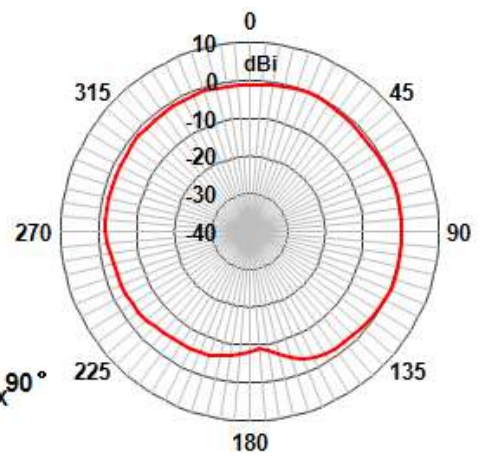
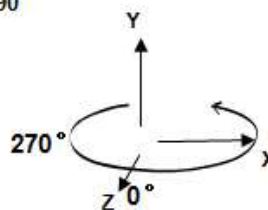
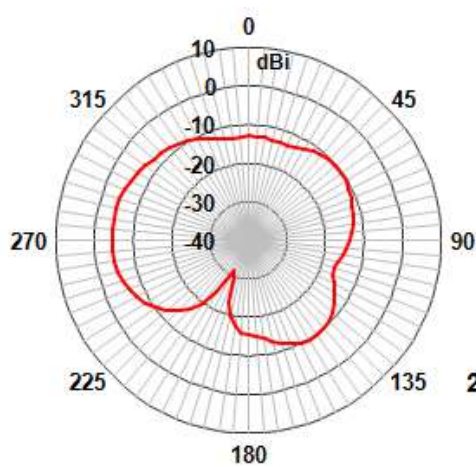
### VSWR&Efficiency



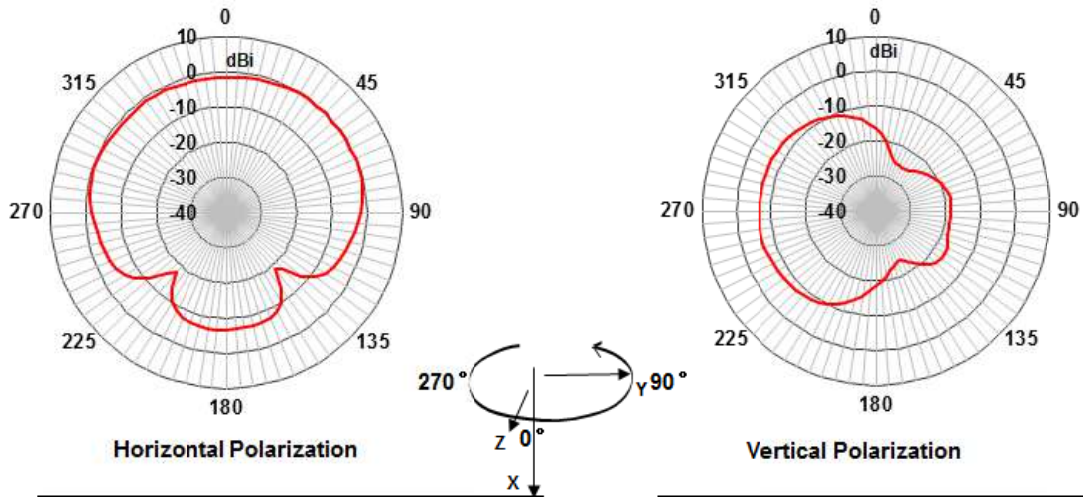
### Radiation Pattern



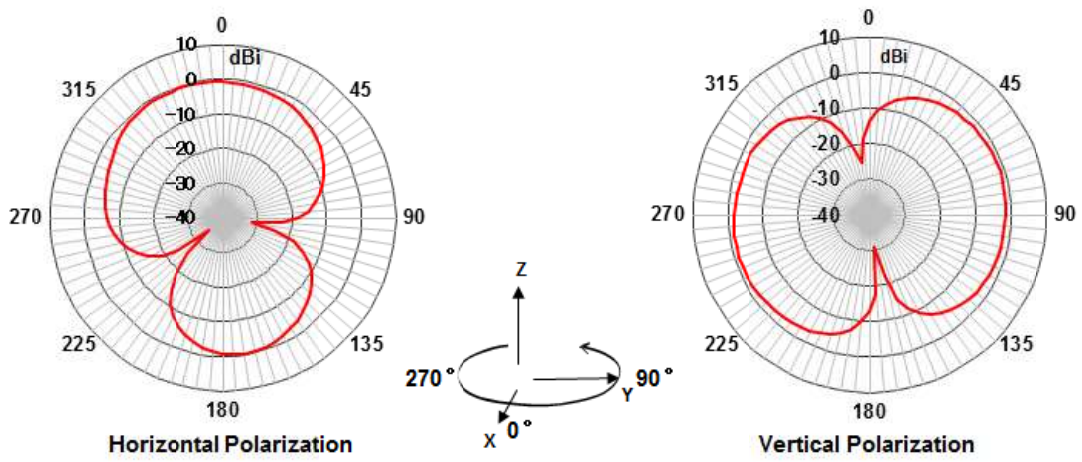
### ZX-Plane



**ZY-Plane**



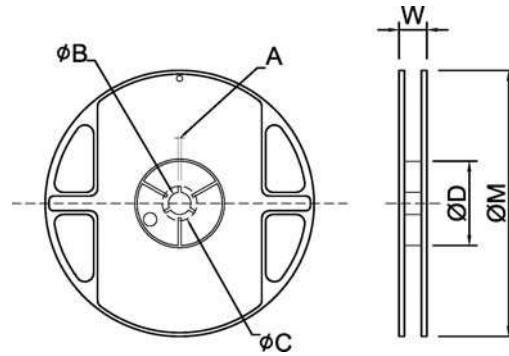
**XY-Plane**



## Taping Specifications

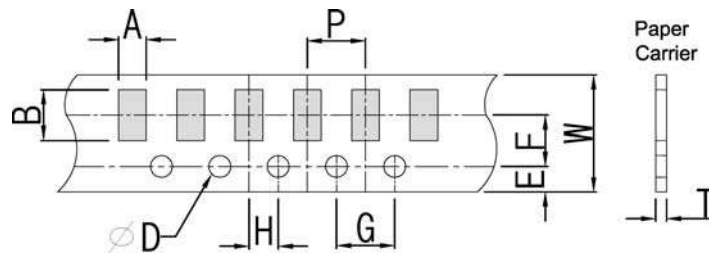
### Reel and Taping Specification

#### Reel Specification



| TYPE | SIZE | A       | $\psi B$ | $\psi C$ | $\psi D$ | W      | $\psi M$ |         |
|------|------|---------|----------|----------|----------|--------|----------|---------|
| 2012 | 7"   | 5K/Reel | 2.0±0.5  | 13.5±1.0 | 21±1.0   | 60±1.0 | 11.5±2.0 | 178±2.0 |

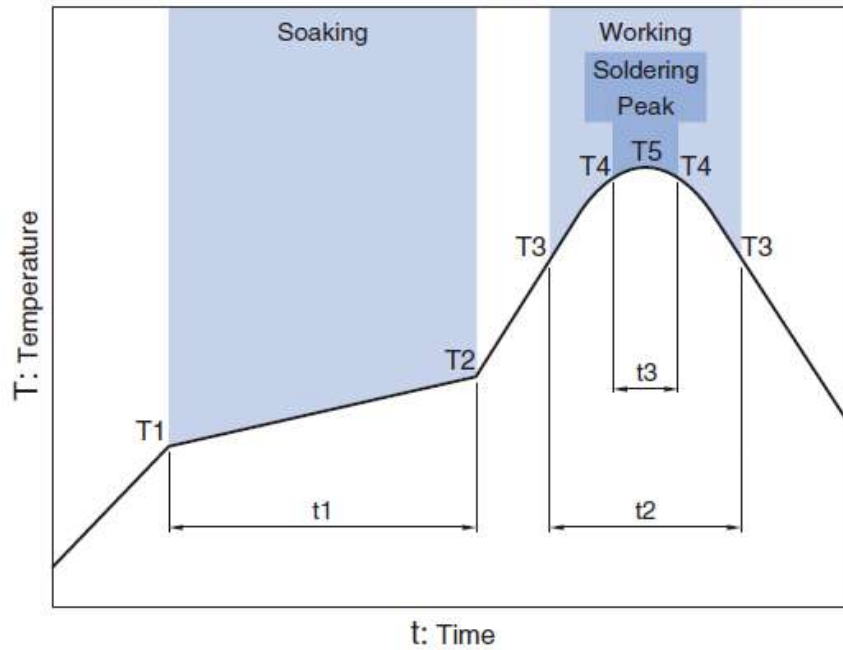
#### Taping Specification



| Packaging  | Type | A         | B         | W        | E         | F        | G        | H        | T         | $\psi D$            | P       |
|------------|------|-----------|-----------|----------|-----------|----------|----------|----------|-----------|---------------------|---------|
| Paper Type | 2012 | 1.50±0.20 | 2.30±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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