

Broad Band Ceramic Antenna

RFANT5220110A0T Series

LTCC Multi Layer Chip Antenna

- Broad Band Type

For ISM Band 2.4GHz Application

Patent Pending



FEATURES

- Surface Mounted Devices with a small dimension of $5.2 \times 2.0 \times 1.1 \text{ mm}^3$ meet future miniaturization trend.
- Embedded and LTCC (Low Temperature Co-fired Ceramic) technology is able to future integrate with system design as well as beautifying the housing of final product.
- High Stability in Temperature / Humidity Change

ELECTRICAL CHARACTERISTICS

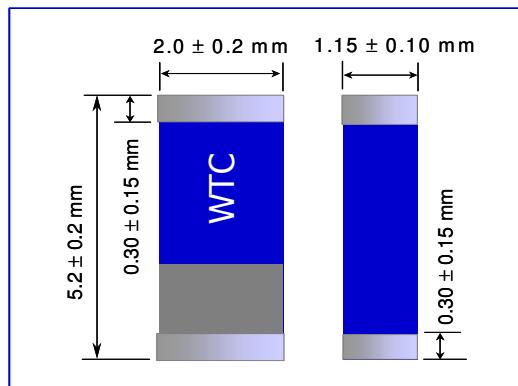
| Item | Specification |
|-------------------|--------------------|
| Central frequency | 2.450 GHz (Note-1) |
| Bandwidth | 150MHz (typical) |
| Gain | 0 ~ 2 dBi |
| VSWR | 2 max. |
| Polarization | Linear |
| Azimuth Beamwidth | Omni-directional |
| Impedance | 50Ω |

*Note 1. Central Frequency should be defined after customers' application approval.

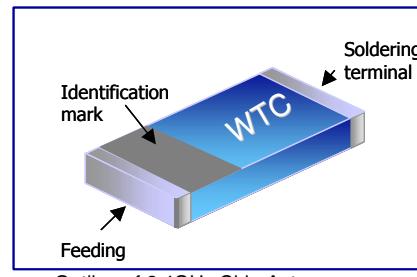
APPLICATIONS

- Bluetooth
- Wireless LAN
- HormRF
- ISM band 2.4GHz applications.

DIMENSION

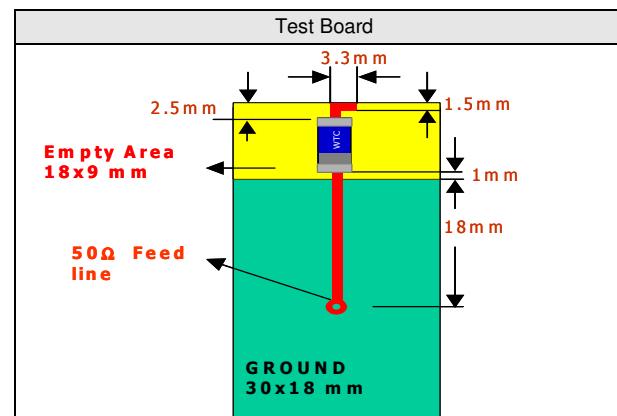


CONSTRUCTION

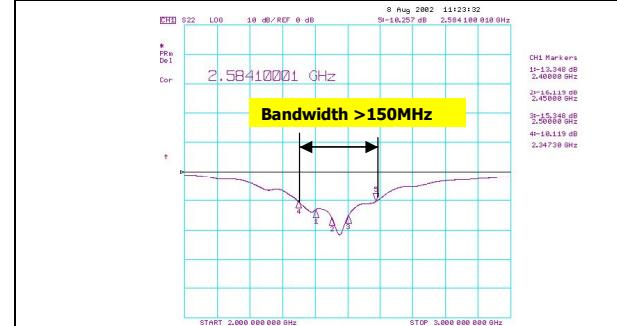


Outline of 2.4GHz Chip Antenna

Test Board



Insertion Loss (S11)



CONTACT INFORMATION

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Specification subject to change without prior notice.

APPROVAL SHEET

MULTILAYER CERAMIC ANTENNA

RFANT Series

2.4 GHz ISM Band Working Frequency

P/N: RFANT5220110A0T

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APPLICATIONS

- Bluetooth
- Wireless LAN
- HormRF
- ISM band 2.4GHz wireless applications

DESCRIPTION

Walsin Technology Corporation develops a new ceramic embedded antenna specified for 2.4 GHz ISM Band application, as shown in below "CONSTRUCTION". Both of Wireless LAN IEEE 802.11b and Bluetooth™ typically located on this unlicensed frequency band which range covers from 2.4GHz to 2.4835GHz. To fulfil the friendly usage for antenna, this antenna has been designed to a typical 150MHz bandwidth through Walsin's advanced LTCC (Low Temperature Co-fired Ceramic) technology and superior product design via 3D EM Simulation Skill.

This antenna has a rectangular ceramic body with a tiny dimension of $5.2 \times 2.0 \times 1.1 \text{ mm}^3$ meet the future SMT automation and miniaturization requirements on modern portable devices.

CONSTRUCTION

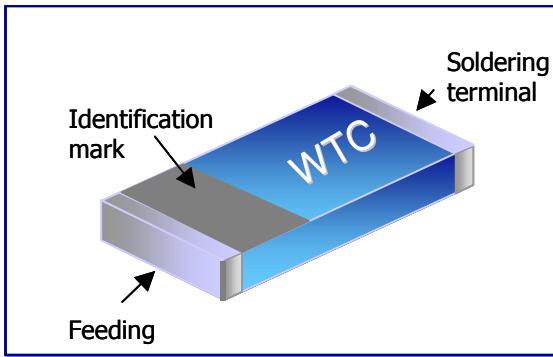


Fig 1. Outline of 2.4GHz Antenna – RFANT5220110A0T

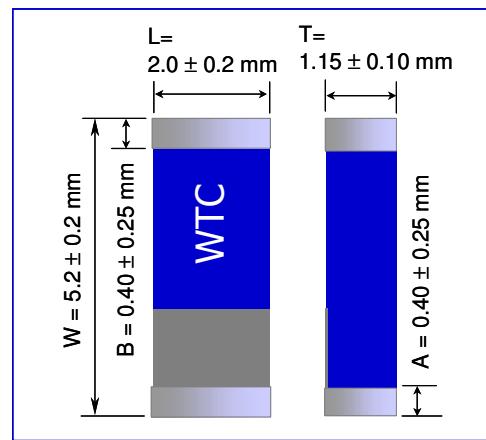


Fig 2. Dimension