

Integrated NB-IoT Antenna

Part No. VNB.19.1.CL

FEATURES

- Antenna for 4G applications
- Viettel LTE NB-IOT
- Frequency: 1710-1880 MHz
- Corner placement antenna
- SMD mounted module
- Ultra-compact 20 x 11 x 1.6 (mm)
- Ideal for compact, mobile, wearable device.

APPLICATIONS

- 4G Mobile Devices
- Medical Equipments
- Tablets
- Femtocel / Pico Station

TECHNICAL SUPPORT

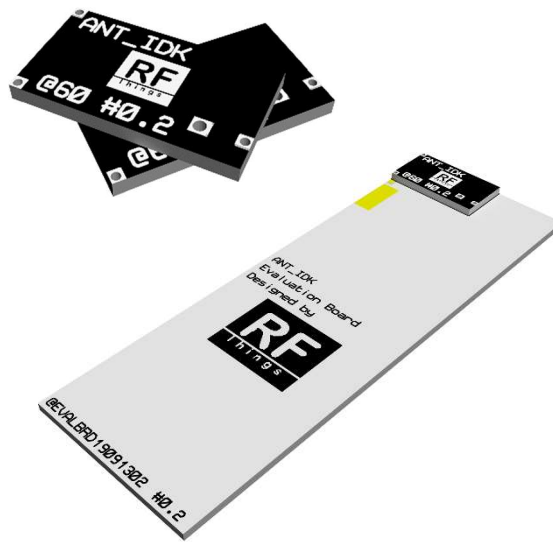
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- VNB.19.1.CL is a SMD antenna that using for NB-IoT device in Vietnam. By optimizing to operate at the corner of the PCB with the dimension of 20 x 11 x 1.6 (mm), this antenna is a good candidate for the small, mobile and wearable devices. The working frequency is band 3 from 1710 – 1880 MHz that support by Viettel.

The antenna was designed at the corner of the

- PCB with the small clearance zone of 20 x 11 x 1.6 (mm). This structure can extend the circuit zone to help the designer place more components in the device. It also help to reduce the device size. Moreover, the corner position can limit the influence of the hand when the users hold the device.

Antenna mesurment results is shown in the figures.

As presented in the Return Loss (RL) result, the antenna is good matching in the frequency band of 1710 – 1880 MHz with the RL lower than -10dB. With this good matching, the antenna losses can be limited.

Moreover, the bandwidth at -6dB is extended of 1660 – 1950 MHz. Thanks to the broadband feature, The antenna will be less affected by the external environment such as the cover box, the display module, the electronic components and the user's hand.

With the total efficiency more than 60% of uplink band and around 50% of downlink band, this antenna is very suitable for any mobile, small and wearable device applications.

