

## Technical description

The CC2531 Nano USB stick, see Figure 1, based upon the Texas Instruments' CC2531, is a USB enabled IEEE 802.15.4 compliant RF transceiver. The CC2531 Nano stick is preprogrammed with Texas Instruments' RemotTI™ stack 1.3 and the output power level is fixed. CC2531 has a balanced output (RF\_N and RF\_P) which is combined in the balun for a single ended output.

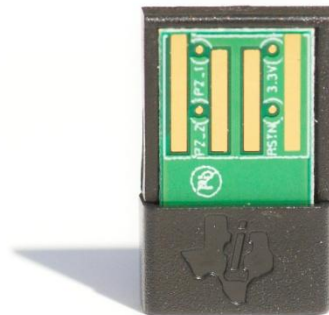


Figure 1 CC2531 Nano USB stick

## Antenna description

The CC2531 USB Nano USB stick has only an integrated meander inverted-F PCB antenna, see Figure 2.

The typical output power of the CC2531 is 4.5dBm on 2440 MHz the insertion loss in the Anaren balun, BD2425N50200A00, is typically 0.6 dB and the maximum e.i.r.p. was measured to be 1.65 dBm, i.e. the maximum antenna gain would be:

Maximum e.i.r.p.: 1.65 dBm

Insertion loss: 0.6 dB

Conducted output power: 4.5 dBm

Maximum antenna gain: -2.25 dB

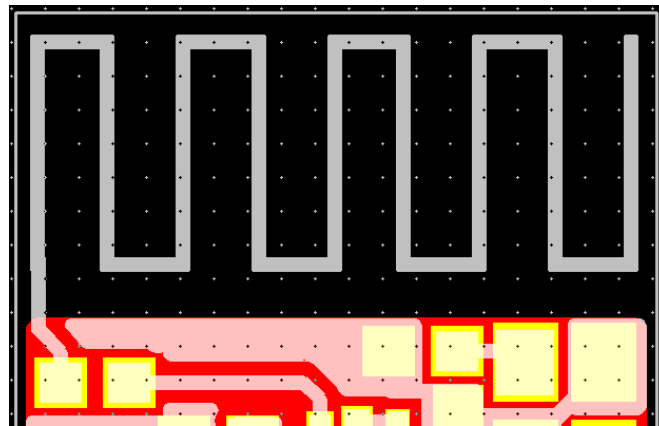


Figure 2 CC2531 USB Nano stick PCB antenna