

Antenna Datasheet

The Thynk product uses a PCB trace antenna implemented to TI specification in the referenced TI App Note AN043.

<https://www.ti.com/lit/an/swra117d/swra117d.pdf?ts=1740321773535>

Gain in XY plane 4.5 dB Gain in XZ plane 5.3 dB Gain in YZ plane 5.3 dB Gain in XY plane, connected to laptop 3.3 dB LOS range 240 m Antenna size 15.2 x 5.7 mm Table 6: IFA Properties (Measured on CC2511 Dongle Reference Design)

This application note shows that it is possible to implement a 2.4 GHz antenna on a small area and still achieve good performance. Table 6 lists the most important properties of the Inverted F Antenna, described in this document. The free line of sight (LOS) range was measured with 250 kbps and 1 % PER. Gain in XY plane 4.5 dB Gain in XZ plane 5.3 dB Gain in YZ plane 5.3 dB Gain in XY plane, connected to laptop 3.3 dB LOS range 240 m Antenna size 15.2 x 5.7 mm Table 6: IFA Properties (Measured on CC2511 Dongle Reference Design) The results provided in section 5 shows that it is possible to comply with both ETSI and FCC regulations when implementing the suggested antenna together with CC2511 on a USB dongle.

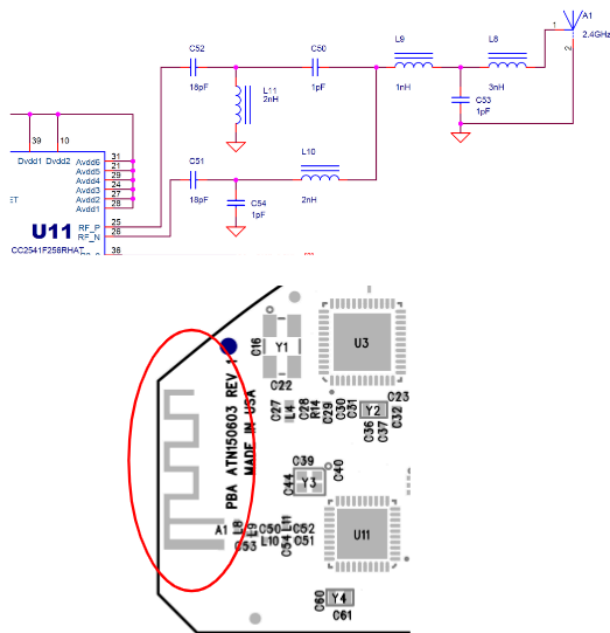
Antenna Details

PCB Trace Antenna implemented to TI application information:

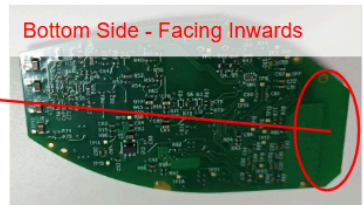
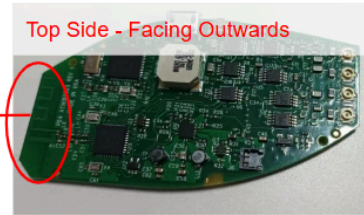
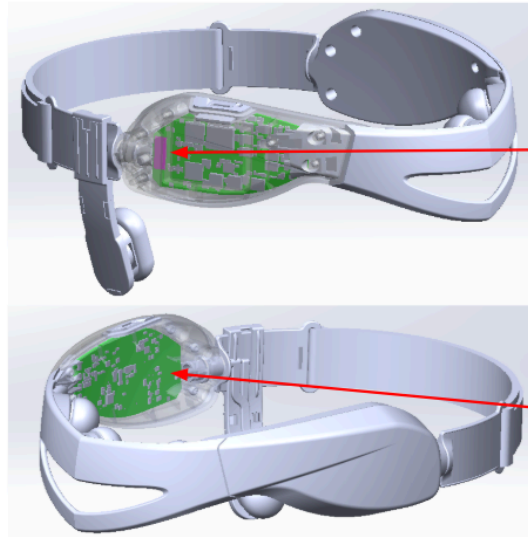
	
Design / Application Note	SWRA117*2
Frequency	2.4 GHz
Typical Efficiency	68 % (EB)
Bandwidth@ VSWR 2:0	101 MHz
Dimensions (mm)	15 x 6

Technical details see:

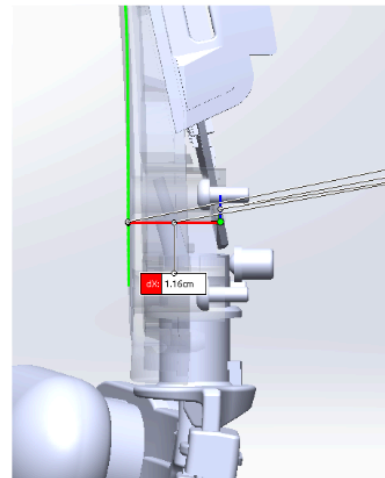
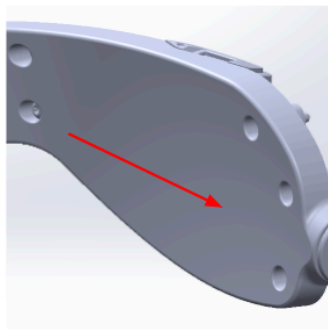
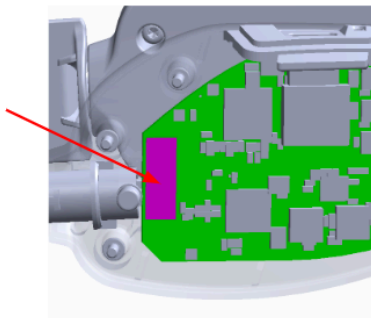
[TI Application Note AN043](#)



RF Antenna Separation Distance



Distance from top layer PCB to the inner housing surface: 1.16cm



PCB Antenna

