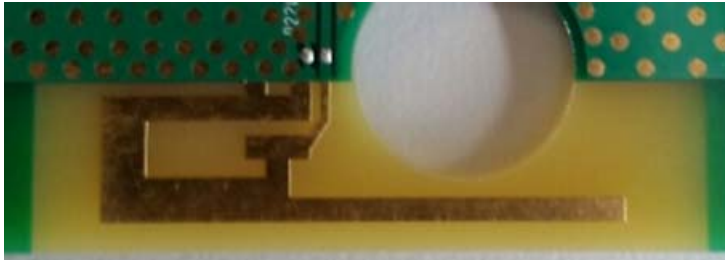


1. BLE Inverted F Antenna

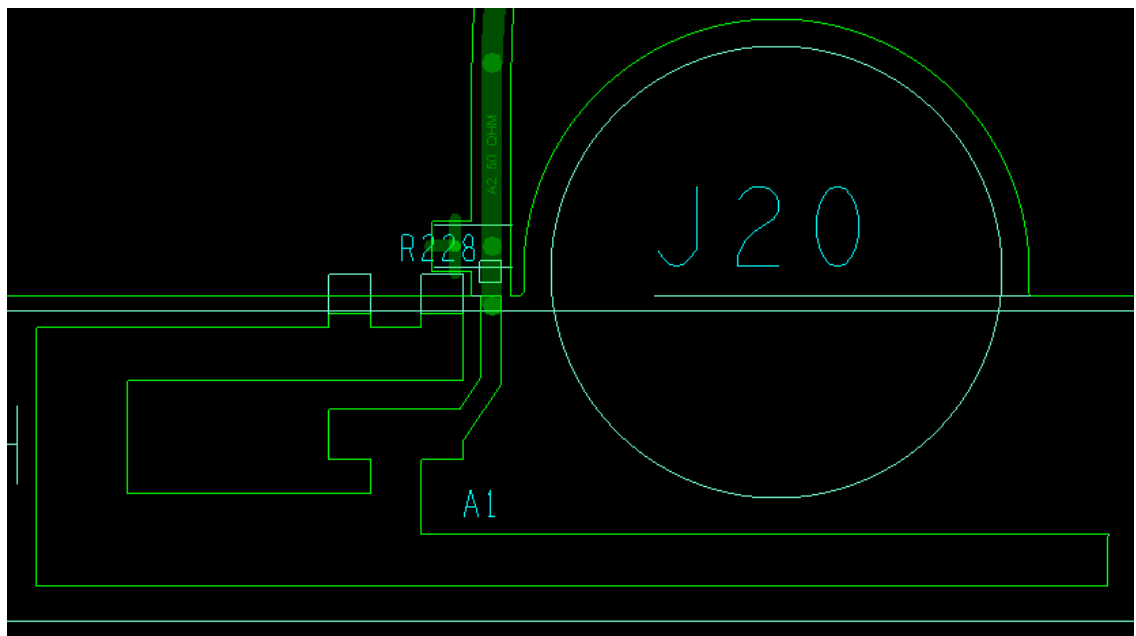
1.1. Description:

The BLE section of the design utilizes a board etched omni-directional inverted F-Antenna with a max gain of 5.44 dBi.

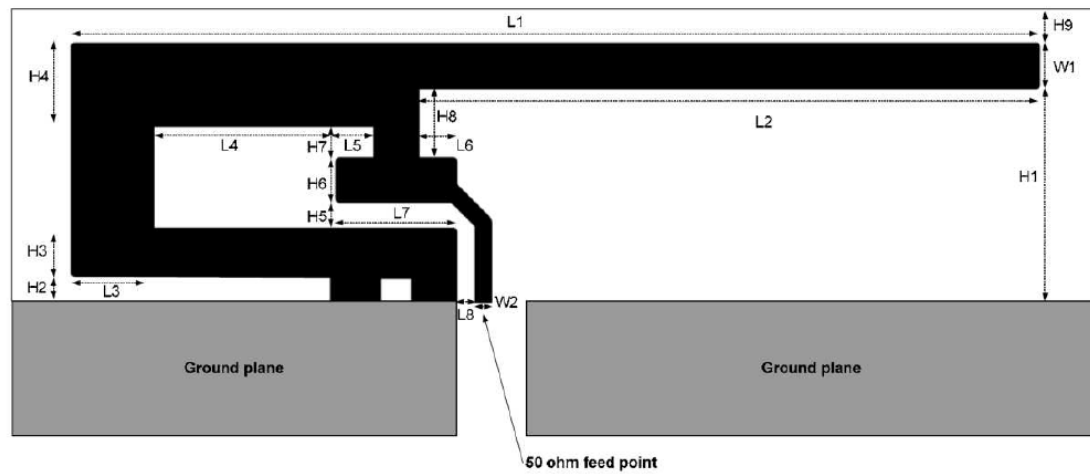
1.2. Image of board:



1.3. Layout:



1.4. Manufacturer specifications:



H1	5.70 mm	W2	0.46 mm
H2	0.74 mm	L1	25.58 mm
H3	1.29 mm	L2	16.40 mm
H4	2.21 mm	L3	2.18 mm
H5	0.66 mm	L4	4.80 mm
H6	1.21 mm	L5	1.00 mm
H7	0.80 mm	L6	1.00 mm
H8	1.80 mm	L7	3.20 mm
H9	0.61 mm	L8	0.45 mm
W1	1.21 mm		

Because there is no ground plane beneath the antenna, the PCB thickness will have little effect on the performance. The results presented in this document are based on an antenna implemented on a PCB with a 1-mm thickness.

2. 802.15.4 Inverted F Antenna

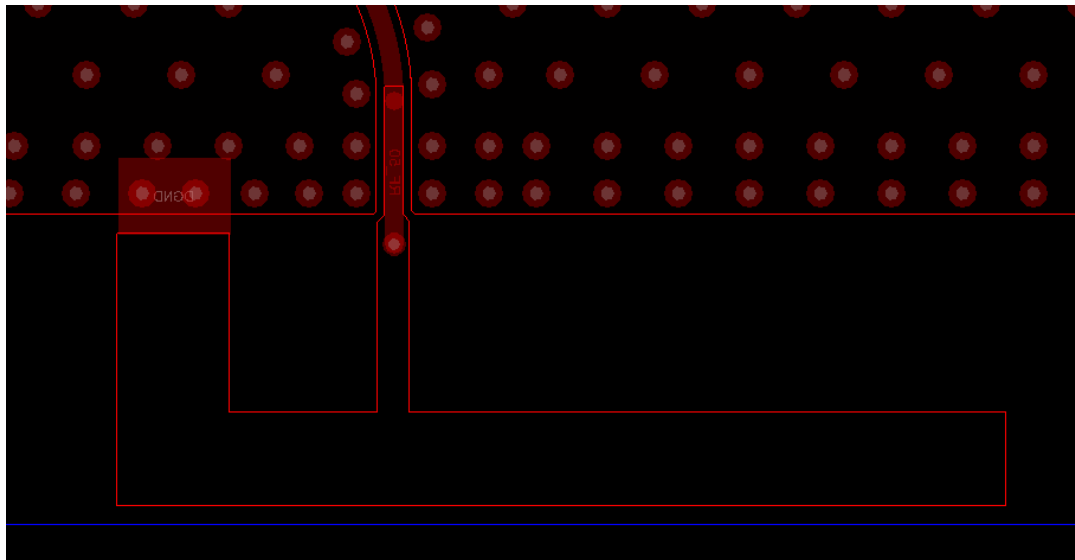
2.1. Description:

The 802.15.4 section of the design utilizes a board etched omni-directional inverted F-Antenna with a max gain of 2.4 dBi.

2.2. Image of board:



2.3. Layout:



2.4. Manufacturer specifications:

The following figure shows an F-antenna. Measurements are in millimetres.

