Document title				Document no.	Revision
BE1310 2.4G PCB antenna specification				**BE1310_016DSP001**	**001**
Issued by	Date	Approved by:	Date:	Info class:	
Fan An	2015-11-02	Fan An	2015-11-02		

File name: c:\bellman\projects\be1310\certificate\audix\be1310_016dsp001_2.4g_pcb_antenna.doc

REVISION	DATE	PARAGRAPHS CHANGED	SIGN.
000	2015-10-02	Document created	FAN

1 Introduction

This document describes a PCB antenna design that used with BE1310 2.4 GHz Bluetooth application. This is a compact, low cost, high performance antenna. This antenna has good consistency in mass production.

This is the Inverted-F Antenna, and is matched directly to 50 ohm no external matching components are needed. Maximum gain is up to 2 dB.

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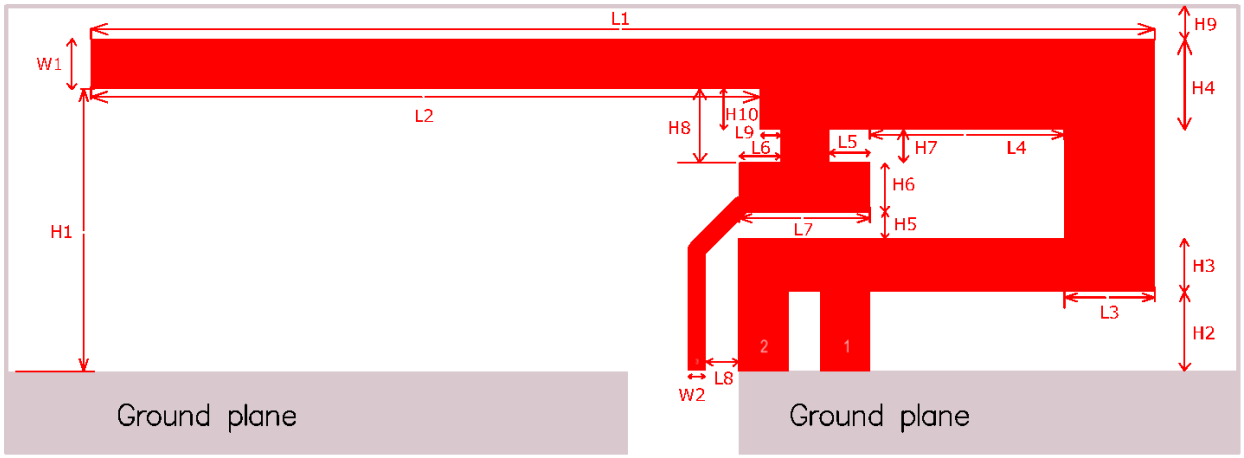
2 Specification

2.1 Dimensions

The dimensions of the PCB antenna are shown below picture and table.



H1	6.92mm	W2	0.46mm
H2	1.95mm	L1	26.09mm
H3	1.29mm	L2	16.41mm
H4	2.21mm	L3	2.21mm
H5	0.64mm	L4	4.80mm
H6	1.21mm	L5	1.00mm
H7	0.80mm	L6	1.00mm
H8	1.80mm	L7	3.20mm
H9	0.48mm	L8	0.79mm
H10	1.00mm	L9	0.50mm
W1	1.22mm		

2.2 Description

This is no ground plane beneath the antenna. PCB thickness will have little effect on the performance. BE1310 design for the antenna is with PCB thickness for 1 mm. The PCB is used FR-4 and the copper foil which thickness is 35 um.

The Antenna is placed at the edge on BE1310 PCB as shown in red ellipse as below picture.