

F-Antenna Specification

Product Name: BT-ANT-F02

Description: Inverted-F Antenna

Revision: V1.0

Written by: Mingbo Hu

Checked by: _____

Data: 2018-12-17

Date	Version	Aother	Changements
2018-12-17	V1.0	Mingbo Hu	Initial version

This is a preliminary specification of PCB antenna for Bluetooth 2.4GHz band.

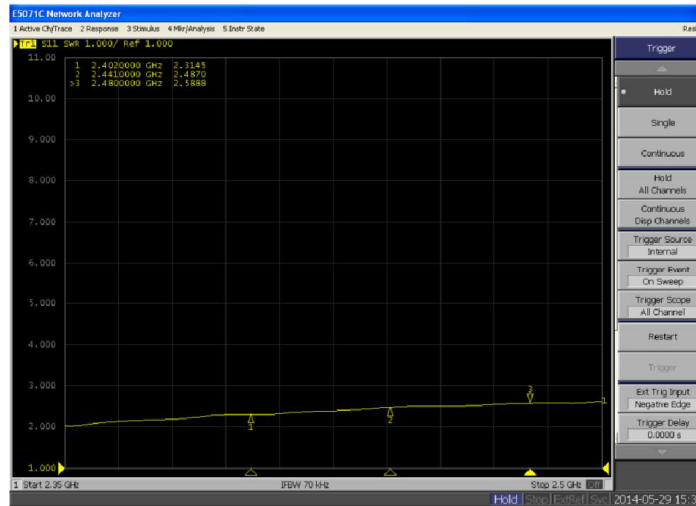
1. Characteristics.

No.	Name	Specification
1	Frequency range	2400MHz~2480MHz
2	Impedence	50 ohm
3	Material	FR-4

2. Gain and Efficiency

Frequency	Peak Gain(dBi)	Efficiency
2402 MHz	4.05	59%
2441 MHz	3.88	54%
2480 MHz	2.95	49%

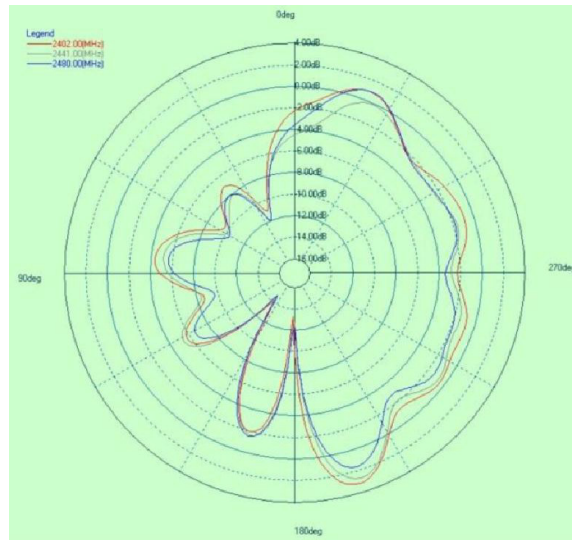
3. VSWR



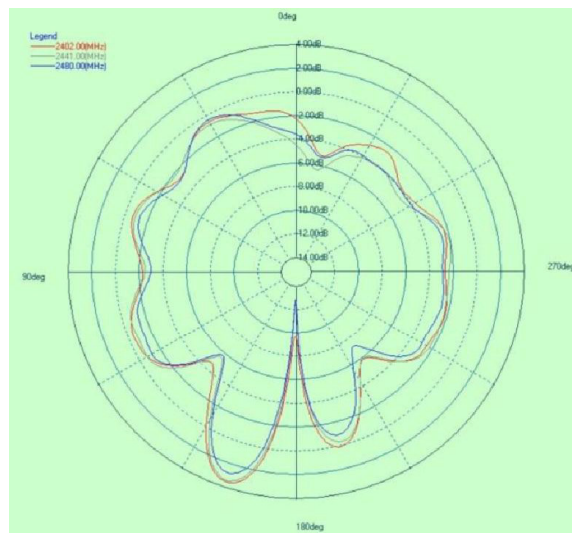
Frequency	VSWR
2402 MHz	2.31
2441 MHz	2.43
2480 MHz	2.58

4. Radiation Pattern(1D view)

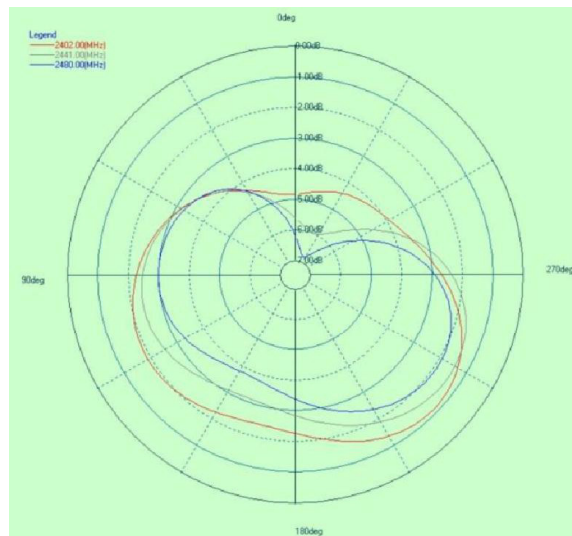
4.1 PHI=0



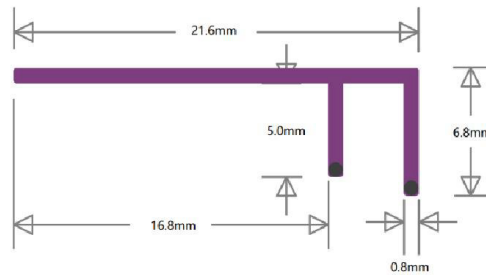
4.2 PHI=90



4.3 THETA=90



5. Construction



6. Reliability test.

No.	Item	Conditions
1	Low Temperature Operational	All of the specification in Item1 is to be satisfied after antennas exposed to $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 24h and then to normal temperature 2h.
2	High Temperature Operational	All of the specification is Item2 to be satisfied after antennas exposed to $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 24h and then to normal temperature 2h.
3	Drop Test	All of the specification in Item1 is to be satisfied after antennas Dropped at each of 6 planes onto marble plate from the height 1.5m.
4	Operating Temperature	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
5	Storage Temperature	$-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$