

ANT-003-2G4

1. Introduction

ANT-003-2G4 is a PCB antenna designed for 2.4 GHz portable devices such as Bluetooth and WiFi.

2. Dimensions

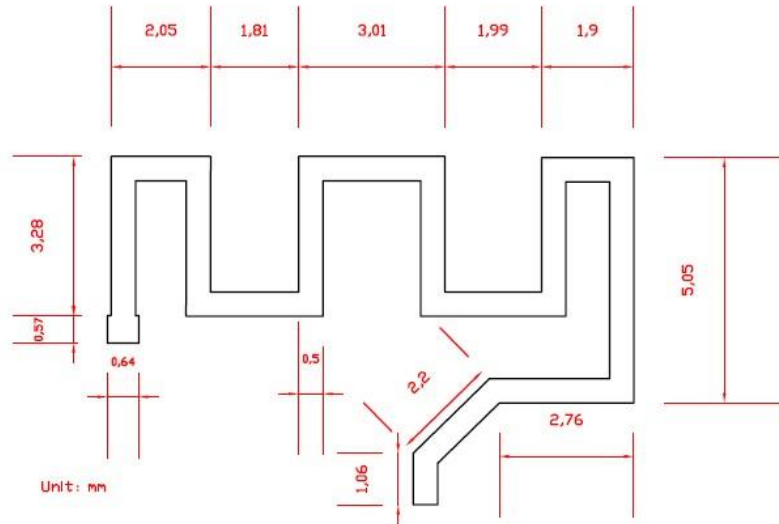


Figure 1 – Dimension drawing

3. Operating Frequency

2400-2525MHz

4. Performance Parameters

Table 1 – Performance parameters

Frequency	SWR
2400MHz	<1.7
2460MHz	<1.7
2525MHz	<1.7

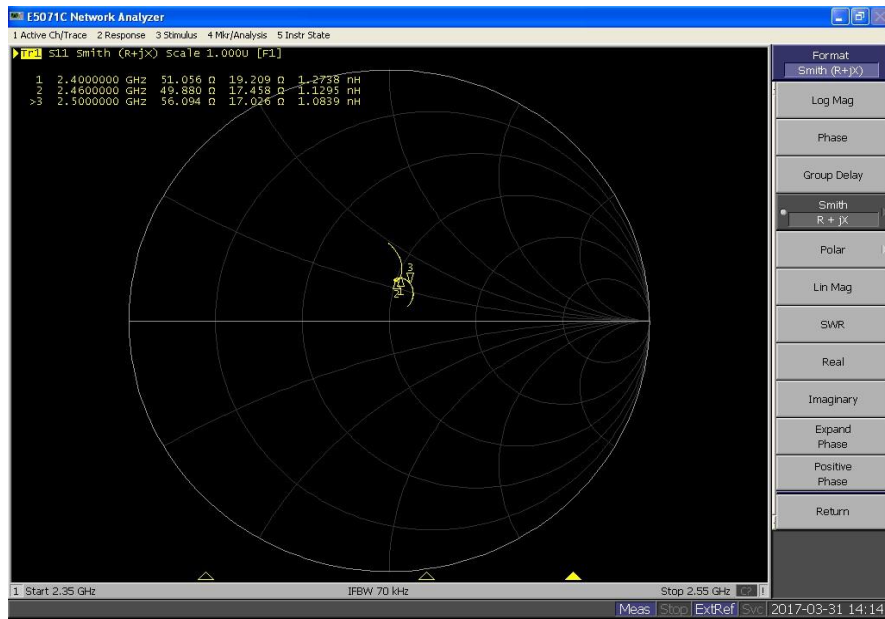


Figure 2 – Smith chart

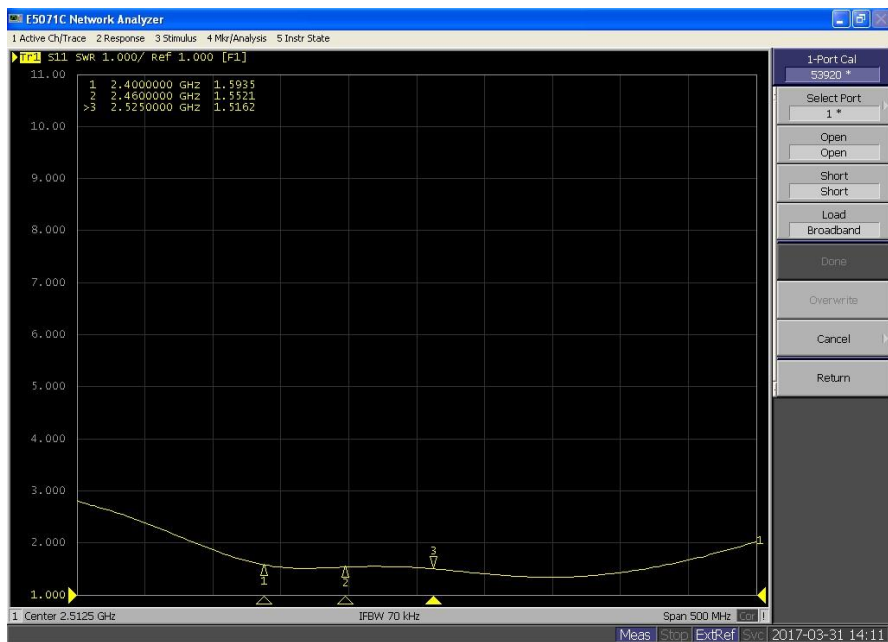


Figure 3 – VSWR test plot

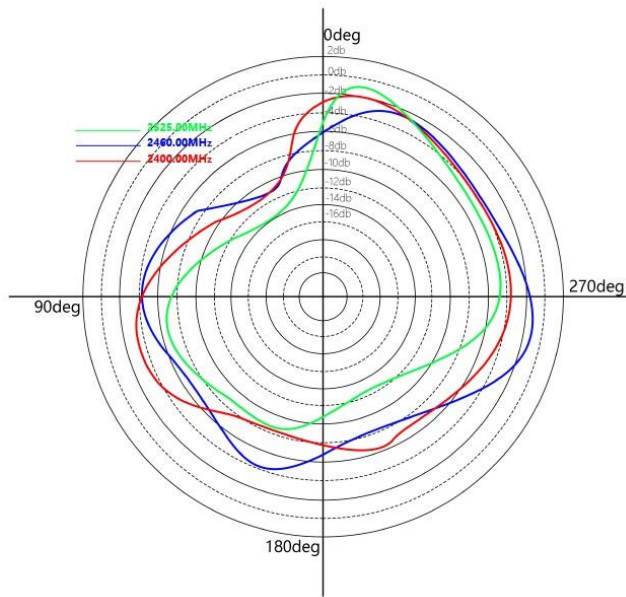


Figure 4 – Antenna gain pattern in XOY plane

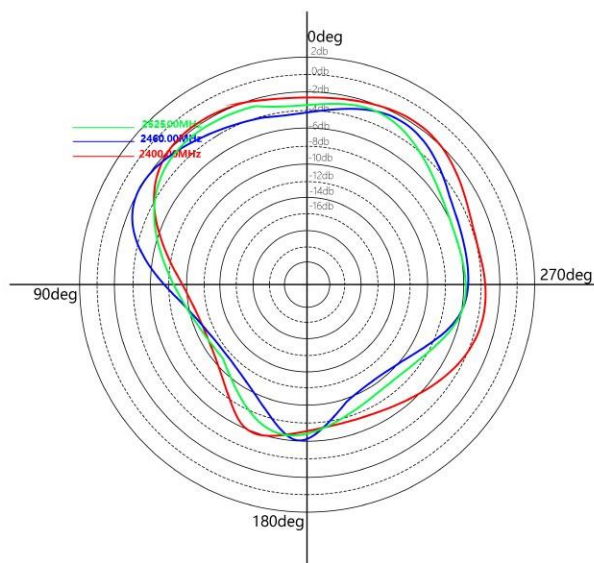


Figure 5 – Antenna gain pattern in XOZ plane

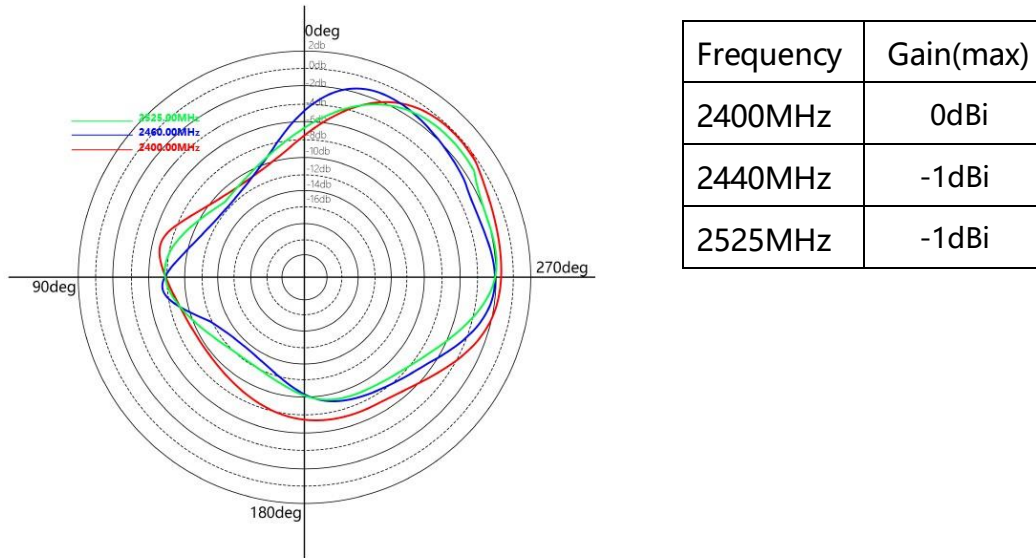


Figure 6 – Antenna gain pattern in YOZ plane

5. Remarks

The antenna is highly sensitive to the size of the PCB RF ground plane and the plastic enclosure of the product. The antenna can be modelled as an LC resonator; its resonant frequency decreases when either inductance (L) or capacitance (C) increases. A larger RF ground plane and the plastic housing increase the effective capacitance, thereby lowering the resonant frequency. When using the antenna, please adjust the matching network parameters according to the actual installation conditions.