XQC Engineering Inc.
Confidential and Proprietary

Antenna Description

Name: Hopper

Model ID: FTW000123

Both antennae are of similar design. One antenna is for BT operations and another antenna is for WiFi operations. In both cases, performance is not expected to be high efficiency or high gain.

Bluetooth Antenna

The Quad BT antenna is a 31mm wire soldered to the main board. This antenna is a 1/4wave at the desired center frequency of 2.440GHz. The antenna acts as a dipole antenna in terms of antenna gain. There is no infinite ground plane under the antenna to mirror the ground current to achieve an extra 3dB of gain over a traditional 1/4wave dipole so the anticipated antenna gain is roughly 2.1dBi. The antenna efficiency is roughly 30% when optimally oriented in the Quad airframe. If the antenna is not correctly oriented then this efficiency may be further reduced.

Wifi Antenna

The Quad WIFI antenna is a 31mm wire soldered to the main board. This antenna is a 1/4wave at the desired center frequency of 2.440GHz. This antenna acts as a dipole antenna in terms of antenna gain. There is no infinite ground plane under the antenna to mirror the ground current to achieve an extra 3dB of gain over a traditional 1/4wave dipole so the anticipated antenna gain is roughly 2.1dBi. The antenna efficiency is roughly 30% when optimally oriented in the Quad airframe. If the antenna is not correctly oriented then this efficiency may be further reduced.