

Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz BLE Transceiver for a BLE Training Drone. The sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing.

The EUT is powered by 1 x 3.7V Lithium Polymer battery. After switching on the EUT, the EUT, the training drone can be paired up with a smartphone together with either the spectre or havoc. The spectre or havoc will be further paired up with the beacon using the 2.4GHz module. The training drone and beacon will be used as shooting target to play different shooting game based on the signals received by the paired smartphone from the beacon and the training drone.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 86.9dB μ V/m at 3m (Peak), 61.8dB μ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

1. U1 (6321A) acts as MCU
2. Y1 acts as 24MHz Oscillator
3. R7 and C9 act as antenna matching circuit
4. U2 and U3 act as gyroscope barometer
5. C1, C2, C10, C11, D1, D2, D3, D4, R1, R2, R3, R4, R5, R6, R8, R9, R10, R11, R12, R13, M1, M2, M3, M4, T1, T2, T3 and T4 provide motor driving function.