Technical Description

The Equipment Under Test (EUT) is a Base Station of the Baby Tracker (Sensor) with a Bluetooth BLE transceiver and a 2.4GHz wifi transceiver. The EUT is powered by a AC/DC adaptor with 5VDC output.

Bluetooth portion
Antenna Type: Internal, Integral
Antenna Gain: 2 dBi

Operating mode	Range of Peak Conducted Power	Modulation Type
Bluetooth BLE	0 dBm to 4dBm	GFSK

WLAN portion
Antenna Type: Internal, Integral
Antenna Gain: 2 dBi

Operating mode	Range of Peak Conducted Power	Modulation Type
802.11b	20 dBm to 28 dBm	DSSS
802.11g	20 dBm to 28 dBm	OFDM
802.11n (HT20)	20 dBm to 28 dBm	MCSn (n=0 to 7)
802.11n (HT40)	not use	MCSn (n=0 to 7)

The main components are described below:

2.4G Bluetooth module

1. nRF51822 is 2.4GHz Bluetooth BLE radio core
2. 16MHz crystal is operating clock for nRF51822
3. 32.768kHz crystal is slow clock for nRF51822

2.4G WiFi module

1. ESP8266 is 2.4GHz WiFi radio core for 802.11 b/g/n (HT20)
2. 26MHz crystal is operating clock for ESP8266