

## Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz Bluetooth Classic and Bluetooth BLE Transceiver for an AI story bear. For the Bluetooth Classic mode, the sample supplied operated on 79 channels, normally at 2402 – 2480MHz. The channels are separated with 1MHz spacing. For the Bluetooth BLE mode, the sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing.

The EUT is powered by 4 x 1.5V AA batteries. After switching on EUT, it can be paired up with a smartphone and perform different functions through a mobile app. Sound will be emitted from the bear by pressing the button on the ear or based on the sound received from the paired smartphone.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 88.8dB $\mu$ V/m at 3m (Peak), 77.4dB $\mu$ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

1. U2 (BK328812) acts as MCU
2. Y1 acts as 26MHz Oscillator
3. C11, C12, C13, C14, C16 and C17 act as antenna matching circuit
4. U1 (HT7336-A) and U3 (ME2188A40PG) act as voltage regulator
5. U4 (TZ7889) acts as motor driver
6. U5 (HT6872) acts as audio PA
7. U6 (BY25Q256FS) acts as SPI Flash.