



## **Operational Description (FM Transmitter function)**

The EUT is a Wireless Audio Portable FM Linker, AudiaX, to be capable of transmitting audio signals from the Earphone jack on it to FM receiver. It operates on frequencies at 88.1 MHz to 107.9 MHz. There are two buttons on it; button (1) turns Power ON and changes channel DOWN (0.1 MHz), and the other button (2) changes channel UP (1 or 0.1 MHz step). See the attached block diagram and schematic.

All audio signals are transferred to FM stereo transmitter IC (BH1415, PIN 1 & 22). The BH1415F is controlled by MICOM (S3P72C8), such as clock, data, and enable/disable function. The transferred signals into the BH1415F are FM modulated and radiated on the air via the antenna, Earphone jack, on the product.

There is the 7.6 MHz crystal oscillator between PIN 13 and PIN 14 on the BH1415F. The transmission frequency is stable because it has a PLL system transmitter circuit.

The EUT is powered from 1.5V battery. The IC (RN5RK331) is used for set-up DC/DC converter, increasing DC voltage up to 3.3V.

All tuning and verification are performed by the manufacture and there are no adjustments required by the user. No external ground is required or used with this transmitter.