



Operational Description

The EUT has the RF module, BC358239A that is a Bluetooth module, operating in 2400 to 2483.5 MHz band and employing 79 hopping channels. The nominal hop rate is 1600 hops/s. BC358239A is a single chip radio and baseband IC for Bluetooth 2.4GHz systems. BC358239A contains 8Mbit of internal Flash Memory. When used with the CSR Bluetooth software stack, it provides a fully compliant Bluetooth system to V1.2 of the specification for data and voice communications.

POWER SOURCE

The EUT uses a 3.7V Li-Ion battery re-chargeable via AC/DC adapter (DC output: 5.0V). The DC/DC Converter (XC9215A18CDRN) converts the input voltage from the battery into Down Voltages. The Down voltages are supplied to Codec (WM8731LSEFL), BT module (BC358239A), and MIC AMP (TDA2005D1).

ANTENNA

The EUT uses an integral SMD chip antenna (ALA931C4). No external ground is required.

Co-ordination of the hopping sequence in data mode to avoid simultaneous occupancy by multiple transmitters: Bluetooth units which want to communicate with other units must be organized in a structure called piconet. This piconet consists of maximum 8 Bluetooth units. One unit is the master, the others seven are the slaves. The master co-ordinates frequency occupation in this piconet for all units. As the master hop sequence is derived from it's BD address which is unique for every Bluetooth device, additional masters intending to establish new piconets will always use different hop sequences.