



Bluetooth Trainer carries Bluetooth module with integrated Bluetooth core and radio/antenna circuit. It supports Bluetooth v2.0+EDR, SPP, I/O profile, SCO connections and digital I/O. The Trainer is designed to study the Bluetooth Wireless Technology and communication between Bluetooth Modems and Phone. It includes on board peripherals which can be used for designing various small scale application. Also user can also interface the trainer to Android phone and PC using GUI application. In order to establish a communication, this trainer system is supplied as a pair.

### Specifications

- Integrated 2.4GHz, IEEE 802.15 transceiver
- Frequency Range : 2402MHz-2480MHz
- Transmit Power : +18dBm
- RF Data Rate : 250kbps
- 2AIO (Analog Input) : On Board Temperature Sensor & Variable Voltage Source for ADC.
- 5DIO ( Digital input output) : Onboard Relay, LED & Switch
- Power Supply : +5VDC ~ 0.5A
- OS Support : XP/Vista/Windows 7
- USB A-B Interfacing facility with PC
- Integrated Chip Antenna
- Onboard Audio Coder for audio communication
- User friendly GUI for Configuring Bluetooth Modem

#### On board peripherals

##### Relay

- 5V SPDT Mechanical Relay
- NO & NC LED Indicator
- Screw Terminal Block Connector for external device

##### Temperature Sensor

- Operating Temperature range : 0°C - 120°C
- Scale Factor : 10mV/°C
- ADC

##### Audio Coder

##### Switch & LED

- Six SMD LEDs (3-Red for power, 1-Green for Status, 2-Red User accessible).
- Three Tactical Switch for RESET, FACTORY RESET & BT-MODE
- Four Toggle Slide Switches (2-User accessible, Power ON/OFF, Audio Coder ON/OFF)

Note: Specifications are subject to change.

### Experiments

#### Configuration of the Bluetooth Module

- Configuring Bluetooth as Master
- Configuring Bluetooth as Slave

#### Communication With Two Bluetooth Module

- Data Communication with Master Module to Slave Module

#### Interfacing The Peripherals

- a) Interfacing on board Peripherals
  - Interfacing with LEDs and SWITCHES
  - Interfacing with RELAY
  - Interfacing with ADC using Variable Resistor
  - Interfacing with TEMPERATURE SENSOR
- b) Interfacing remote board Peripherals
  - Interfacing with LEDs and SWITCHES
  - Interfacing with RELAY
  - Interfacing with ADC using Variable Resistor
  - Interfacing with TEMPERATURE SENSOR
- Voice Communication Between Two Bluetooth Modem
- Data Communication Between Bluetooth Modem And Android Mobile (Available with the user)
- Study of AT Commands

Note: Specifications are subject to change.