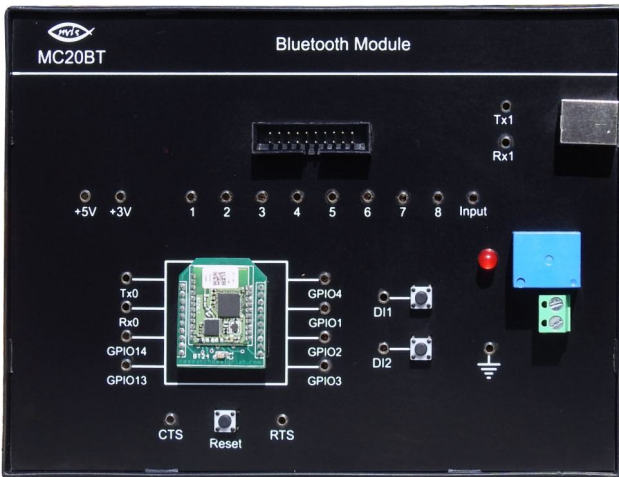




# Bluetooth Module

## MC20BT



Bluetooth MC20BT Module is an extension module for Nvis Microcontroller development platforms. The module has been designed for students and practicing engineers to gain invaluable practical experience on the principle and applications of microcontroller & Bluetooth module. The objective is to have a clear understanding of how Bluetooth module is interfaced and controlled with microcontroller.

Bluetooth modules are embedded solutions providing wireless endpoint connectivity to devices. The Bluetooth modules can transmit and receives the data wirelessly by using two devices.

The Bluetooth operates at the frequency of the 2.4 GHz and also used in many small ranges of applications.

### Features

- Wireless communication via Bluetooth
- On board 6nos GPIO
- On board 2 digital input switches
- On board RX and TX interface
- On board CTS and RTS pins
- On board LED for indicator
- On board Relay Interface
- On board +5V and +3.3V Supply
- Module can be used as a standalone
- Expansion connectors for Microcontroller
- Every pin is marked in order to make the work easier
- USB board for PC interface

### Scope of Learning

- To study and interfacing of Bluetooth module
- To study of Bluetooth pairing.
- To study and learn to Interface Bluetooth module with microcontroller
- To study and learn to use internal peripherals (I/O) of Bluetooth module
- To study and design Wireless Sensor Network using Bluetooth modules
- To study and design Automation applications

### Technical Specifications

Indoor/Urban range	: Up to 10m
Outdoor RF line-of-sight range:	Up to 100m
RF data rate	: 480 Kbps
Frequency	: ISM 2.4 GHz
Antenna	: On board
Network topologies	: Point to point
Digital IOs	: 6 nos
Digital input	: 2 switches
LED & Relay	1no
Supply Voltage	: 5V DC
Power Supply	: USB port and from Nvis 500X Series Microcontroller development platforms.
Interface	: 20 pin FRC cable compatible with Nvis 500x series development platform
Weight	: 220 gms (approximately)
Package contains	: Bluetooth dongle-1no. Patch cords-5nos. 20pin FRC cable-1no. USB cable (A to B type)-1no.

**Note:** This module is compatible with Scientech 620X Series and Nvis 5001A/2/3/4B/5 Series Microcontroller development platforms.

### Application

- Home Automation
- Security System
- Robotic