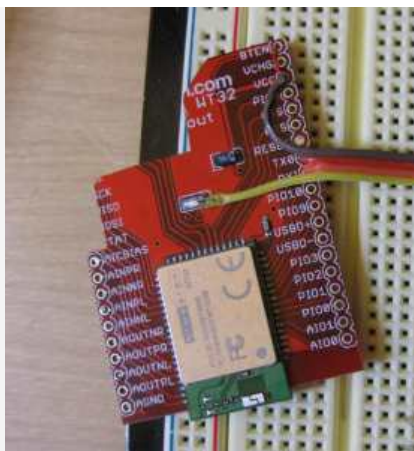


BLUETOOTH MODULE INTERFACING WITH MICROCONTROLLER

Bluetooth® wireless technology is becoming a popular standard in the communication arena, and it is one of the fastest growing fields in the wireless technologies. It is convenient, easy to use and has the bandwidth to meet most of today's demands for mobile and personal communications. Bluetooth technology handles the wireless part of the communication channel; it transmits and receives data wirelessly between these devices. It delivers the received data and receives the data to be transmitted to and from a host system through a host controller interface (HCI). The most popular host controller interface today is either a UART or a USB .Here,I will only focus on the UART interface, it can be easily show how a Bluetooth module can be integrated on to a host system through a UART connection and provide the designer an optimal solution for Bluetooth enabled systems.

Here,I will show two examples of hardware interface between Bluetooth wireless technology and UART.One example shows an interface between an Bluetooth module and a PC via UART, and the other example shows an interface between a Bluetooth module and a Microcontroller via UART.

I have a used WT32 bluetooth module.

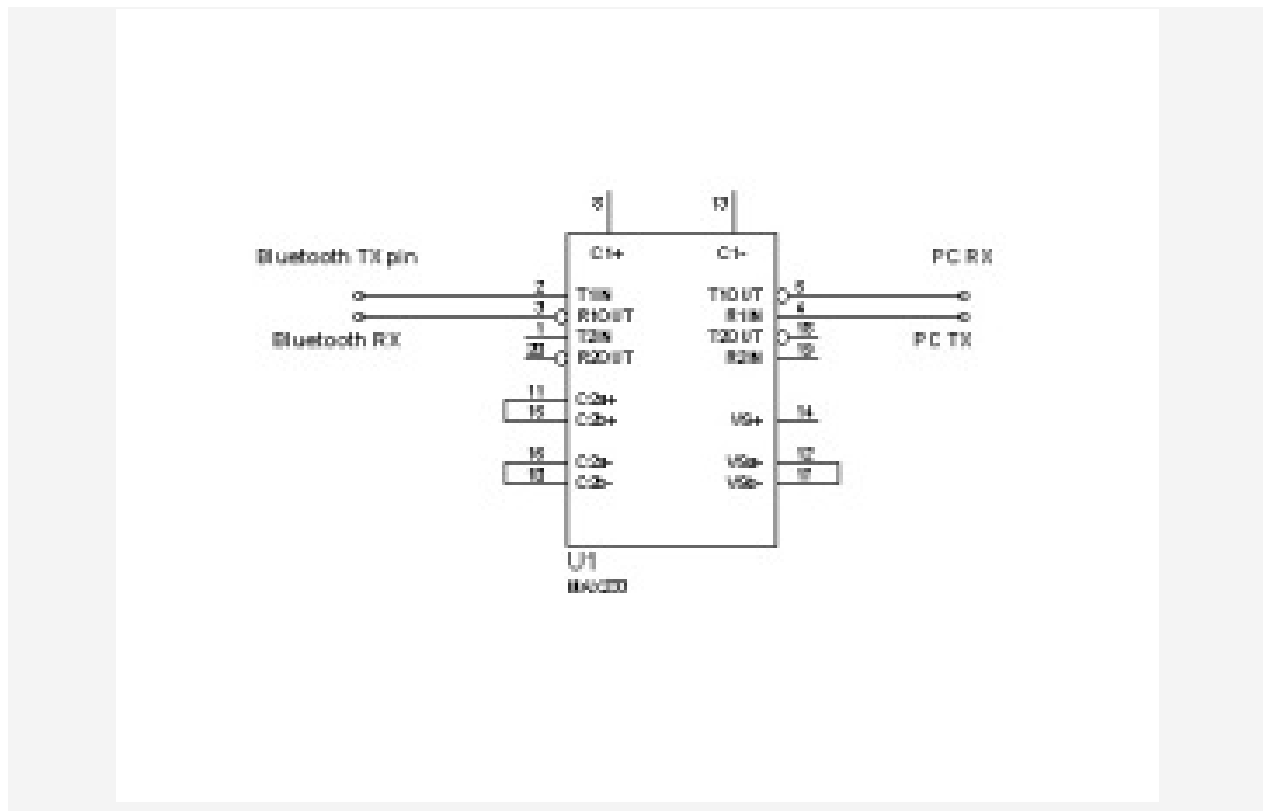


WT32 BLUETOOTH MODULE

Supply voltage at VCC pin can vary between 1.8 V and 3.3 V. VCC and BTEN combined to a single 3.3 V supply voltage.

INTERFACE BETWEEN AN BLUETOOTH MODULE AND A PC VIA UART

Now connect the PC with Bluetooth module through RS232 over MAX232 or MAX233 level converter.



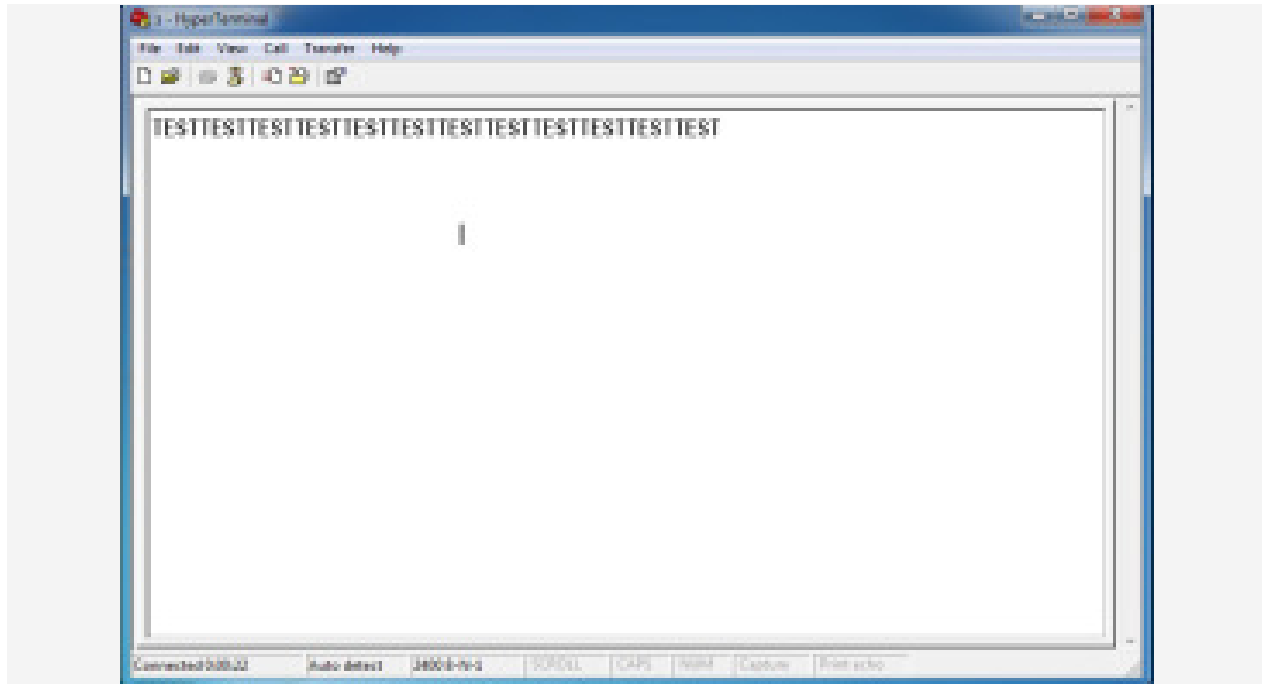
Bluetooth module Connection with PC

Now, Test the connection with hyperterminal or any serial port communication software .Here,I have used hyperterminal for test.


```
UART1_Write_Text("TEST");  
Delay_ms(2000);          // Wait  
}  
}
```

OUTPUT

Now, you can see the Data "TEST" on Hyperterminal that will send by microcontroller via Bluetooth Module.



Source : <http://vshamu.wordpress.com/2011/03/20/bluetooth-module-interfacing-with-microcontroller/>