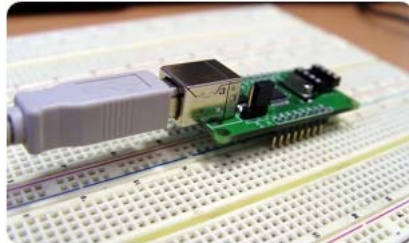


FT245 USB Modul

- Ver 1.0 -

1. FT245 Module Features
2. FT245 Features
3. Board Form
4. Pin Assignment
5. Schematic
6. Board Dimension
7. Driver Installation
8. Drivers Download
9. Code Example



1. FT245 Module Features

- FTDI chip사의 FT245 채용
- D2XX Driver 사용 시 최대 1MByte 전송
- 1열 Pin Header에 Data, Control Pin 입출력
- 외부 I/O 전원 선택 가능(3.3V, 5V)
- USB 정보 저장을 위한 EEPROM Socket
- Bit Bang mode, D2XX를 이용한 Board Test Program 제공

2. FT245 Features

- HARDWARE FEATURES
 - Single Chip USB ⇔ Parallel FIFO bi-directional Data Transfer
 - Transfer Data rate to 1M Byte / Sec - D2XX Drivers
 - Transfer Data rate to 300 Kilobyte / Sec - VCP Drivers
 - Simple to interface to MCU / PLD/ FPGA logic with a 4 wire handshake interface
 - Entire USB protocol handled on-chip no USB-specific firmware programming required
 - FTDI's royalty-free VCP and D2XX drivers eliminate the requirement for USB driver development in most cases.
 - 384 Byte FIFO Tx buffer / 128 Byte FIFO Rx Buffer for high data throughput.
 - New Send Immediate support via SI Pin for optimised data throughput.
 - Support for USB Suspend / Resume through PWREN# and WAKEUP pins.
 - Support for high power USB Bus powered devices through PWREN# pin
 - Adjustable RX buffer timeout
 - In-built support for event characters
 - Integrated level converter on FIFO and control signals for interfacing to 5V and 3.3V logic
 - Integrated 3.3V regulator for USB IO
 - Integrated Power-On-Reset circuit
 - Integrated 6MHz – 48Mhz clock multiplier PLL
 - USB Bulk or Isochronous data transfer modes
 - New Bit-Bang Mode allows the data bus to be used as an 8 bit general purpose IO Port without the need for MCU or other support logic.
 - 4.35V to 5.25V single supply operation
 - UHCI / OHCI / EHCI host controller compatible
 - USB 1.1 and USB 2.0 compatible
 - USB VID, PID , Serial Number and Product Description strings in external EEPROM
 - EEPROM programmable on-board via USB
 - Compact 32LD LQFP package

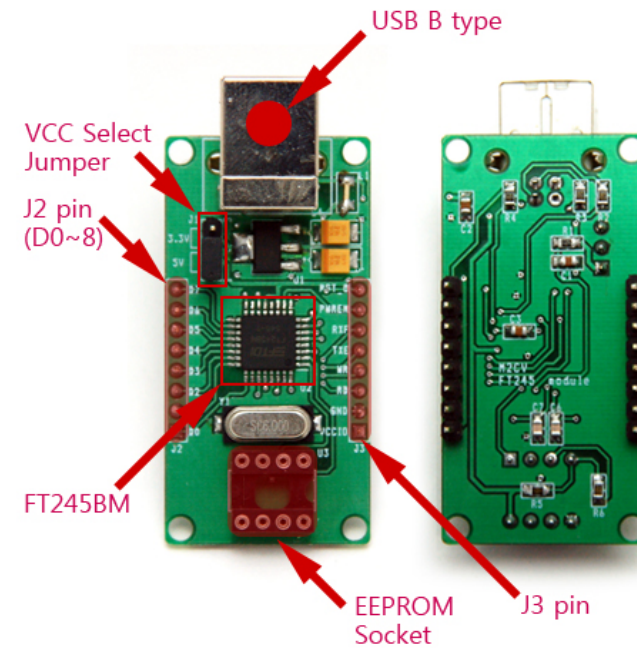
- Support Operating System

• VIRTUAL COM PORT (VCP) DRIVERS for	• D2XX (USB Direct Drivers + DLL S/W Interface)
Windows 98 and Windows 98 SE	Windows 98 and Windows 98 SE
Windows 2000/ME/Server 2003/XP	Windows 2000/ME/Server2003/XP
Windows XP 64 Bit	Windows XP 64 Bit
Windows XP Embedded	Windows XP Embedded
Windows CE 4.2	Windows CE 4.2
MAC OS-8 and OS-9	Linux 2.4 and Greater
MAC OS-X	
Linux 2.40 and greater	

- APPLICATION AREAS

- Easy MCU / PLD / FPGA interface to USB
- Upgrading Legacy Peripheral Designs to USB
- USB Instrumentation
- USB Industrial Control
- USB Audio and Low Bandwidth Video data
- PDA ⇔ USB data transfer
- USB MP3 Player Interface
- USB FLASH Card Reader / Writers
- Set Top Box (S.T.B.) PC - USB interface
- USB Digital Camera Interface
- USB Hardware Modems
- USB Wireless Modems

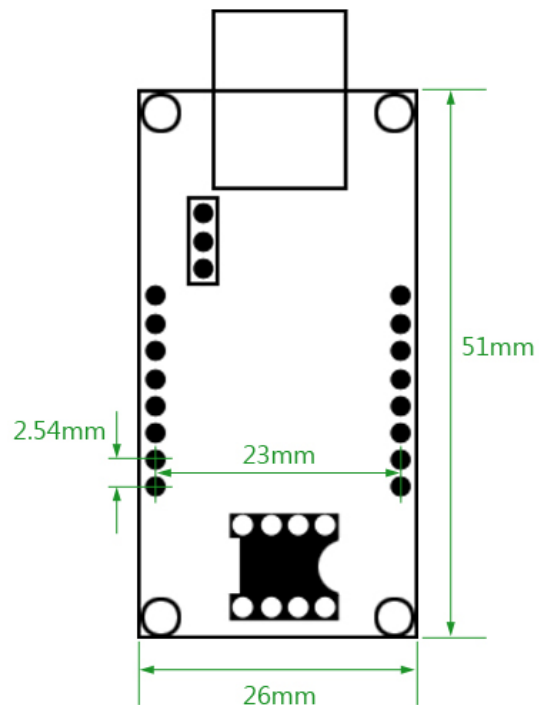
3. Board Form



* EEPROM : AT93C04, AT93C46 (Option Part)

* VCC Select Jumper : 3.3V, 5V

6. Board Dimension



7. Driver Installation

별도 파일 참조(FDDI's PDF Installation Guide)

8. Drivers Download

- VCP Drivers URL

<http://www.ftdichip.com/Drivers/VCP.htm>

- D2XX Drivers URL

<http://www.ftdichip.com/Drivers/D2XX.htm>

- 3rd Party Drivers URL

<http://www.ftdichip.com/Drivers/3rdPartyDrivers.htm>

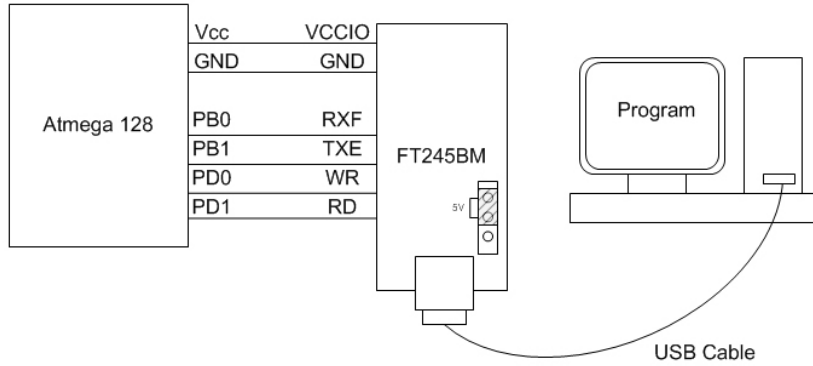
9. Code Examples

- URL <http://www.ftdichip.com/Projects/CodeExamples.htm>

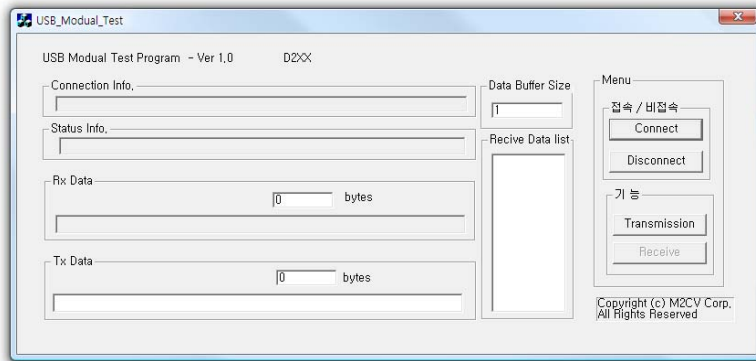
- [C++ Builder](#)
- [C#](#)
- [Delphi](#)
- [LabVIEW](#)
- [Visual Basic](#)
- [Visual C++](#)
- [Other Platforms](#)

10. Program Mode Guide

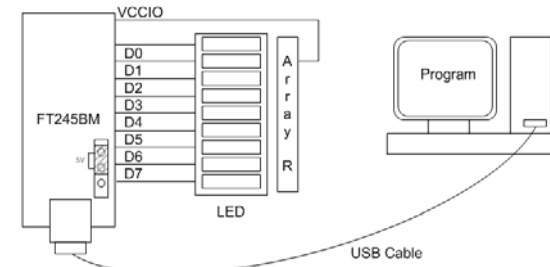
- D2XX Mode



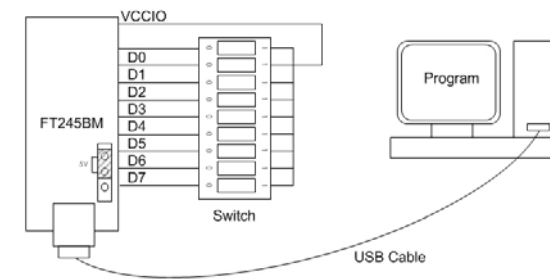
- D2XX Program UI



- BitBang Write Mode



- BitBang Read Mode



- BitBang Program UI

