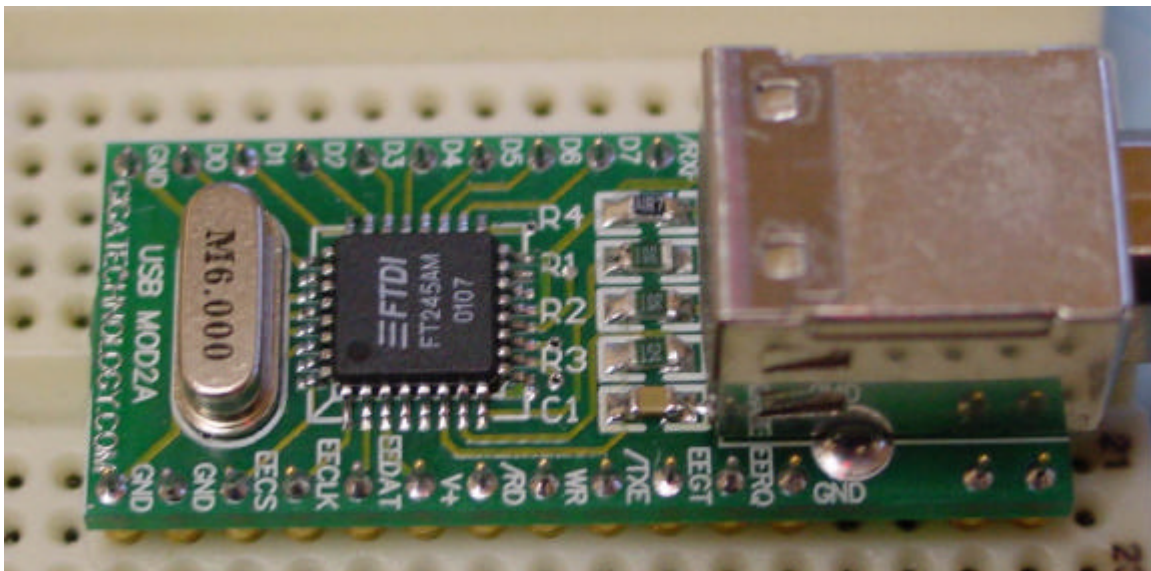


USB Plug and Play Parallel 8-Bit FIFO Development Module

The USBMOD2 is a low-cost integrated module for transferring data to / from a peripheral and host PC at up to 8 Million bits (1 Megabyte) per second. Based on the FTDI FT8U245 USB FIFO – Fast Parallel Data Transfer IC, it's simple FIFO-like design makes it easy to interface to an CPU (MCU) either by mapping the device into the memory or I/O map of the CPU, using DMA or controlling the device via I/O ports.

The USBMOD2 is ideal for rapid prototyping and development by offering a complete plug and play type solution.



MODULE FEATURES

- Single module High-Speed USB UART solution
- Based on FTDI FT8U245 USB FIFO – Fast Parallel Data Transfer IC
- Standard 32-pin Dual In-Line Type Package (Ideal for prototyping)
- Fits directly into a standard 32-pin 600mil IC Socket or Breadboard.
- Integrated Type-B USB Connector
- On-board Crystal and All required Passive Components
- Provision for external EEPROM for custom USB enumeration data
- No other external components required for operation
- Module powered from USB bus with up to 50mA from USB for user hardware

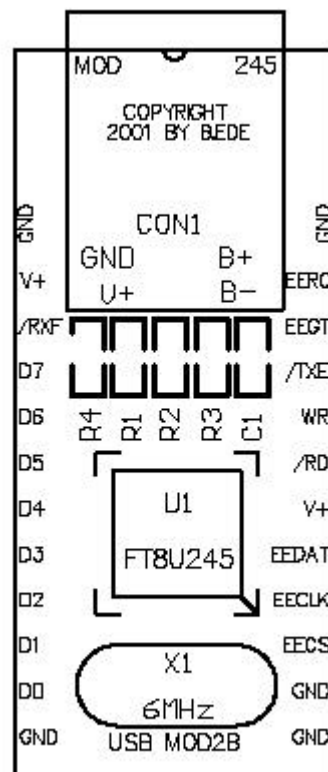
FT8U245 IC FEATURES

- Single Chip USB Data Transfer Solution
- Send / Receive Data over USB at up to 1 MByte / Second
- 384 byte receive buffer / 128 byte transmit buffer for high data throughput
- Simple interface to CPU or MCU bus
- No in-depth knowledge of USB required as all USB Protocol is handled automatically within the IC
- FTDI's Virtual COM port and Direct drivers eliminate the need for USB driver development in most cases.
- Integrated 6Mhz – 48Mhz Clock Multiplier aids FCC and CE compliance
- Integrated 3.3v Regulator – No External Regulator Required
- UHCI / OHCI Compliant
- USB 1.1 Specification Compliant

- USB VID, PID, Serial Number and Product Description Strings in external E2PROM.

For further information regarding the FTDI FT8U245 USB FIFO – Fast Parallel Data Transfer IC please refer to the FT8U245 Datasheet.

MODULE DIAGRAM



USBMOD2 PINOUT

PIN #	SIGNAL	TYPE	DESCRIPTION
1	N/C	MOUNT	Mounting Pin for module USB connector support
2	N/C	MOUNT	Mounting Pin for module USB connector support
3	NO PIN	NO PIN	
4	NO PIN	NO PIN	
5	GND	PWR	Device – Ground Supply Pin
6	V+	PWR	Device - +4.4 volt to +5.25 volt Power Supply Pin
7	/RXF	OUT	When high, do not read data from FIFO. When low, there is data available in the FIFO which can be read by strobing /RD low the high again.
8	D7	I/O	Bi-Directional Data Bus Bit #7
9	D6	I/O	Bi-Directional Data Bus Bit #6
10	D5	I/O	Bi-Directional Data Bus Bit #5
11	D4	I/O	Bi-Directional Data Bus Bit #4
12	D3	I/O	Bi-Directional Data Bus Bit #3
13	D2	I/O	Bi-Directional Data Bus Bit #2
14	D1	I/O	Bi-Directional Data Bus Bit #1
15	D0	I/O	Bi-Directional Data Bus Bit #0
16	GND	PWR	Device – Ground Supply Pin
17	GND	PWR	Device – Ground Supply Pin
18	GND	PWR	Device – Ground Supply Pin
19	EECS	I/O	Optional EEPROM – Chip Select
20	EECLK	I/O	Optional EEPROM – Clock
21	EEDAT	I/O	Optional EEPROM – Data I/O
22	V+	PWR	Device - USB Power Supply Pin +5V Nominal
23	/RD	IN	Enables Current FIFO Data Byte on D0..D7 when low. Fetches the next FIFO Data Byte (if available) from the Receive FIFO Buffer on low to high transition.
24	WR	IN	Writes the Data Byte on D0..D7 into the Transmit FIFO Buffer on high to low transition.
25	/TXE	OUT	When high, do not write data into the FIFO. When low, data can be written into the FIFO by strobing WR.
26	EEGT	OUT	When low, allows the EEPROM contents to be accessed via the Data Bus
27	EERQ	IN	Requests the EEPROM contents to be accessed via the Data Bus.
28	GND	PWR	Device – Ground Supply Pin
29	NO PIN	NO PIN	
30	NO PIN	NO PIN	
31	N/C	MOUNT	Mounting Pin for module USB connector support
32	N/C	MOUNT	Mounting Pin for module USB connector support

SAMPLE APPLICATION

