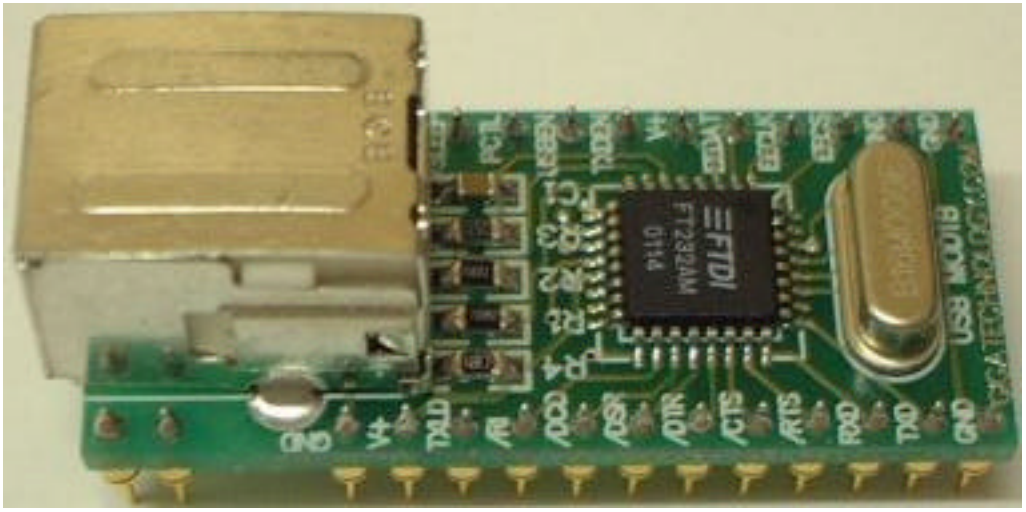
USB Plug and Play Serial Development Module

The USBMOD1 is a low-cost integrated module for transferring serial data over USB. Based on the FTDI FT8U232 USB UART IC, the USBMOD1 is capable of transfer rates of up to 920k baud (RS232) and 2000k baud (RS422 / RS485).

The USBMOD1 is ideal for rapid prototyping and development by offering a complete plug and play solution.



MODULE FEATURES

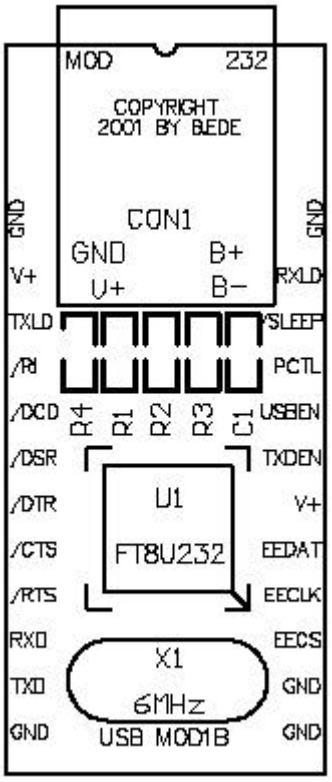
- Single module High-Speed USB UART solution
- Based on FTDI FT8U232 High-Speed USB UART IC
- 32-pin Dual In-Line Package (Ideal for prototyping)
- Fits into a standard 32-pin 600mil IC Socket
- Integrated Type-B USB Connector
- On-board 6MHz Crystal
- Provision for external EEPROM for USB enumeration data
- No external passive components required
- Module powered from USB bus (up to 60mA from USB for user application)

FT8U232 IC FEATURES

- Single Chip Multi-Function Data Transfer Solution
- RS232 link from 300 baud to 920K baud
- RS422/RS485 Link to 2000K baud
- 384 byte receive buffer / 128 byte transmit buffer for high data throughput
- Full hardware assisted or X-On/X-Off handshaking
- Support for Event Characters and Line Break condition
- Auto Transmit Buffer control for RS485
- Compact 32 pin (7mm x 7mm) MQFP package
- 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 FT8U232 USB UART IC please refer to the FT8U232 Datasheet.

MODULE DIAGRAM



USBMOD1 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	TXLD	O.C	LED Drive – Pulses Low when Transmitting Data via USB
8	/RI	IN	UART – Ring Indicator Control Input
9	/DCD	IN	UART – Data Carrier Detect Control Input
10	/DSR	IN	UART – Data Send Ready Control Input
11	/DTR	OUT	UART – Data Terminal Ready Control Output
12	/CTS	IN	UART – Clear To Send Control Input
13	/RTS	OUT	UART – Request To Send Control Output
14	RXD	IN	UART – Receive Data Input
15	TXD	OUT	UART – Transmit Data Output
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 - +4.4 volt to +5.25 volt Power Supply Pin
23	TXDEN	OUT	UART – Enable Transmit Data for RS485
24	USBEN	OUT	USB Enabled – High after device is configured via USB
25	PCTL	IN	Bus Powered – Tie Low / Self Powered – Tie High
26	SLEEP	OUT	Goes Low during USB Suspend Mode
27	RXLD	O.C	LED Drive – Pulses Low when Receiving Data via USB
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

