

FTDI UART Chips and Vinculum Host Controllers



The VNC1L USB Host Controller ICs not only handle the USB Host Interface, and data transfer functions but owing to the built-in 8/32-bit MCU and embedded Flash memory, VNC1L encapsulates the USB device classes as well. When interfacing to mass storage devices such as USB Flash drives, VNC1L also transparently handles the FAT file structure communicating via UART, SPI or parallel FIFO interfaces via a simple to implement command set. The VNC1L device features two USB Ports which can be individually configured by firmware as Host or Slave ports. VNC1L brings cost effective USB Host capability to products that previously did not have the hardware resources available. As VNC1L comes complete with FTDI's in-house developed firmware, there are no USB software stacks to license, indeed, no knowledge of USB is required to use these devices.

FTDI VNC1L-1A USB HOST CONTROLLER IC

The VNC1L device which features two USB Ports which can be individually configured by firmware as Host or Slave ports.



RoHS Compliant

Features:

- 8/32 bit V-MCU Core
- Dual DMA controllers for hardware acceleration
- 64k Embedded Flash Program Memory
- 4k internal Data SRAM
- 2 x USB 2.0 Slow/Full speed Host/Slave Ports
- UART, SPI and Parallel FIFO interfaces
- PS/2 legacy Keyboard and Mouse Interfaces
- Up to 28 GPIO pins depending on configuration
- 3.3V operation with 5V safe inputs
- Low power operation (25mA running/2mA standby)
- Inbuilt FTDI firmware easily updated in the field
- LQFP-48 RoHS compliant package
- Multi-processor configuration capable



For quantities of 1000 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each			
			1	50	100	500
895-VNC1L-1A	VNC1L-1A	FTDI Vinculum Host Controller IC	10.25	8.75	8.25	7.90

FTDI VDIP1 MODULE

The VDIP1 module is an MCU to USB host controller development module for the VNC1L device. VDIP1 is supplied on a PCB designed to fit a 24-pin DIP socket and provides access to all UART, SPI and FIFO interface pins of the VNC1L device.



RoHS Compliant

Features:

- Jumper selectable UART, SPI or FIFO MCU Interfaces
- Uses FTDI's VNC1L device
- USB "A" type socket to interface with USB peripherals
- 2nd USB Interface available via module pins if required
- Single 5V supply input
- Auxiliary 3.3V/200mA power output to power external logic
- Power Good and Traffic Indicator LEDs
- Reset# and Prog# signals allow device programming via the UART interface if required.



For quantities of 50 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each	
			1	10
895-VDIP1	VDIP1	FTDI Vinculum MCU to USB Host Controller Module	26.80	24.15

FTDI VDRIVE2 MODULE

VDRIVE is possibly the easiest solution for adding a USB Flash drive interface to existing products. Only four signal lines plus 5V/GND require to be connected. Using the VDIF firmware, the interface can be selected between UART or SPI modes using the on-board jumpers.



RoHS Compliant

Features:

- One USB "A" socket to connect to USB Flash Drive
- Uses FTDI's VNC1L device
- Link Selectable UART or SPI interface
- Only 4 signals to connect excluding PWR/GND
- 0.1" (2.54mm) pitch 6-pin connector compatible with TTL-232R-3V3 for easy evaluation
- Single 5V supply required
- Uses VDIF firmware and command set



For quantities of 50 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each	
			1	10
895-VDRIVE2	VDRIVE2	FTDI Vinculum Flash Drive Interface Module	26.80	24.15

FTDI VMUSIC2 MODULE

VMUSIC is a product that not only lets you add USB Flash drive interfacing to your product but allows you to play back MP3 and other popular digital music formats direct from a USB Flash drive.



RoHS Compliant

Features:

- One USB "A" socket to connect to USB Flash Drive
- Stereo 3.5mm headphone jack socket and audio line-out connector for audio playback.
- Uses FTDI's VNC1L device coupled with VLSI VS1003 IC for music playback.
- Link Selectable UART or SPI interface
- Only 4 signals to connect excluding PWR/GND
- 0.1" (2.54mm) pitch 6-pin connector compatible with TTL-232R-3V3 for easy evaluation
- Single 5V supply required
- Uses extended VDIF command set



For quantities of 50 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each	
			1	10
895-VMUSIC2	VMUSIC2	FTDI Vinculum Flash Drive Interface w/MP3 Module	41.05	37.01

FTDI DLP-VLOG MODULE

Features:

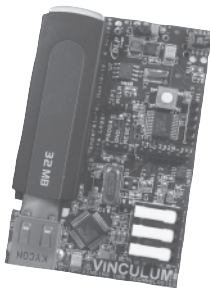
- Virtually unlimited data storage utilizing FTDI's new Vinculum™ USB Host IC
- Data logged to USB Flash drive
- Low-power modes for long battery life
- System power via two AA batteries
- Lead-free, RoHS compliant



RoHS Compliant

Development Kit Includes:

- VDLP-VLOG module
- C source code for the microcontroller firmware
- Windows support software for real time clock setup
- Windows data conversion software
- C compiler and device programmer/debugger
- 32MB USB Flash drive containing all documentation, software & source code



The DLP-VLOG is intended as both a demonstration platform for the new Vinculum IC as well as a learning tool. The development kit is designed to log temperature, humidity and voltage data to a USB Flash drive. Using the Vinculum IC from FTDI, this system demonstrates how one can provide virtually unlimited data storage for a small microcontroller.

This system can be beneficial to electronics enthusiasts with virtually any level of technical expertise. Based on the Vinculum Host Controller IC and the Microchip PIC16F88 Microcontroller, the DLP-VLOG can function as a digital design trainer, a microprocessor development system or as a rapid path to learning how to implement a USB Host Controller for interfacing a USB Flash drive to a small microcontroller.

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each
626-DLP-VLOG	DLP-VLOG	DLP VLOG Vinculum Development Kit	250.00

USB-UART AND USB INTERFACE IC'S

FTDI USB To Serial UART IC Devices:

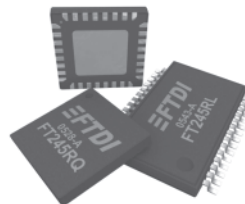
The FT232BL includes a 3.3V regulator, USB Transceiver that provides USB 1.1 / USB 2.0 full speed physical interface and a 6MHz Oscillator. The FT232RL/RQ has all the features of the BL but includes onboard EEPROM, as well as a 12MHz Oscillator and the FTDIChip-ID™ security dongle feature. The FT232R features a wide range of royalty-free FTDI developed drivers for 32 and 64 bit operating systems including Windows, CE, XP, Vista, Linux and Mac OS.

FTDI FT2232 Dual UART/FIFO IC Devices:

The FT2232 device features two multi-purpose UART/FIFO controllers which can be configured individually in several different modes. As well as a UART interface, a FIFO interface and the Bit-Bang IO mode of the FT232B and FT245B devices, the FT2232 offers a variety of additional new modes of operation including a Multi-Protocol Synchronous Serial Engine (MPSSSE) interface which is designed specifically for synchronous serial protocols such as I2C, JTAG and SPI bus. The FT2232D has an extended temperature range (-40°C to +85°C) and adds CPU FIFO mode.

FTDI FT245R USB To Parallel FIFO IC Devices:

The FT245R is a USB to parallel FIFO interface, with the new FTDIChip-ID™ security dongle feature. In addition, asynchronous and synchronous bit bang interface modes are available. USB to parallel designs using the FT245R have been further simplified by fully integrating the external EEPROM, clock circuit and USB resistors onto the device. The FT245R adds a new function compared with its predecessors, effectively making it a "2-in-1" chip for some application areas.



RoHS Compliant

For quantities of 1000 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each			
			1	50	100	500
895-FT232RL	FT232RL	FTDI USB to Serial UART IC, 28 Pin SSOP	3.99	3.64	3.11	2.61
895-FT232RQ	FT232RQ	FTDI USB to Serial UART IC, 32 Pin QFN	3.99	3.64	3.11	2.61
895-FT232BL	FT232BL	FTDI USB to Serial UART IC, 32 Pin LQFP	4.95	4.45	3.85	3.56
895-FT245RL	FT245RL	FTDI USB to Parallel FIFO IC, 28 Pin SSOP	4.15	3.80	3.37	2.77
895-FT245RQ	FT245RQ	FTDI USB to Parallel FIFO IC, 32 Pin QFN	4.15	3.80	3.37	2.77
895-FT245BL	FT245BL	FTDI USB to Parallel FIFO IC, 32 Pin LQFP	4.95	4.45	3.85	3.56
895-FT2232L	FT2232L	FTDI Dual USB UART/FIFO I.C, 48 Pin LQFP	6.95	6.26	5.42	4.85
895-FT2232D	FT2232D	FTDI Dual USB UART/FIFO I.C, 48 Pin LQFP	6.95	6.26	5.42	4.85