

FTDI UART Chips and Vinculum Host Controllers



Embedded Modules

FTDI Chip

FTDI VINCULUM USB HOST CONTROLLER DEVICES

The Vinculum family of devices allow the implementation of USB host controller functionality within products, thus saving development time and costs by using FTDI's tried and tested firmware programmed into internal, easily upgradeable Flash memory.

FTDI VNC1L-1A USB Host Controller IC

The initial product member of the Vinculum family of devices is the VNC1L which features two USB Ports which can be individually configured by firmware as Host or Slave ports.

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
- PS2 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)
- FTDI firmware easily updated in the field



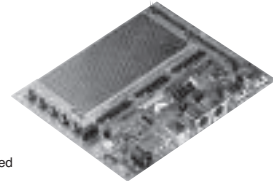
RoHS Compliant

FTDI V-EVAL Development Board

The V-Eval Kit is a hardware platform that designers can use to develop embedded USB host systems based on FTDI's VNC1L devices.

Features:

- Inbuilt VNC1L USB device programmer/terminal emulator/command monitor hardware
- Two VNC1L USB Host/Slave ports
- Generous prototyping area for standard DIP and SIL devices
- Multiple IO port connectors grouped by port name and/or function
- LEDs and switches for user interaction
- PS/2 keyboard and mouse ports
- Downloadable programming, terminal emulation and debug monitor software
- Downloadable HID class example project (VNC1L controlled USB rocket launcher) including PIC source code in C



RoHS Compliant

V-Eval Kit includes:

- 1 x V-Eval development board
- 1 x 5V/1A universal plug top PSU
- 1 x USB A/B cable to connect to a host PC in programming/terminal emulation or debugging modes
- 1 x USB gender changer for USB slave mode applications

For quantities of 500 and up, call for quote.

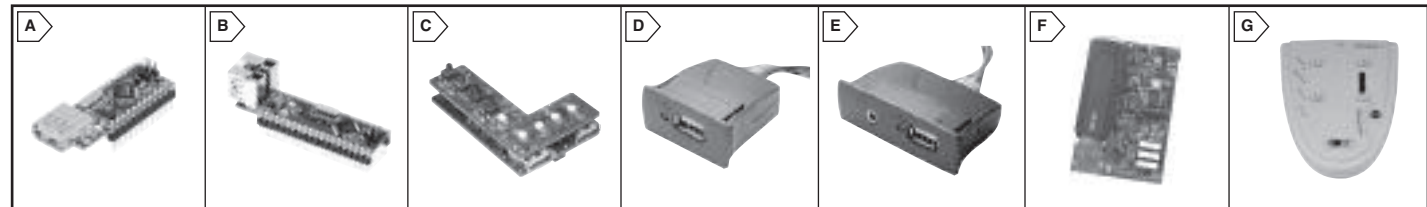
MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each			
			1	10	50	100
895-VNC1L-1A	VNC1L-1A	FTDI Vinculum Host Controller IC	10.90	10.40	9.95	9.50

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each
			1
895-V-EVAL-1	V-EVAL-1	FTDI Vinculum Development Board	69.95

FTDI VINCULUM MODULES AND ACCESSORIES

FTDI offers a range of modules, reference designs, and accessories that demonstrate the capabilities of the Vinculum IC, including DIP modules, add-on modules and dedicated application modules.



For quantities of 500 and up, call for quote.

MOUSER STOCK NO.	FTDI Chip Part No.	Fig.	Description	Price Each			
				1	10	50	100
Vinculum Modules							
895-VDIP1	VDIP1	A	FTDI Vinculum MCU to USB Host Controller Module	24.50	22.05	20.30	18.50
895-VDIP2	VDIP2	B	FTDI Vinculum MCU to 2 USB Host Controller Module	29.50	27.05	25.30	23.50
895-VF2F2	VF2F2	C	FTDI Vinculum Digital Media Backup to USB Flash Drive	37.50	33.75	31.05	28.25
895-VDRIVE2	VDRIVE2	D	FTDI Vinculum Flash Drive Interface Module	24.50	22.05	20.30	18.50
895-VMUSIC2	VMUSIC2	E	FTDI Vinculum Flash Drive Interface w/MP3 Module	37.50	33.75	31.05	28.25
626-DLP-VLOG	DLP-VLOG	F	DLP VLOG Vinculum Development Kit	250.00	--	--	--
Vinculum Accessories							
895-VPROG-1	VPROG-1	G	FTDI Vinculum Host Controller Programmer	55.00	--	--	--
895-VPROG-1-S-LQFP48	VPROG-1-S-LQFP48	--	LQFP48 Socket for programming VNC1L-1A ICs	140.00	--	--	--
895-VPROG-1-S-ZIF40	VPROG-1-S-ZIF40	--	ZIF40 Socket for programming VDIP1 & VDIP2 modules	50.00	--	--	--

FTDI 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 royaltyfree FTDI developed drivers for 32 and 64 bit operating systems including Windows, CE, XP, Vista, Linux and Mac OS.



Hi-Speed USB IC's

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

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 (MP SSE) 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 Hi-Speed Dual/Quad USB IC Devices:

FTDI's new FT2232H and FT4232H are USB 2.0 Hi-Speed devices operating at 480Mbps. In addition to the standard UART and FIFO modes, each of these devices supports FTDI's bit-bang modes and contains two multi-protocol synchronous serial engines (MP SSEs) to allow communication using JTAG, I2C and SPI protocols.



MOUSER STOCK NO.	FTDI Chip Part No.	Description	Price Each			
			1	10	50	100
895-FT232RL	FT232RL	FTDI USB to Serial UART IC, 28 Pin SSOP	4.50	4.05	3.85	3.65
895-FT232RQ	FT232RQ	FTDI USB to Serial UART IC, 32 Pin QFN	4.50	4.05	3.85	3.65
895-FT232BL	FT232BL	FTDI USB to Serial UART IC, 32 Pin LQFP	5.75	4.95	4.60	4.25
895-FT232BQ	FT232BQ	FTDI USB to Serial UART IC, 32 Pin QFN	5.75	4.95	4.60	4.25
895-FT245RL	FT245RL	FTDI USB to Parallel FIFO IC, 28 Pin SSOP	4.50	4.05	3.85	3.65
895-FT245RQ	FT245RQ	FTDI USB to Parallel FIFO IC, 32 Pin QFN	4.50	4.05	3.85	3.65
895-FT245BL	FT245BL	FTDI USB to Parallel FIFO IC, 32 Pin LQFP	5.75	4.95	4.60	4.25
895-FT245BQ	FT245BQ	FTDI USB to Parallel FIFO IC, 32 Pin QFN	5.75	4.95	4.60	4.25
895-FT2232D	FT2232D	FTDI Dual USB UART/FIFO IC, 48 Pin LQFP	6.99	6.28	5.59	5.17
895-FT2232HL	FT2232HL	FTDI Hi-Speed Dual USB UART/FIFO IC, 64 Pin LQFP	6.71	6.20	5.77	5.40
895-FT2232HQ	FT2232HQ	FTDI Hi-Speed Dual USB UART/FIFO IC, 64 Pin QFN	6.71	6.20	5.77	5.40
895-FT4232HL	FT4232HL	FTDI Hi-Speed Quad USB UART IC, 64 Pin LQFP	8.66	8.10	6.84	6.09
895-FT4232HQ	FT4232HQ	FTDI Hi-Speed Quad USB UART IC, 64 Pin QFN	8.66	8.10	6.84	6.09

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