## **Evaluation Kits**

#### **UM 232-R**





The UM232R module is a USB - Serial UART (TTL) development module for the FT232B IC device. The UM232R is supplied on a PCB designed to fit a 24 pin DIP socket, and provides access to all UART and CBUS interface pins of the FT232R device.

The UM232R can be configured as either USB bus-powered or self-powered and also supports 5V or 3V level interface IOs via two sets of jumper setting pins. Full hardware handshaking is supported and the UM232R can communicate at up to 3MBaud at TTL/CMOS levels.

Part No.	Ord. No.
S UM 232-R	60341

# UM 245-R





The UM245R module is a USB - Parallel FIFO interface (TTL) development module for the FT245R IC device. The UM245R is supplied on a PCB designed to fit a 24 pin DIP socket, and provides access to all FIFO interface and control pins (TXE#, RXF#, RD#, WR) of the FT245R device

The UM245R can be configured as either USB bus-powered or self-powered and also supports 5V or 3V level interface IOs via two sets of jumper setting pins. The UM245R can transfer data at up to 1 MegaByte per second.

Part No.	Ord. No.
S UM 245-R	60343

#### EVAL 232-R





The EVAL232R is a USB to RS232 development and evaluation module for the FT232RL IC device. Additional header pins on the board which provide access to the FT232RL device's configurable CBUS interface pins.

Powered from USB, the EVAL232R supports both 5V and 3V level IO interface voltage on the CBUS via a jumper setting. Full RTS/CTS, and DTR/DSR hardware handshaking are supported, DCD and RI are also available. RS232 communication is possible at up to 250kBaud. LEDs are fitted to indicate activity on the FT232RL's TXD and RXD lines, thus showing when the module is transmitting, or receiving data.

Part No.	Ord. No.
S EVAL 232R	60336

#### FTx232 HQ MiniModule Series





The Hi-Speed Mini Modules are two evaluation modules which support

FTDI's FT2232H and FT4232H USB 2.0 Hi-Speed devices. These modules have the capability of being configured in variety of industry standard serial or parallel interfaces such as UART, FIFO, JTAG, I2C and SPI. They are ideal for development purposes to quickly prove the concept of adding Hi-Speed USB to a target design.

- USB 2.0 Hi-Speed compatible via small USB Part No. B connector.
- Rapid integration into existing systems via 2 double row male connectors (0.1"
- Asynchronous Serial data transfer rates from 300 baud to 12 Mbaud at TTL levels
- · Synchronous Serial (MPSSE) data rates of up to 30Mbps on JTAG, SPI and
- FT2232H-Mini-Module provides 2 independently configurable channels.
- FT4232H-Mini-Module provides 4 independently configurable channels

	Part No.	Ord. No.
S	FT2232HQ Minimodule	73213
S	FT4232HQ Minimodule	75174

### VDIP1





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. Ideal for rapid prototyping and development of VNC1L designs, an attractive quantity discount structure also makes this module suitable for incorporation into low/medium volume finished product designs.

#### Key features:

- Jumper selectable UART, SPI or FIFO MCU Interfaces
  Uses FTDI's VNC1L device
- USB "A" Part No. 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

Part No.	Ord. No.
S VDIP1	57840

## VDIP2





The VDIP2 module is an MCU to embedded USB host controller development module for the VNC1L I.C. device. The VDIP2 is supplied on a PCB designed to fit into a 40 pin DIP socket, and provides access to the UART, parallel FIFO, and SPI interface pins on the VNC1L device, via its AD and AC bus pins. All other Vinculum I/O pins are also accessable. Not only is it ideal for deve-

loping and rapid prototyping of VNC1L designs, but also an attractive quantity discount structure makes this module suitable for incorporation into low and medium volume finished product designs

- Two vertically mounted USB ...A" Part No. sockets to interface with USB peripheral devices
- Uses FTDI's VNC1L device
  Jumper selectable UART, parallel FIFO or SPI MCU interfaces
- Single 5V supply input
- Auxiliary 3.3V/200mA power output to external logic
- Power and traffic indicator LEDs
- Program or update firmware via USB Flash disk or or via UART interface
- VNC1L firmware programming control pins PROG# and RESET# brought out onto jumper interface
- VDIP2 is a Pb-free, RoHS complaint development module
- VDIP2 module is supplied pre-loaded with Vinculum VDAP firmware

Part No.	Ord. No.
S VDIP2	75160

#### V-EVAL 1





The V-Eval Kit is a hardware platform that designers can use to develop embedded USB host systems based on FTDI's VNC1L devices. Designs can be rapidly debugged using the "spy" mode of the supplied V-Eval software which displays the data sent between the VNC1L UART and a controller UART, for example a PIC

#### Kev features:

• Inbuilt VNC1L USB device programmer/ ter-

minal 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.

Part No.	Ord. No.
S V-EVAL1	67414