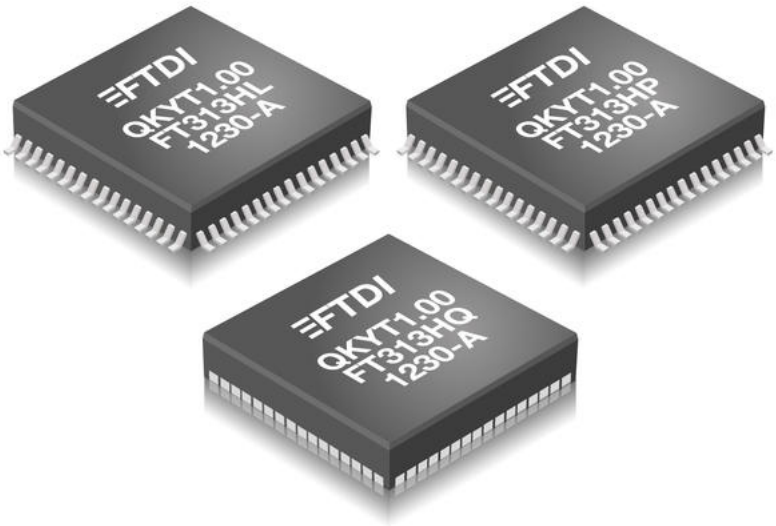
USB 2.0 Hi-Speed host controller IC provides providing 480 Mbit/s capability



Future Technology Devices International Limited (FTDI) has strengthened its portfolio of USB semiconductor solutions, with the release of the FT313H host controller IC. This feature-rich device supports USB 2.0 hi-speed (480 Mbits/s), as well as full-speed (12 Mbit/s) and low-speed (1.5 M bit/s) implementations. Specifically designed for easy integration, it adds high speed connectivity capability into a system, enabling fast data transfers, mass storage thumb-drives, addition of wireless dongles and modular system expansion, through its support of standard USB class drivers.

The FT313H system specifications make it applicable for use across all market segments including industrial, networking, medical and consumer. The device runs off a 3.3V supply, with IO levels configurable between 1.8V and 3.3V drawing approximately 78 mA when in full operation and just under 200 µA while in suspend mode. The built-in 24 kByte high speed RAM memory executes data transfer and buffering. The multiplexed interface provides for board level interconnect through either a general purpose 16-bit bus, NOR, or SRAM interfaces, while minimising pins on the chip.

With the capacity for direct memory access (DMA) operation, the IC can easily be combined with the system microcontroller in order to enhance connectivity, so that data transfer rates can be increased. For example, a set top box can gain wireless functionality by attaching a wireless USB dongle via a FT313H host port.

The FT313H’s downstream port can be configured to offer the most optimised USB charging solution for the end product, with charging downstream port (CDP) or dedicated charging port (DCP) options to choose from (thereby complying with

Battery Charge Specification Rev 1.2). When this standardised USB charging link is created between the embedded host and the peripheral, increased charging is permitted which enables current levels between 0.5 A and 1.5A.

The FT313H has an operational temperature range -40 °C to 85 °C, enables it to be employed is demanding environmental settings. It is available in compact Pb-free, 64-pin QFN, LQFP and TQFP packages

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[1] http://www.ftdichip.com