

## FTDI

<b>Type</b>	<a href="#">Private</a>
<b>Industry</b>	<a href="#">Semiconductor industry</a>
<b>Founded</b>	13 March 1992
<b>Founder</b>	Fred Dart
<b>Headquarters</b>	<a href="#">Glasgow, Scotland</a>
<b>Website</b>	<a href="http://ftdichip.com">ftdichip.com</a>

**Future Technology Devices International**, commonly known by its acronym **FTDI**, is a Scottish privately held [semiconductor device](#) company, specialising in [Universal Serial Bus](#) (USB) technology.<sup>[1]</sup>

It develops, manufactures, and supports devices and their related software drivers for converting [RS-232](#) or [TTL serial transmissions](#) to USB signals, in order to allow support for [legacy devices](#) with modern computers.<sup>[2]</sup>

FTDI provides [application-specific integrated circuit](#) (ASIC) design services. They also provide consultancy services for product design, specifically in the realm of electronic devices.



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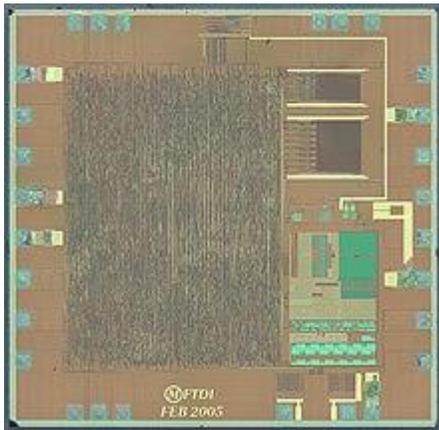
## History



FTDI TTL-232RG: [USB](#) to [UART](#) cable



FTDI FT232RL: USB to UART [IC](#) (in [SSOP](#) package)



Internal [Die](#) of FTDI FT232RL chip

FTDI was founded on 13 March 1992 by its current CEO Fred Dart. The company is an indirect descendant of Computer Design Concepts Ltd, a former semiconductor technology startup, founded by Dart.

FTDI's initial products were chipsets for personal computer motherboards, the primary customer of which was [IBM](#), which used them in its [AMBRA](#) and [PS/1](#) personal computers. It later expanded its product line to include interface translators, such as the MM232R and the USB-COM232-PLUS1, along with other devices for converting between USB and other communication protocols.

Currently, the headquarters for FTDI is located in [Glasgow, Scotland, United Kingdom](#), while it also has offices in [Singapore](#), [Taipei, Taiwan](#), and [Portland, Oregon](#). The company's manufacturing division is handled by subcontractors in the Asia Pacific region.

## Driver controversy

On 29 September 2014, FTDI released an updated version of their USB-to-Serial driver for [Windows](#) on their website.<sup>[3]</sup> Users who manually downloaded the new drivers reported problems.<sup>[4]</sup> After Windows drivers became available on 14 October (*Patch Tuesday*) via [Windows Update](#), it was reported by users of hardware enthusiast forums and websites that the drivers could [soft-brick counterfeit](#) and software-compatible clones of the chips by changing their USB "Product ID" to "0000". The change prevents the chip from being recognised by drivers of any OS, effectively making them inoperable unless the product ID is changed back.<sup>[5]</sup> The behaviour was supported by a notice in the drivers' [end user license agreement](#), which warned that use of the drivers with non-genuine FTDI products would "irretrievably damage" them.<sup>[5]</sup> Critics felt that FTDI's actions were unethical, considering that users may be unaware that their chips were counterfeit, or that Windows had automatically installed a driver meant to disable them.<sup>[6][5][4][7]</sup> On 22 October 2014, an emergency patch was made to the FTDI drivers in the [Linux kernel](#) to recognise devices with the "0000" ID.<sup>[8]</sup>

On 24 October 2014, in response to the criticism, FTDI withdrew the driver and admitted that the measure was intended to [protect](#) its [intellectual property](#) and encourage users to purchase genuine FTDI products. The company also stated that it was working to create an updated driver which would notify users of non-genuine FTDI products in a "non-invasive" manner.<sup>[9][6]</sup>

In February 2016, it was reported that FTDI had published another driver on Windows Update with DRM components intended to block non-genuine products. This time, the driver will communicate with affected devices, but all transmitted and received data is replaced with the arbitrary, looped [ASCII](#) string "NON GENUINE DEVICE FOUND!", which could cause irregular interactions with devices.<sup>[10][11]</sup>

## Distribution

FTDI sells its products through major distributors around the world.<sup>[12]</sup>

## See also

- [Serial port](#)
- [UART](#)
- [RS-232](#)
- [RS-422](#)
- [I<sup>2</sup>C](#)
- [SPI](#)
- [Bit banging](#)