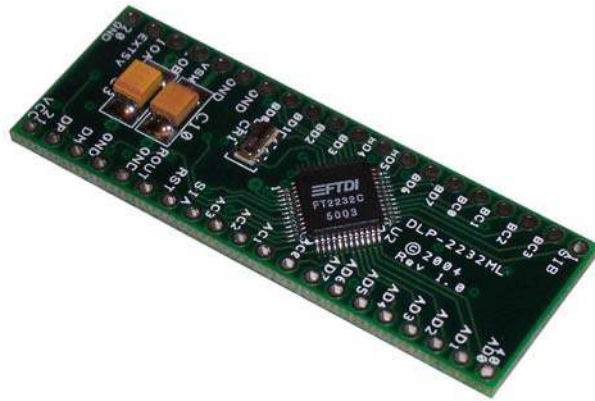




## DLP-2232ML-G LOW-PROFILE USB MODULE

\* Lead Free \*



### 1.0 Introduction

The DLP-2232ML-G utilizes FTDI's third-generation USB UART/FIFO I.C., the FT2232D. This low-cost, RoHS compliant development tool features two Multi-Purpose UART/FIFO controllers that can be configured individually in several different modes.

In addition to the UART interface, FIFO interface, and Bit-Bang IO modes of the second-generation FT232BM and FT245BM devices, the FT2232D offers a variety of additional modes of operation including a Multi-Protocol Synchronous Serial Engine interface designed specifically for synchronous serial protocols such as JTAG and SPI bus.

The DLP-2232ML-G features a quality four-layer printed circuit board with a solid ground plane, an integral 93C56 EEPROM on board for easy OEM customization and a standard 40-pin, 0.6in wide footprint. Integral power control and on-board MOSFET power switch make the DLP-2232ML-G a perfect choice for USB bus-powered, high-power designs as well as self- and low-powered products.

NOTE: With the exception of the mechanical connectors, mechanical dimensions and the host connection interface signals, the DLP-2232ML-G and DLP-2232M-G are the same product. The supporting electronics for the USB connector are already on the DLP-2232ML-G board, just add a type B connector to your design and you're ready to go.

For a complete list of features and specifications please refer to the datasheet for the DLP-2232M-G.

## 2.0 Module Pin-Out

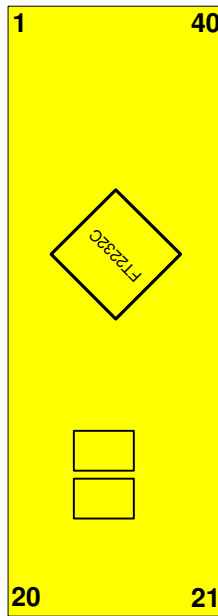
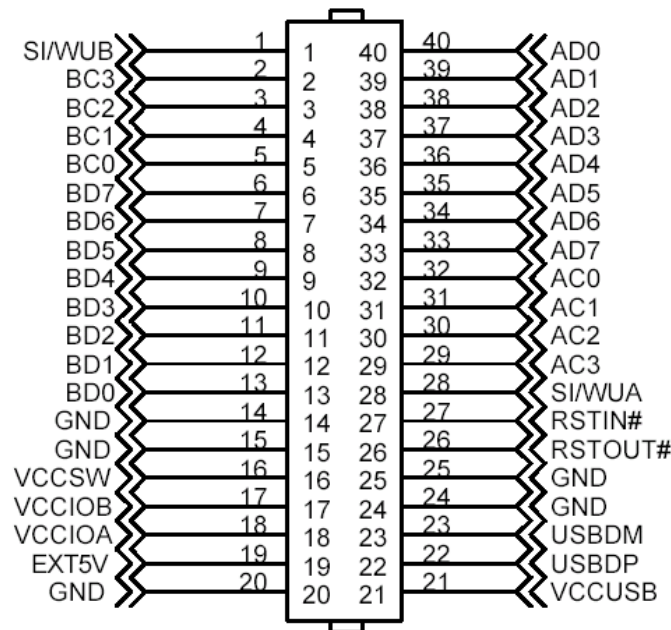


Figure 2. Pin-Out (40 Pin DIP Header )

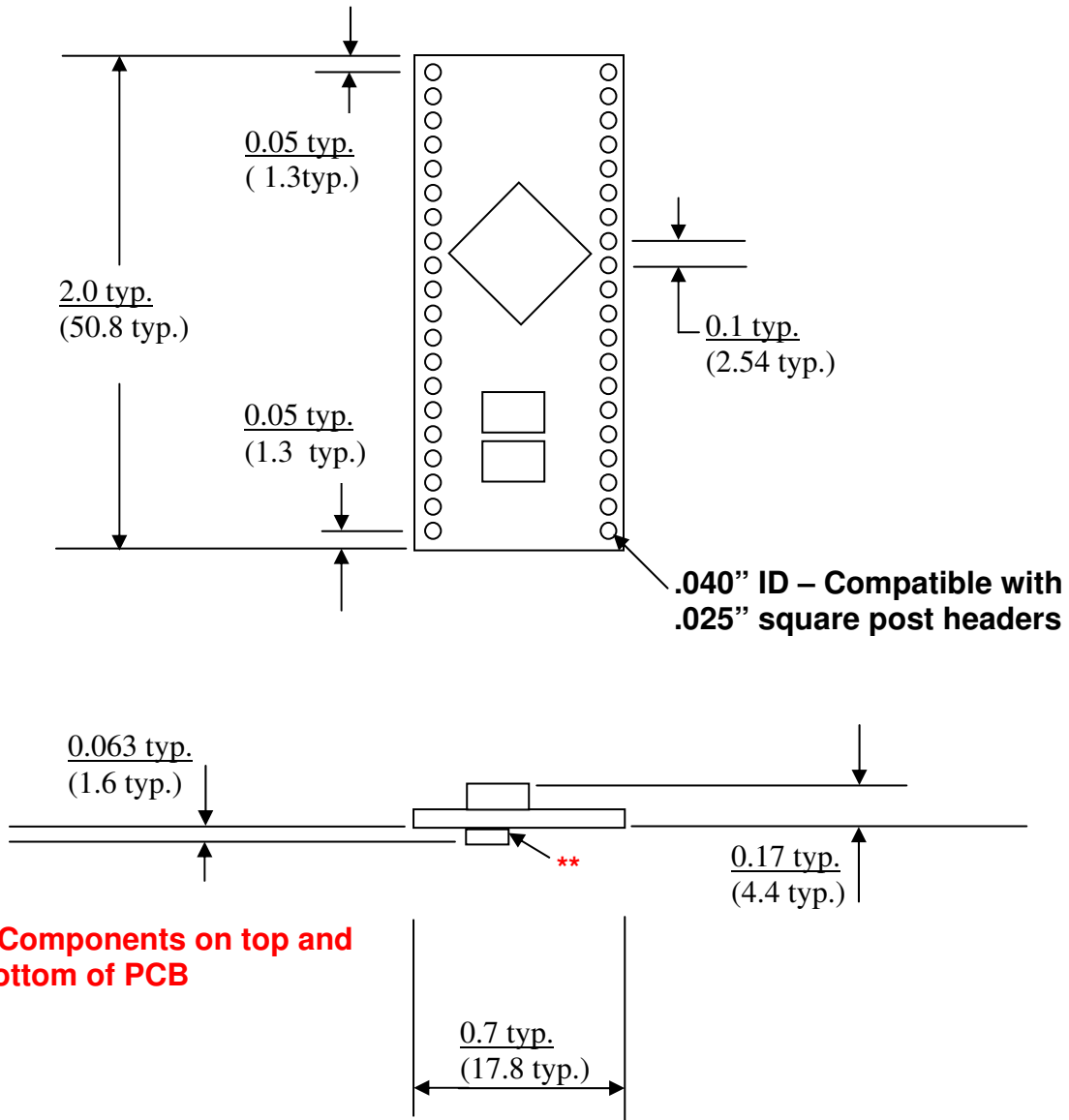
### 2.1 Pin Definitions

Since the DLP-2232ML-G does not have a USB connector, the USBDM and USBDP signal lines are brought out on pins 23 and 22 as shown here.



With the exception of the 2 USB communications lines (USBDM and USBDP) and pin 20, the pinout for the DLP-2232ML-G is the same as the DLP-2232M-G module. Please refer to the datasheet for the DLP-2232M-G for a complete description of the pinout.

**3.0 Mechanical Dimensions Inches (mm)**



## 4.0 Disclaimer

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This document provides preliminary information that may be subject to change without notice.

## 5.0 Contact Information

DLP Design, Inc.  
1605 Roma Ln.  
Allen, TX 75013  
Phone: 469-964-8027  
Fax: 415-901-4859  
E-Mail ( Sales ) : [sales@dlpdesign.com](mailto:sales@dlpdesign.com)  
E-Mail ( Support ) : [support@dlpdesign.com](mailto:support@dlpdesign.com)  
Web Site URL : <http://www.dlpdesign.com>

