Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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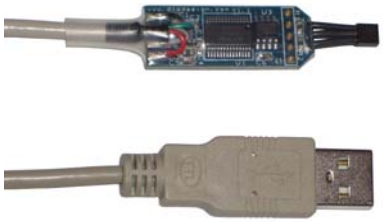

# DLP-UT1

**LEAD-FREE**

# TEMPERATURE SENSOR

## 1.0 INTRODUCTION

The DLP-UT1 is a low-cost, easy-to-use temperature measuring device featuring 4th generation USB silicon from FTDI. All operational power is taken from the host PC via the USB port.

## 2.0 SPECIFICATIONS

The DLP-UT1 will measure temperature in the range of 32 to 158°F (0 to 70°C).

## 3.0 ABSOLUTE MAXIMUM RATINGS

Stresses above those listed here may cause permanent damage to the DLP-UT1:

- Operating Temperature: 0-70°C

## 4.0 USB DRIVERS

USB drivers for the following operating systems are available for download from the DLP Design website:

| | |
|---|---|
| **Windows XP x64** | **Mac OSX** |
| **Windows Server 2003** | **Mac OS9** |
| **Windows 2000** | **Mac OS8** |
| **Windows 98, ME** | **Linux** |

These drivers are available for download from the following page: http://www.dlpdesign.com/DNLD8/.

Note: If you are using the dual-mode drivers and wish to use the Virtual COM Port (VCP) drivers, then it may be necessary to disable the D2XX drivers first via Device Manager. To do so, right click on the entry under USB Controllers that appears when the DLP-UT1 is connected, select Properties, select the Advanced tab, check the option for "Load VCP" and click OK. Once you unplug and then replug the DLP-UT1, a COM port should appear in Device Manager under Ports (COM & LPT).

 

## 5.0 USING THE DLP-UT1

Simply connect the DLP-UT1 to the PC to initiate the loading of drivers. Once the drivers are loaded, the DLP-UT1 is ready for use. All commands are single-byte commands.

You can either utilize a simple terminal-emulator program or write your own program in your language of choice. Begin by opening the COM port, set the baud rate to 9600 (1 start bit, no parity, 8 data bits, 1 stop bit), and send single-byte commands as shown below. The Ping command can be used to locate the correct COM port to be used for communicating with the DLP-UT1, or you can look in Device Manager to see which port Windows has assigned to the DLP-UT1.

NOTE: If a COM port is not present after installing the CDM drivers, connect the USB device and open Control Panel > System > Device Manager. Right click on DLP-UT1 under USB Controllers and select Properties, then the Advanced tab. Check the box marked "Load VCP" then click OK. Unplug and re-plug the DLP-UT1 and the COM port will be added.

| COMMAND | DESCRIPTION | DATA RETURNED |
|---|---|---|
| | | |
| ‘ (27h) | Ping | T (54h) |
| B (42h) | Read temperature binary mode | 2 bytes, binary data |
| C (43h) | Read temperature ASCII mode | Temperature in °C (ASCII characters) |
| F (46h) | Read temperature ASCII mode | Temperature in °F (ASCII characters) |

## 6.0 RETURN DATA TYPES

By default, the DLP-UT1 returns data to the host PC in the form of ASCII text such that it can be easily displayed using a simple terminal emulator. Alternatively, data can be returned in binary form requiring the user’s host application to calculate the current temperature.

## 7.0 DISCLAIMER



This product and its documentation are supplied on an as-is basis, and no warranty as to their suitability for any particular purpose is either made or implied. DLP Design, Inc. will not accept any claim for damages whatsoever arising as a result of the use or failure of this product. Your statutory rights are not affected. This product or any variant of it is not intended for use in any medical appliance, device or system in which the failure of the product might reasonably be expected to result in personal injury.

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

## 8.0 CONTACT INFORMATION

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