FEATURES
- Demonstrates the Capabilities of the DS2502 1Kb Add-Only Memory Including:
  - Identification
  - EPROM Memory
- Interfaces to the USB Port of a PC Running a Windows XP® Operating System or Older

INDEX

EVALUATION KIT CONTENTS
1 pc. Evaluation Board
1 pc. DS9123O USB Port Adapter
1 pc. RJ-11 Cable

EQUIPMENT NEEDED
1. A PC running Windows XP operating system or older and an available serial port.
2. Cables with mini-grabber style clips or the ability to solder directly to connection pads.
3. A Lithium-Ion (Li+) battery and a power supply and/or load circuit.

ORDERING INFORMATION

PART	TYPE
DS2502EVKIT+	EV Kit

+Denotes lead(Pb)-free and RoHS compliant.

INTRODUCTION

The DS2502 evaluation kit (EV kit) makes performance evaluation, software development, and prototyping with the DS2502 1Kb Add-Only Memory easy. The evaluation board interfaces to a PC through a DS9123O USB Adapter and RJ-11 cable connection.

Separate control tabs allow the user access all DS2502s that are connected to the 1-Wire® bus and access all memory locations of those devices.

Kit demonstration boards will vary as they are improved upon over time.

Windows XP is a registered trademark of Microsoft Corp.
1-Wire is a registered trademark of Maxim Integrated Products, Inc.

SETUP AND INSTALLATION

BOARD CONNECTIONS

Connections to the TSSOP demonstration board are best made either by soldering directly to the pads or by using cables with mini-grabber clips. Communication to the TSSOP board can be accomplished either through the RJ-11 jack by connecting the provided standard six conductor RJ-11 cord.

A battery should be connected between the VDD (positive terminal) and VSS (negative terminal) and provide enough voltage to power the DS2502. In order to program the device, a 12 Volt programming voltage should be connected between VPP and VSS.
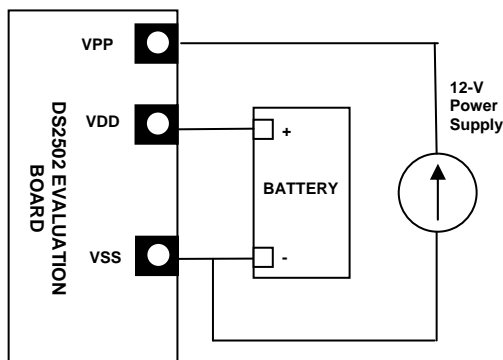

Figure 1: Connecting the DS2502 Evaluation Kit

SOFTWARE INSTALLATION

To install the DS2502 EV kit software, download the latest version at www.maxim-ic.com. Unzip the compressed file and double-click the SETUP.EXE icon to begin the installation process. Follow the prompts to complete the installation. The DS2502 EV kit software can be uninstalled in the Add/Remove Programs tool in the Control Panel. After the installation is complete, open the DS2502K folder and run DS2502K.EXE or select DS2502K from the program menu. A splash screen containing information about the evaluation kit appears as the program is being loaded.

SELECTING THE COMMUNICATION PORT

The first time the software runs, the Select Preferences window may appear. In this window, select either serial port or USB communication and the port number; then hit OK. The DS2502 EV kit software saves this port selection and automatically uses the selection each time the program starts. To change the port later, click the Preferences option on the menu bar, select Port Settings, and then select the appropriate port. To attempt to automatically locate the DS9123, click the Poll Ports button. **Warning: Automatically polling for the DS9123 can disrupt other devices connected to your computer's COM ports**.
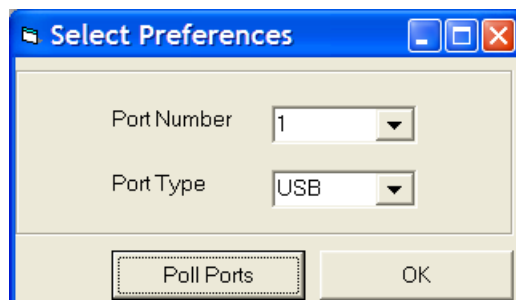
PROGRAM MENUS

Several pull down menu options have been provided to simplify use of the DS2502 EV kit software for the user. Their functions are individually detailed below.

FILE MENU
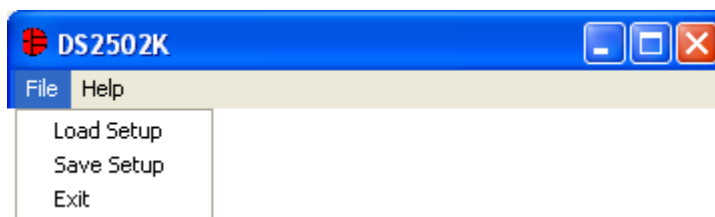
The File Menu allows the user to save or load all of the data in the text boxes on the Memory Tab. Selecting the Load Setup does not write the DS2502, but rather it loads the values into the text boxes. The user must still click the Write button in order to write the device.

HELP MENU
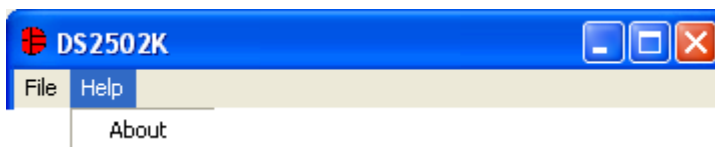
Selecting the About topic from the Help Menu will open a window containing information about the current revision of this program and Maxim.

PROGRAM TABS

All functions of the program are divided under two tabs in the main program window. Left click on the appropriate tab to move to the desired function page. Located on the ROM Codes tab are the ROM Codes of all the DS2502s that are found on the 1-Wire bus. The Memory tab displays the contents of all of the memory locations inside the DS2502 and allows the user to alter the data.

ROM CODES TAB
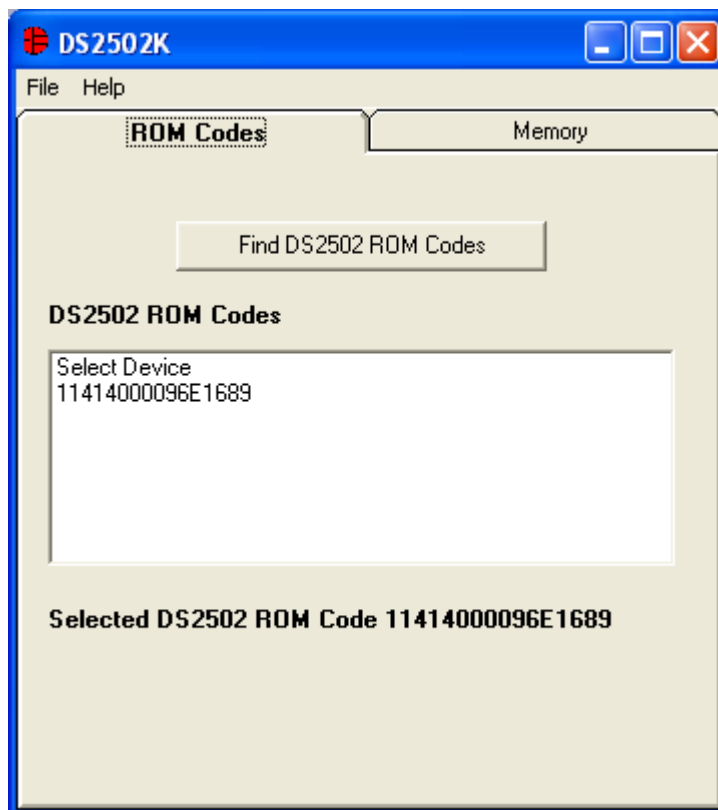
The ROM Codes Tab displays the ROM Codes of all the DS2502s that are found on the 1-Wire bus. The user can refresh the list of ROM Codes by left-clicking on the Find DS2502 ROM Codes button. This will initiate a Search ROM sequence to find all of the 1-Wire devices with the family code of the DS2502.

MEMORY TAB
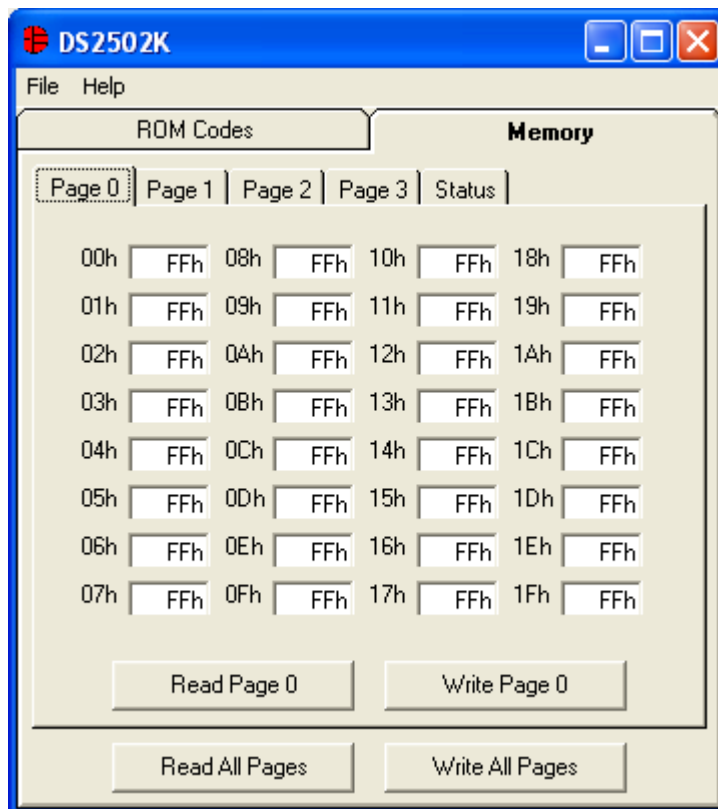
The Memory Tab gives the user access to read the contents of all of the Memory inside the DS2502. Left-clicking the Write Page X or Read Page X buttons will access the device for the specific page that is displayed. Left-clicking on the Read All Pages or Write All Pages will access Pages 0-3 and the Status registers.

When the user writes to the device, the software will determine if the data was correctly written to the device by checking the CRC byte. Once the CRC byte has been verified, the software will enable a programming pulse to program the data into the EPROM of the device.

A 12 volt programming voltage is required on the VPP terminal of the DS2502 EV kit in order to write to the device. If the programming voltage is not present, an Error message will be displayed and the memory will not be updated.

REVISION HISTORY

REVISION DATE	DESCRIPTION	PAGES CHANGED
8/09	Changed the ordering part number from DS2502K to DS2502EVKIT+.	All

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Mouser Electronics

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