

# **UART Rx Code Example**

# **Objective**

This example demonstrates the UART reception mechanism. Data typed on the hyperterminal is sent through the serial port and displayed on the LCD.

### **Procedure**

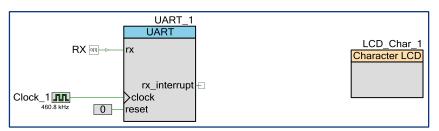
- 1. The CY8CKIT-001 DVK board should be configured to the default switch and jumper settings. Verify that J10(RS232\_PWR) is jumpered to ON.
- 2. Connect the RS232 cable from the computer to the DVK.
- 3. Setup hyperterminal in the computer with the following settings

Baudrate : 57600 bits

Data bits : 8
Parity : None
Stop bits : 1
Flow control : None

- 4. Connect P0\_1 to RX pin (P16) on the CY8CKIT-001 kit.
- 5. Connect TX pin (P16) to Vdd on the CY8CKIT-001 kit.
- 6. Type something on the hyperterminal and watch the same characters displayed on the LCD..

### **Schematic**





#### **PSoC Resources**

Cypress provides a wealth of data at www.cypress.com to help you to select the right PSoC device for your design, and quickly and effectively integrate the device into your design. For a comprehensive list of resources, see KBA86521, How to Design with PSoC 3, PSoC 4, and PSoC 5LP. The following is an abbreviated list for PSoC:

- Overview: PSoC Portfolio, PSoC Roadmap
- Product Selectors: PSoC 1, PSoC 3, PSoC 4, or PSoC 5LP. In addition, PSoC Creator includes a device selection tool.
- Datasheets: Describe and provide electrical specifications for the PSoC 3, PSoC 4, and PSoC 5LP device families.
- CapSense Design Guides: Learn how to design capacitive touch-sensing applications with the PSoC 3, PSoC 4, and PSoC 5LP families of devices.
- Application Notes and Code Examples: Cover a broad range of topics, from basic to advanced level. Many of the application notes include code examples.
- Technical Reference Manuals (TRM): Provide detailed descriptions of the architecture and registers in each of the PSoC 3, PSoC 4, and PSoC 5LP device families.
- PSoC Training Videos: These videos provide step-bystep instructions on getting started building complex designs with PSoC.

#### Development Kits:

- CY8CKIT-042 and CY8CKIT-040, PSoC 4 Pioneer kits, are easy-to-use and inexpensive development platforms. These kits include connectors for Arduino™ compatible shields and Digilent® Pmod™ daughter cards.
- CY8CKIT-049 is a series of very low-cost prototyping platform for sampling PSoC 4 devices.
- CY8CKIT-030 and CY8CKIT-050 are designed for analog performance. They enable you to evaluate, develop, and prototype high-precision analog, low-power, and low-voltage applications powered by PSoC 3 and PSoC 5LP, respectively.
- CY8CKIT-001 is a common development platform for all PSoC family devices.
- The MiniProg3 device provides an interface for flash programming and debug.



# **Worldwide Sales and Design Support**

Cypress maintains a worldwide network of offices, solution centers, manufacturer's representatives, and distributors. To find the office closest to you, visit us at Cypress Locations.

### **Products**

ARM® Cortex® Microcontrollers cypress.com/arm

Automotive cypress.com/automotive

Clocks & Buffers cypress.com/clocks

Interface cypress.com/interface

Lighting & Power Control cypress.com/powerpsoc

Memory cypress.com/memory

PSoC cypress.com/psoc

Touch Sensing cypress.com/touch

USB Controllers cypress.com/usb

Wireless/RF cypress.com/wireless

### PSoC® Solutions

cypress.com/psoc

PSoC 1 | PSoC 3 | PSoC 4 | PSoC 5LP

### **Cypress Developer Community**

Community | Forums | Blogs | Video | Training

# **Technical Support**

cypress.com/support





Cypress Semiconductor 198 Champion Court San Jose, CA 95134-1709 Phone : 408-943-2600 Fax : 408-943-4730 Website : www.cypress.com

© Cypress Semiconductor Corporation, 2016. This document is the property of Cypress Semiconductor Corporation and its subsidiaries, including Spansion LLC ("Cypress"). This document, including any software or firmware included or referenced in this document ("Software"), is owned by Cypress under the intellectual property laws and treaties of the United States and other countries worldwide. Cypress reserves all rights under such laws and treaties and does not, except as specifically stated in this paragraph, grant any license under its patents, copyrights, trademarks, or other intellectual property rights. If the Software is not accompanied by a license agreement and you do not otherwise have a written agreement with Cypress governing the use of the Software, then Cypress hereby grants you a personal, non-exclusive, nontransferable license (without the right to sublicense) (1) under its copyright rights in the Software (a) for Software provided in source code form, to modify and reproduce the Software solely for use with Cypress hardware products, only internally within your organization, and (b) to distribute the Software in binary code form externally to end users (either directly or indirectly through resellers and distributors), solely for use on Cypress hardware product units, and (2) under those claims of Cypress's patents that are infringed by the Software (as provided by Cypress, unmodified) to make, use, distribute, and import the Software solely for use with Cypress hardware products. Any other use, reproduction, modification, translation, or compilation of the Software is prohibited.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CYPRESS MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS DOCUMENT OR ANY SOFTWARE OR ACCOMPANYING HARDWARE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. To the extent permitted by applicable law, Cypress reserves the right to make changes to this document without further notice. Cypress does not assume any liability arising out of the application or use of any product or circuit described in this document. Any information provided in this document, including any sample design information or programming code, is provided only for reference purposes. It is the responsibility of the user of this document to properly design, program, and test the functionality and safety of any application made of this information and any resulting product. Cypress products are not designed, intended, or authorized for use as critical components in systems designed or intended for the operation of weapons, weapons systems, nuclear installations, life-support devices or systems, other medical devices or systems (including resuscitation equipment and surgical implants), pollution control or hazardous substances management, or other uses where the failure of the device or system could cause personal injury, death, or property damage ("Unintended Uses"). A critical component is any component of a device or system whose failure to perform can be reasonably expected to cause the failure of the device or system, or to affect its safety or effectiveness. Cypress is not liable, in whole or in part, and you shall and hereby do release Cypress from any claim, damage, or other liability arising from or related to all Unintended Uses of Cypress products. You shall indemnify and hold Cypress harmless from and against all claims, costs, damages, and other liabilities, including claims for personal injury or death, arising from or related to any Unintended Uses of Cypress products.

Cypress, the Cypress logo, Spansion, the Spansion logo, and combinations thereof, PSoC, CapSense, EZ-USB, F-RAM, and Traveo are trademarks or registered trademarks of Cypress in the United States and other countries. For a more complete list of Cypress trademarks, visit cypress.com. Other names and brands may be claimed as property of their respective owners.