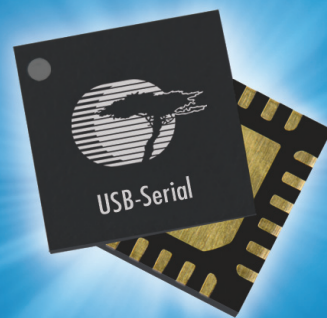


CYPRESS

USB-SERIAL BRIDGE CONTROLLER

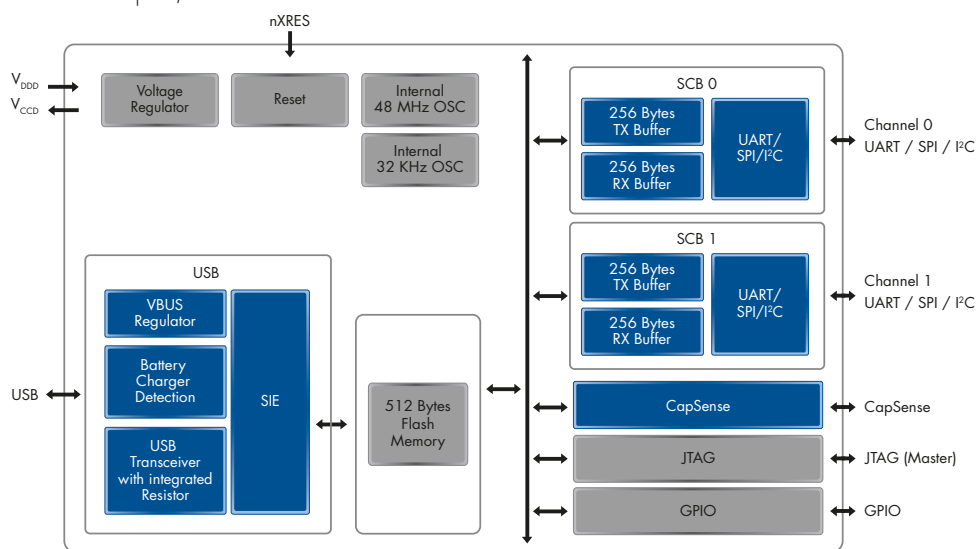
INDUSTRY'S ONLY DUAL-CHANNEL USB-SERIAL CONTROLLER
WITH CAPSENSE® & BATTERY CHARGER DETECTION



PRODUCT OVERVIEW

INTRODUCTION

The Cypress USB-Serial Bridge Controllers are the first in the industry to offer configurable serial channels (up to 2) for UART/SPI/I²C interfaces, with industry's lowest power consumption in stand-by mode (5 μ A). The USB-Serial bridge controllers integrate the industry-leading CapSense® capacitive-touch sensing technology (for touch sensitive key switches) and USB-IF Battery Charging specification ver. 1.2 (to detect the source of power on the USB port).



USB-Serial Bridge Controller Block Diagram

KEY APPLICATIONS

• Metering Devices • Medical Electronics • Point of Sale Systems • USB to UART/
RS232 Cables • Networking • NFC Box • Gaming Systems • Industrial Applications

REFERENCE DESIGN KIT (RDK)/DEVELOPMENT KITS (DVK)

USB-Serial controllers are available with the following kits for easy evaluation and development:

- RDK (CYUSBS232) - To evaluate the functionality of the 8-pin USB-UART LP bridge controller
- DVK (CYUSBS234/236) - To evaluate the Serial Channels, Battery Charger Detection and CapSense features of USB-Serial controllers

FEATURES

INTEGRATED FULL-SPEED USB-SERIAL CONTROLLER

- Certified by USB-IF
- Powerful Cortex M0 MCU
- Flash for storing configuration parameters
- Voltage regulator
- Clock Generator (48 MHz)

CONFIGURABLE DUAL CHANNEL FOR UART/SPI/I²C

- UART: 3 Mbps, SPI: 3 MHz, I²C: 400 kHz

INTEGRATED BATTERY CHARGER DETECTION

- Compliant to USB-IF BC ver 1.2

INTEGRATED CAPSENSE

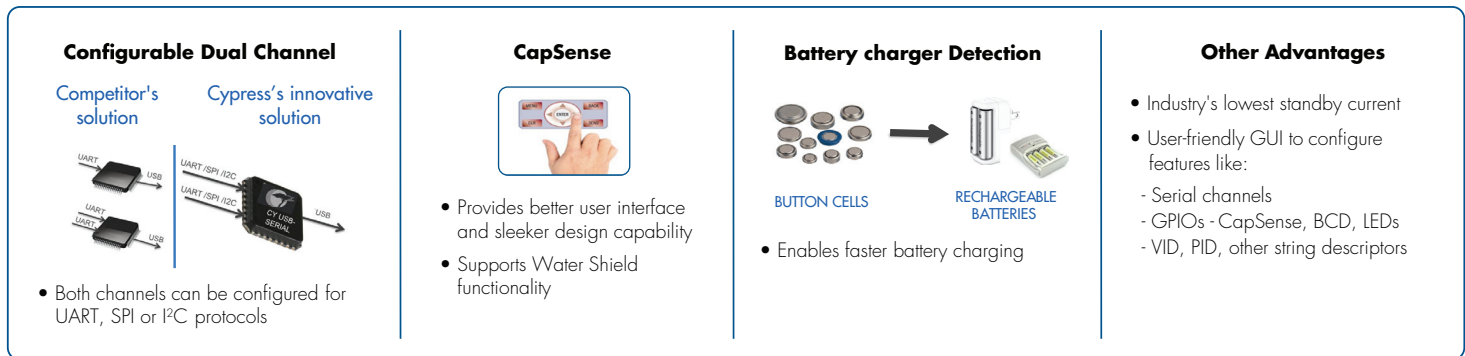
- Upto 8 touch sensitive key switches

NO SOFTWARE OR FIRMWARE DEVELOPMENT REQUIRED:

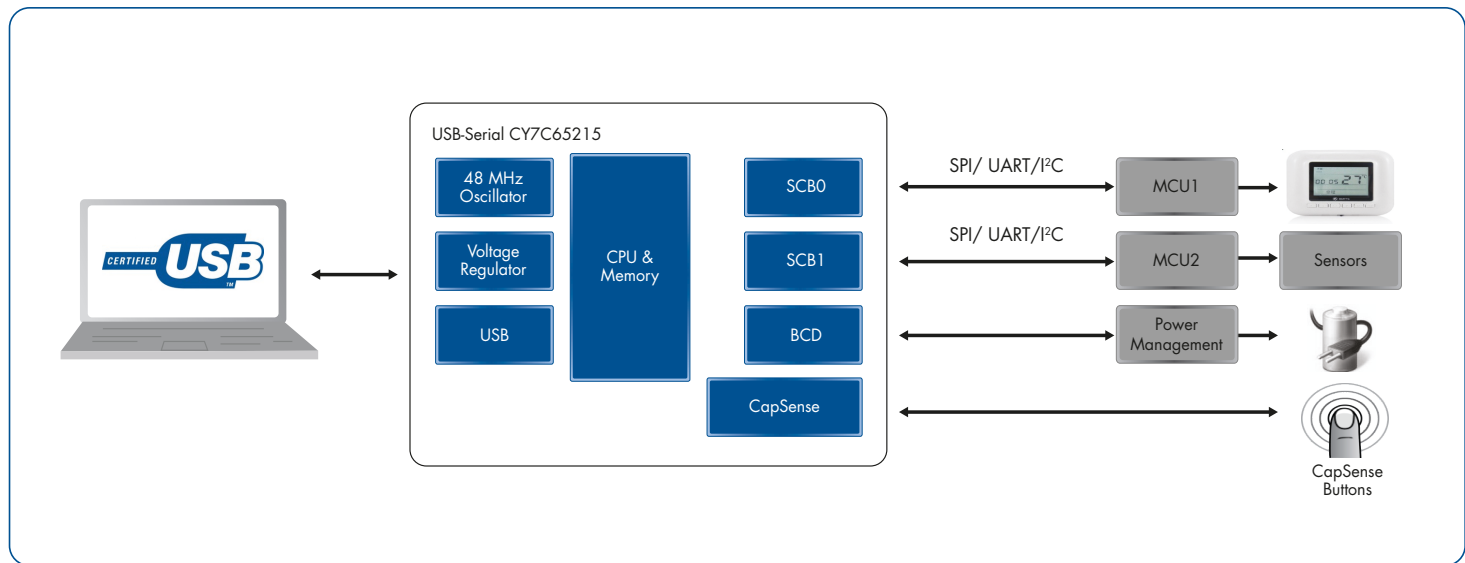
- Windows (8, 7, Vista, XP, Win CE)
 - WHQL certified drivers for VCOM & DLL
 - Software Configuration Utility for modifying the VID/PID, string descriptors, features and parameters
- Drivers for Android, Linux, Mac



COMPETITIVE ADVANTAGE



USB-SERIAL SYSTEM DIAGRAM



USB-Serial Controller in Portable Devices

USB-SERIAL CONTROLLERS PART DETAILS

| Part Number | Processor | Max. CPU Speed (MHz) | Operating Temperature | Serial Channel(s) | UART | I ² C | SPI | Battery Charger Detection ver 1.2 | CapSense | Max. No. of available GPIOs | Package |
|------------------|---------------|----------------------|---------------------------------|-------------------|------|------------------|-----|-----------------------------------|----------|-----------------------------|---------|
| CY7C65211-24LTXI | ARM Cortex M0 | 48 | Industrial Grade (-40° to 85°C) | 1 | Y | Y | Y | Y | Y | 10 | 24-QFN |
| CY7C65213-32LTXI | | | | 1 | Y | N | N | Y | N | 8 | 32-QFN |
| CY7C65215-32LTXI | | | | 2 | Y | Y | Y | Y | Y | 17 | 32-QFN |
| CY7C65213-28PVXI | | | | 1 | Y | N | N | Y | N | 8 | 28-SSOP |

GET STARTED NOW

For more information, visit www.cypress.com/usbserial or email us at usbserial@cypress.com

To purchase USB-Serial controller parts, visit us at www.cypress.com/buyonline. For information on our USB-Serial controller development kits, contact your nearest sales representative.

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