



# Touch Screen USB Bridge Solutions

www.silabs.com/CP2501



### CP2501 FEATURES

- Pre-programmed with touch screen USB interface firmware
- High-speed 48 MIPS CPU
- 53 kB of user accessible Flash memory
- 3.5 kB user accessible RAM
- Up to 16 GPIO pins
- Built-in 3 V regulator
- USB 2.0 compliant
- Windows® 7 touch interface compliant
- USB, UART, I<sup>2</sup>C, SPI
- 32-pin QFN (5 mm x 5 mm) package

### APPLICATIONS

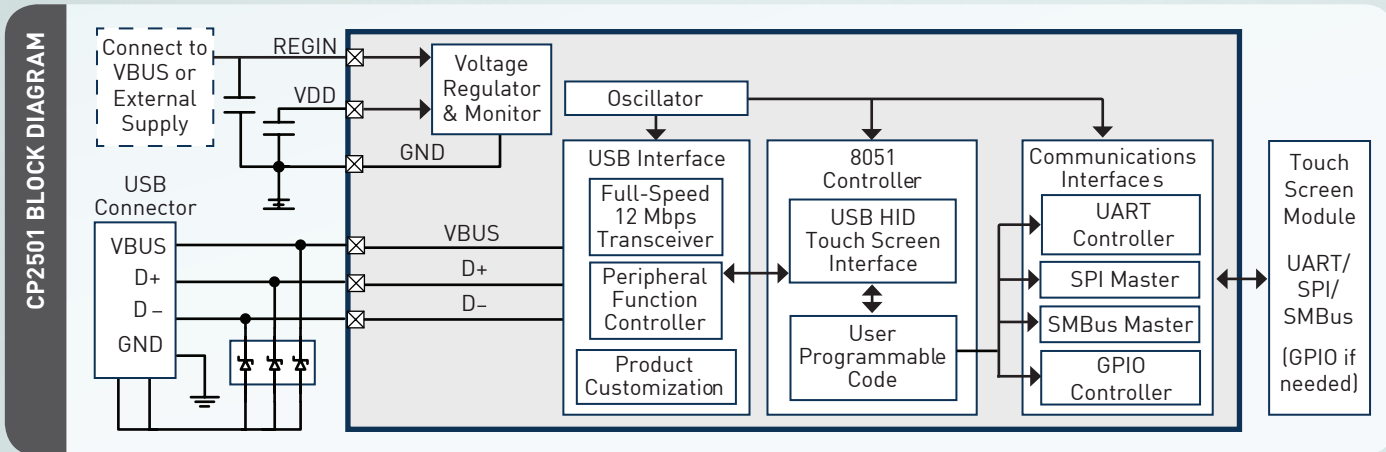
- Laptops
- All-in-one PC
- Tablets
- eBooks
- Automated Teller Machines (ATM)
- Kiosks
- Point-of-Sale Terminals

### DESCRIPTION

Powerful and easy to develop, Silicon Labs' CP2501 bridges USB communication between the touch screen controller(s) and the host. The CP2501 USB touch screen bridge is the only product of its kind that includes out-of-the-box USB support for touch screens, providing pre-programmed touch screen USB interface firmware to enable developers to quickly configure settings.

The CP2501 bridge is Windows® 7 touch interface compliant and supports the USB HID digitizer class. The in-device software and configuration wizard facilitate setup of USB communication with the host and requires minimal code development. Developers can significantly shorten the time and software expertise required for USB interface development.

EASY BRIDGE FOR TOUCH SCREEN USB COMMUNICATION





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## Development Tools and Turnkey Support

### CP2501 Development Kit (CP2501DK)

The CP2501DK fully functional "out-of-the-box" development environment provides easy access to all of the CP2501 pins, and includes everything needed to download code and start developing within minutes:

- CP2501 target board
- Quick-start guide
- AC to DC power adapter
- USB debug adapter (USB to debug interface)
- USB cable
- CD-ROM which includes the following: Silicon Labs Integrated Development Environment (IDE), Raisonance and Keil 8051 development tools (macro assembler, linker, evaluation C-compiler), Source code examples and register definition files, Documentation, CP2501 development kit user's guide

### CP2501 Evaluation Kit (CP2501EK)

The CP2501 touch screen evaluation board demonstrates the touch screen USB bridge in action. This evaluation board includes a glass sensor with a laminated glass lens. Engineers can evaluate performance and develop their own touch screen solutions.

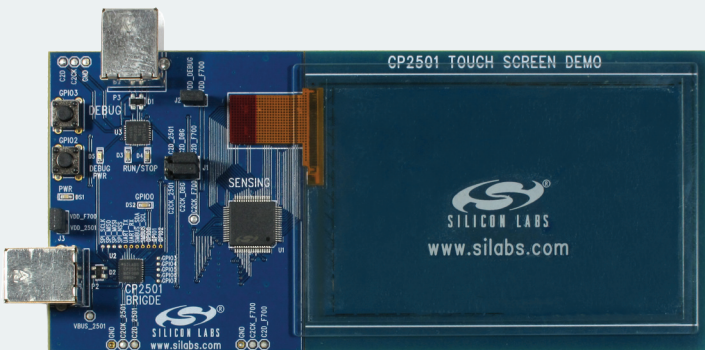
### CP250x Configuration Wizard

Silicon Labs provides an easy-to-use configuration wizard that works with the CP2501 touch screen USB firmware development tool. This intuitive software GUI enables engineers to easily create the firmware project, customize the USB parameters and generate USB HID touch screen descriptors through a series of seven tabs:

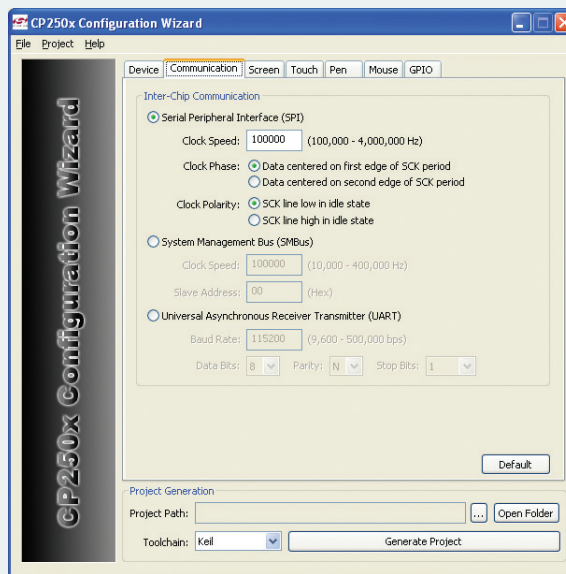
1. Device
2. Communication
3. Screen
4. Touch
5. Pen
6. Mouse
7. GPIO

Once the tabs are configured, the project is ready to be generated. A pre-programmed USB bootloader enables on-the-fly in-system firmware updates, and an API library is provided for all common touch screen configurations. This wizard can help shorten time to market by three to six months.

[www.silabs.com/SoftwareDownloads](http://www.silabs.com/SoftwareDownloads)



CP2501 EVALUATION KIT DEMO BOARD



CP250x CONFIGURATION WIZARD

## Touch Screen USB Bridge Controller

PART NUMBER	DESCRIPTION	RAM (BYTES)	DIGITAL PORT I/O PINS	COMMUNICATIONS	TIMERS (16-BIT)	INT. OSC	TEMPERATURE RANGE	OTHER	PACKAGE	EVAL KIT
CP2501	Touch Screen USB Bridge	4352	25	I <sup>2</sup> C, SPI, UART, USB	4	1.5%	-40 to 85 °C	Windows-compatible USB HID touchscreen interface	QFN32	CP2501EK



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