



DESCRIPTION

The CP2101 is a highly-integrated USB-to-UART Bridge Controller providing a simple solution for updating RS232 designs to USB using a minimum of components and PCB space. The CP2101 includes a USB 2.0 full-speed function controller, USB transceiver, oscillator, EEPROM and asynchronous serial data bus (UART) with full modem control signals in a compact 5mm X 5mm MLP-28 package. No other external USB components are required.

EXAMPLE APPLICATIONS

- Upgrade of RS-232 Legacy Devices to USB
- Cellular Phone USB Interface Cable
- PDA USB Interface Cable
- USB to RS-232 Serial Adapter

VIRTUAL COM PORT DRIVERS

- Works with Existing COM Port Applications
- Royalty-Free Distribution License
- Windows 98/Me/2000/XP
- MAC OS-9
- MAC OS-X
- Windows CE *
- Linux 2.40 and greater *

* (Contact factory for availability)

FEATURES

USB Function Controller and Transceiver

- USB Specification 2.0 Compliant; Full-Speed (12 Mbps)
- Integrated 512 Byte EEPROM for Vendor ID, etc.
- Integrated Transceiver; No External Resistors Required
- Integrated Clock; No External Crystal Required
- USB suspend states supported via SUSPEND pins

Asynchronous Serial Data Bus (UART)

- All Handshaking and Modem Interface Signals
- Data Formats Supported: 8-bit; 1 Stop bit
- Parity: Odd, Even, No Parity
- Baud Rates: 300bps to 921.6kbps
- 512 Byte Receive Buffer; 512 Byte Transmit Buffer
- Hardware X-On / X-Off Handshaking
- Event Character Support

Power-On Reset Circuit

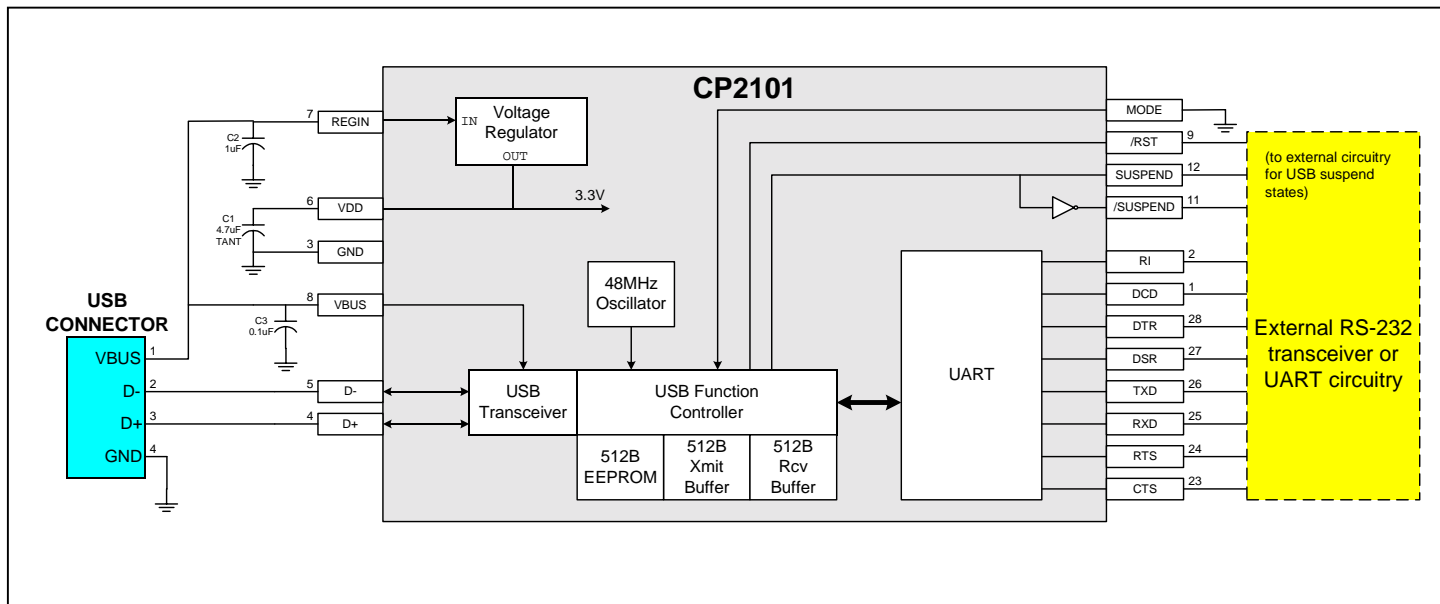
Supply Voltage

- Self-powered: 3.0V to 3.6V
- USB Bus Powered: 4.0V to 5.25V

Temperature Range: -40°C to +85°C

28-Pin MLP (5mm X 5mm)

Example Circuit Diagram

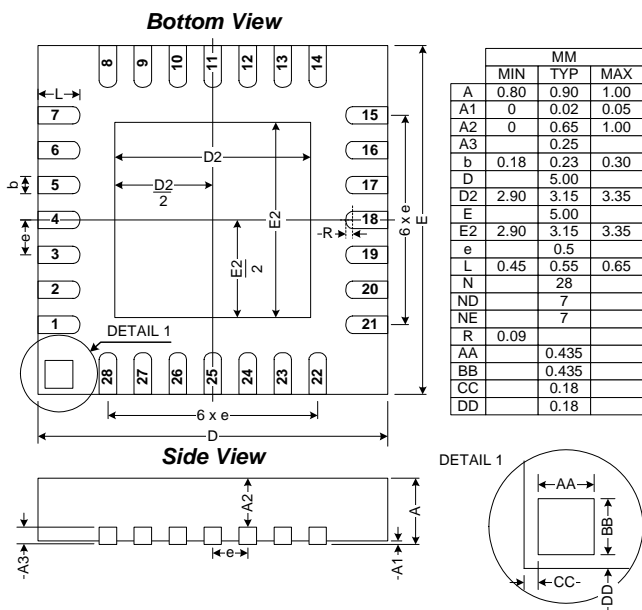




SELECTED ELECTRICAL SPECIFICATIONS $T_A = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$, $V_{\text{REGIN}} = 5.0\text{V}$ unless otherwise specified.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Regulator Input Voltage (REGIN)		4.0		5.25	V
VDD (Regulator Output)		3.0	3.3	3.6	V
IDD (Regulator Output)			80		mA
Regulator Bias Current			70		μA
Supply Current (from REGIN)	USB active		18		mA
	USB suspend mode		90		μA

PACKAGE DRAWING



PINOUT

Pin Number	Signal
1	DCD
2	RI
3	GND
4	D+
5	D-
6	VDD
7	REGIN
8	VBUS
9	/RST
11	/SUSPEND
12	SUSPEND
14	MODE
23	CTS
24	RTS
25	RXD
26	TXD
27	DSR
28	DTR
10,13, 15-22	No Connect

CP2101EK Evaluation Kit – a complete HW/SW demonstration of the CP2101 chip and associated software drivers.

The CP2101EK includes:

- CP2101TB Circuit Board: with USB connector, CP2101 chip, RS-232 transceiver, and DB-9 connector
- CD ROM with Device Drivers
- USB cable
- RS-232 cable

CP2101EK EVALUATION KIT

