

Single-Chip USB to Dual UART Data Transfer

- Integrated USB transceiver; no external resistors required
- Integrated clock; no external crystal required
- Integrated 296-Byte One-Time Programmable ROM for storing customizable product information
- On-chip power-on reset circuit
- On-chip voltage regulator: 3.45 V output

USB Peripheral Function Controller

- USB Specification 2.0 compliant; full-speed (12 Mbps)
- USB Suspend states supported via SUSPEND pins

Two UART Interfaces (“Enhanced” and “Standard”)

- Flow control options:
 - Hardware (CTS / RTS)
 - Software (X-On / X-Off)
 - No flow control
- Configurable I/O (1.8 V to V_{DD}) using V_{IO} pin
- Configurable I/O (V_{DD} to 5 V) using external pull-up
- All modem interface signals available (when GPIO is not used)

Enhanced UART Interface Features

- Data formats supported:
 - Data bits: 5, 6, 7, and 8
 - Stop bits: 1, 1.5, and 2
 - Parity: odd, even, mark, space, no parity
- Baud rates: 300 bps to 2.0 Mbps
- 320 Byte receive and transmit buffers
- Two GPIO signals for status and control
- RS-485 mode with bus transceiver control

Standard UART Interface Features

- Data format: 8 data bits, 1 Stop bit
- Parity: Even, Odd, No parity
- Baud rates: 2400 bps to 921600 bps
- 288 Byte receive and transmit buffers
- Three GPIO signals for status and control

Virtual COM Port Device Drivers

- Works with Existing COM Port PC Applications
- Royalty-Free Distribution License
- Windows 7/Vista/XP/Server 2003/2000
- Mac OS-X
- Linux

USBXpress™ Direct Driver Support

- Royalty-Free Distribution License
- Windows 7/Vista/XP/Server 2003/2000
- Windows CE 6.0, 5.0, and 4.2

Supply Voltage

- Self-powered: 3.0 to 3.6 V
- USB bus powered: 4.0 to 5.25 V
- I/O voltage: 1.8 V to V_{DD}

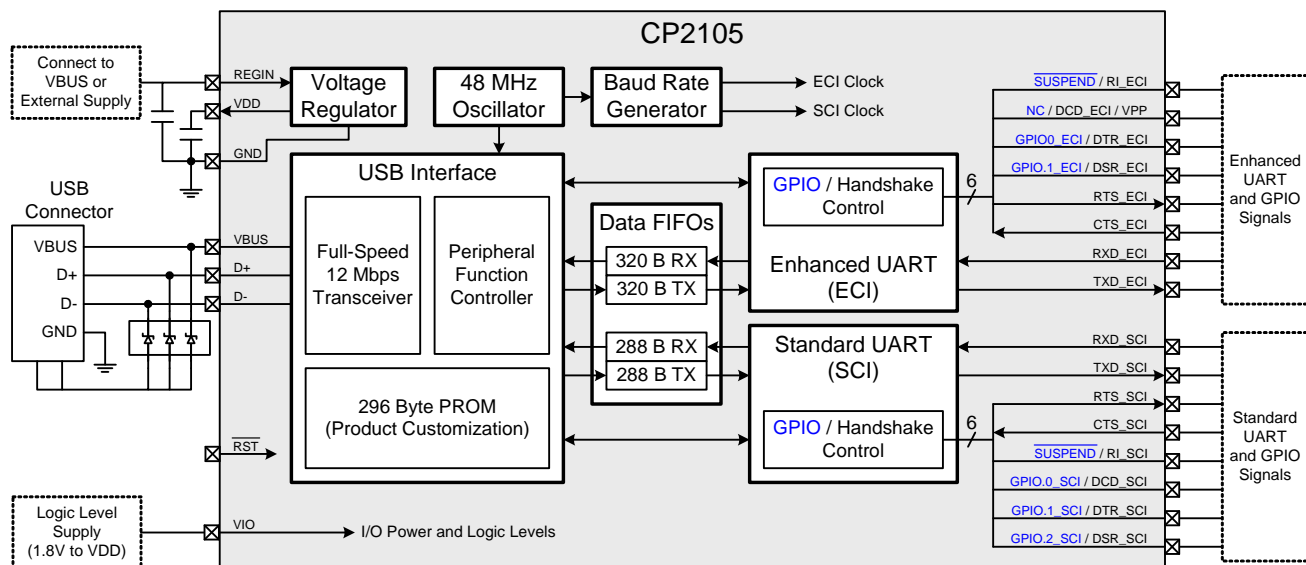
Package

- RoHS-compliant 24-pin QFN (4 x 4 mm)

Ordering Part Number

- CP2105-F01-GM

Temperature Range: -40 to +85 °C



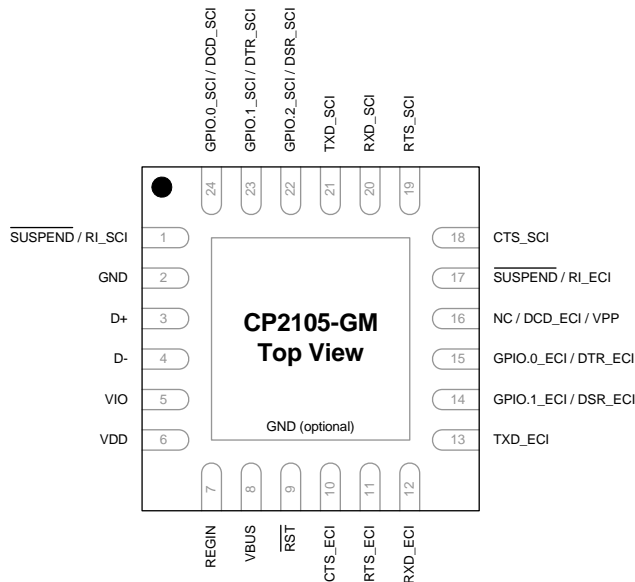
Selected Electrical Specifications

–40 to +85 °C unless otherwise specified.

| Parameter | Conditions | Min | Typ | Max | Units |
|--------------------------------|-------------------------------|-----|------|------|-------|
| Input Voltage Range (REGIN) | | 3.0 | — | 5.25 | V |
| Regulator Output Voltage | Output Current = 1 to 100 mA* | 3.3 | 3.45 | 3.6 | V |
| VBUS Detection Input Threshold | | 2.5 | — | — | V |
| Bias Current | | — | — | 120 | µA |

***Note:** The maximum regulator supply current is 100 mA. This includes the supply current of the CP2105.

Package Information



QFN-24 Pinout Diagram (Top View)

CP2105EK Evaluation Kit

The CP2105EK allows a complete evaluation and customization of the CP2105 USB to Dual UART bridge including all GPIO functions, flow control, RS485 transceiver control and transmit and receive LEDs.

- Includes Windows, Mac, and Linux drivers
- USB cable and serial cable
- CD ROM with complete documentation

