



# CP210x Comparison Chart

Feature	CP2101 <sup>a</sup>	CP2102 <sup>a</sup>	CP2103
USB Descriptor EEPROM size (bytes)	512	1024	1024
Transmit buffer size (bytes)	512	640	640
Receive buffer size (bytes)	512	576	576
Number of data bits supported	8	5, 6, 7 and 8	5, 6, 7 and 8
Number of stop bits supported	1	1, 1.5 <sup>b</sup> and 2	1, 1.5 <sup>b</sup> and 2
Parity types supported	Odd, Even, None	Odd, Even, Mark, Space, None	Odd, Even, Mark, Space, None
Supported baud rates	300 bps to 921.6 kbps	300 bps to 1 Mbps	300 bps to 1 Mbps
Line break transmission	-	Supported	Supported
Baud rate aliasing <sup>c</sup>	-	Supported	Supported
Non-standard baud rates <sup>c</sup>	-	Supported	Supported
Customizable USB Receive Timeout <sup>c</sup>	-	Supported	Supported
Configurable I/O (1.8V to V <sub>DD</sub> ) using V <sub>IO</sub> pin	-	-	Supported
Configurable I/O (V <sub>DD</sub> to 5V) using external pull-up	-	-	Supported
GPIO signals for status and control <sup>d</sup>	-	-	Four pins
Dynamic Suspend feature <sup>d</sup>	-	-	Supported
RS-485 mode with bus transceiver control <sup>d</sup>	-	-	Supported
Ordering Part Number (5x5 mm 28-pin QFN) [GM suffix indicates Lead-Free]	CP2101 CP2101-GM	CP2102-GM	CP2103-GM

**Features common to all CP210x Devices:**

- Integrated USB transceiver and clock; no external resistors or crystal required
- Integrated EEPROM to store USB descriptor details (VID, PID, custom strings etc)
- On-chip voltage regulator (3.3V output) and on-chip power-on reset circuit
- USB Full Speed function controller (12 Mbps)
- All handshaking and modem interface signals available; Hardware or X-On/X-Off handshaking
- Virtual COM Port driver<sup>e</sup> (Royalty-free license with purchase of CP210xEK evaluation kit)
- USBXpress direct driver<sup>e</sup> (<http://www.silabs.com/products/microcontroller/usbxpress.asp>)

**Documentation:**

- CP2101/2/3 Data Sheets (<http://www.silabs.com/products/microcontroller/guide.asp>)
- Application Notes (<http://www.silabs.com/products/microcontroller/applications.asp>)
  - AN144: CP210x Device Customization Guide
  - AN220: C8051F32x and CP210x USB Driver Customization
  - AN197: Serial Communications Guide for the CP210x
  - AN169: USBXpress Development Kit User's Guide
  - AN205: CP210x Baud Rate Support
  - AN223: Port Configuration and GPIO for CP210x

<sup>a</sup> CP2101 and CP2102 are pin compatible with each other

<sup>b</sup> 1.5 Stop bits supported only with a 5-bit data word

<sup>c</sup> See AN205 for more details

<sup>d</sup> See AN223 for more details

<sup>e</sup> These drivers are compatible with all CP2101/2/3 devices

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