CP210x Comparison Chart

Feature	CP2101[a]	CP2102[a]	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[b] and 2	1, 1.5[b] 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[c]	-	Supported	Supported
Non-standard baud rates[c]	-	Supported	Supported
Customizable USB Receive Timeout[c]	-	Supported	Supported
Configurable I/O (1.8V to V_{DD}) using V_{IO} pin	-	-	Supported
Configurable I/O (V_{DD} to 5V) using external pull-up	-	-	Supported
GPIO signals for status and control[d]	-	-	Four pins
Dynamic Suspend feature[d]	-	-	Supported
RS-485 mode with bus transceiver control[d]	-	-	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[e] (Royalty-free license with purchase of CP210xEK evaluation kit)
- USBXpress direct driver[e] (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

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[a] CP2101 and CP2102 are pin compatible with each other
[b] 1.5 Stop bits supported only with a 5-bit data word
[c] See AN205 for more details
[d] See AN223 for more details
[e] These drivers are compatible with all CP2101/2/3 devices

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