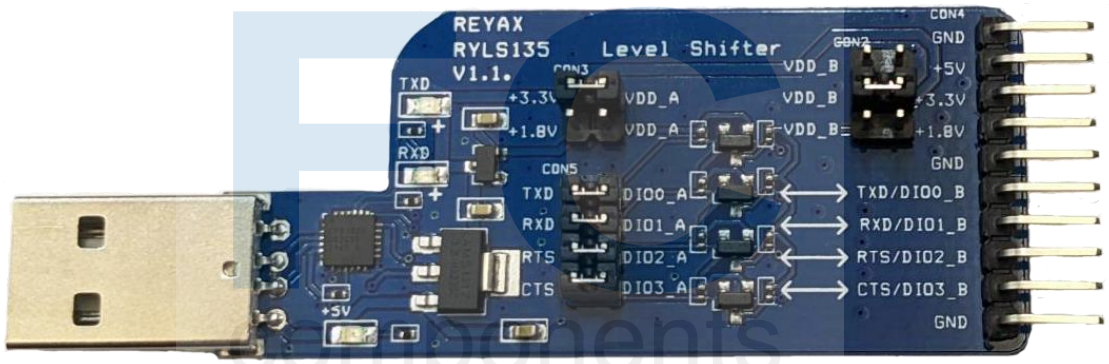
REYAX
TECHNOLOGY CORPORATION, LTD

30-NOV-2022 56312E36

RYLS135

USB to 1.8V/3.3V/5V UART bridge with 4-Bit Bidirectional Voltage Level Shifter

Datasheet



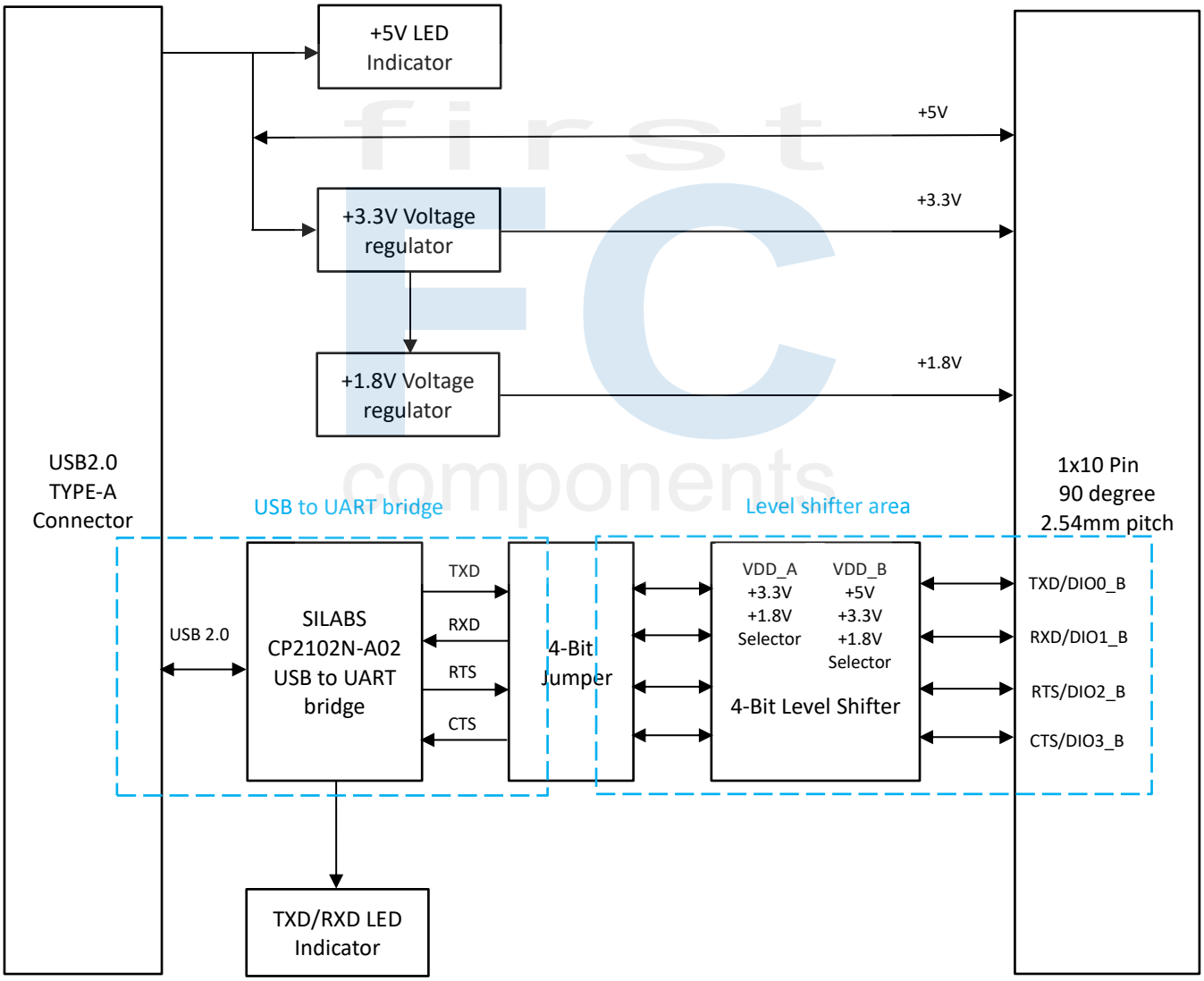
Represented by:

FIRST Components s.r.l.
www.first-components.com
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PRODUCT DESCRIPTION

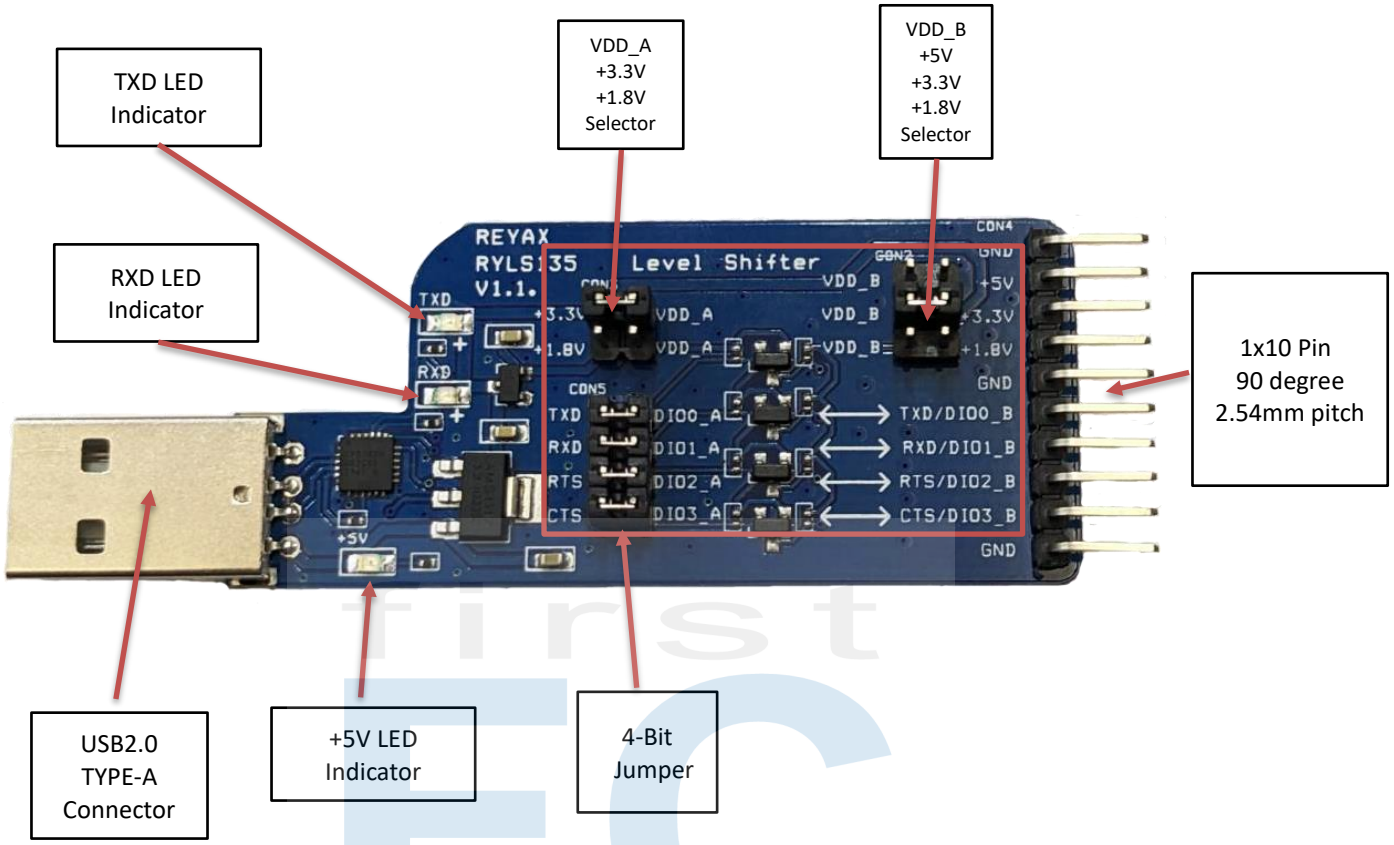
The RYLS135 includes a SILABS CP2102N-A02 USB 2.0 full-speed USB to UART transceiver and 4-Bit 1.8V/3.3V/5V Voltage Level Shifter. It can convert 1.8V/3.3V/5V voltages and is very convenient for various testing purposes.

BLOCK DIAGRAM



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PIN FUNCTION DESCRIPTION



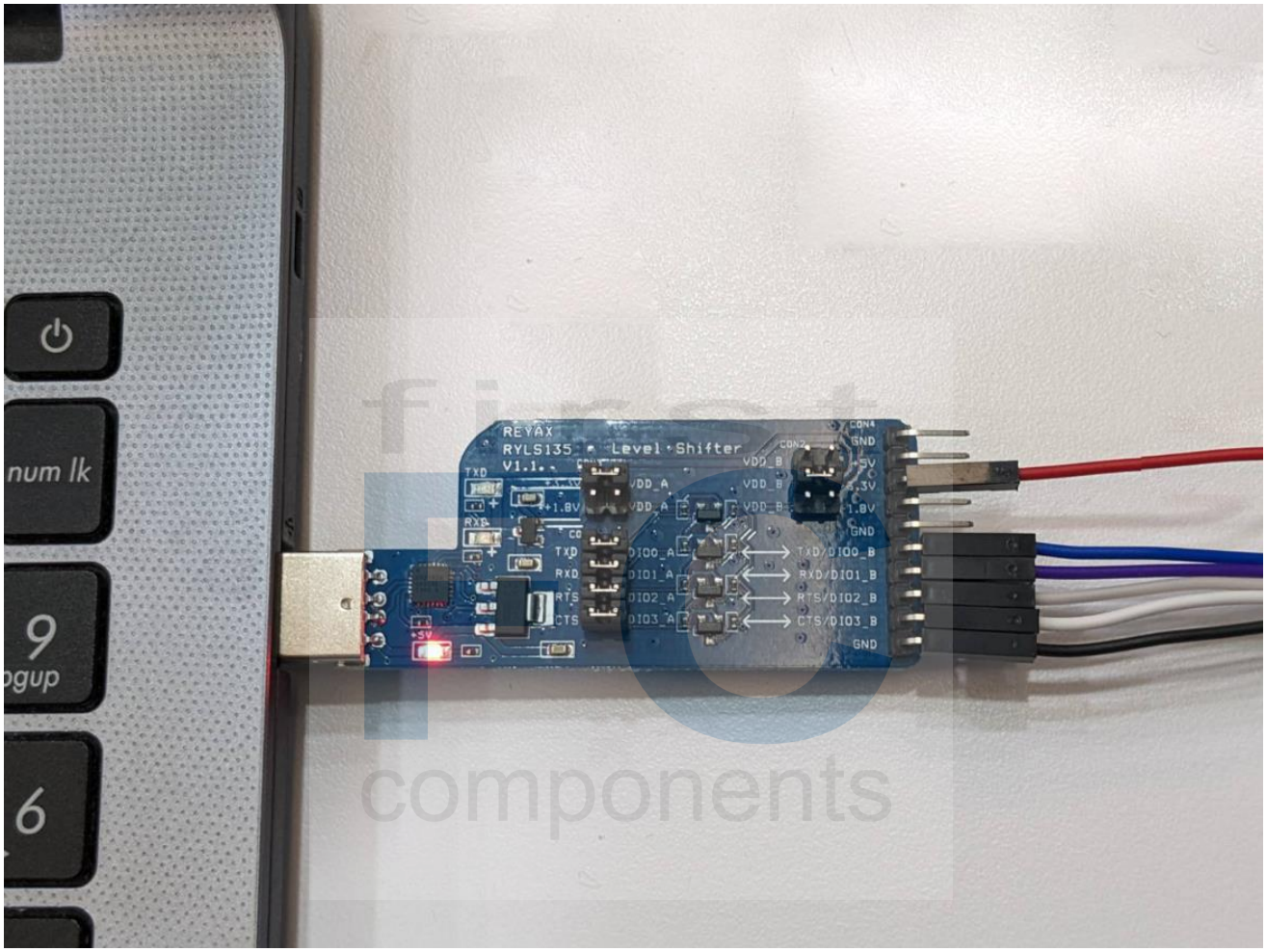
1X10 PIN DESCRIPTION

Pin	Name	Input/Output	Description
1	GND		Power Ground
2	+5V	Power	Power Input/Output
3	+3.3V	Power	+3.3V Power Output
4	+1.8V	Power	+1.8V Power Output
5	GND		Power Ground
6	TXD/DIO0_B	I/O	UART Data Output / GPIO
7	RXD/DIO1_B	I/O	UART Data Input / GPIO
8	RTS/DIO2_B	I/O	UART Ready To Send control output / GPIO
9	CTS/DIO3_B	I/O	UART Clear To Send control input / GPIO
10	GND		Power Ground

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CONNECTION DIAGRAM

[1]When using RYLS135 as a USB to 3.3V UART interface function, you can place the VDD_B Jumper at the +3.3V position according to the jumper setting as below picture.



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[2]When using RYLS135 as a bidirectional voltage level shifter, You can place the VDD_A and VDD_B jumper at the voltage position you want. For example: the below picture is to convert DIO0~3_A 3.3V voltage level into DIO0~3_B 5V voltage level.



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SPECIFICATION

Item	Min.	Typical	Max.	Unit	Condition
USB / +5V Power Supply	4.5	5	5.5	V	VDD_USB
USB / +5V Output current		500		mA	
+3.3V Power output voltage	3.1	3.3	3.5	V	
+3.3V Power output current		500		mA	
+1.8V Power output voltage	1.7	1.8	1.9	V	
+1.8V Power output current		100		mA	
USB to UART Baud rate	300	115200	3M	bps	
Level shifter switching on/off delay time			20	ns	
Weight		15		g	
Operating Temperature	-40	25	+85	˚C	

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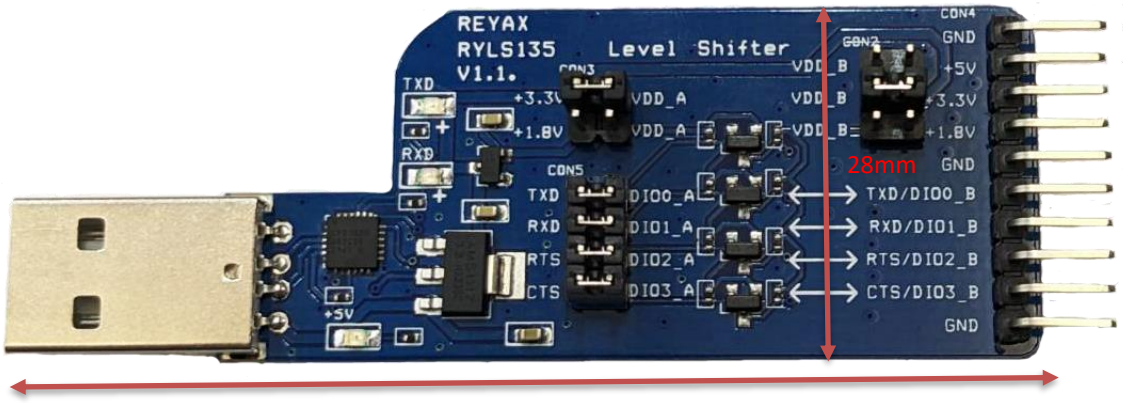
Download and Install SILABS CP2102N VCP Drivers

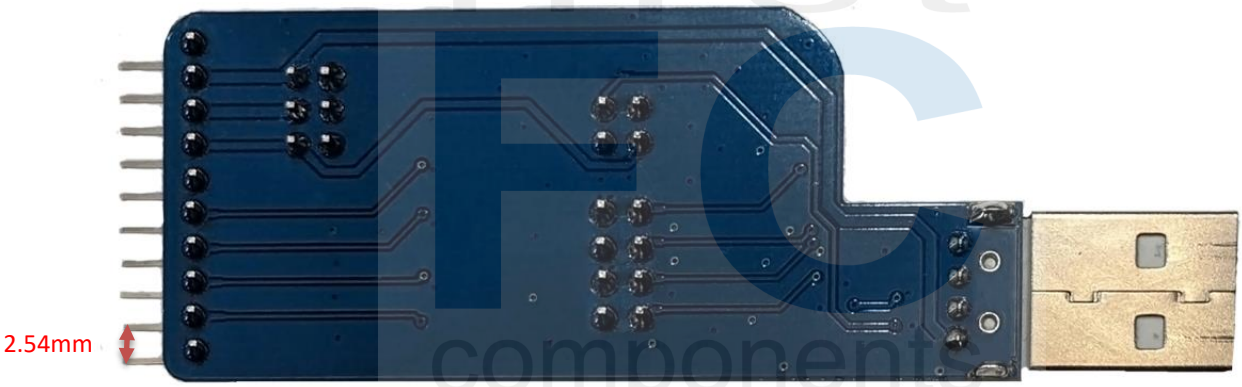
Downloads for Windows, Macintosh, Linux and Android below.

https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers?tab=downloads

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DIMENSIONS





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