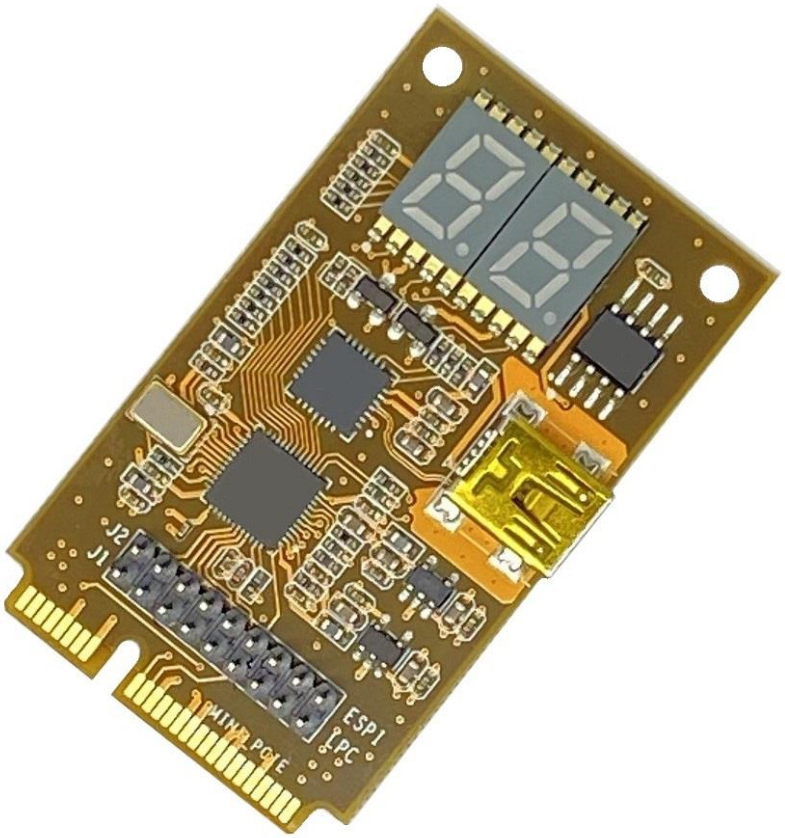
ESPI/LPC Port80-84 Debug Card User Manual

- 3 in 1 debug card, supports ESPI, LPC and Mini-PCIE interface.
- Supports Port 80/81/82/83/84 decode, port84 for some of HP motherboard.
- Support to customize IO port address via USB.
- Support to record all POST code via USB.
- Support to record reset event via USB.
- Dimension: 5.0cm x 3.0cm.



Specification：

1. Pin Description：

		ESPI+LPC		ESPI only	
Locate	Pin	Pin Description	IO Voltage(v)	Pin Description	IO Voltage(v)
J1 (2.0mm,1x9)	1	VCC 3.3V	3.3	VCC 3.3V	
	2	LPC_D3	3.3	ESPI_D3	1.8
	3	LPC_D2	3.3	ESPI_D2	1.8
	4	LPC_D1	3.3	ESPI_D1	1.8
	5	LPC_D0	3.3	ESPI_D0	1.8
	6	LPC_CLK	3.3	ESPI_CLK	1.8
	7	LPC_FRAME#	3.3	ESPI_CS#	1.8
	8	PLT_RST#	3.3	PLT_RST#	**3.3**
	9	GND		GND	
J2 (2.0mm,1x9)	1	VCC 3.3V		VCC 3.3V	
	2	ESPI_D3	1.8	ESPI_D3	1.8
	3	ESPI_D2	1.8	ESPI_D2	1.8
	4	ESPI_D1	1.8	ESPI_D1	1.8
	5	ESPI_D0	1.8	ESPI_D0	1.8
	6	ESPI_CLK	1.8	ESPI_CLK	1.8
	7	ESPI_CS#	1.8	ESPI_CS#	1.8
	8	PLT_RST#	3.3	PLT_RST#	**3.3**
	9	GND		GND	
Mini PCIE (Golden Finger)	8	LPC_FRAME#	3.3	ESPI_CS#	1.8
	10	LPC_D3	3.3	ESPI_D3	1.8
	12	LPC_D2	3.3	ESPI_D2	1.8
	14	LPC_D1	3.3	ESPI_D1	1.8
	16	LPC_D0	3.3	ESPI_D0	1.8
	17	PLT_RST#	3.3	PLT_RST#	**3.3**
	19	LPC_CLK	3.3	ESPI_CLK	1.8

2. 7 Segments LED:

When power on, the 7 segments LED will **blink to display IO port address**. After IO port data is valid, then display port data.

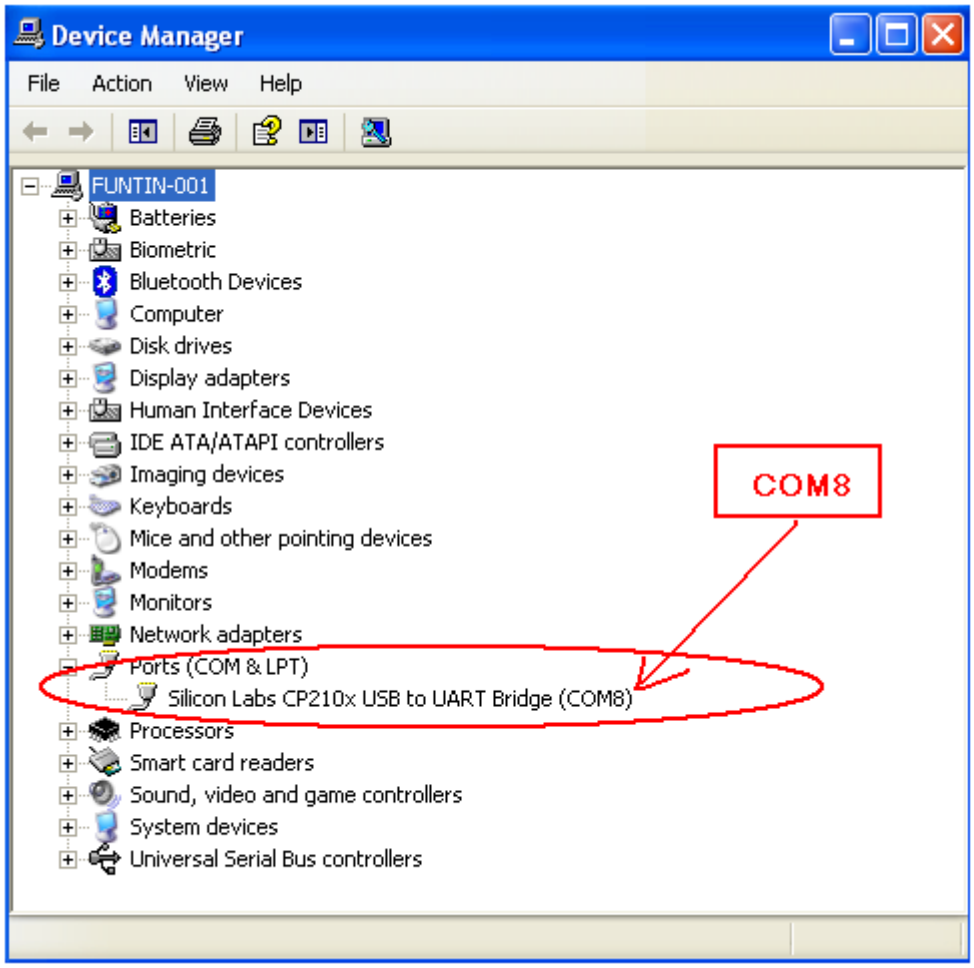
3. USB:

- Set IO port address to 80/81/82/83 or 84.
- Record all IO port data.
- Record reset event.

3.1 Download USB UART driver:

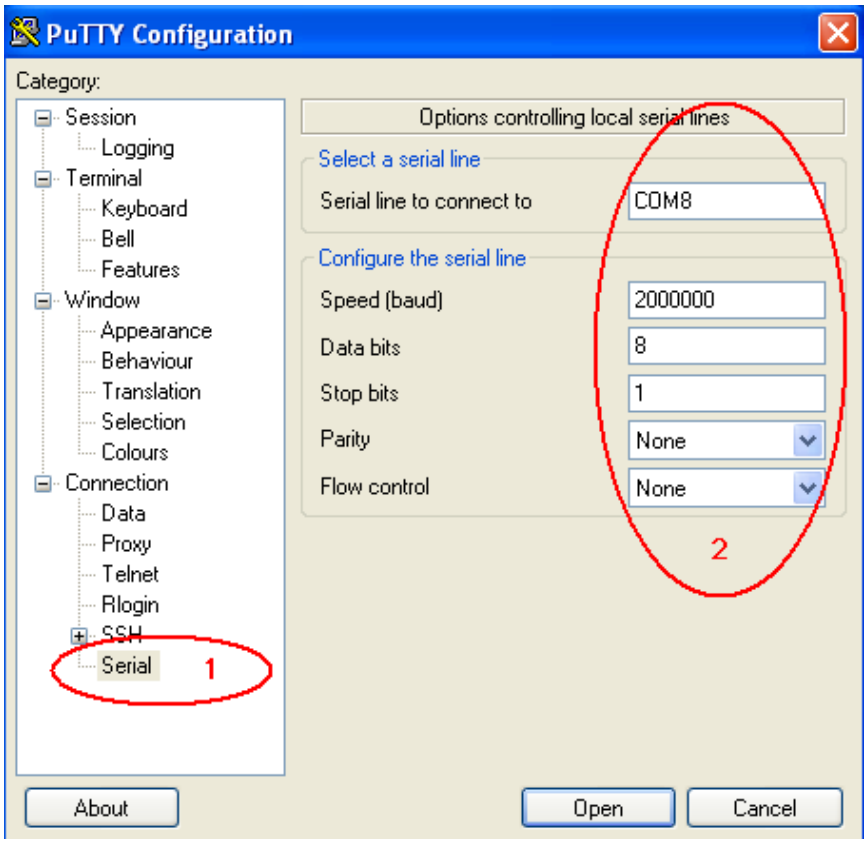
https://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers

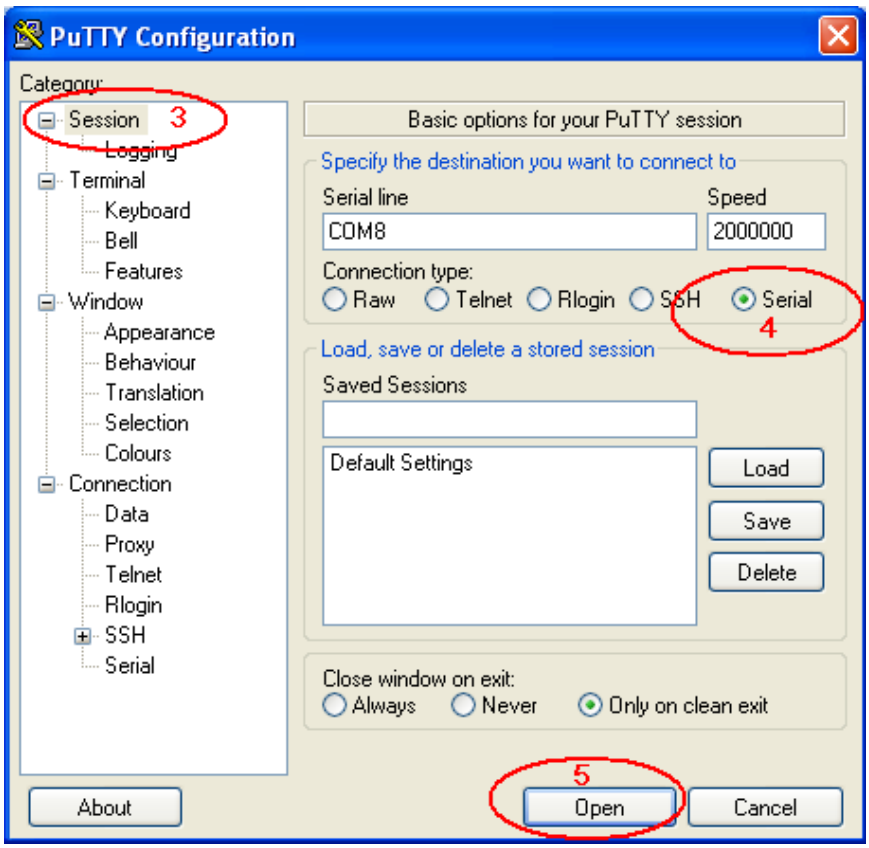
3.2 Install USB UART driver, then you will find the virtual serial port number in Device Manager:



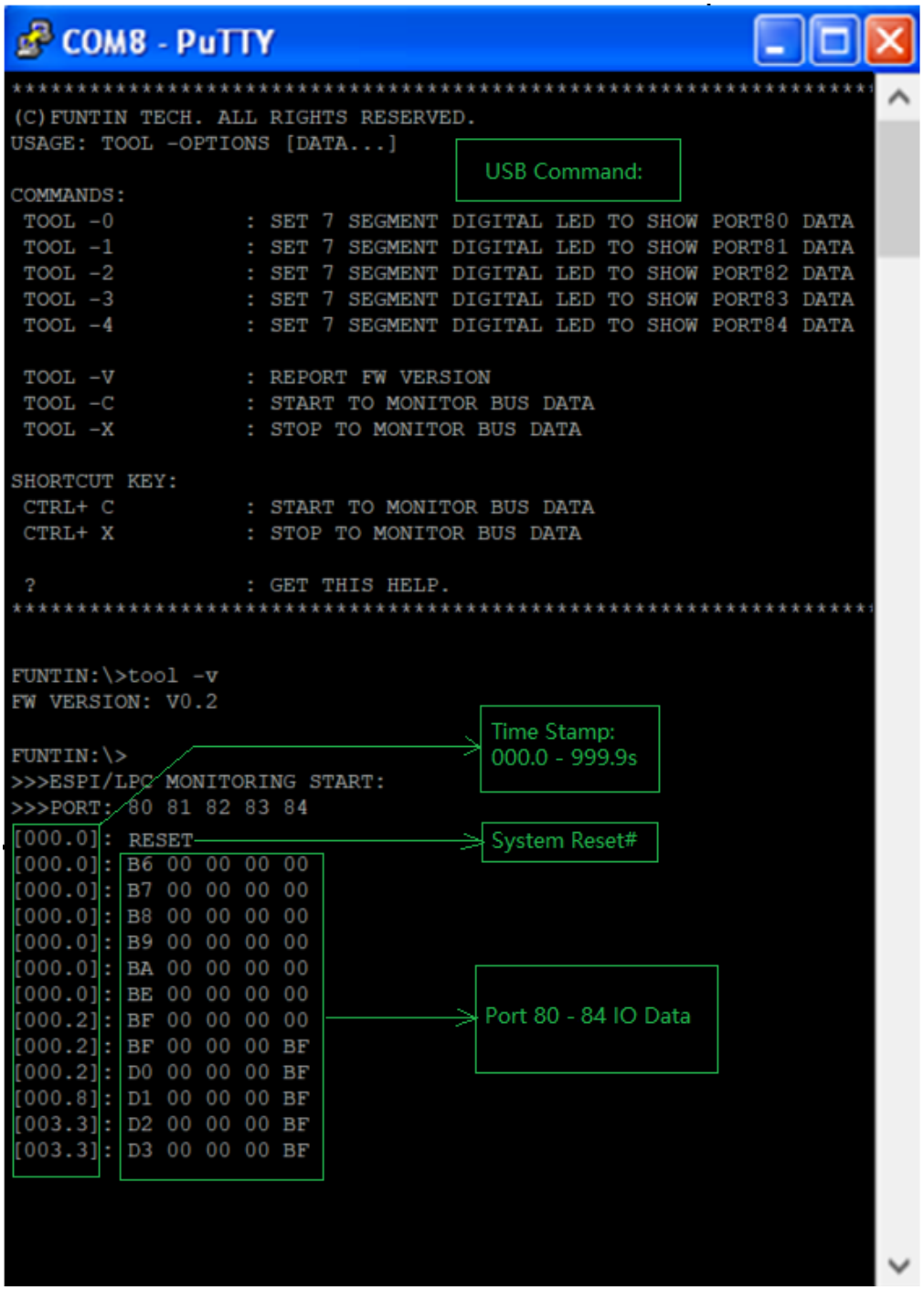
3.3 Choose a UART assistant tool to communication with debug card COM port, The **UART baud rate is 2M**, below is an example to choose Putty tool.

- Putty tool download: https://www.putty.org





3.4 USB command usage:



4. Change debug card to ESPI only if you needed：