Advantech AE Technical Share Document

Date	2022/06/17	**Related Product**	ULI-300 series	
Category	■ FAQ □SOP	**Related OS**	N/A	
Abstract	ULI series_ How to check the Linux driver			
Keyword	ULI-300 series, Linux driver.			
SR#	1-4875917831			
Revision History				
Date	Version	Author	Reviewer	Description
2022/06/17	V1.0	Karen.Hsu	Owen.Chang	Ubuntu 11.10, kernel 3.0.0

■ **Problem Description**:

This FAQ will illustrate how to check whether there is the driver of ULI series in Linux OS. Also, in this FAQ, here will illustrate the original FTDI VID/PID and the Advantech VID/PID.

■ **Brief Solution - Step by Step**:

A. **Check the driver in Ubuntu.**

Here we use Ubuntu 20.04.3 LTS for demonstration, the Ubuntu had already included the USB driver from the FTDI chip. Users could plug in the USB modules directly in Ubuntu and check the USB driver which had already been contained in Ubuntu.

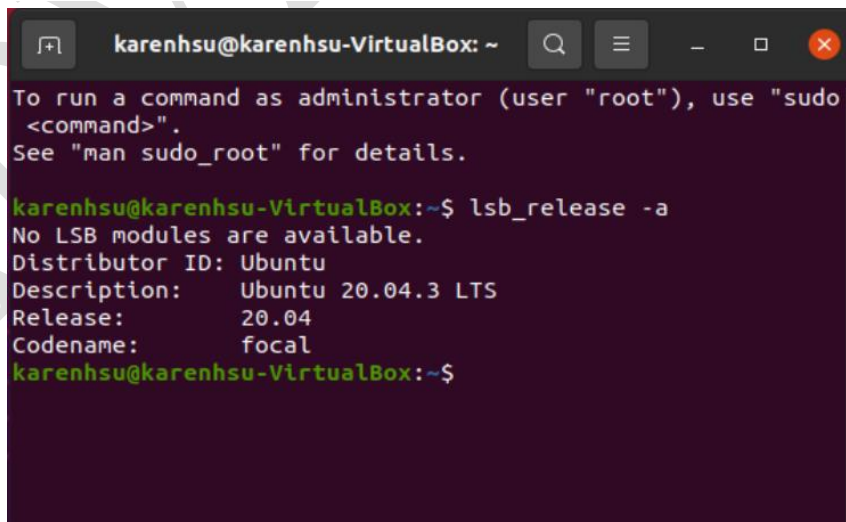(The USB driver could support Ubuntu 11.10, kernel 3.0.0.)

Figure 1. The version of Ubuntu.

With the command "**lsusb**", it will show the USB devices information, and the command "**dmesg | grep**" will show the boot information in the buffer, you could check the FTDI USB

serial device converter that is included in the Linux source code and connected to the USB port successfully. And, the command "**lsmod**" will show all the modules connected to the OS systems. By these three commands, we could see the ULI modules connected to the system successfully and driver is already installed in the Linux source code.

Figure 2. Check the ULI USB driver in Ubuntu.

Figure 3. Checking the USB devices in Ubuntu.

We could see the VID in Fig. 2 shows "0403" which is the FTDI original VID. In Fig. 4, there is Advantech VID "0856" and PID "ac03".

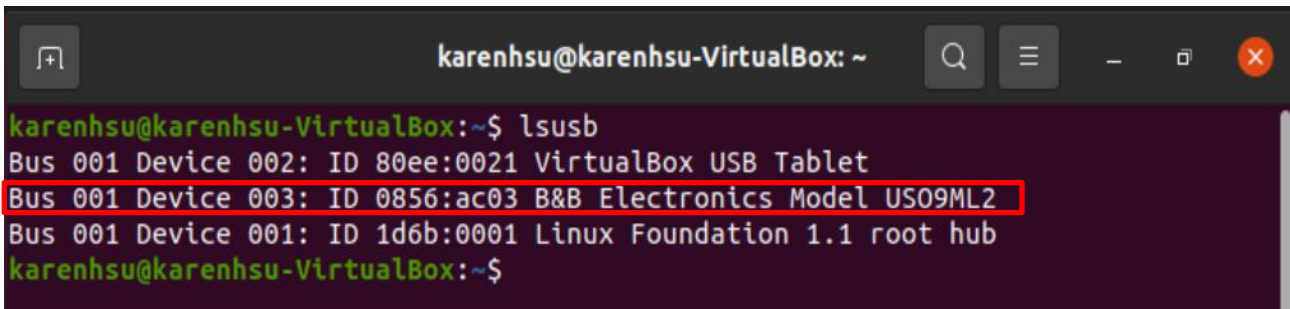Figure 4. The Advantech VID & PID of USB driver.

If you are using the virtual box and didn't see the USB driver after the command "lsusb". please check the USB filter in the Virtual box settings as Fig. 5 and Fig. 6. after you plug in the ULI devices to your computer. You could add the USB driver into the filter and reboot the system then check the USB driver in Ubuntu.
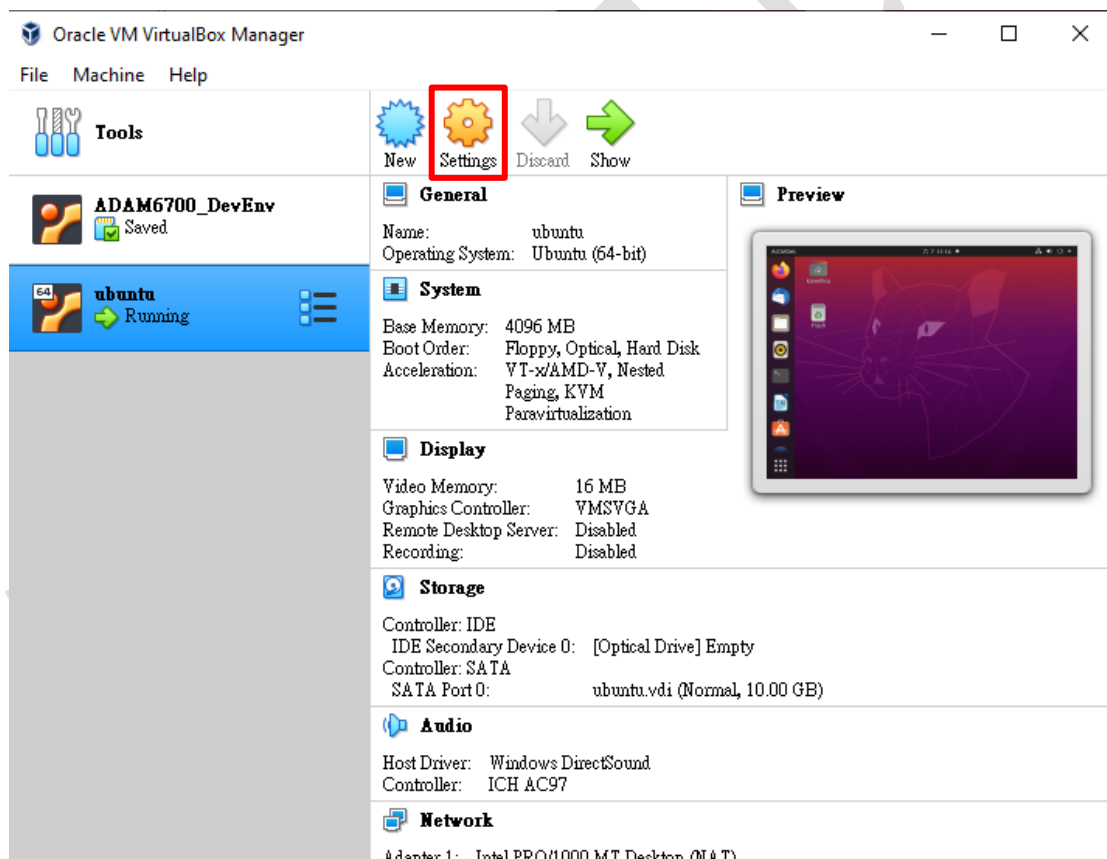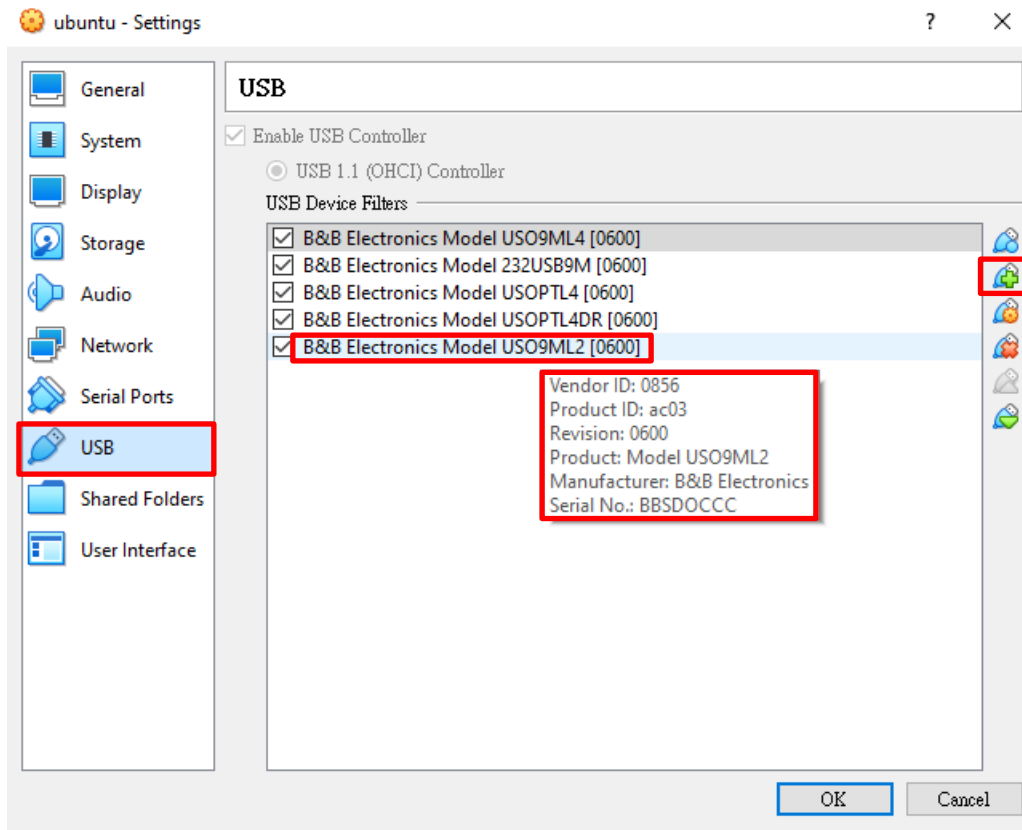

Figure 5. Setting in Virtual Box.

Figure 6. USB filter in Virtual Box.

For the modules supporting the Linux driver, you could refer to the modules in below list:

	BB part number	ULI Model		BB part number	ULI Model
1	BB-232USB9M	ULI-321D	20	BB-USO9ML2-LS	N/A
2	BB-232USB9M-LS	ULI-321DK	21	BB-USOPTL4	ULI-341TC
3	BB-485USB9F-2W	ULI-361D	22	BB-USOPTL4-LS	ULI-341TCK
4	BB-485USB9F-2W-LS	ULI-361DK	23	BB-USOPTL4DR	N/A
5	BB-485USB9F-4W	ULI-351D	24	BB-USOPTL4DR-2	ULI-342TC
6	BB-485USB9F-4W-LS	ULI-351DK	25	BB-USOPTL4DR-LS	N/A
7	BB-485USBTB-2W	N/A	26	BB-485USBTB4WLS-A	ULI-351TK
8	BB-485USBTB-2W-LS	N/A	27	BB-USR602	N/A
9	BB-485USBTB-4W	N/A	28	BB-USR604	ULI-344DC
10	BB-485USBTB-4W-LS	N/A	29	USO9ML2	N/A
11	BB-TTL3USB9M	N/A	30	USO9ML2-LS	N/A
12	BB-TTL3USB9M-LS	N/A	31	USO9ML2DR	N/A
13	BB-TTL5USB9M	N/A	32	USO9ML2DR-2	N/A
14	BB-TTL5USB9M-LS	N/A	33	USO9ML2DR-LS	N/A
15	BB-USO9ML2	N/A	34	USOPTL4DR	N/A
16	USR602	N/A	35	BB-USO9ML2-LS-A	ULI-321DCK
17	USR604	ULI-344DC	36	BB-485USBTB-2W-A	ULI-361T

| 18 | BB-USO9ML4 | ULI-341TC | 37 | BB-485USBTB-4W-A | ULI-351T |
| 19 | BB-USO9ML2-A | ULI-321DC | 38 | BB-485USBTB2WLS-A | ULI-361TK |