

# Display Plug User Manual v01

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### 1. Getting Start with the Display Plug

#### 1.1 Console Access

The Display Plug utilizes the Prolific PL2303HX(D) chip , a USB-to-serial Bridge, to hook up the UART0 of Dove as a debug console, and this console is available at a USB Micro-AB socket(J16).

Following steps assume a Host running Windows XP with PL2303HX(D) driver loaded and a terminal program such as Hyper Terminal and Tera Term. Visit <u>www.prolific.com.tw</u> for the latest PL2303HX(D) driver.

- 1. Plug one end of the USB Micro-AB cable to the console port(J16) of Display Plug, the other end to the Host.
- 2. Wait for Windows Host to enumerate the PL-2303 device and load its driver
- Go to the Device Manager(Start Menu->Settings->Control Panel->System->Hardware->Device Manager). Expand the Ports(COM and LPT) drop-down and note the COM port assigned to the PL-2303(see below figure)



4. Launch Hyper Terminal or Tera Term in Host and Choose the COM port that assigned the PL2303 device. Change the baud rate to 115200, date to 8 bit and parity to none. Click "OK" to apply the settings.

Tera Term: Serial nort	setun	×I	3
(Port:	COM12 •	οκ	
Baud rate:	115200 -		
Data:	8 bit 💌	Cancel	
Parity:	none 💌		8
Stop:	1 bit 💌	Help	
Flow control:	none 💌		
⊤Transmit de	lay		

5. Power on the Display Plug, start-up messages scroll by as Linux boots until the login prompt is reached



(Figure, Uboot Start-up)

6. Login the Display Plug as ubuntu/marvell

Ubuntu 10.04.2 LTS ubuntu-laptop ttyS0

```
ubuntu-laptop login: ubuntu
Password: marvel
Last login: Sun Oct 17 00:01:02 EDT 2010 on ttyS0
Linux ubuntu-laptop 2.6.32.9-dove-5.4.2 #24 Fri Jun 10 19:39:45 IST 2011 armv71
GNU/Linux
Ubuntu 10.04.2 LTS
Welcome to Ubuntu!
* Documentation: https://help.ubuntu.com/
135 packages can be updated.
87 updates are security updates.
ubuntu@ubuntu-laptop: *
```

#### 1.2 Remote Access with Secure Shell(SSH)

Secure Shell(SSH) can be used to access the Display Plug when it is connected to a wired or wireless network. Following procedures assume either that the Plug is reconfigured to a static IP address or that it is dynamically assigned to a IP address from a DHCP server.

1. Launch a SSH software like Putty in the Windows Host, enter the Plug's IP address, and select SSH connection type.

🔀 PuITY Configuration					
Category: - Session - Logging - Terminal - Keyboard - Bell	Basic options for your PuTTY session  Specify the destination you want to connect to Host Name (or IP address)  Dott  10.10.10.222  22				
Features Window Appearance Behaviour Translation Selection Colours Connection Data Proxy Telnet	Connection type: <a href="https://www.serial.com">Serial</a> Load, save or delete a stored session         Saved Sessions         Default Settings         FT2232_SP         Delete				
About	Close <u>wi</u> ndow on exit: Always Never Only on clean exit				

If it is the first time to SSH to the Plug, there will be a security alert, press "y" to forward.



2. Login the Plug as ubuntu/marvell as follow



#### 1.3 Using Kerboard, Mouse and VGA/HDMI display

With a network connection(WiFi or Ethernet cable), keyboard, mouse and flat panel display (HDMI or VGA), the Display Plug can be used as a standalone Linux machine, Follow these steps to boot the Display Plug and use the Linux destop.

- Plug in a USB mouse, USB keyboard and a flat panel display(HDMI or VGA monitor) to appropriate port. Connect a Ethernet CAT5/6 cable to a wired network if required
- **2.** Turn on the monitor and then power on the Display Plug.
- **3.** Waiting about 50seconds, the destop will show up as below:



2. Use the mouse and keyboard to browse or change the

system settings:

4			
Favorites			
Files	2		-
Accessories			
Games	Computer Janitor	Disk Utility	Hardward
Graphics			
Internet			~
Office	System Monitor	System Testing	Time ar
Sound			

3. Use the GUI terminal



#### FCC NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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