



FINTEK

F81232/F81532A/534A/ 535/536

Driver Installation Guide for Linux

v1.13

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1. Preliminary

This document is for Fintek F81232/F81532A/F81534A/535/536 driver installation in Linux.

2. Building Driver (Debian / Ubuntu based)

1. `sudo su`
2. `apt-get update`
3. `apt-get install build-essential gcc libncurses5-dev`
4. Unzip the driver.zip
5. `cd driver`
6. `make clean ; make ; make install`
7. `modprobe usbserial`
8. `rmmod f81232 ; insmod f81232.ko`
9. check new port added by “`dmesg | grep ttyUSB`”.

```
root@code-H11H4-IM: /home/code [108x33]
```

```
連線(C) 編輯(E) 檢視(V) 視窗(W) 選項(O) 說明(H)
```

```
[11687.339176] f81534a_uart ttyUSB0: f81534a_port_probe: curr_idx: 1
[11687.339180] f81534a_uart ttyUSB0: not flash present
[11687.339531] usb 2-1.3.3.2: f81534a_uart converter now attached to ttyUSB0
[11688.107222] f81534a_uart ttyUSB1: f81534a_port_probe: curr_idx: 2
[11688.107227] f81534a_uart ttyUSB1: not flash present
[11688.107668] usb 2-1.3.3.3: f81534a_uart converter now attached to ttyUSB1
[11688.875184] f81534a_uart ttyUSB2: f81534a_port_probe: curr_idx: 3
[11688.875190] f81534a_uart ttyUSB2: not flash present
[11688.875655] usb 2-1.3.3.4: f81534a_uart converter now attached to ttyUSB2
[11689.643039] f81534a_uart ttyUSB3: f81534a_port_probe: curr_idx: 4
[11689.643045] f81534a_uart ttyUSB3: not flash present
[11689.643386] usb 2-1.3.3.5: f81534a_uart converter now attached to ttyUSB3
[11690.411078] f81534a_uart ttyUSB4: f81534a_port_probe: curr_idx: 5
[11690.411084] f81534a_uart ttyUSB4: not flash present
[11690.411533] usb 2-1.3.3.6: f81534a_uart converter now attached to ttyUSB4
[11691.179037] f81534a_uart ttyUSB5: f81534a_port_probe: curr_idx: 6
[11691.179041] f81534a_uart ttyUSB5: not flash present
[11691.180405] usb 2-1.3.3.7: f81534a_uart converter now attached to ttyUSB5
```

3. Q&A

Q1: The F81232/F81532A/534A/535/536 will send strange data to make PassMark BurnInTest or our serial port application failed (Console or other usage).

A1: You can use “ps aux | grep Modem” in console to identify the service “ModemManager” is running.

```
root@code-VirtualBox:/home/code/ddd/hpeter/fintek/Usb4Uart/Android/Driver/Usb4Uart# ps aux | grep Modem
root    24367  0.6  0.6 37412  6508 ?        Ssl 13:14   0:10 /usr/sbin/ModemManager
root    24591  0.0  0.0  6160   852 pts/7    S+   13:41   0:00 grep --color=auto Modem
root@code-VirtualBox:/home/code/ddd/hpeter/fintek/Usb4Uart/Android/Driver/Usb4Uart#
```

It will probe all serial port by AT Command to find 3G Modem when this service running, It's also break normal serial port activity. We can add F81532A/534A/535/536 to the blacklist of ModemManager via following step.

1. Open “/lib/udev/rules.d/77-mm-usb-device-blacklist.rules”
2. Add the string upper then “mm_usb_device_blacklist_end”
ATTRS{idVendor}=="2c42", ATTRS{idProduct}=="1632", ENV{ID_MM_DEVICE_IGNORE}="1"
ATTRS{idVendor}=="2c42", ATTRS{idProduct}=="1634", ENV{ID_MM_DEVICE_IGNORE}="1"
ATTRS{idVendor}=="2c42", ATTRS{idProduct}=="1635", ENV{ID_MM_DEVICE_IGNORE}="1"
ATTRS{idVendor}=="2c42", ATTRS{idProduct}=="1636", ENV{ID_MM_DEVICE_IGNORE}="1"
ATTRS{idVendor}=="1934", ATTRS{idProduct}=="0706", ENV{ID_MM_DEVICE_IGNORE}="1"
3. Save file and re-plug F81232/F81532A/534A/535/536 again. The ModemManager will not probe our product.

```
ATTRS{idVendor}=="1d9d", ATTRS{idProduct}=="1011", ENV{ID_MM_DEVICE_IGNORE}="1"
LABEL="mm_usb_device_blacklist_end"
```

Q2: How to use serial mouse in CentOS7

A2:

1. Copy serialmouse.service to /etc/systemd/system/
If the target is Logitech mouse, using –intellimouse, otherwise using -msc.

```
[root@localhost ~]# cat /etc/systemd/system/serialmouse.service
[Unit]
Description=Enable Serial Mouse in X

[Service]
ExecStart=/usr/bin/inputattach --intellimouse /dev/ttyUSB0
#ExecStart=/usr/bin/inputattach -msc /dev/ttyUSB0

[Install]
WantedBy=multi-user.target
```

2. yum install linuxconsoletools
3. systemctl enable serialmouse
4. reset system

Q3: How to use serial console in CentOS7

A3:

The following examples will use ttyUSB0 & 38400n1 to output console.

1. Change kernel parameter as following and re-generate grub2.cfg:
 BOOT_IMAGE=/vmlinuz-3.10.0-693.el7.x86_64 root=/dev/mapper/centos-root ro crashkernel=auto
 rd.lvm.lv=centos/root rd.lvm.lv=centos/swap console=tty0 console=ttyUSB0,38400n8 selinux=0
2. Modify 77-mm-usb-device-blacklist.rules as Q1/A1.
3. Enable the login with systemd:
 1. systemctl enable [serial-getty@ttyUSB0.service](#)
 2. systemctl start [serial-getty@ttyUSB0.service](#)

We can use CTRL-C to break the operation if step2 takes too long time.

4. Reboot. The console & login prompt will output to ttyUSB0 with 38400 8n1.

Q4: Can't load driver when system reboot with Kylin (銀河麒麟).

A4: Run:

sudo kysec_set -n exectl -v original /lib/modules/`uname -r`/updates/f81232.ko
 to entrust the driver and reboot.