



Android USB Driver Installation on MT6573



Overview (1)

- All USB devices supported by MT6573

Scenario	Required INF	Available	VID/PID
BootROM VCOM	cdc-acm.inf + usbser.sys	Y	USB\VID_0E8D&PID_0003
Preloader VCOM	cdc-acm.inf + usbser.sys	Y	USB\VID_0E8D&PID_2000
ums	none	Y	USB\VID_0BB4&PID_0001
ums + adb	android_winusb.inf	Y	USB\VID_0BB4&PID_0C03 (USB composite device) USB\VID_0BB4&PID_0C03&MI_00 (USB mass storage) USB\VID_0BB4&PID_0C03&MI_01 (ADB Interface)
rndis	tetherxp.inf	Y	USB\VID_0BB4&PID_0003
ums + adb + acm	android_winusb.inf cdc-acm.inf + usbser.sys	Y	USB\VID_0BB4&PID_0005 (USB composite device) USB\VID_0BB4&PID_0005&MI_00 (USB mass storage) USB\VID_0BB4&PID_0005&MI_01 (ADB Interface) USB\VID_0BB4&PID_0005&MI_02 (COM port)

- BootROM VCOM
 - Used by USB one stage download process. The PID/VID is integrated into [cdc-acm.inf](#)
- Preloader VCOM
 - Used by general download process. The PID/VID is integrated into [cdc-acm.inf](#)
- No driver installation for **ums**
 - Windows support it and perform silent installation
- Driver installation is required for **ums+adb**
 - Since we use the same PID/VID used in HTC device, we can re-use the USB driver provided in SDK

Overview (2)

- Driver installation is required for **rndis**
 - The driver is not provided in SDK. MTK will provide it internally.
 - [tetherxp.inf](#) is used
- Driver installation is required for **ums+adb+acm**
 - The driver is not provided in SDK. MTK will provide it internally.
 - The [android_winusb.inf](#) must be patched for new PID/VID (support USB)
 - The [cdc-acm.inf](#) + [usbser.sys](#) will be provided for Gadget Serial
- The driver is modified based on SDK-R7
- Tested Platform

Platform	ADB	RNDIS	VCOM
WINXP 32bits	OKAY	OKAY	OKAY
VISTA 32 bits	OKAY	OKAY	N/A
VISTA 64 bits	OKAY	Testing	N/A
WIN7 32 bits	OKAY	OKAY	N/A
WIN7 64 bits	OKAY	Testing	N/A

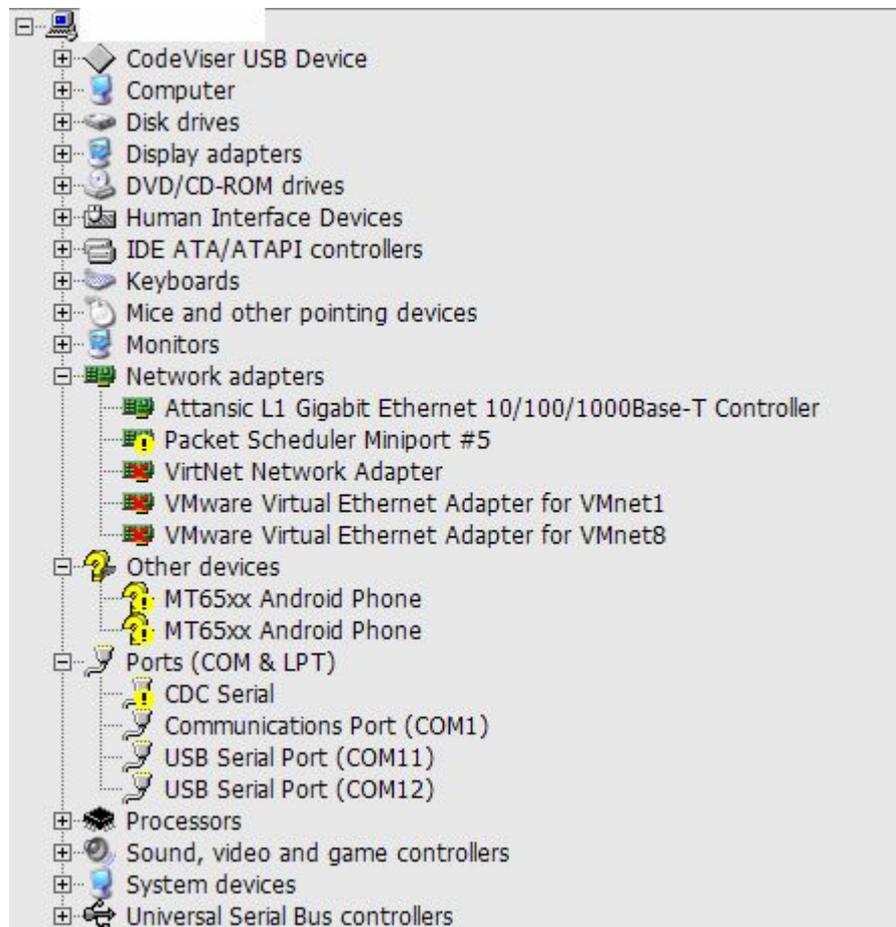
Update Your Driver

- Get Android SDK and install the last package
- Please find the attached drivers
 - Backup your `<ANDROID_SDK>/usb_driver/android_winusb.inf`
 - The step could be ignored
 - Extract it to `<ANDROID_SDK>/usb_driver`
 - Several files are extracted
 - `android_winusb.inf` (ADB interface)
 - This file is updated since we add support for ums+adb+acm combination
 - `cdc-acm.inf`, `usbser.sys` (CDC-ACM interface, VCOM)
 - `tetherxp.inf`, `rndismp.sys`, `usb8023.sys` (USB tethering)



How to install ums+adb+acm ? (1)

- After entering META mode, three devices will be found when inserting the USB cable
 - CDC Serial -> ACM
 - MT65xx Adroid Phone -> ADB/UMS



How to install ums+adb+acm ? (1)

■ Gadget Serial



How to install ums+adb+acm ? (2)

Android Composite ADB Interface

1



2



3



4



5



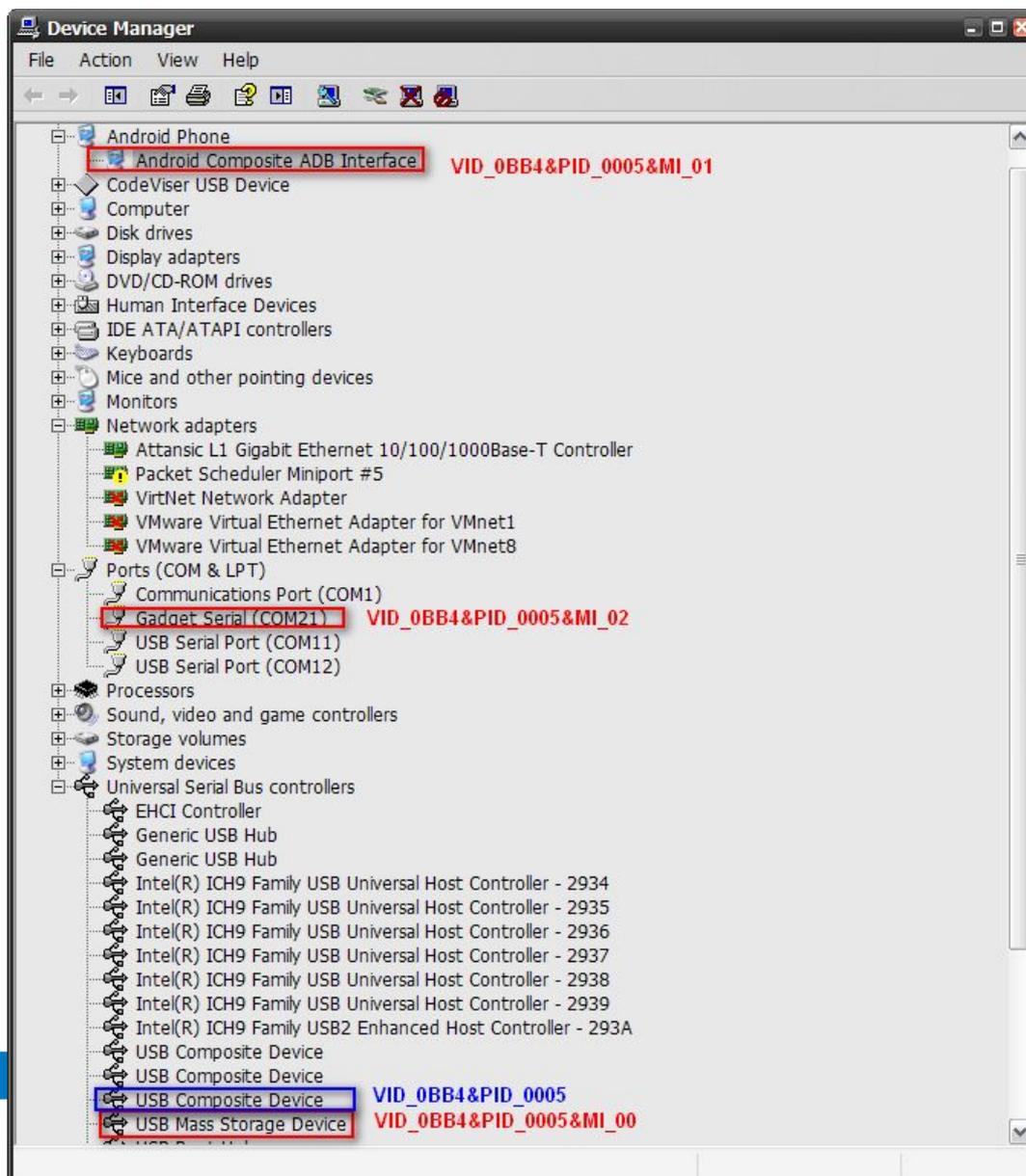
How to install ums+adb+acm ? (3)

- USB Mass storage
 - Windows will install the driver silently



How to install ums+adb+acm ? (4)

- In DeviceManager, the three devices are visible

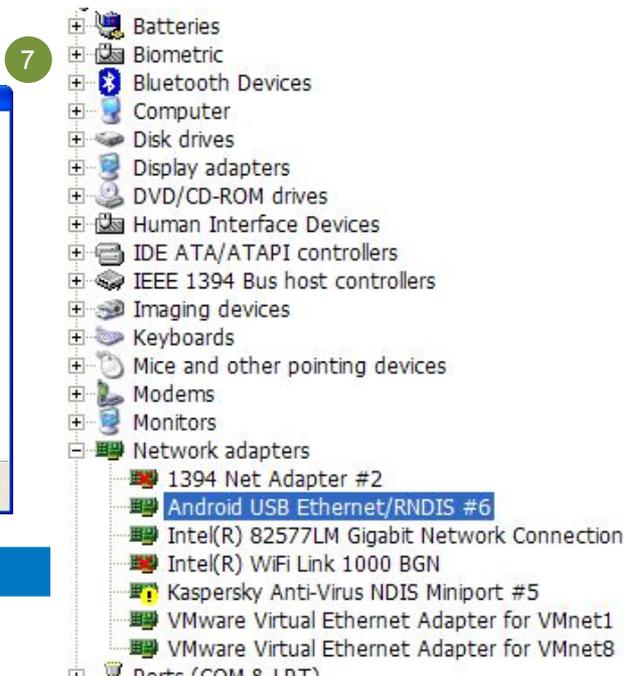
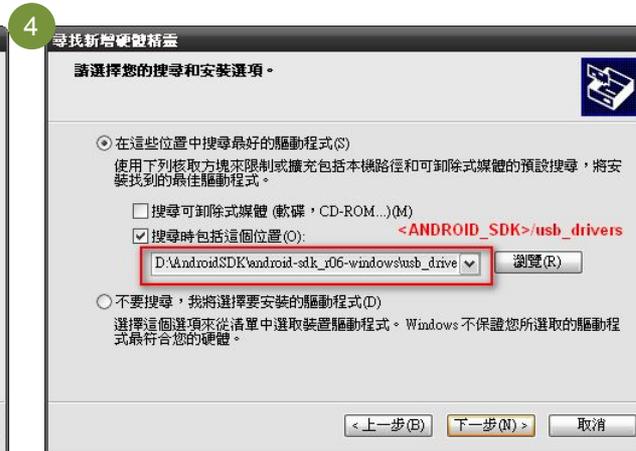


How to install RNDIS driver ? (1)

- When user enable USB tethering..



How to install RNDIS driver ? (2)



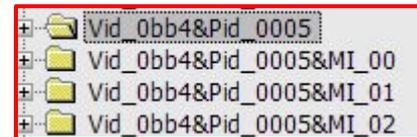
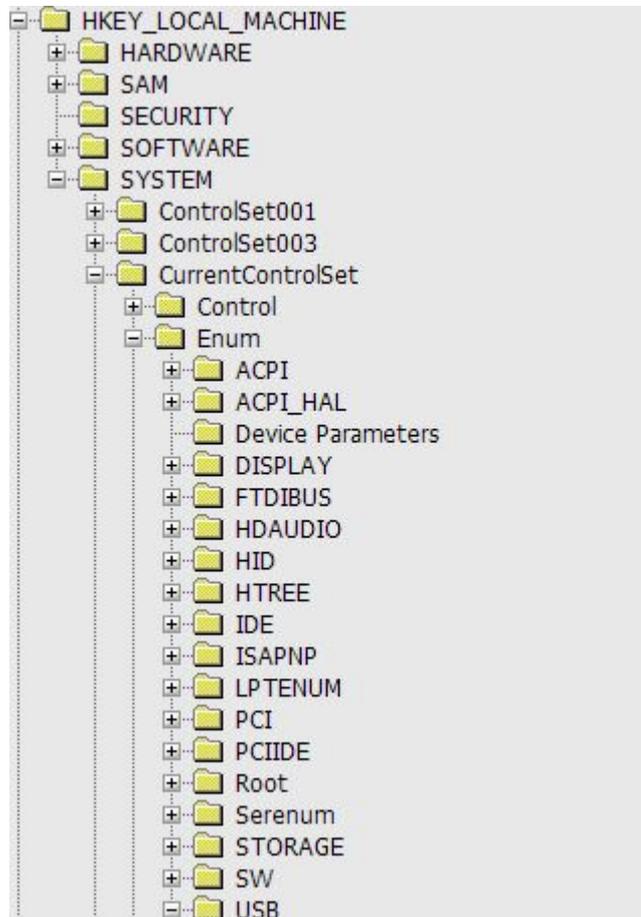


FAQ



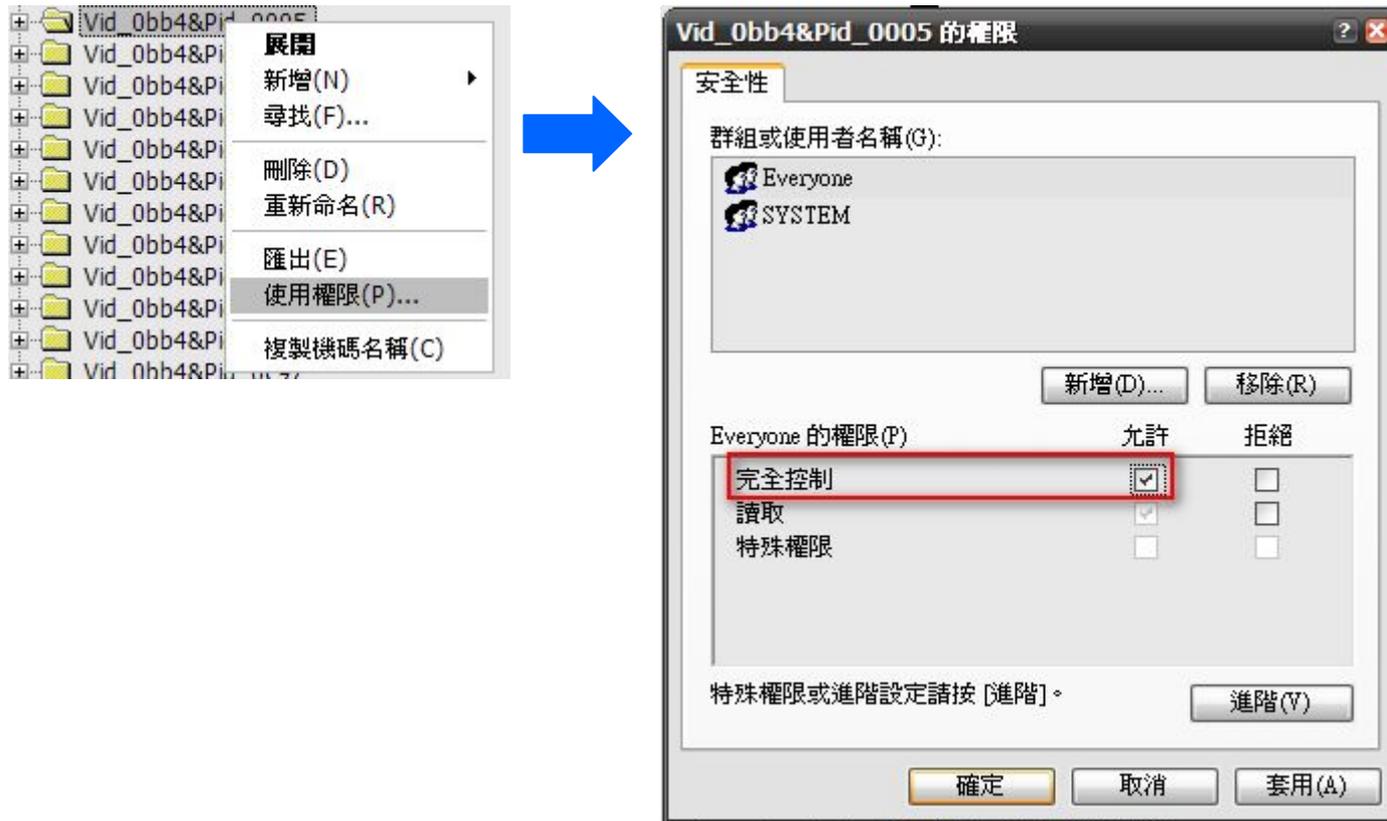
Q. Can't install the driver correctly ? (1)

- Find the registry
 - HEKY_LOCAL_MACHINE > SYSTEM > CurrentControlSet > Enum > USB



Q. Can't install the driver correctly ? (2)

- Remove the registry (1)
 - Modify the permission

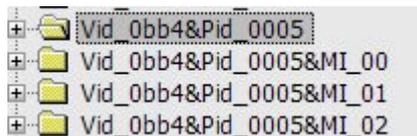


Q. Can't install the driver correctly ? (3)

- Remove Registry (2)
 - Delete the registry



- Repeat the delete operation for the following registry



- Remove the cable and insert the cable again

Q. USB One-Stage Download in MT6573E1

- New Flash download tool is required
- Download flow
 - Power off device and remove cable
 - Press USB download key
 - Zte73v1: camera key
 - MT6573 EVB: SW611
 - Insert cable
 - A USB COM port will be automatically generated. Configure options > COM port as this COM port
 - [You may need to install VCOM driver](#)
 - Press Download from tool UI
 - Wait until all images are downloaded
 - Remove battery/cable
 - Insert battery
 - Power On device

Q. META connection using USB

- A new SP_META tool is required
- Procedure
 - Remove battery
 - Connect USB to PC
 - Port: choose 'USB'
 - Click reconnect
 - Insert battery
 - Wait until entering USB meta (make sure the driver is installed)
 - You may need to install ums/adb/acm driver

Install Hotfix before installing the driver

- VCOM (CDC-ACM)
 - <http://support.microsoft.com/kb/943198/> (WinXP SP2)
 - When you use a USB-to-Serial converter to connect a device to a Windows XP-based computer, the data transfer from the computer to the device is slower than expected
 - <http://support.microsoft.com/kb/918365/> (WinXP SP3)
 - The Usbser.sys driver may not load when a USB device uses an IAD to define a function that has multiple interfaces, and this function uses the Usbser.sys driver file in Windows XP
- RNDIS
 - <http://support.microsoft.com/kb/959765/>
 - Remote NDIS (RNDIS) devices may not work correctly after you perform a surprise removal on a Windows XP-based computer and then attach the RNDIS device to the computer again