TBS6905 User Guide

Dear Customers,

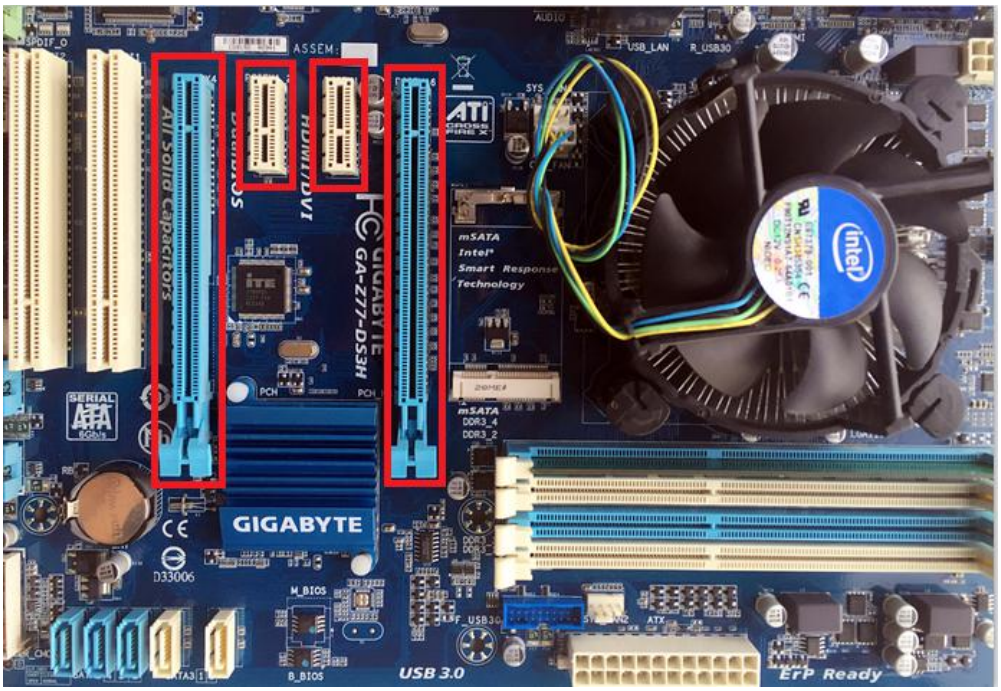
Thank you so much for using TBS products. TBS6905 is a PCI Express TV tuner card that supports multiple digital TV standards, including DVB-S2/S, which makes a switchover between different digital TV signals more convenient. Furthermore, with built-in Common Interface that allows insertion of CAM and smartcard for pay TV, it becomes your best choice to watch/record digital cable HD TV on PC.

In order to use this item correctly, please read this user manual carefully at the beginning.

1. Hardware Installation

1.1 Install TBS TV Tuner Card

Power off the computer, remove computer cover and take out cover panel of PCI-e slot in which you want to put the card. Insert the card in **PCI-e slot** and fix card bracket with screw. Make sure the card fit in PCI-e slot tightly. Then put back computer cover.



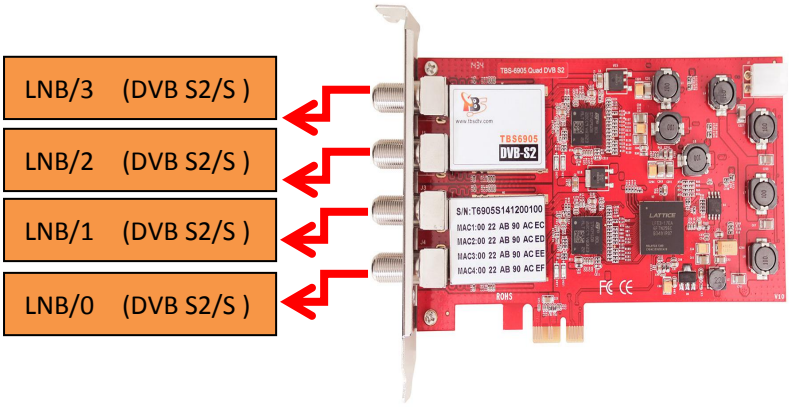
Attention:

① When turn off the computer, please do not touch the PC internal components especially the CPU and VGA chip, which has a high temperature with a risk of burns.

② Please be sure to see the manual of PC and peripheral equipment.

1.2 Connect TV Signal Cable to the TV Tuner Card on Your PC

Please make sure you properly connect the TV signal to the TV tuner on computer in case of the damage to antenna device. The following TBS6905 TV Signal Table is for your reference.

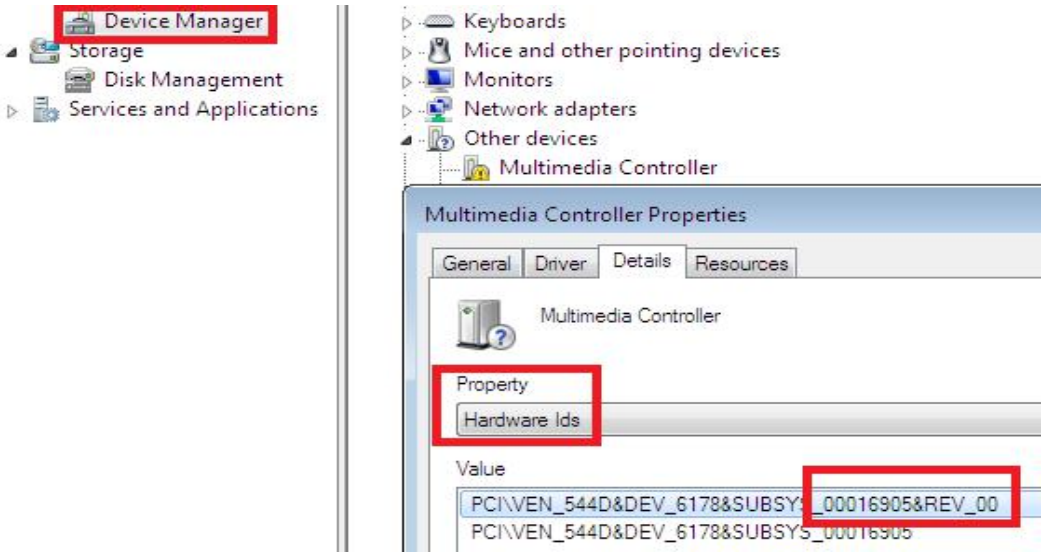


2. windows driver installation

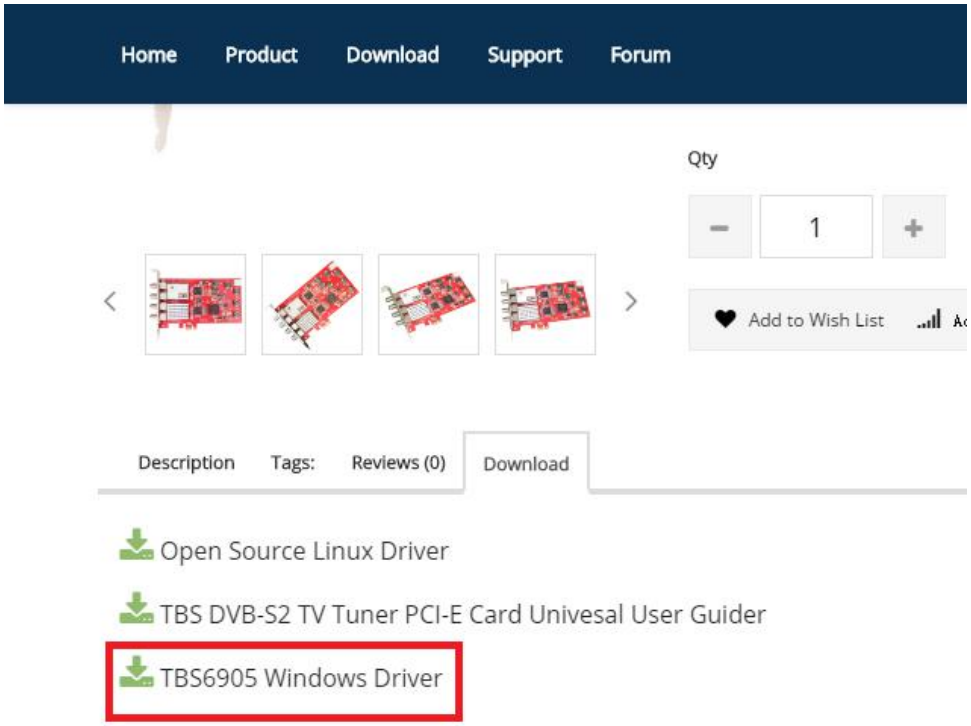
2.1 Start your PC and jump to “Computer Management”. There will pop up a notice “Failed to install the device driver” if you use Windows 7 operating system.

In order to install the driver successfully, you have to do as the prompts step by step.Then you can check the TBS TV tuner hardware device ID as follows:Open “Computer Management”, click “Other devices”, finally choose and double click the right hardware device for more details.

Please kindly see the following screenshot for your reference.

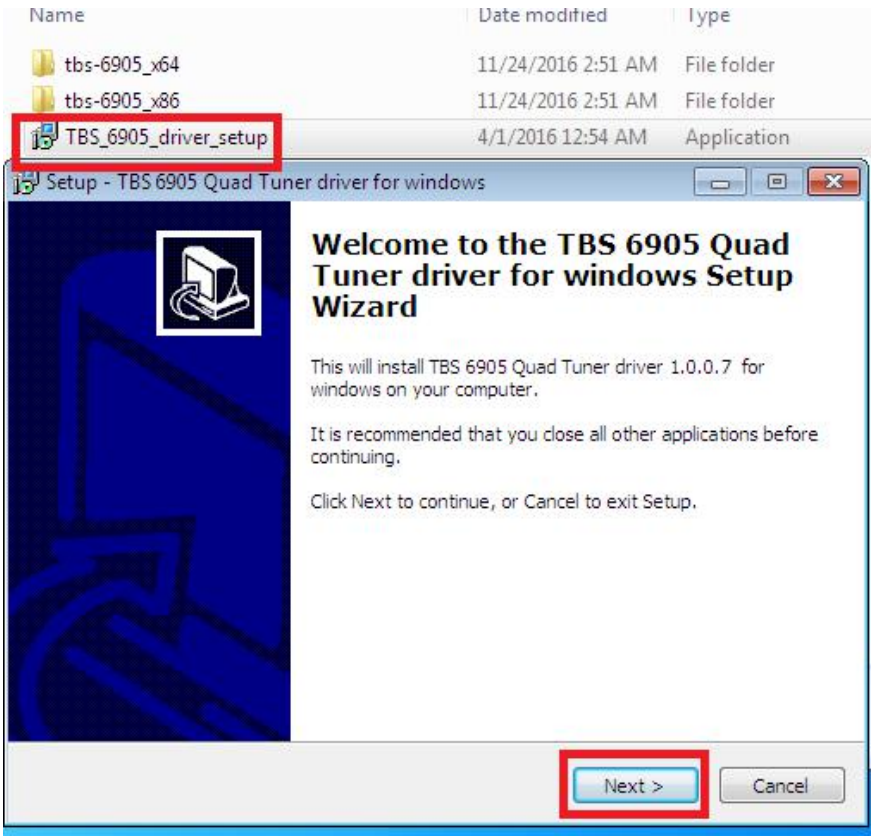


2. 2 Download TBS6905 Windows Driver from Our Website (See screenshot below)
http://www.tbsiptv.com/tbs6905--dvb-s2-quad-tuner-pcie-card?search=6905

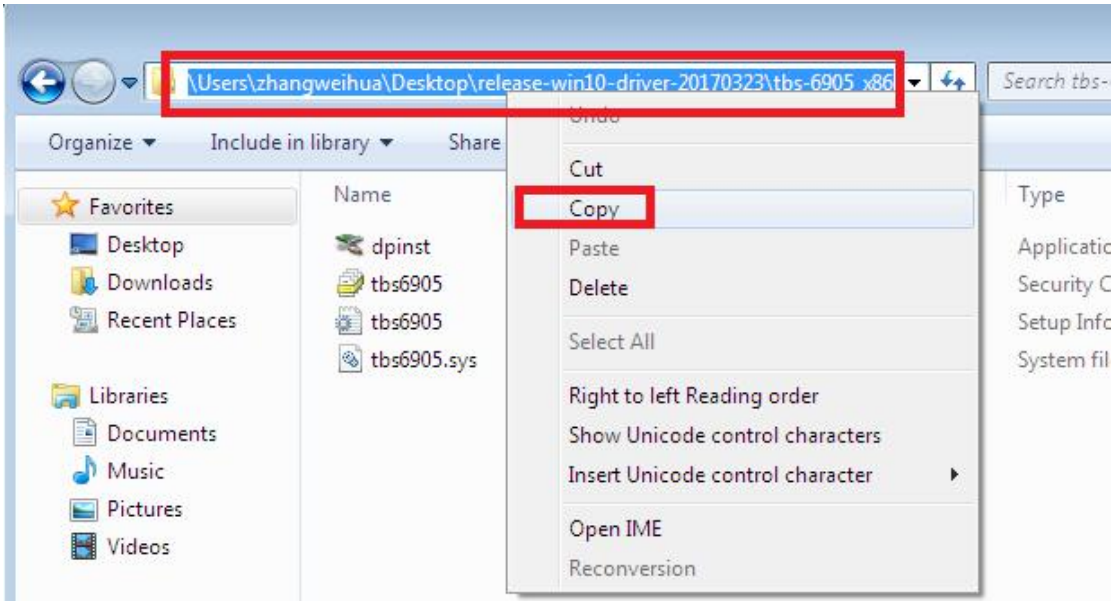


2) download and then unzip TBS 6905 Windows driver

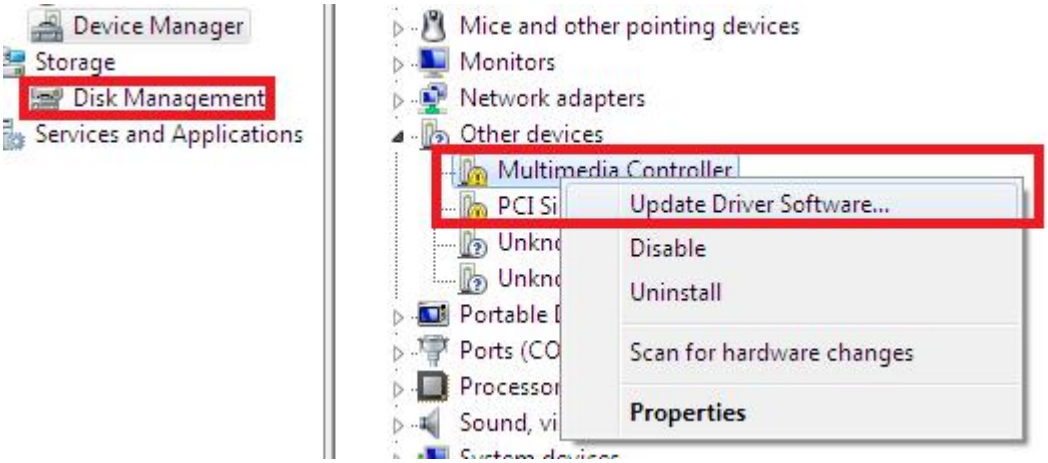
3) Click "TBS_6905_driver_setup", and then a new window will pop

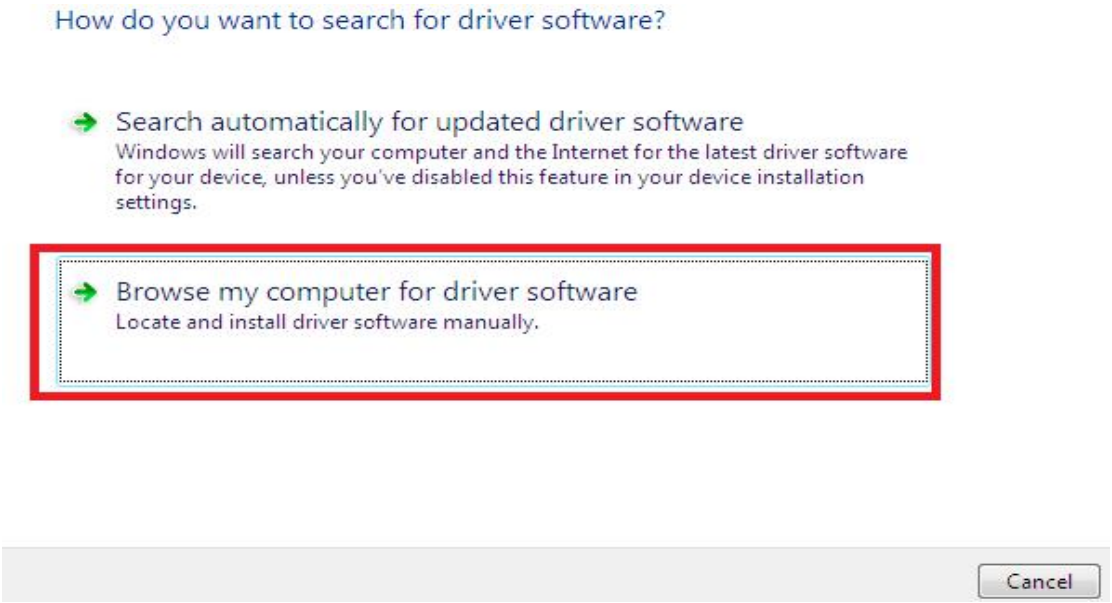


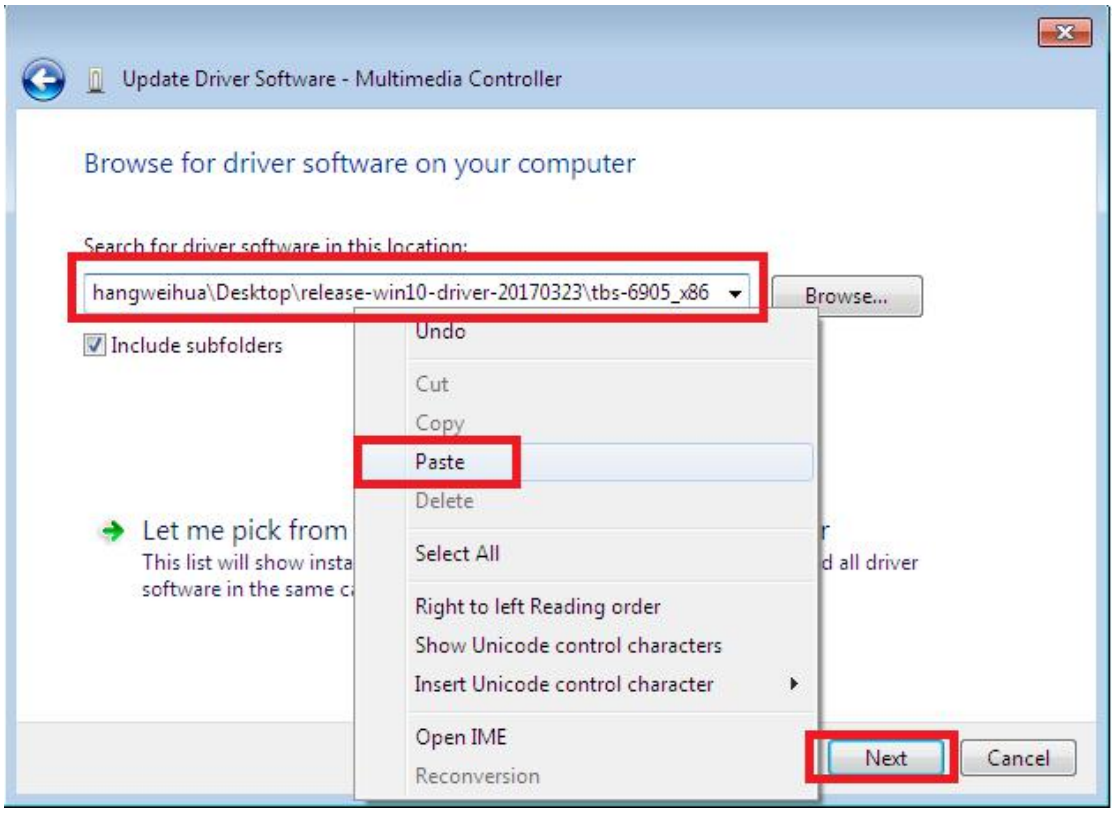
4) If the quick installation fails to try to manually install, open the drive compression package, according to their own system, copy the drive path (see below)

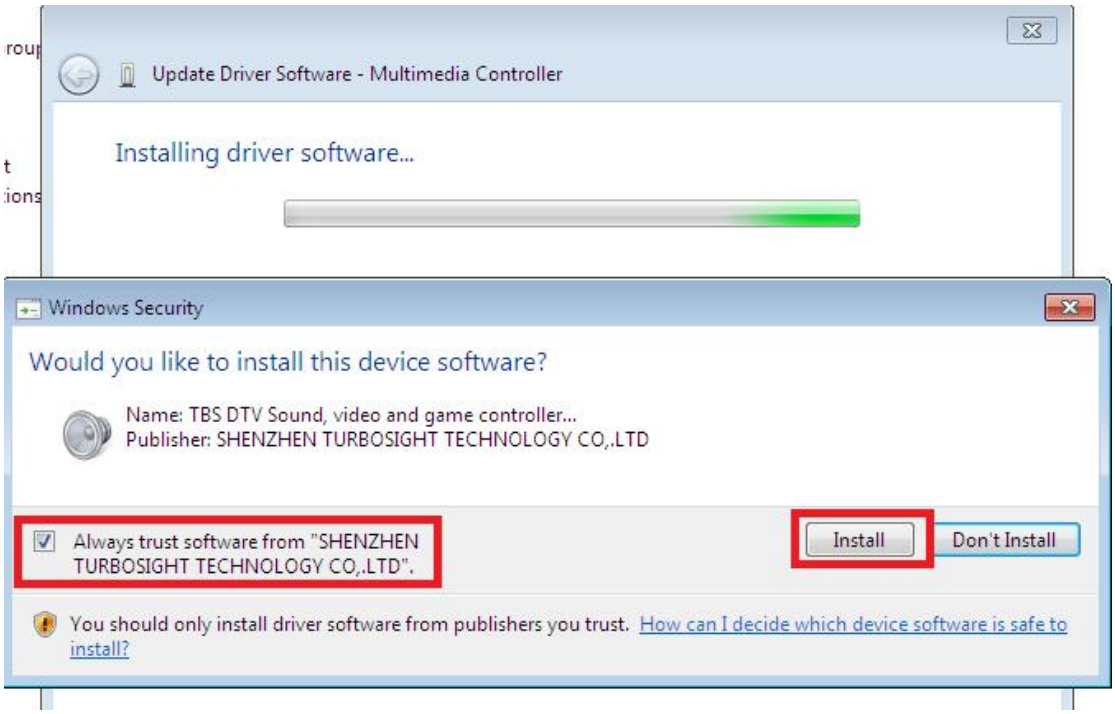


5) Open the device manager, to drive the manual update (see below)

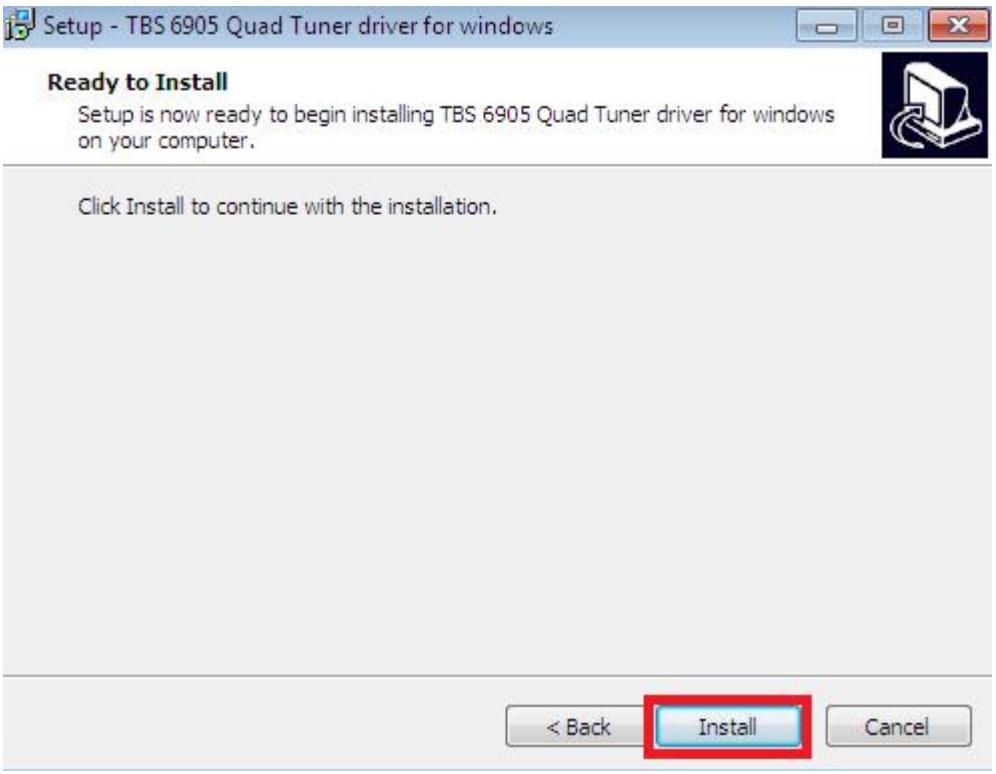


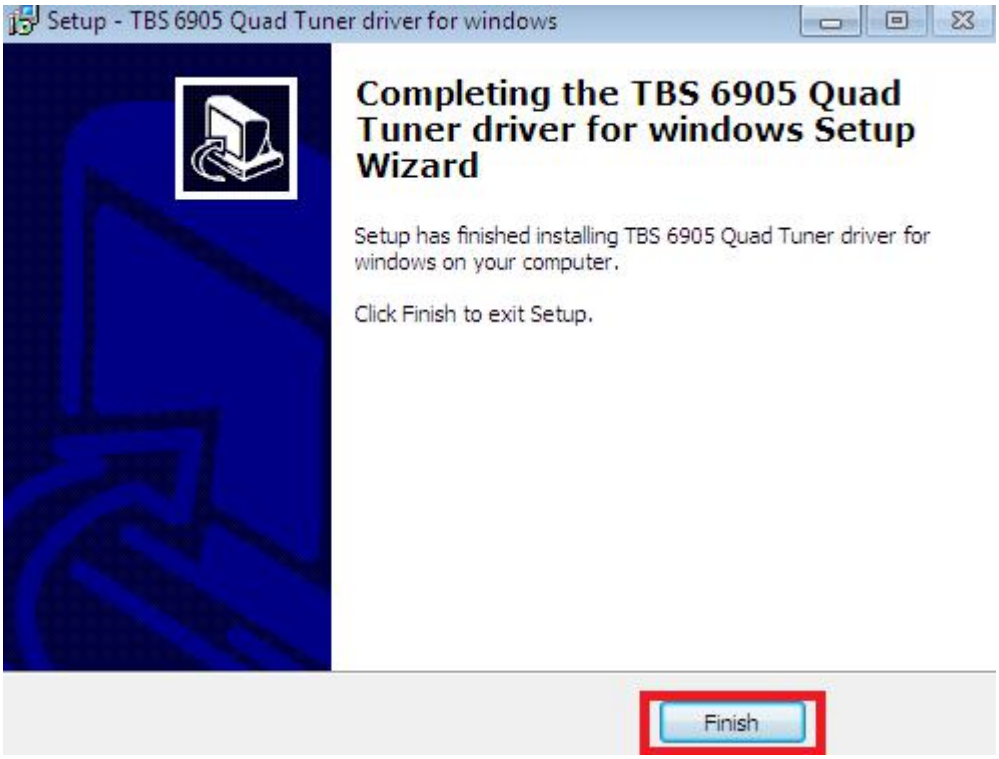



Update Driver Software - Multimedia Controller
Browse for driver software on your computer
Search for driver software in this location:
hangweihua\Desktop\release-win10-driver-20170323\tbs-6905_x86
Browse...
Include subfolders
Undo
Cut
Copy
Paste
Delete
Select All
Right to left Reading order
Show Unicode control characters
Insert Unicode control character
Open IME
Reconversion
Let me pick from
This list will show insta
software in the same c
d all driver
Next
Cancel

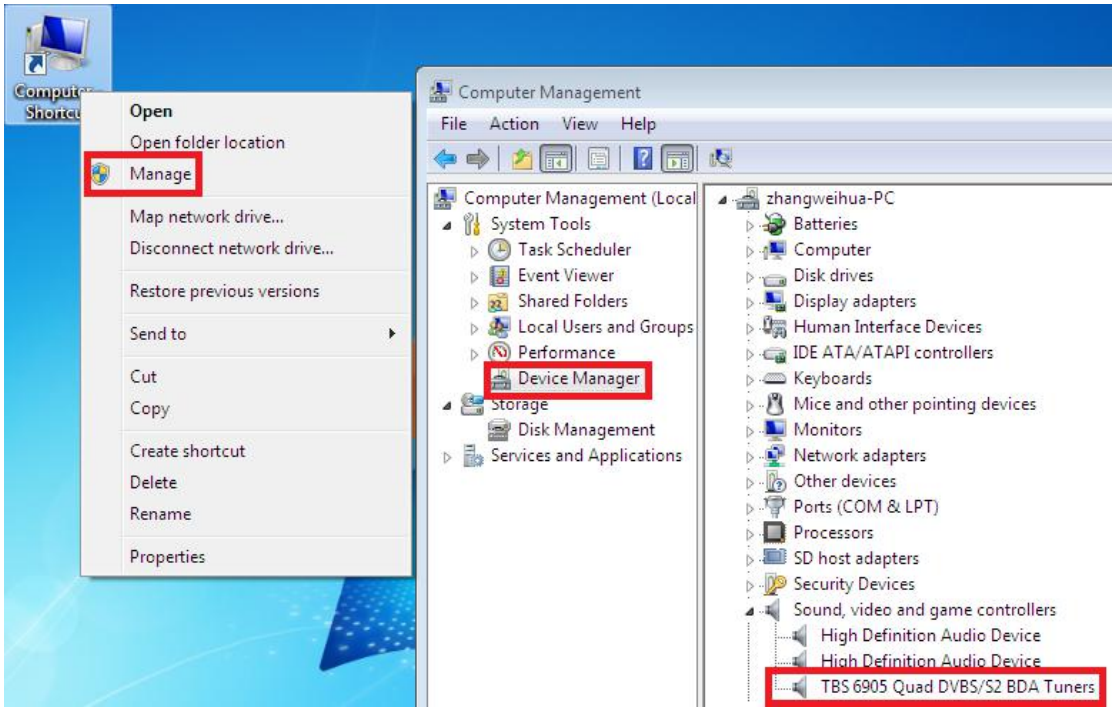

Update Driver Software - Multimedia Controller
Installing driver software...
Windows Security
Would you like to install this device software?
Name: TBS DTV Sound, video and game controller...
Publisher: SHENZHEN TURBOSIGHT TECHNOLOGY CO,.LTD
Always trust software from "SHENZHEN TURBOSIGHT TECHNOLOGY CO,.LTD".
Install
Don't Install
You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

5）Click “Next” “Install” “Finish” to complete installation





6） To verify if driver was correctly installed: Choose “My Computer”, right click and choose “System Properties” to pop up “System Properties” windows, click “Hardware” → “Device Manager”. Then click “+”in front of “Sound, video and game controllers”. If you can see “TBS6905 Dual BDA Tuners” that means you do have installed driver correctly. Just display as below:



3.Play Software Installation

To enjoy satellite TV on PC or record video, you still need to install player software and right set the search parameters.The above series of TBS TV tuner Card is compatible with a lot of software like TBSViewer, DVBDream, ProgDVB etc.

Here is a link is for downloading Player software. Fordetailed installation instructions, see its Software Installation Instructions.
http://www.tbsiptv.com/index.php?route=product/download&path=6

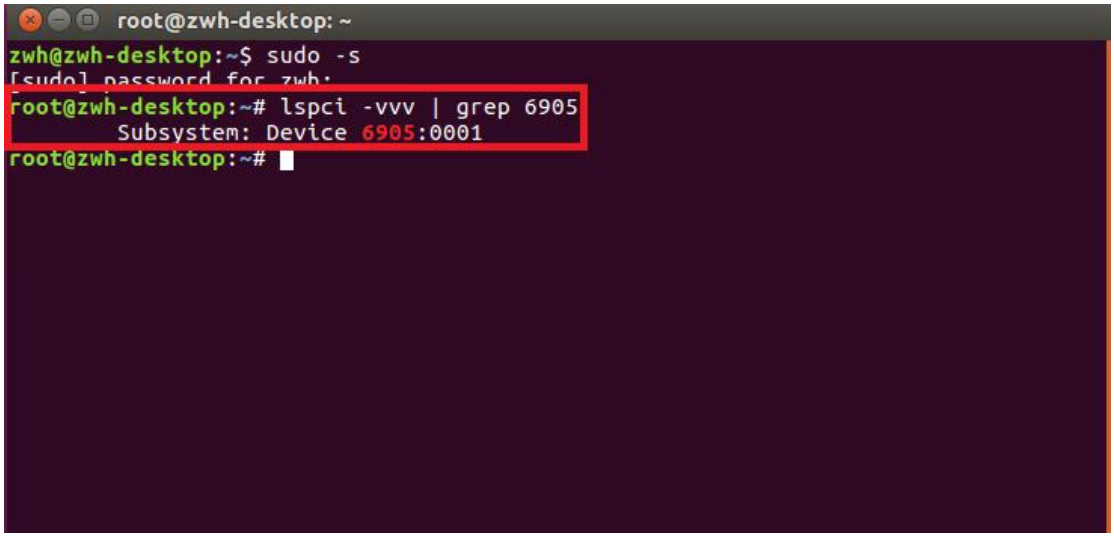
Moreover, you can check some Video Guide on the following link:
https://www.youtube.com/user/buydvb/videos

ATTENTION:
①In some case, the card can not be detected by your PC, you can’t see the device in Device manager, please try to change a PCIe slot and try again; or th e golden finger is oxidized in the air, clear it by an eraser and try.
②Don’t insert or pull the card out directly when your computer is working, ot herwise it will damage your tuner card.

4. Linux open source drive installation

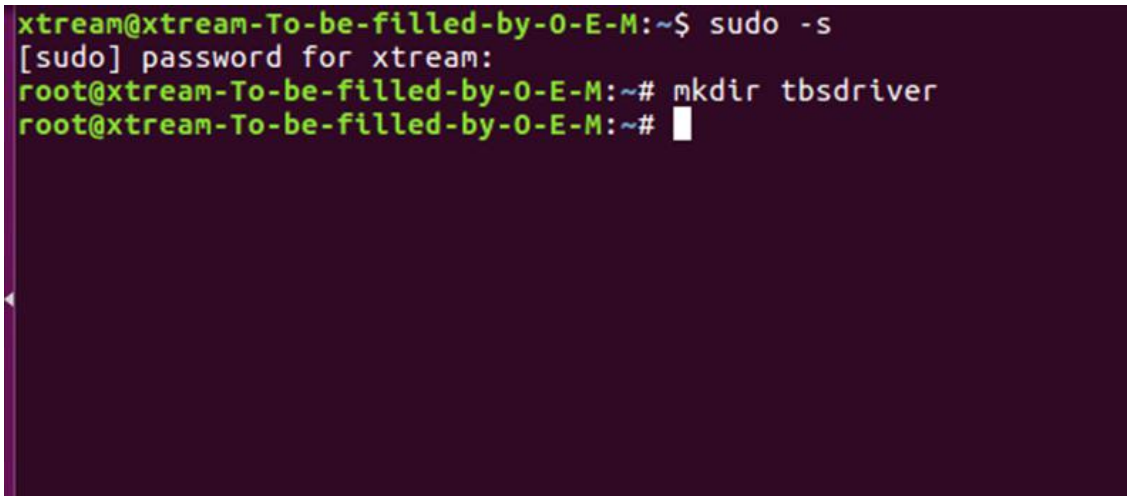
4.1 Reboot your computer and then enter the operating system webui, right click to open “Terminal”, input the command “sudo-s” and Ubuntu default password; finally you will get access to the operating system.

4.2 # lspci -vvv | grep 6905 (This command detects whether there is “Device 6905”, displaying as the following webui.)



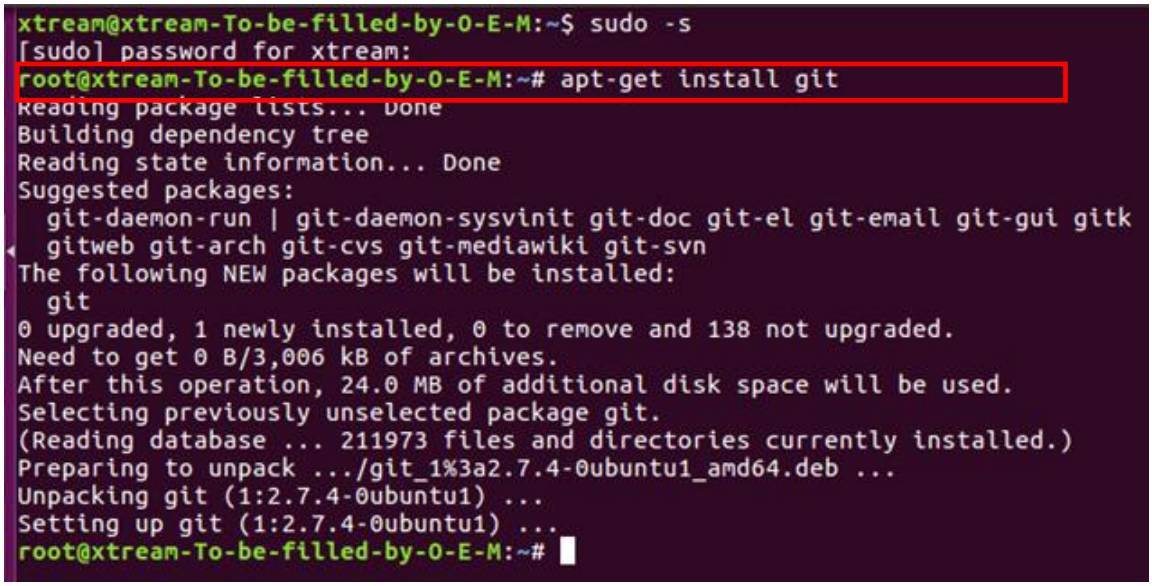
4.3 Set up a directory named “tbsdriver”. Here takes saving the directory on the desktop as an example.

mkdir tbsdriver (See screenshot below.）



4.4 Execute the command and install “git” package. (See screenshot below.)

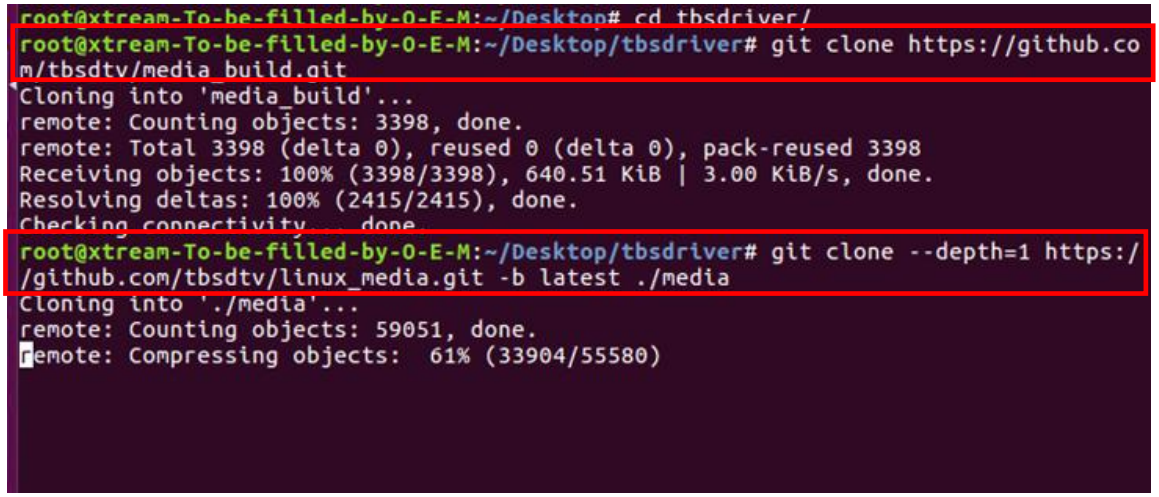
apt-get install git



4.5 Enter the directory of “tbsdriver”, and then download “media build” and “media” files. (See the following screenshot.)

git clone https://github.com/tbsdtv/media_build.git

git clone --depth=1 https://github.com/tbsdtv/linux_media.git -b latest ./media



4.6 Enter the directory of “media build”， execute “ make dir DIR=../media” as the following screenshot.

make dir DIR=../media

```
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver# ls
media  media_build
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver# cd media_build/
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver/media_build# make dir DIR=../media
make -C linux/ dir DIR="../../media"
make[1]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/linux'
rm -rf drivers firmware include sound .patches_applied .linked_dir .git_log.md5 git_log
Searching in ../../media/Makefile for kernel version.
./use_dir.pl ../../media
sync file: firmware/av7110/Boot.S
sync file: include/uapi/linux/media-bus-format.h
sync file: include/uapi/linux/v4l2-dv-timings.h
sync file: include/linux/fence.h
sync file: include/linux/compiler-gcc.h
sync file: include/linux/dma-buf.h
sync file: sound/pci/bt87x.c
sync file: include/uapi/linux/videodev2.h
sync file: firmware/ttusb-budget/dspbootcode.bin.ihex
sync file: include/linux/cec-funcs.h
sync file: include/trace/events/vb2.h
sync file: include/sound/aci.h
sync file: include/uapi/linux/usb/video.h
sync file: firmware/cpia2/stv0672_vp4.bin.ihex
sync file: include/linux/ti_wilink_st.h
sync file: include/linux/pci_ids.h
```

4.7 # make distclean（See screenshot below.）

```
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver/media_build# make distclean
make -C /home/xtream/Desktop/tbsdriver/media_build/v4l distclean
make[1]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/v4l'
No version yet, using 4.7.0-040700rc3-generic
rm -f *~ *.o *.ko .*.o.cmd .*.ko.cmd *.mod.c av7110_firm.h fdump \
        config-compat.h Module.symvers Module.markers modules.order \
        *.unsigned .*.ko.unsigned.cmd
make -C firmware clean
make[2]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/v4l/firmware'
rm -f ihex2fw
rm -f vicam/firmware.fw ttusb-budget/dspbootcode.bin cpia2/stv0672_vp4.bin av7110/bootcode.bin
make[2]: Leaving directory '/home/xtream/Desktop/tbsdriver/media_build/v4l/firmware'
rm -f .version .*.o.flags .*.o.d *.mod.gcno Makefile.media \
        Kconfig Kconfig.kern .config .config.cmd .myconfig \
        .kconfig.dep
rm -rf .tmp_versions .tmp*.ver .tmp*.o .*.gcno
rm -f scripts/lxdialog scripts/kconfig
make -C firmware distclean
make[2]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/v4l/firmware'
rm -f ihex2fw
rm -f vicam/firmware.fw ttusb-budget/dspbootcode.bin cpia2/stv0672_vp4.bin av7110/bootcode.bin
```

4.8 # make -j4

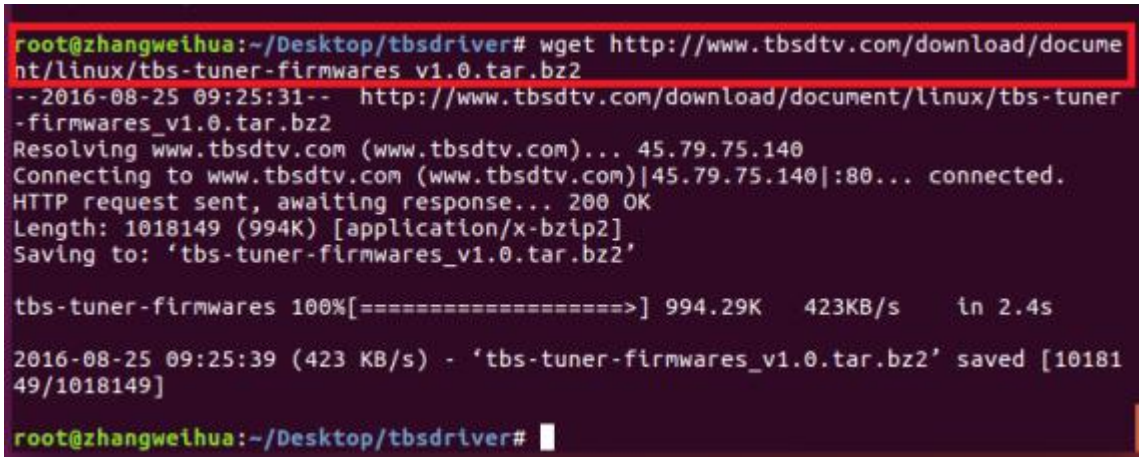
```
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver/media_build# make -j4
make -C /home/xtream/Desktop/tbsdriver/media_build/v4l
make[1]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/v4l'
No version yet, using 4.7.0-040700rc3-generic
scripts/make_makefile.pl
make[2]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/linux'
Updating/Creating .config
make[2]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/linux'
Syncing with dir ../../media
Syncing with dir ../../media
Applying patches for kernel 4.7.0-040700rc3-generic
patch -s -f -N -p1 -i ../backports/api_version.patch
patch -s -f -N -p1 -i ../backports/pr_fmt.patch
make[3]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/linux'
Unapplying patches
patch -s -f -R -p1 -i ../backports/api_version.patch
make[3]: Leaving directory '/home/xtream/Desktop/tbsdriver/media_build/linux'
Applying patches for kernel 4.7.0-040700rc3-generic
patch -s -f -N -p1 -i ../backports/api_version.patch
patch -s -f -N -p1 -i ../backports/pr_fmt.patch
1 out of 1 hunk FAILED -- saving rejects to file drivers/media/platform/s3c-camif
/camif-core.c.rej
1 out of 1 hunk FAILED -- saving rejects to file drivers/media/platform/s3c-camif
/camif-regs.c.rej
```

4.9 # make install (See screenshot below.）

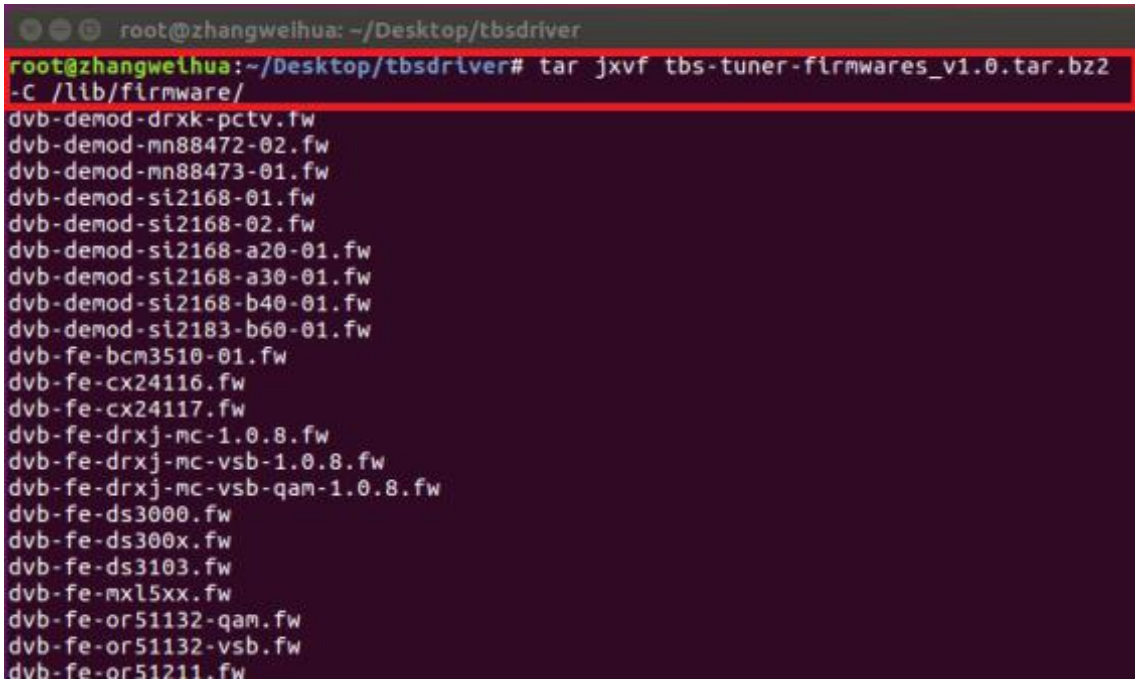
```
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver/media_build# make install
make -C /home/xtream/Desktop/tbsdriver/media_build/v4l install
make[1]: Entering directory '/home/xtream/Desktop/tbsdriver/media_build/v4l'
-e
Installing /lib/modules/4.7.0-040700rc3-generic/kernel/mm files:
frame_vector.ko

Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/dvb/firewire:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/common/tuners:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/dvb/ttpci:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/dvb/bt8xx:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/video/cx18:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/video/hdpvr:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/video/saa7164:


Removing obsolete files from /lib/modules/4.7.0-040700rc3-generic/kernel/drivers/media/video/pwc:
```

4.10 Install “firmware” and execute the following command. Please save the file in your favorite directory, and then unzip the file to “lib/firmwares” directory as the below screenshot.

1）Execute #wget http://www.tbsdtv.com/download/document/linux/tbs-tuner-firmwares_v1.0.tar.bz2



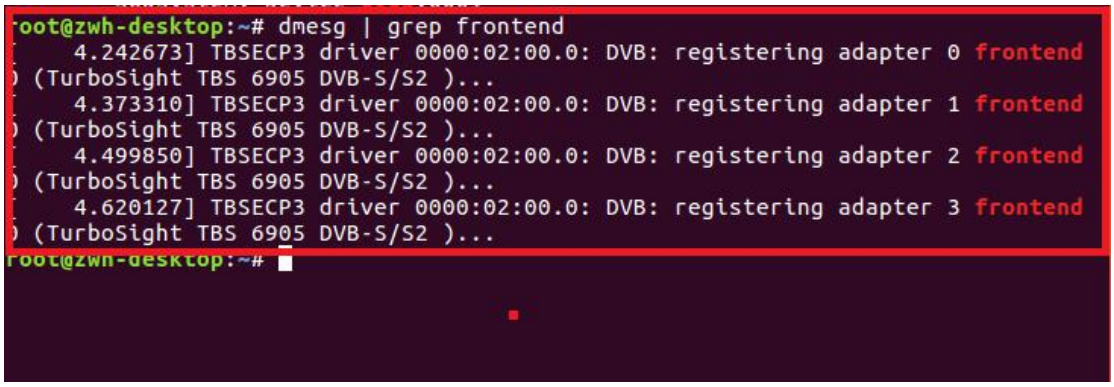
2）#tar jxvf tbs-tuner-firmwares_v1.0.tar.bz2 -C /lib/firmware/ （ See screenshot below.）



4.11 Execute all the above commands, you should have successfully completed installation. Reboot your computer and input the following commands to detect if you have done it.

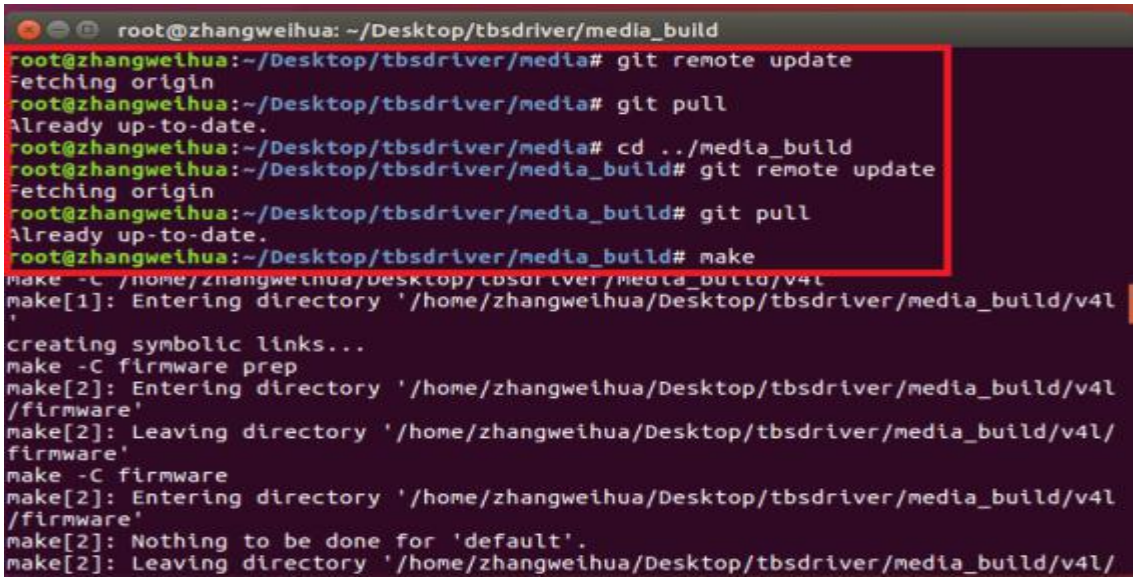
reboot

dmesg | grep frontend



5. If you would like to get latest source program, please enter the "tbsdriver /media" directory and execute the following commands to update the drivers. (See the commands below.)

cd media
git remote update
git pull
cd ../media_build
git remote update
git pull
make
sudo make install
reboot

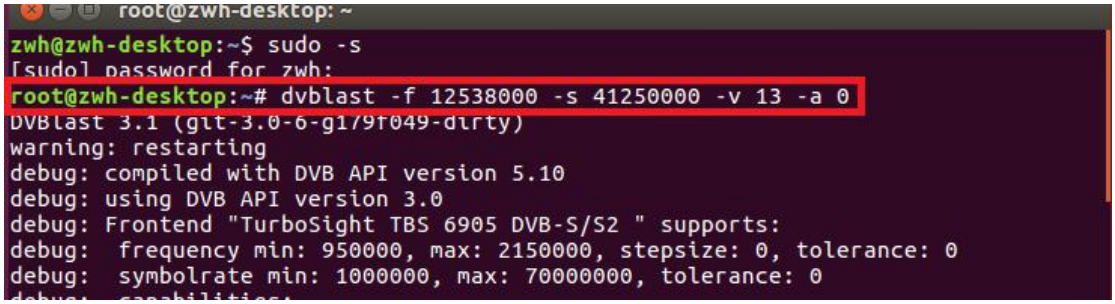


6. Use dvblast under Linux Operational Environment

6.1 Connect Satellite Cable to LNB

6.2 Lock TV Channels from DVB-S Signal. (See screenshot below.）

(LNB 0) dvblast -f 12538000 -s 41250000 -v 13 -a 0



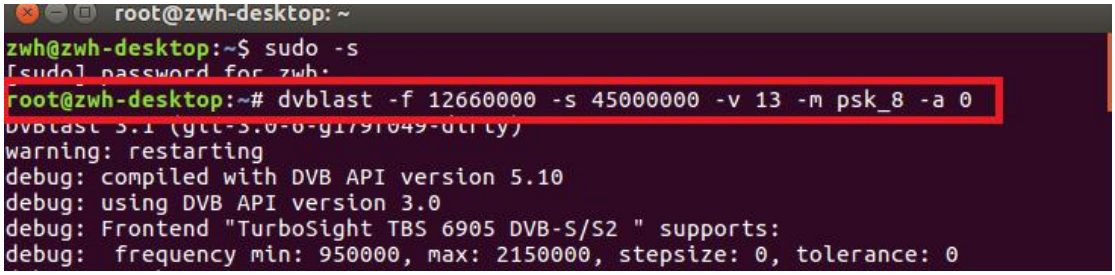
(LNB 1) dvblast -f 12538000 -s 41250000 -v 13 -a 1

(LNB 2) dvblast -f 12538000 -s 41250000 -v 13 -a 2

(LNB 3) dvblast -f 12538000 -s 41250000 -v 13 -a 3

6.3 Lock TV Channels from DVB-S2 Signal. (See screenshot below.）

(LNB 0) # dvblast -f 12660000 -s 45000000 -v 13 -m psk_8 -a 0



(LNB 1) # dvblast -f 12660000 -s 45000000 -v 13 -m psk_8 -a 1

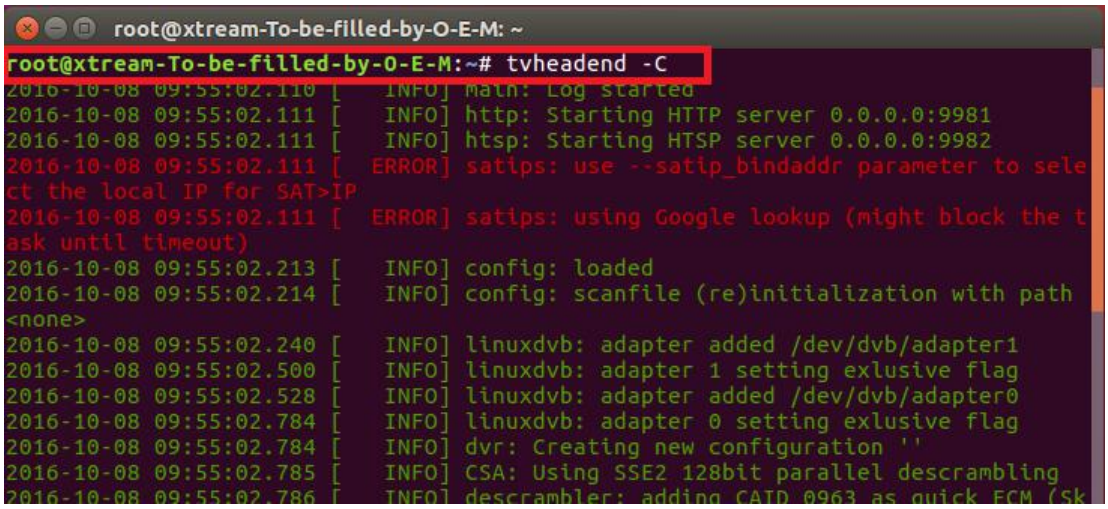
(LNB 2) # dvblast -f 12660000 -s 45000000 -v 13 -m psk_8 -a 2

(LNB 3) # dvblast -f 12660000 -s 45000000 -v 13 -m psk_8 -a 3

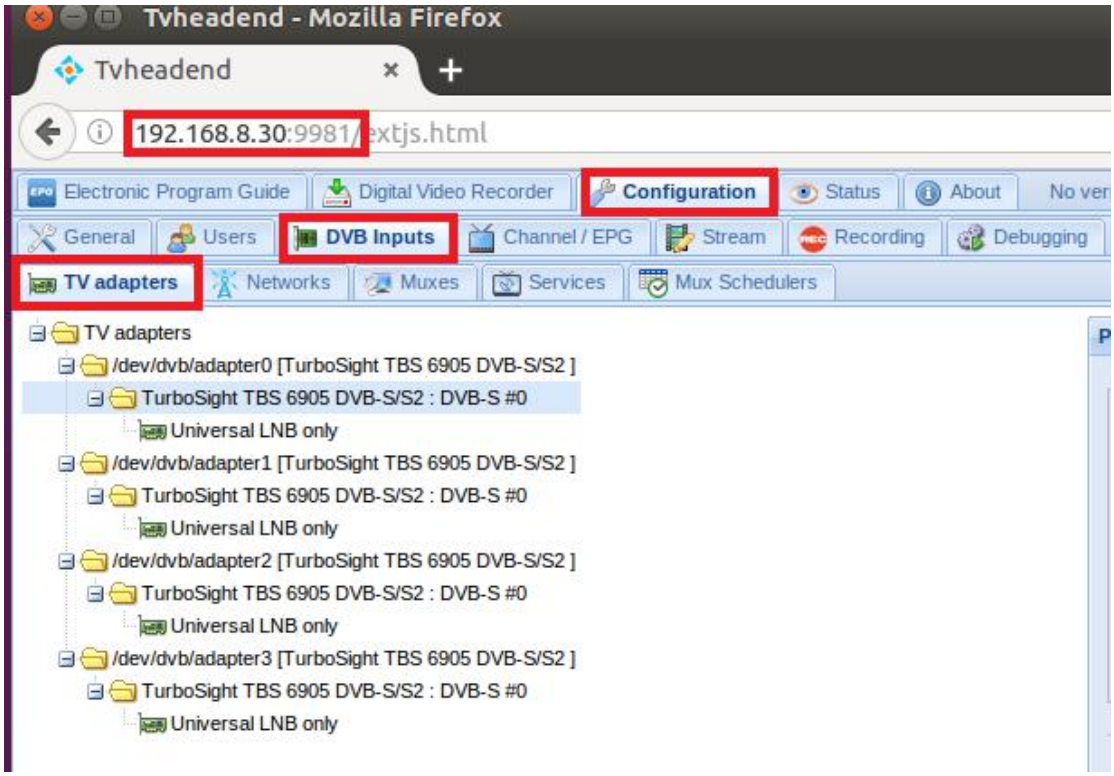
7. Tvheadend User Guide

7.1 Connect Satellite Cable to LNB

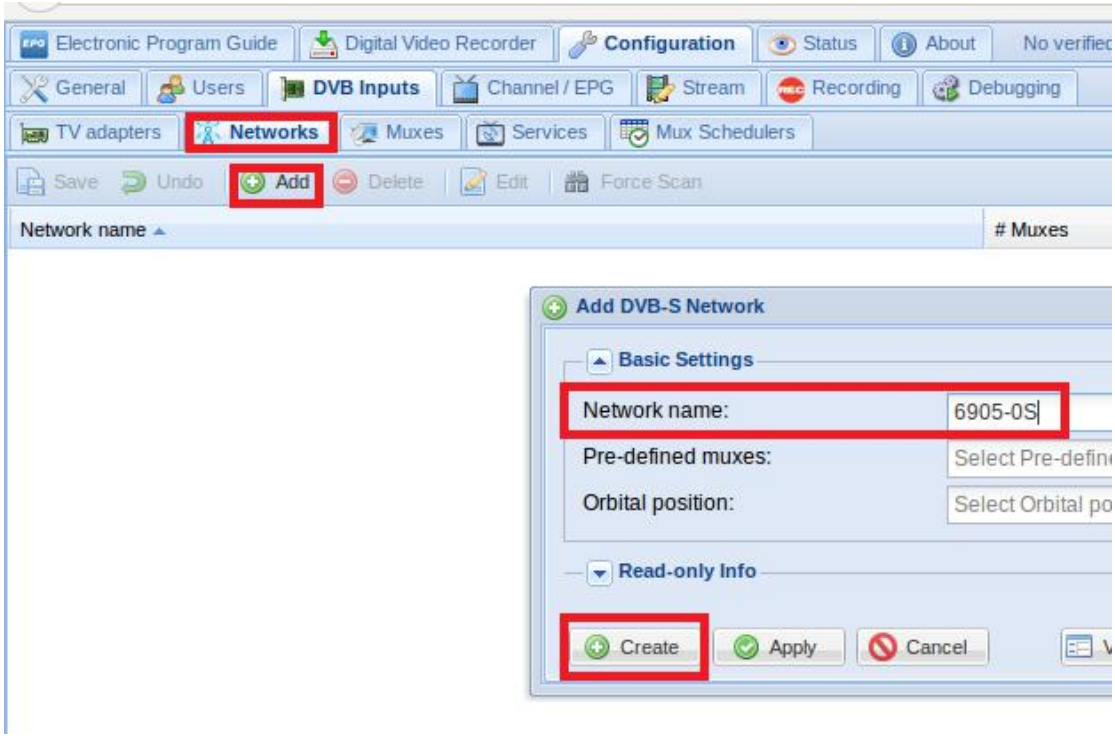
7.2 Install Software and Run tvheadend-c (See screenshot below.)



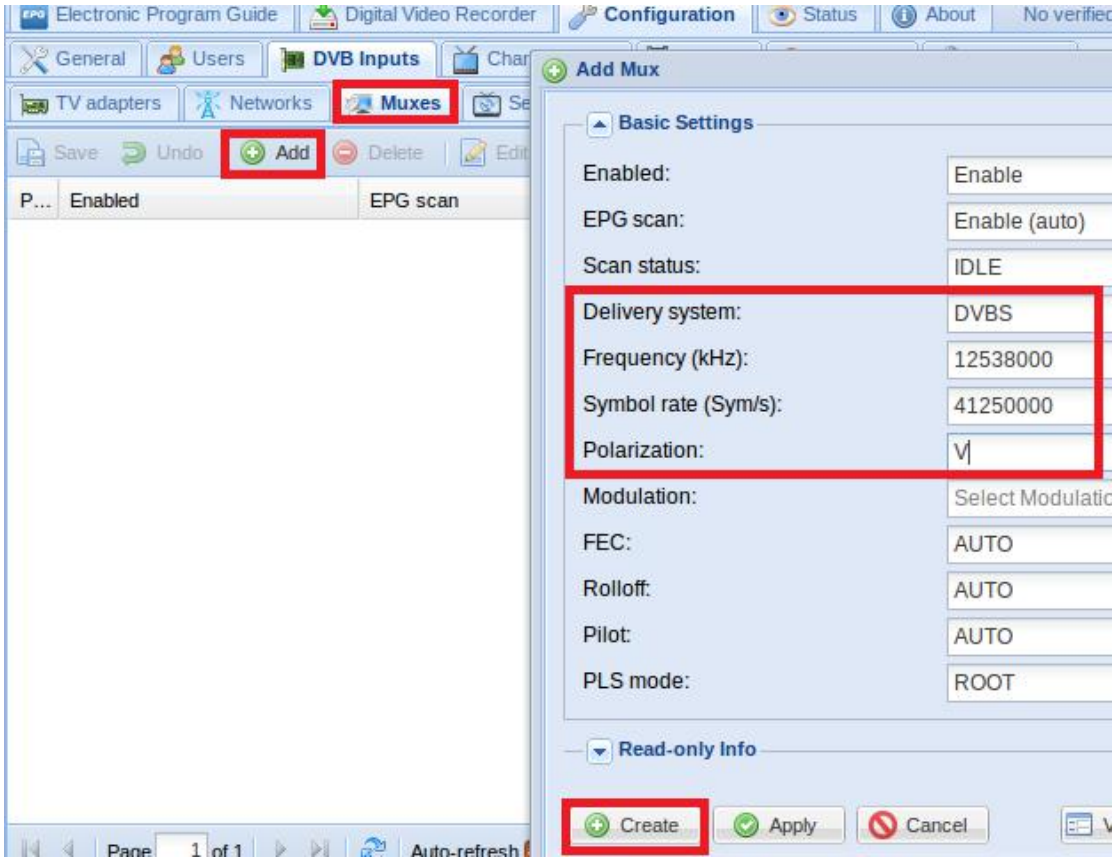
7.3 Launch Firefox browser, input the IP address of your PC and port number 9981 as below, then you can log in tvheadend configuration webui. (See the following screenshot.）



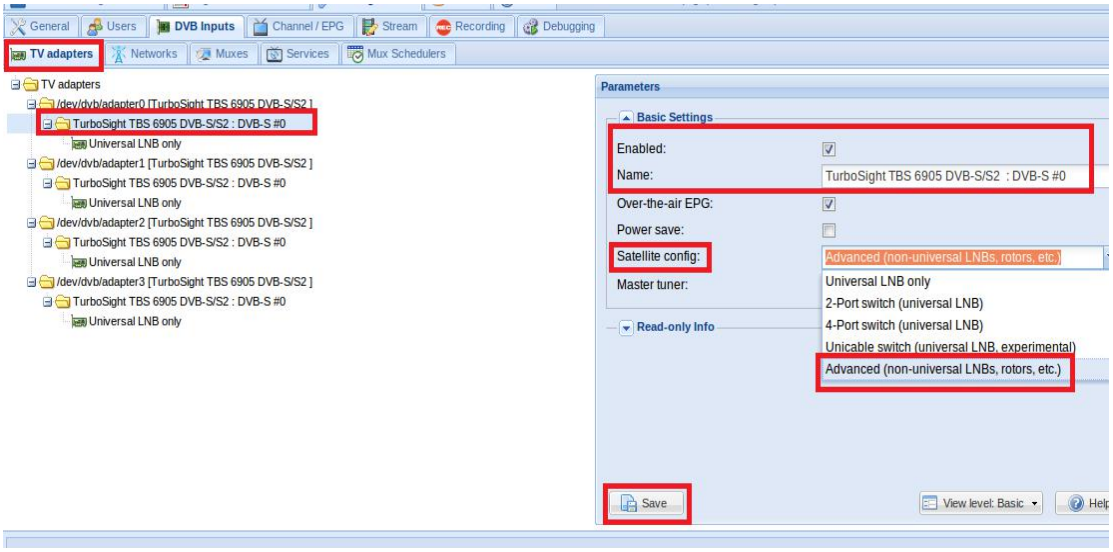
7.4 Log in “Networks”, set the right “Network Name” with product model number and required TV signal via LNB, and then save it.（See screenshot below.）



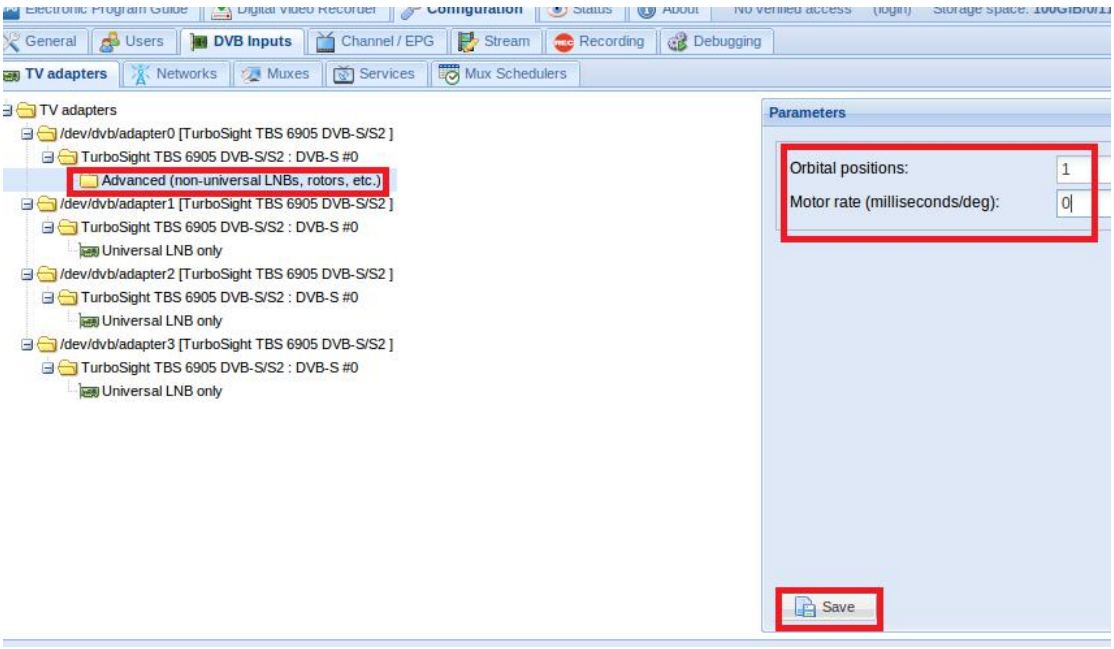
7.5 Log in “Muxes”, setup freq. parameters and save it.（See screenshot below.）



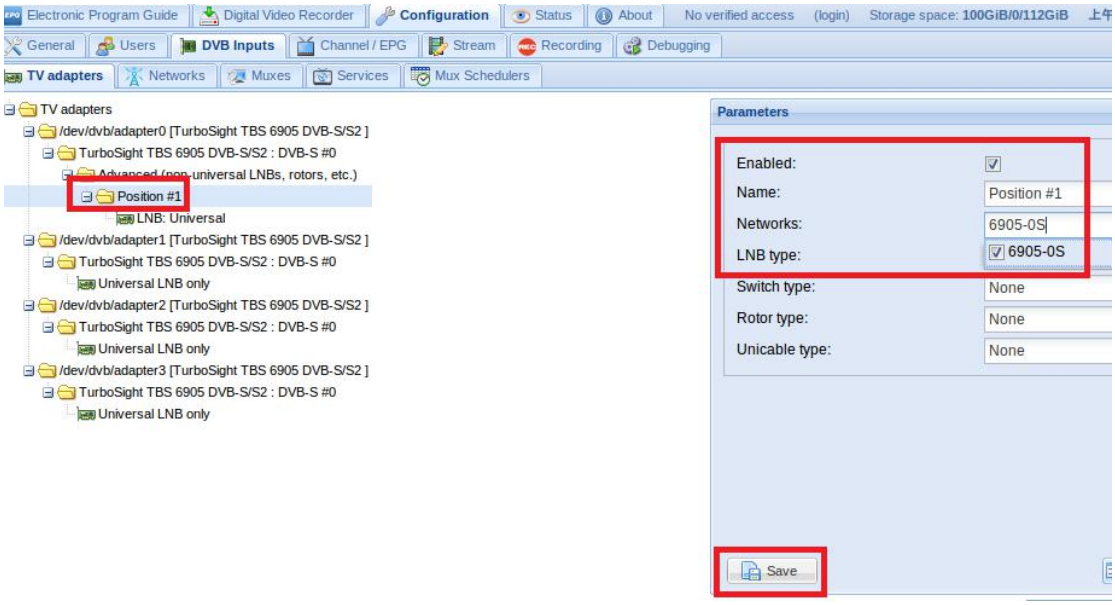
7.6 Enter adapters Tv, select the LNB port you want to play, open the TurboSight, and set the reference map to save（See screenshot below.）



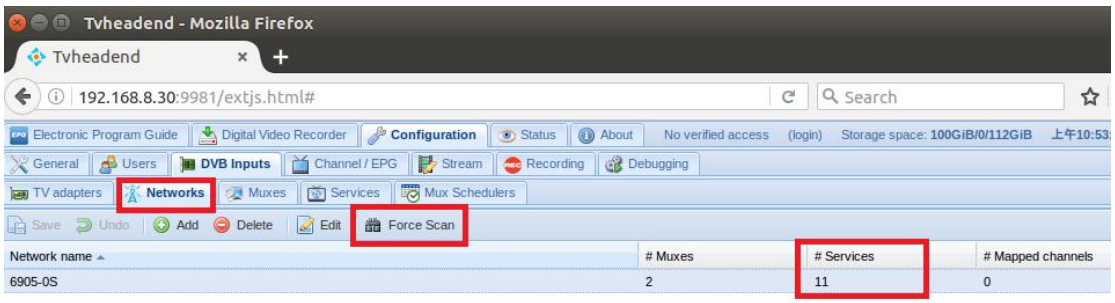
7.7 Click Advanced to save the settings in the reference diagram.（See screenshot below.）



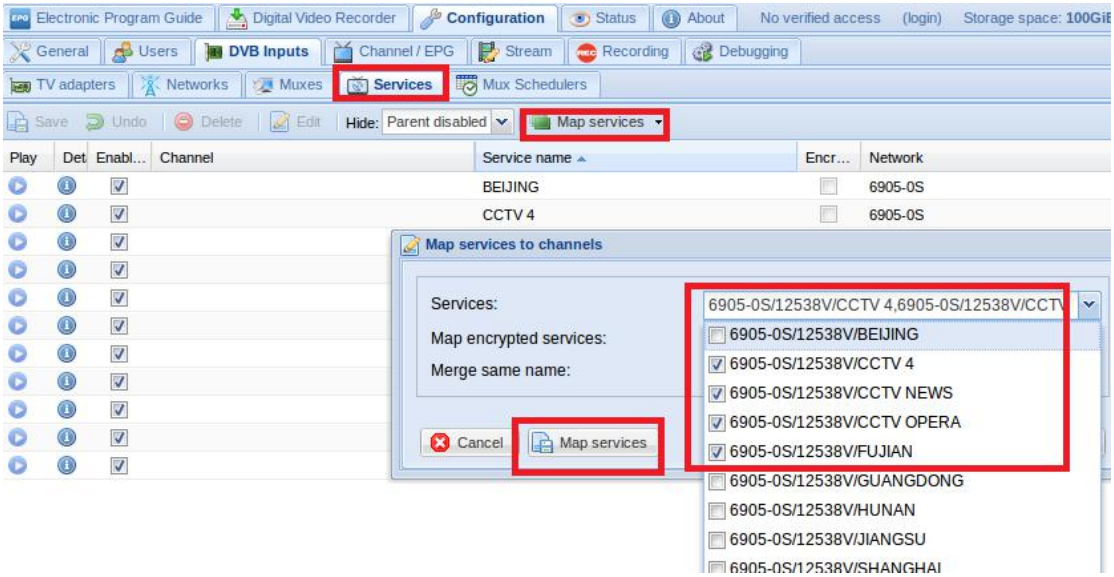
7.8 Click #1 Position, add the settings provided by the network channel, save（See screenshot below.）



7.9 Log in “Networks” and then click “Force Scan” to lock TV channels. （See screenshot below.）



7.10 Log in “Services”, you can live streaming all the TV programs that you would like to watch in “Map services”. (See screenshot below.)

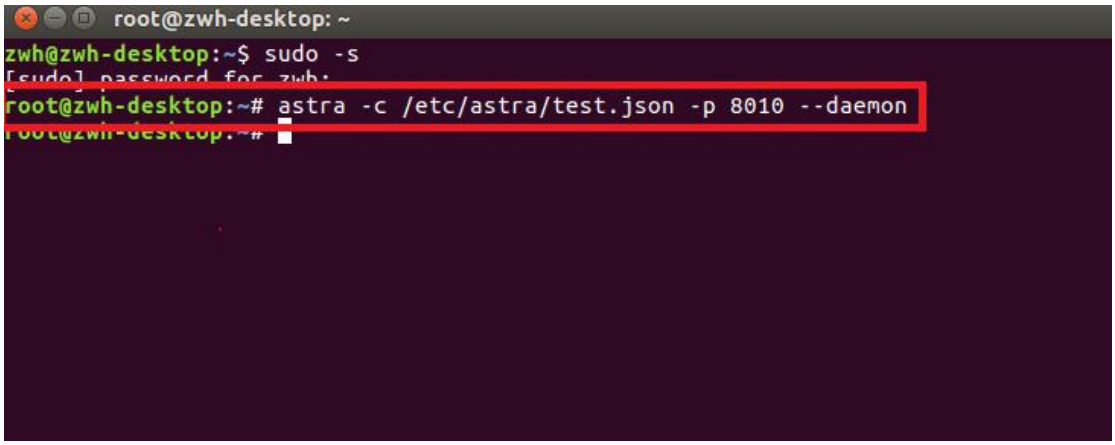


7.11 If you want to work with LNB1 or 3, please set the correct configuration parameters, according to the "7.4-7.10 tvheadend" step.

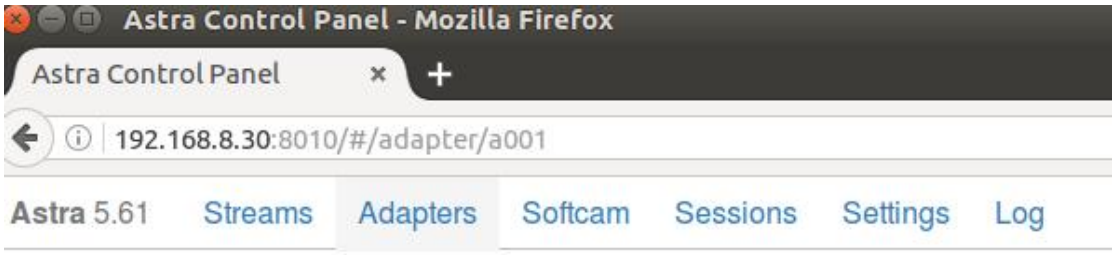
8. Astra User Guide (Trial version)

8.1 Connect Satellite Cable to LNB

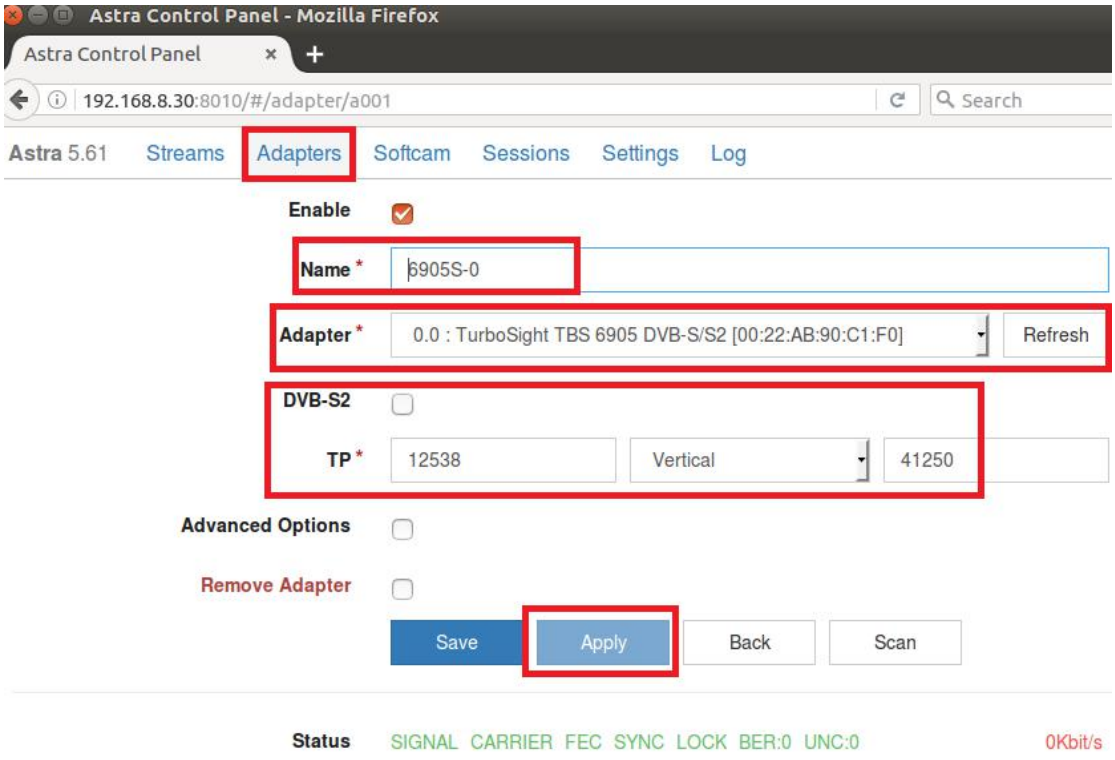
8.2 Install astra software and run the program. (See screenshot below.)ms



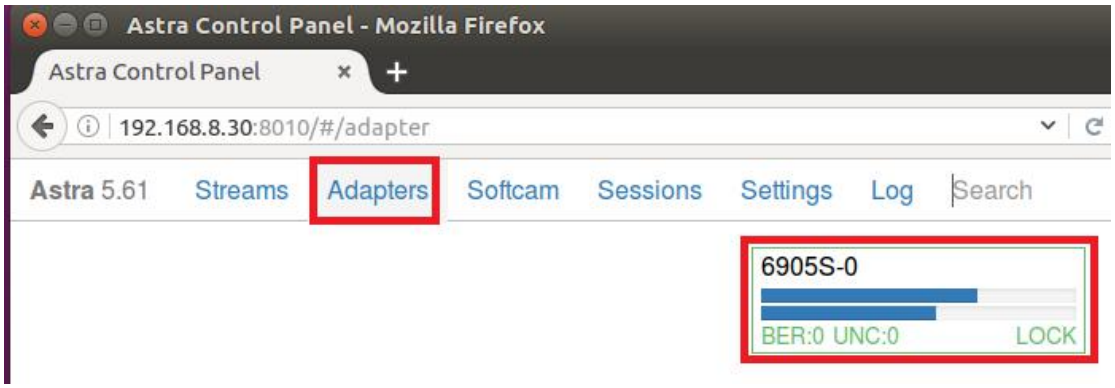
8.3 Open Firefox browser, input the IP address of your PC and port number 8010 as below, then you can log in astra configuration webui. (See the following screenshot.）



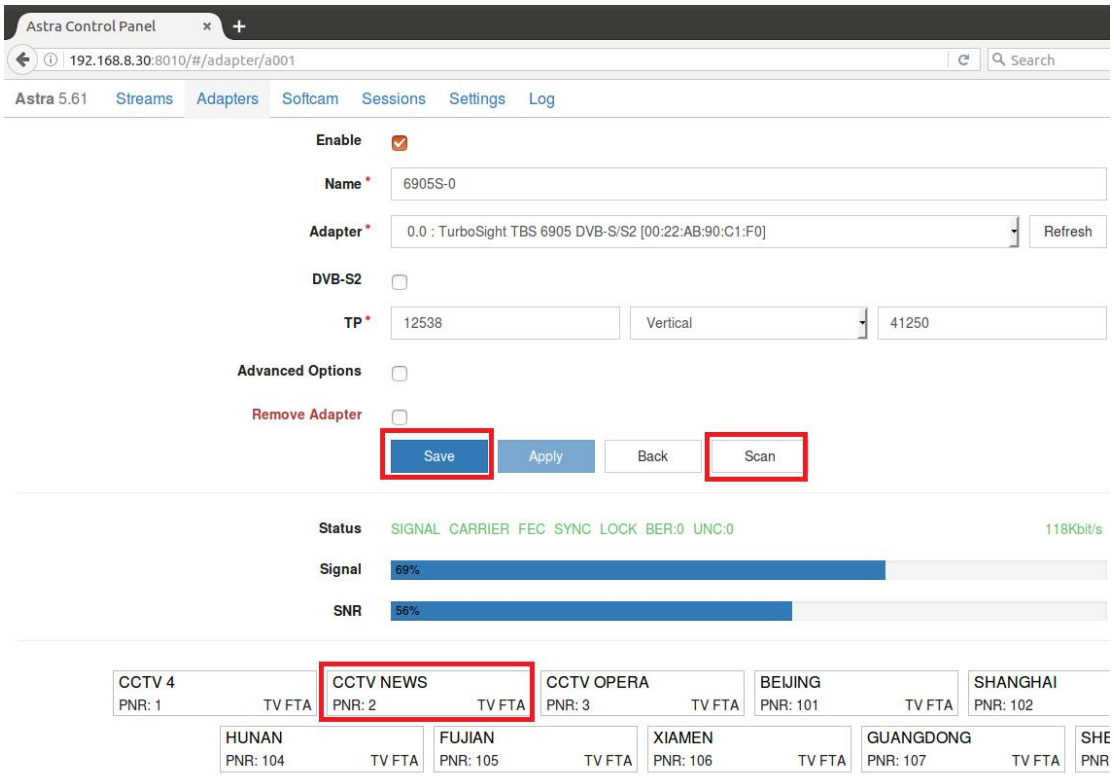
8.4 Create a new “Adapters” and then set the right satellite TV signal and frequency parameters via LNB, finally click “Apply”. (See screenshot below.)



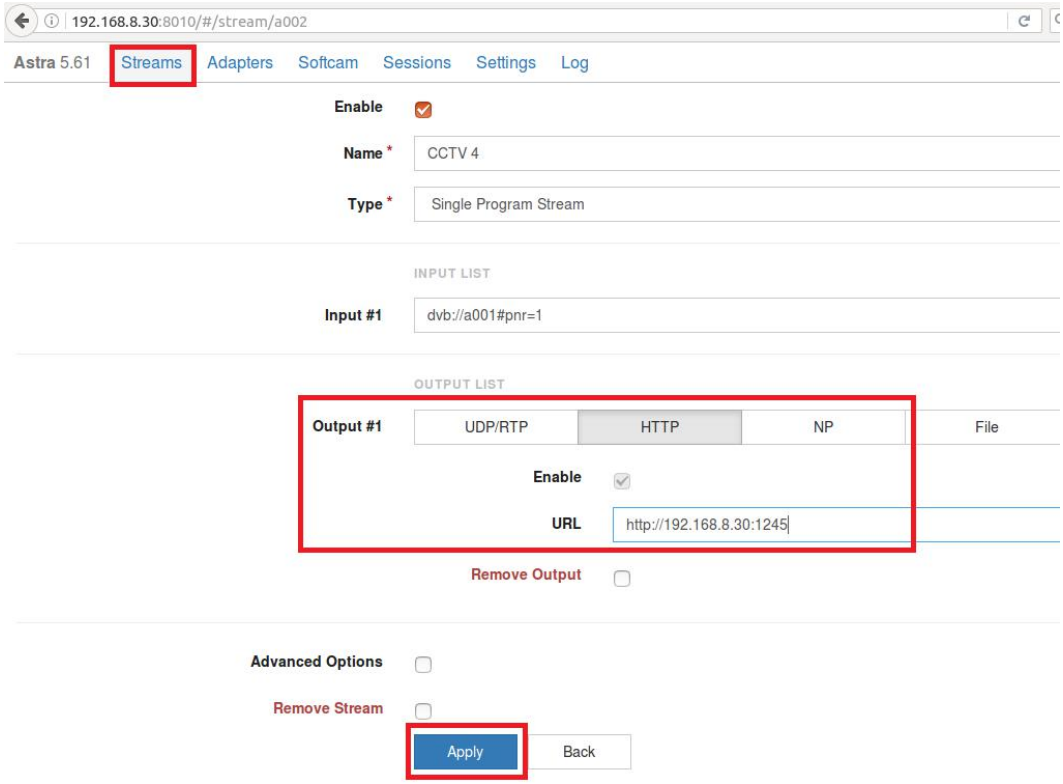
8.5 Log in “Adapters” again. If the LNB signal indication pops up in the window, you have successfully completed the configuration. Click it and enter into the operation interface. (See screenshot below.)



8.6 Log in “Adapters” to scan TV channels, and then select the programs that you would like to watch. Finally click “Save” as below.



8.7 Save all the selected TV programs, you will find them in ”Streams”. Then please set the output protocol according to your needs. Finally click “Apply” as below.



FAQ

Linux:

1. How to install the driver

Closed Driver install steps:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9875
Open Source Detail steps:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9960

2. Can not compile the driver in CentOS 7

check your kernel version:
uname -a

Link the build folder .Go to this folder such as :
cd /lib/modules/3.10.0-327.13.1.el7.x86_64/
ln -sf /usr/src/kernels/3.10.0-327.10.1.el7.x86_64/ build
Then install the driver as normal steps

3. How to use tvheadend.

Check this:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9949

4. How to use astra.

Script Guide:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9862
Video Guide:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9976

5. How to use OSCAM with tvheadend

http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=10049

6. How to use mumudvb

http://www.mumudvb.net/doc/mumudvb-1.7.3/QUICKSTART.html
http://www.mumudvb.net/doc/mumudvb-1.7.3/README_CONF.html

Windows:

1. Windows 7 x64 Code 52 issue

Please check this guide:
http://www.tbsdtv.com/forum/viewtopic.php?f=86&t=9989

2. Does your driver support windows 10?

No problem you can feel free using windows xp,vista/7/8/10

1. Can't watch the HD channels,only picture or only audio.

Make sure that you have installed the right video and audio decoder.

2. Where I can get the TSReader dll support?

You can get it on our download page :
http://www.tbsdtv.com/download/document/common/tsreader-bdasource_v1.0.8.7-20150604.zip

3. Where I can get the StreamReader dll support?

You can get it on our download page :
http://www.tbsdtv.com/download/document/common/streamreader-dll_v1.0.0.3.zip

4. Why can't use it with Windows Server 2008

Please install this patch for your windows server 2008:
http://www.tbsdtv.com/download/document/common/win2008_bda.zip

5. The card don't been detected by motherboard.

Please refer to attached pics to change some pcie setting on BIOS and update the BIOS to the latest version. make sure set the PCI-E link speed to Gen1 like this ,as most users after set the BIOS it can detect our card so you can have a try.

6. How to set dvbdream support 8 diseqc?

Open "Options" item then select "Diseqc", Diseqc Switch Type "None".
After add one satellite,open "Properties", can set diseqc port by "Uncommitted" from 0 to 15

7. What kind of antenna to use(DVBT/DVBT2 Card)?

Our all dvbt/t2 card just support the parasitic antenna. If you use the active antenna, you need supply power to antenna.

8. Whether support CI+?

Our all CI card just support the CI, do no support CI+.