TBS5520SE User Guide

Dear Customers,

  Thank you so much for choosing TBS products .TBS5520SE is a multi-standard external TV tuner with USB2.0 interface, it is capable of receiving digital TV channels of multiple standards: DVB-S2X/S2/S/T2/T/C2/C/ISDB-T. Through the USB interface, you can easily plug the TBS5520SE Universal TV Tuner to your desktop or laptop PC, with appropriate signal cable connected and software installed, it's convenient to switch among different standards, and enjoy more TV channels than using just one single TV standard.

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

1.   Connect the TV signal cable to the corresponding device port

1.1. If the antenna device is damaged, make sure that the TV signal is properly connected to the device tuner connector. The following TBS5520SE TV signal table for your reference.

RF-Input (T2/T/C2/C/ISDB-T)   RF-Input (S2X/S2/S)
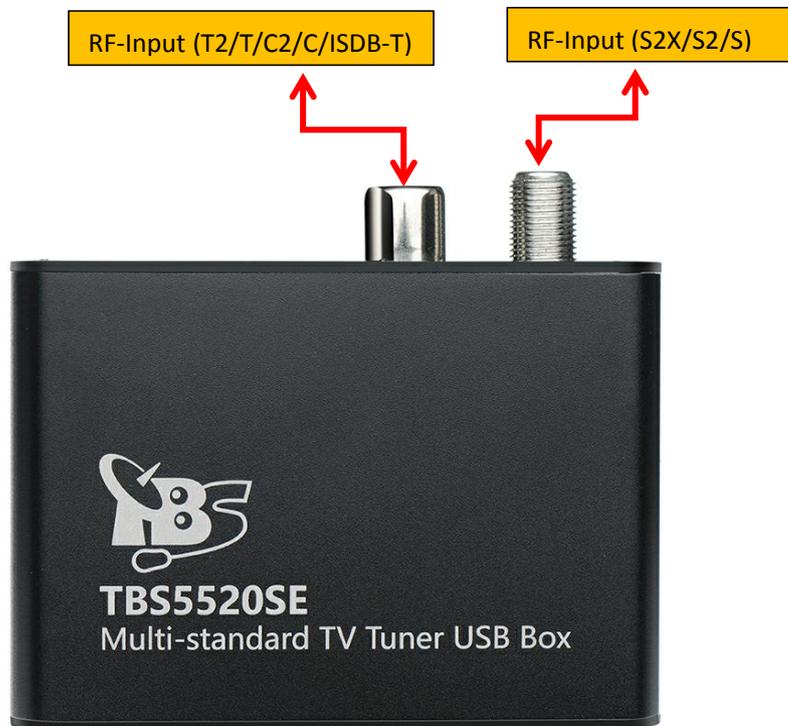
2. windows driver installation

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.
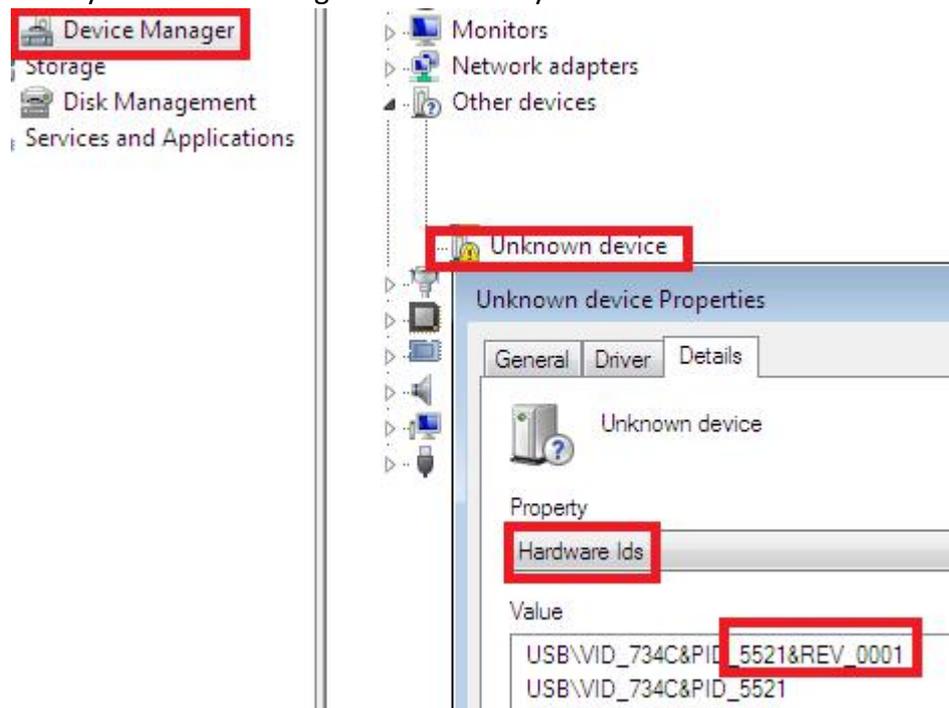
2. 2 Download TBS5520SE Windows Driver from Our Website
1) https://www.tbsiptv.com/tbs5520se-multi-standard-universal-tv-tuner-usb-box

2）download and then unzip TBS 5520SE Windows driver

3）Click "TBS_5520SE_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)
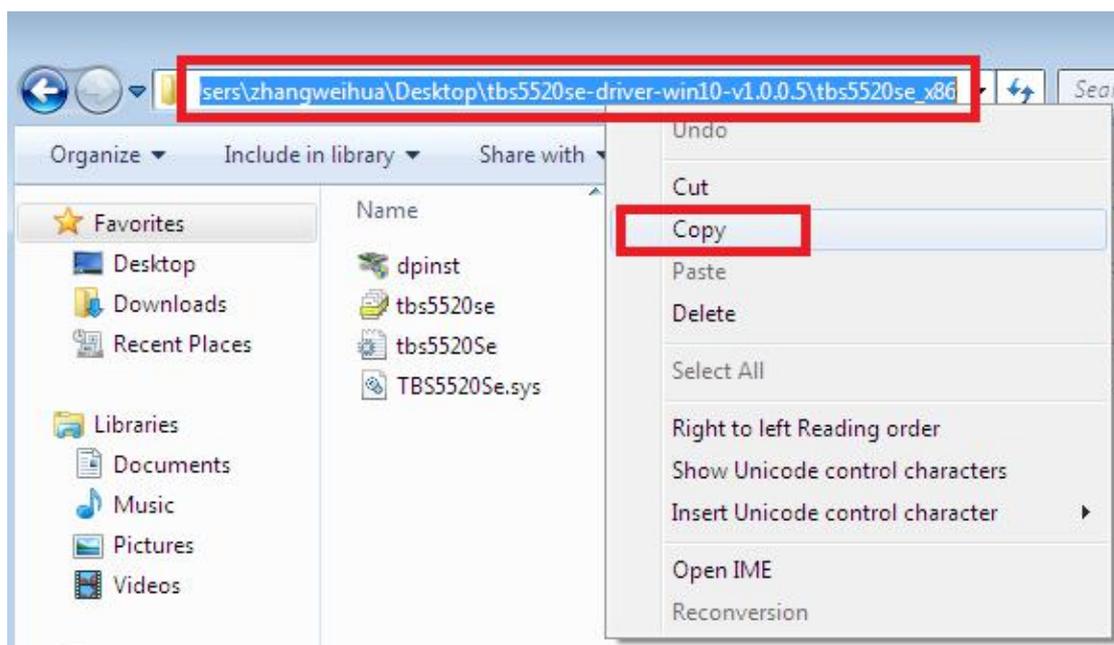
5) Open the device manager, to drive the manual update (see below)
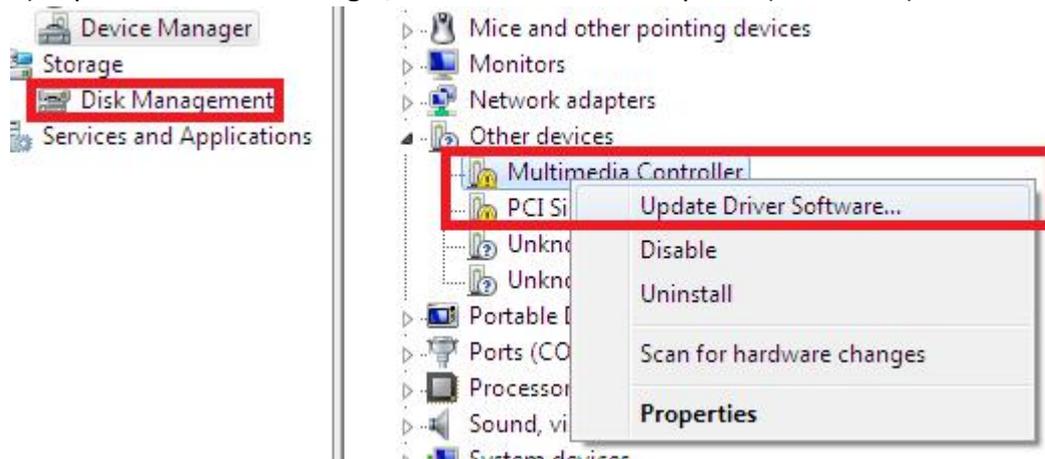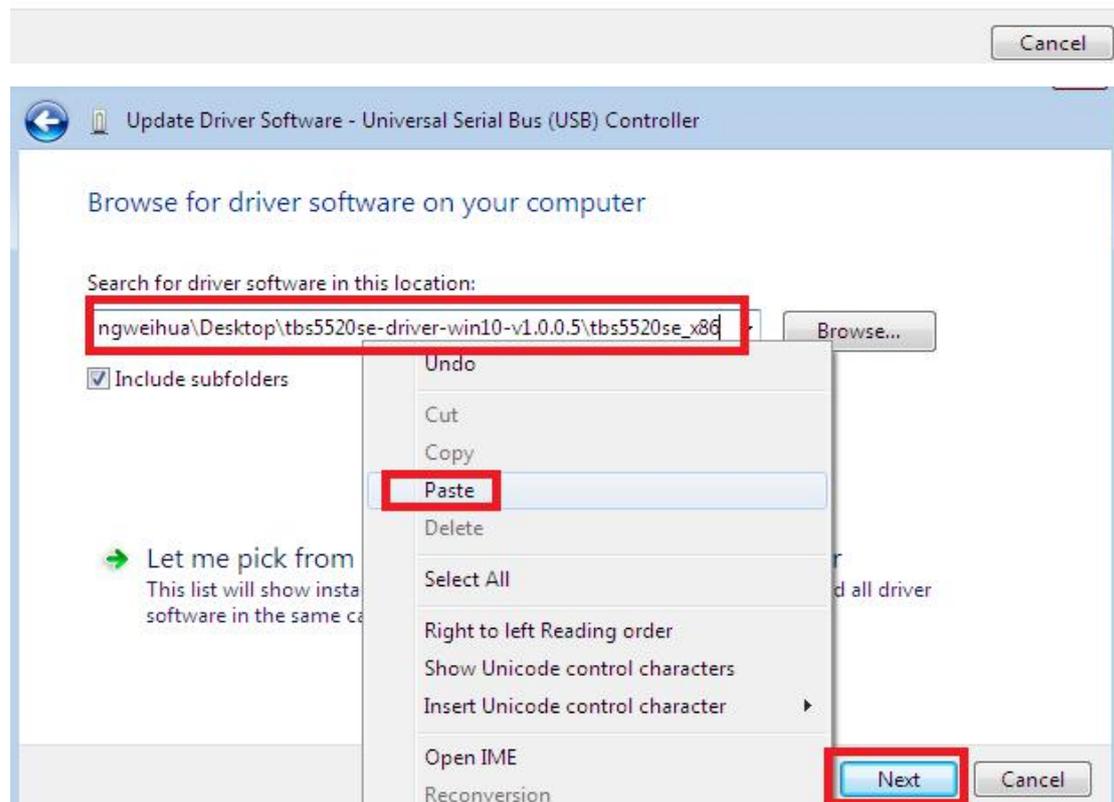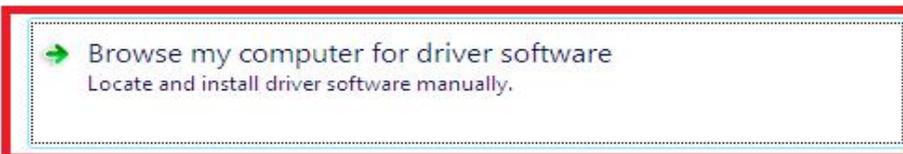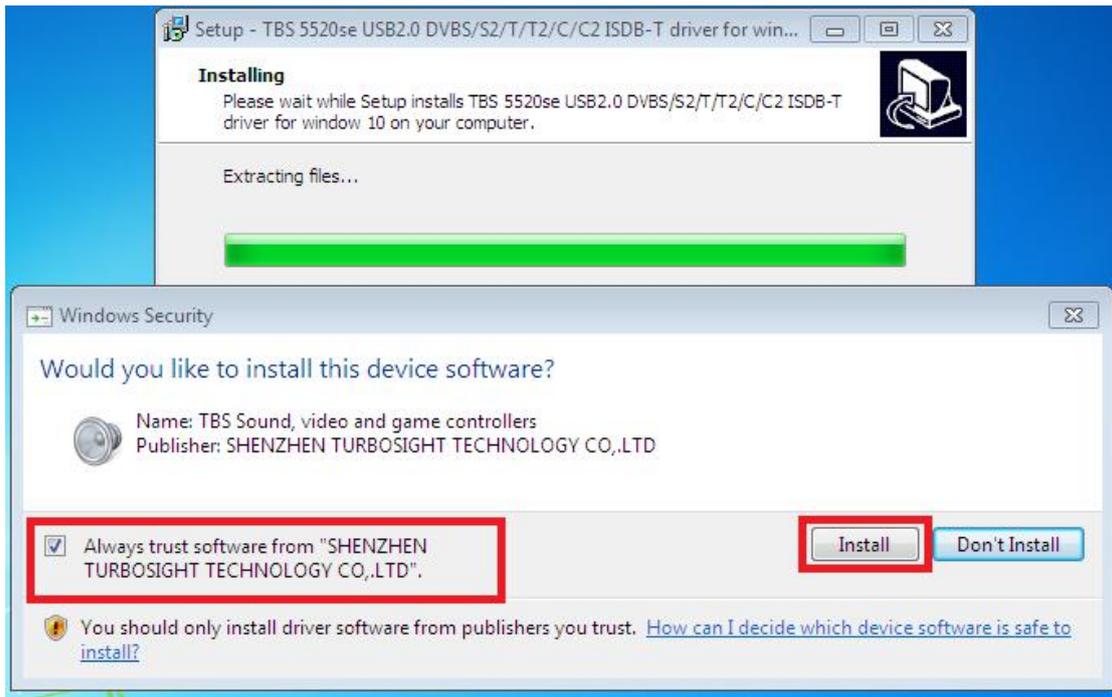
6）Click "Next"⟶ "Install"⟶ "Finish" to complete installation
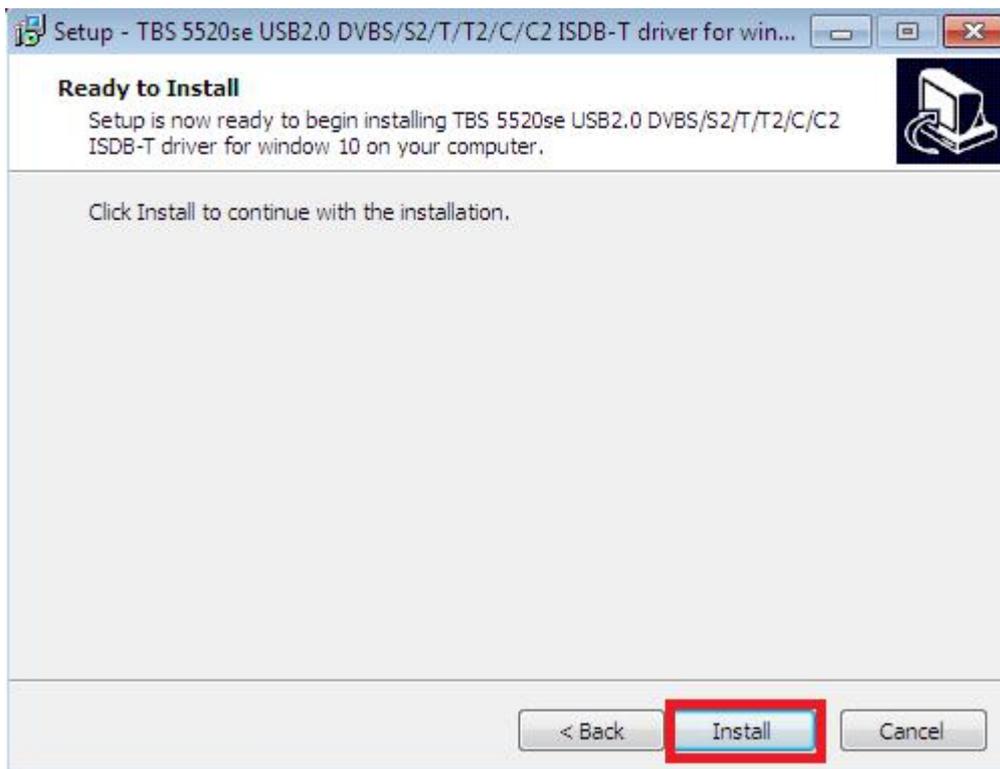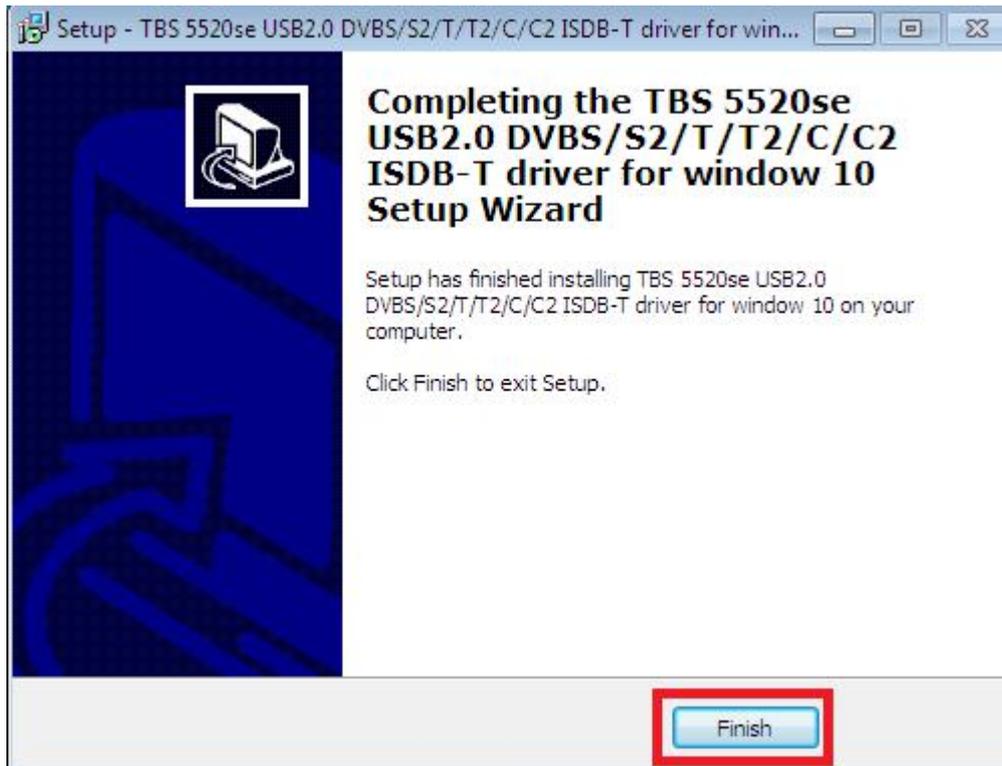
7）To verify if driver was correctly installed: Choose "My Computer", right click and choose "System Properties" to pop up "System Properties" windows, click "Hardware" → "Device Manager". Then click "+"in front of "Sound, video and game controllers". If you can see "TBS5520 DVB BDA Tuners" that means you do have installed driver correctly. Just display as below:
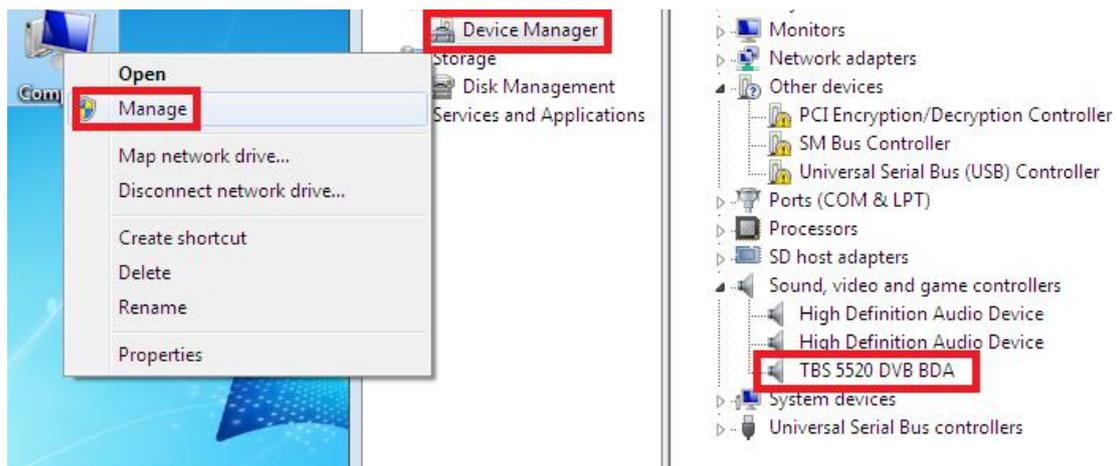
8） TBS5520SE Mode change tool (See screenshot below.）
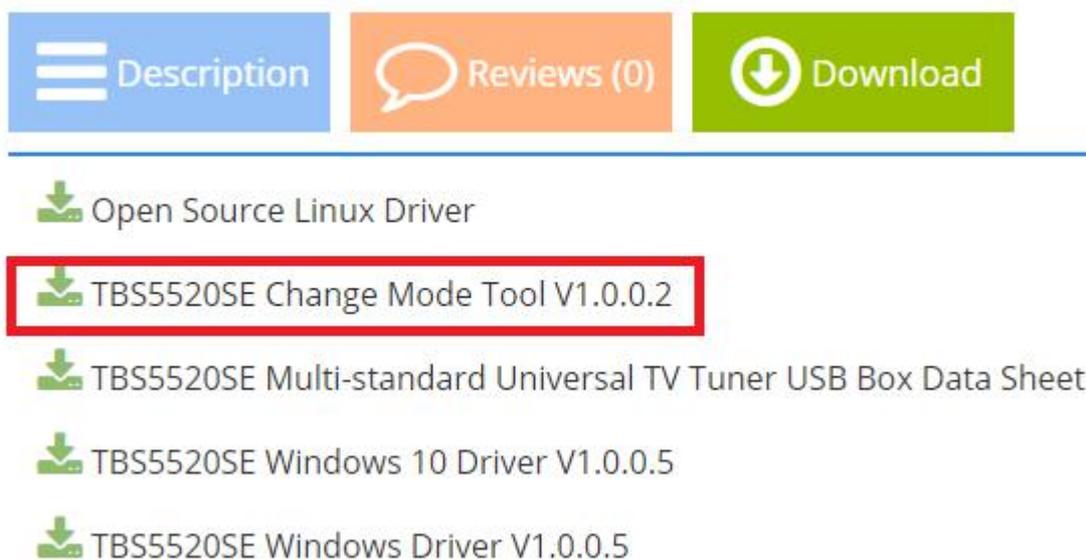
9） Open the TBS5520SE Mode Change tool choose the right Mode as you want then click Write to apply the change .(See screenshot below.）
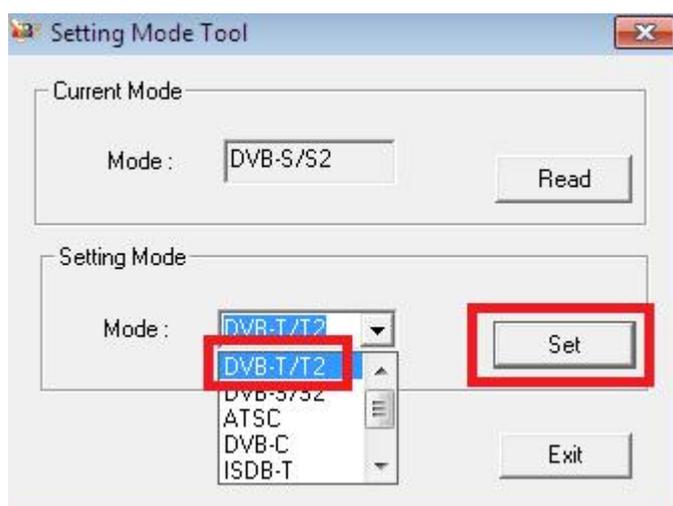
3. Play Software Installation

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

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 5521 (This command detects whether there is "Device 5521",

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
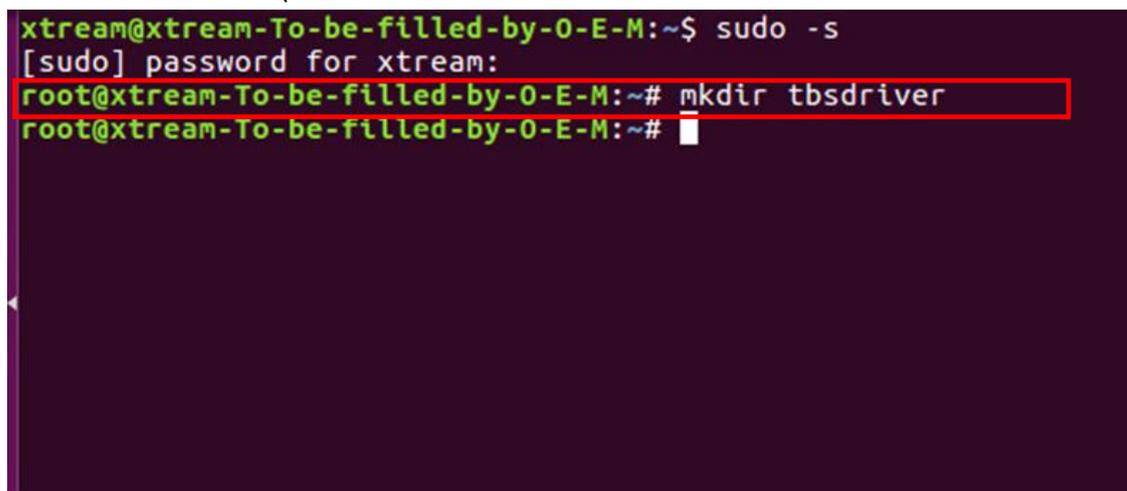
```
xtream@xtream-To-be-filled-by-O-E-M:~$ sudo -s
[sudo] password for xtream:
root@xtream-To-be-filled-by-O-E-M:~# apt-get install git
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-el git-email git-gui gitk
  gitweb git-arch git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git
0 upgraded, 1 newly installed, 0 to remove and 138 not upgraded.
Need to get 0 B/3,006 kB of archives.
After this operation, 24.0 MB of additional disk space will be used.
Selecting previously unselected package git.
(Reading database ... 211973 files and directories currently installed.)
Preparing to unpack .../git_1%3a2.7.4-0ubuntu1_amd64.deb ...
Unpacking git (1:2.7.4-0ubuntu1) ...
Setting up git (1:2.7.4-0ubuntu1) ...
root@xtream-To-be-filled-by-O-E-M:~#
```

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

```
root@xtream-To-be-filled-by-O-E-M:~/Desktop# cd tbsdriver/
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver# git clone https://github.co
m/tbsdtv/media_build.git
Cloning into 'media_build'...
remote: Counting objects: 3398, done.
remote: Total 3398 (delta 0), reused 0 (delta 0), pack-reused 3398
Receiving objects: 100% (3398/3398), 640.51 KiB | 3.00 KiB/s, done.
Resolving deltas: 100% (2415/2415), done.
Checking connectivity... done.
root@xtream-To-be-filled-by-O-E-M:~/Desktop/tbsdriver# git clone --depth=1 https:/
/github.com/tbsdtv/linux_media.git -b latest ./media
Cloning into './media'...
remote: Counting objects: 59051, done.
remote: Compressing objects:  61% (33904/55580)
```

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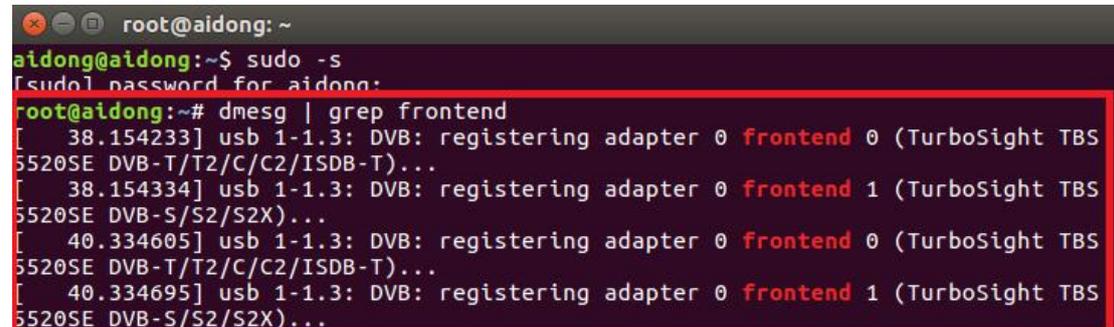
5. If you would like to get latest source program, please enter the "tbsdriver /media" directory and execute the following commands to update the drivers. (See the commands below.）

  #   cd media

  #   git remote update

  #   git pull

  #   cd ../media_build

  #   git remote update

  #   git pull

  #   make

  #   sudo make install

  #   reboot

6. Open Source install tips

/bin/sh: 1: lsdiff: not found
#sudo apt-get install patchutils

2.you may need to install the Proc::ProcessTable module
#sudo apt-get install libproc-processtable-perl

3.fatal error: drx39xyj/drx39xxj.h: No such file or directory
#mkdir -p v4l/drx39xyj
#cp v4l/drx39xxj.h v4l/drx39xyj/

4.Can not find the 6909 firmware
#Do not forget the firmware install steps

5.If you find module load errors like "module has wrong symbol version" means that there still are old modules from your previous media tree installation (usually duplica ted modules in two different places).
#sudo rm -rf lib/modules/uname -r/kernel/drivers/media/*

6.Cannot use CONFIG_CC_STACKPROTECTOR_STRONG: -fstack-protector-strong not supported by compiler
#sudo add-apt-repository ppa:ubuntu-toolchain-r/test
#sudo apt-get update
#sudo apt-get install gcc-4.9 g++-4.9
#sudo rm /usr/bin/gcc sudo ln -s /usr/bin/gcc-4.9 /usr/bin/gcc`

7. Use dvblast under Linux Operational Environment

Please connect the required TV signal cable to RF-Input with the purpose of locking TV channels.

Lock the S signal you need to do as follows. (see screenshot below.)
cd / dev / dvb / adapter0
Ln -s demux0 demux1
Ln -s dvr0 dvr1
Ln -s net0 net1

7.1 Lock TV Channels from DVB-S Signal
(LNB 0) # dvblast -f 10988000 -s 41250000 -v 13 -a 0 -n 1

7.2 Lock TV Channels from DVB-T Signal (See screenshot below.)
(LNB 0)   # dvblast -f 474000000 -b 8 -a 0

7.3 Lock TV Channels from DVB-T2 Signal.
(LNB 0)   # dvblast -f 474000000 -b 8 -a 0 -5 dvbt2

7.4 Lock TV Channels from DVB-C Signal.
(LNB 0) # dvblast -f 474000000 -s 6900000 -a 0 -5 dvbc_annex_a

7.5 Lock TV Channels from DVB-S2 Signal.
(LNB 0) # dvblast -f 12660000 -s 45000000 -v 13 -m psk_8 -a 0 -n 1

8. Tvheadend User Guide

8.1 Connect the required TV signal cable to RF-Input, then install tvheadend software driver and run tvheadend-C. (See screenshot below.)

8.2 Open Firefox browser, input the IP address of your PC and port number 9981 as below, then you can log in tvheadend configuration webui. (See screenshot below.)
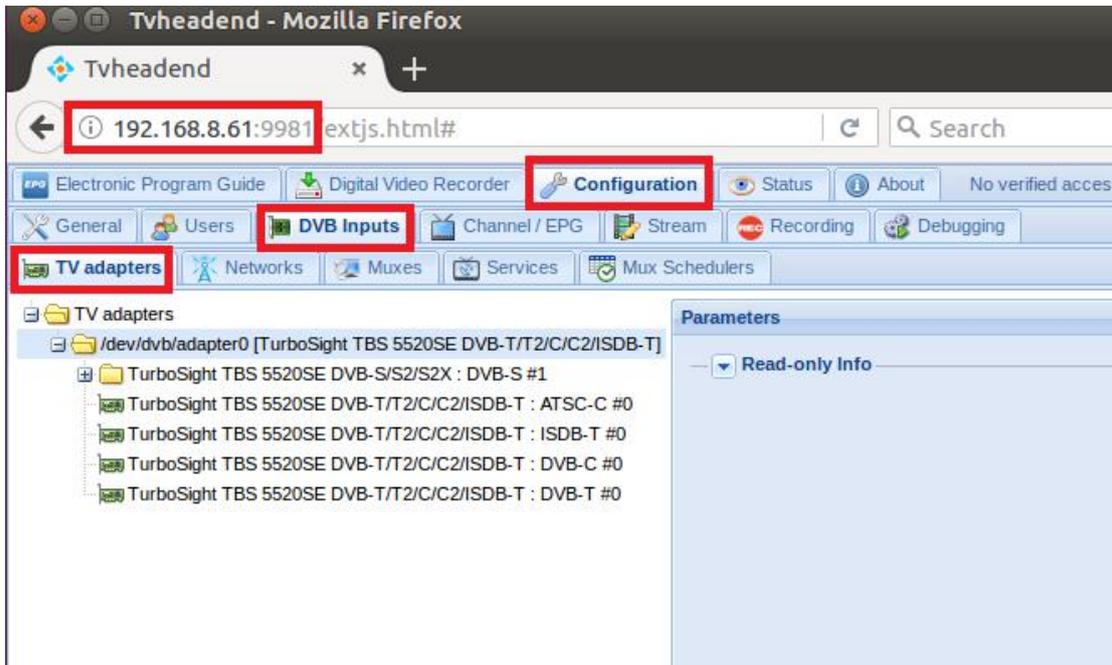
8.3 Log in "Networks", set the right "Network Name" with product model number and required TV signal via LNB, and then save it.（See screenshot below.）
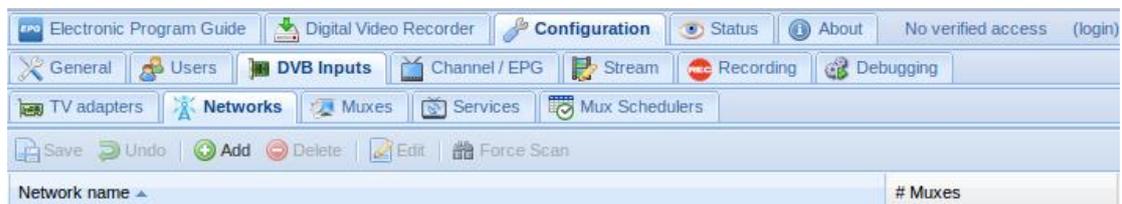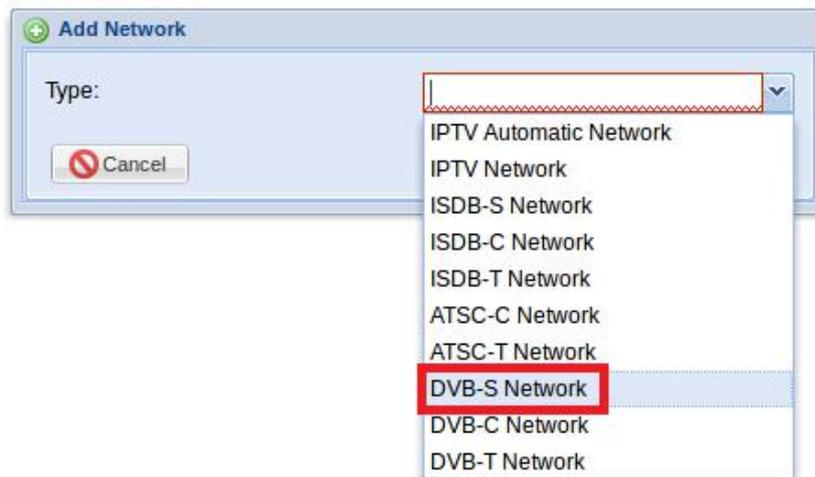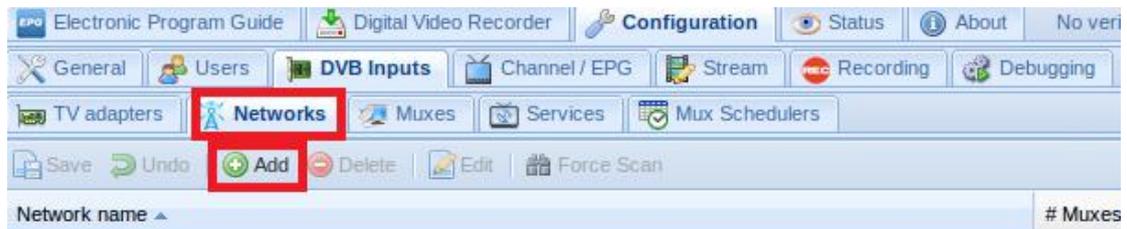
8.4   Log in "Muxes", setup freq. parameters and save it. （ See screenshot below.）
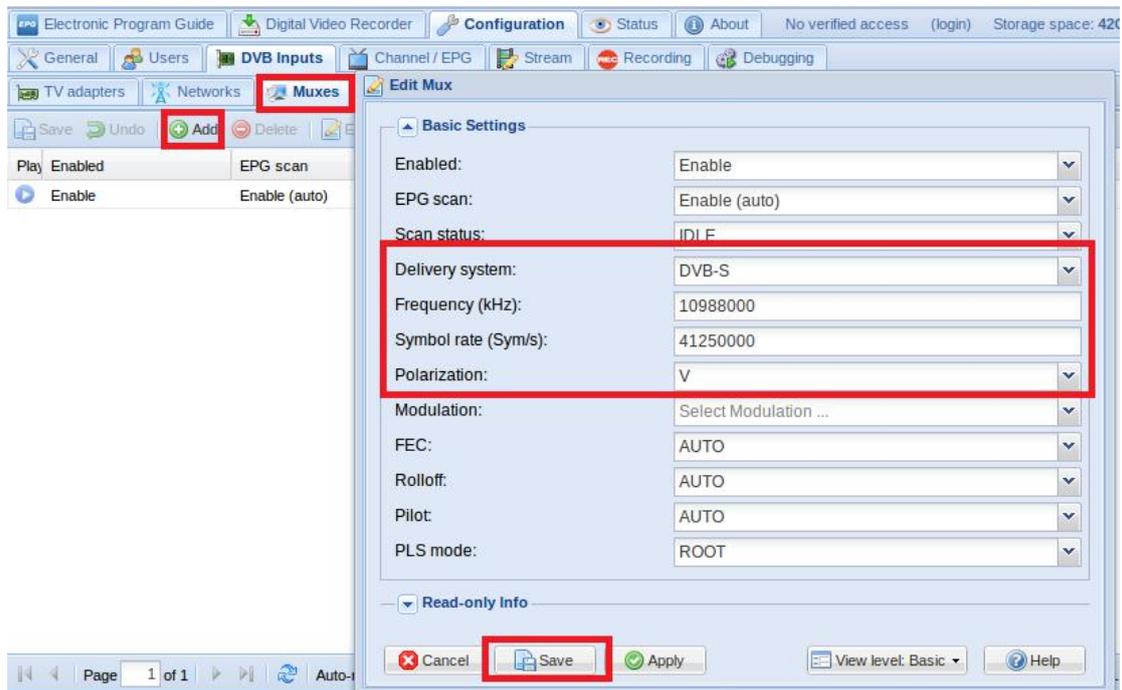
8.5 Enter adapters Tv, select the LNB port you want to play, open the TurboSight, and set the reference map to save（See screenshot below.）
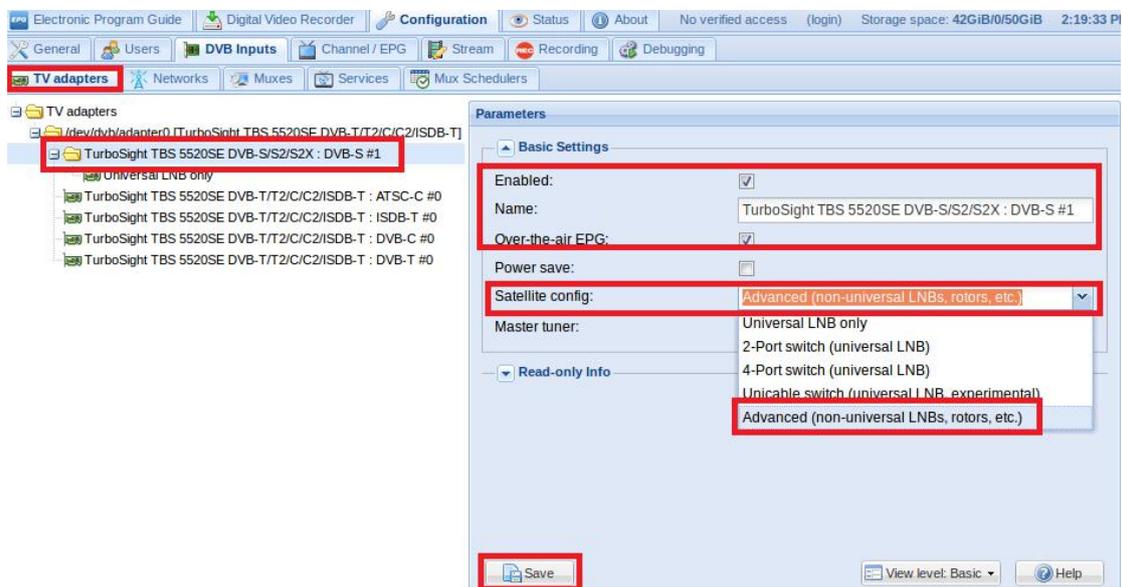
8.6　If you want to play the DVB-T signal, please perform the 8.3~8.4 step first, set up the T signal and the frequency point you need, and close the 8.5 step DVB-S signal channel. Application DVB- T signal channel, and save (as shown in Figure)
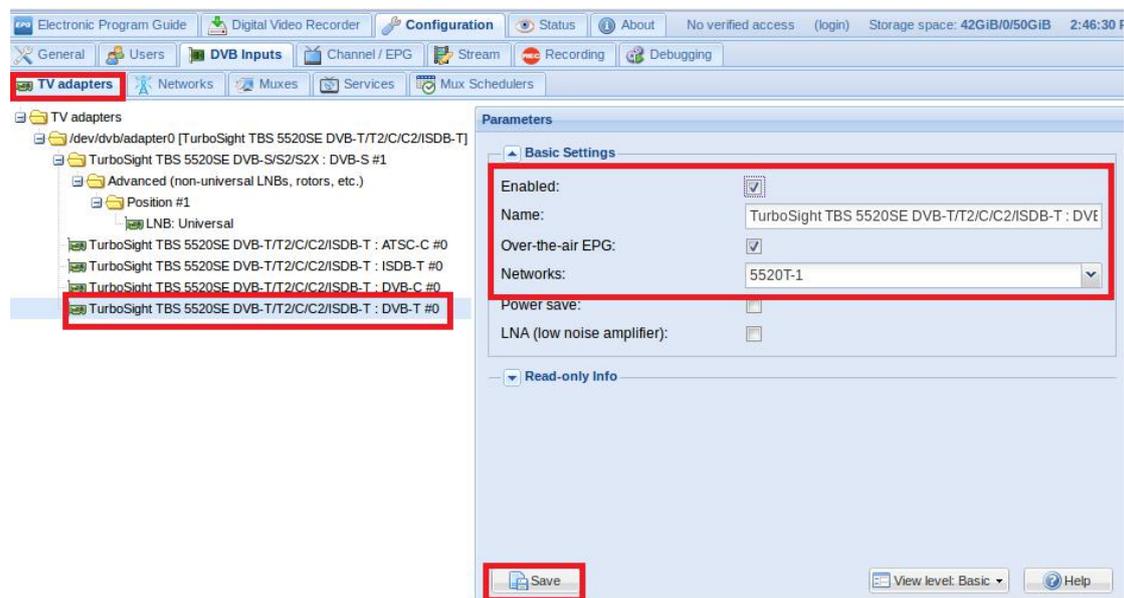
8.7　Click Advanced to save the settings in the reference diagram.（See screenshot below.）
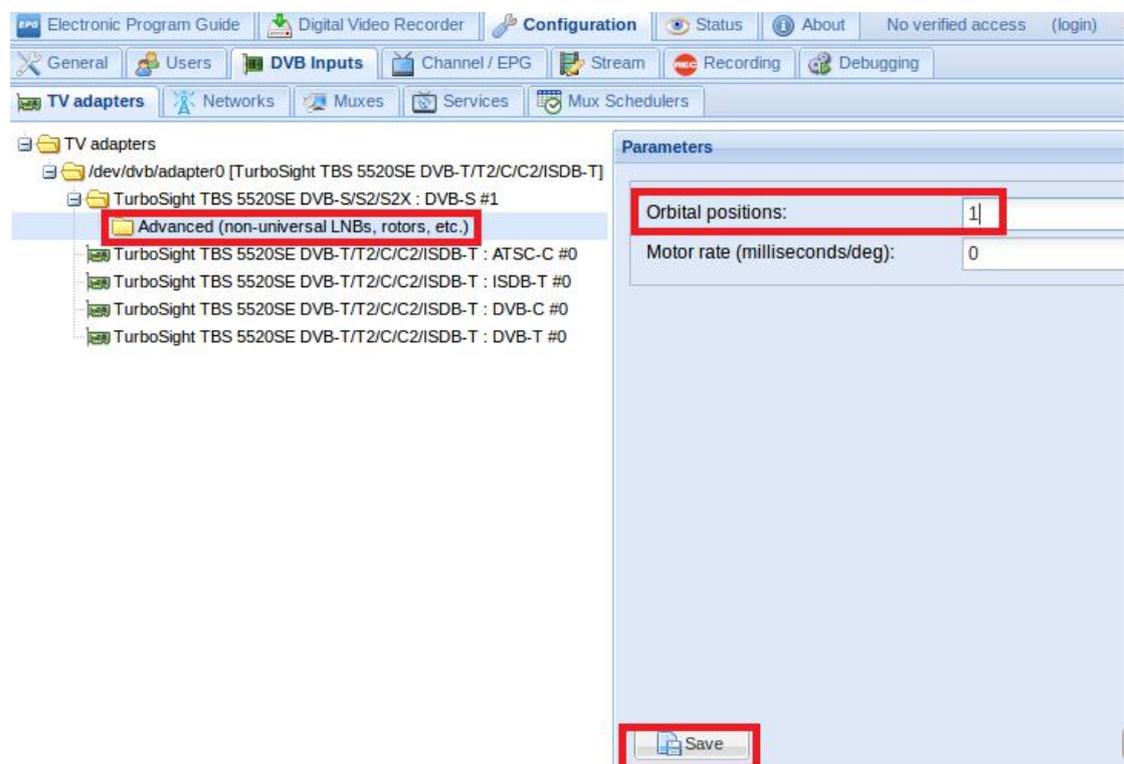
8.8   Click #1 Position, add the settings provided by the network channel, save（See screenshot below.）
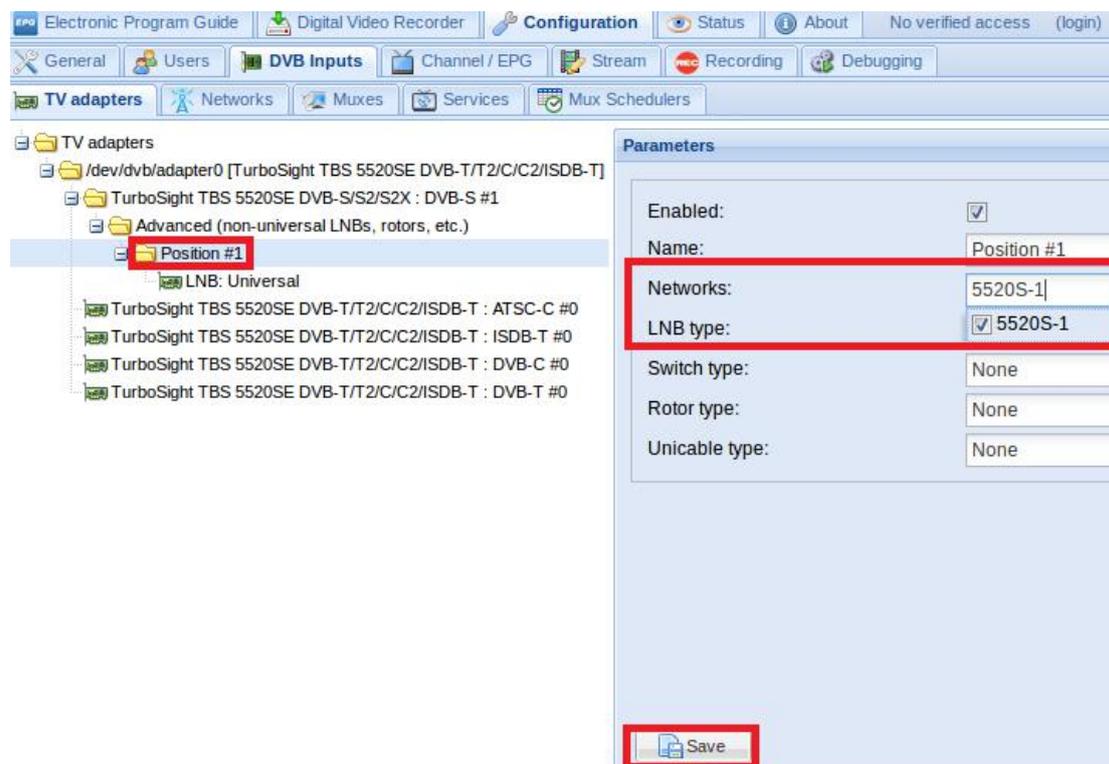
8.9   Log in "Networks" and then click "Force Scan" to lock TV channels. （See screenshot below.）

8.10   Log in "Services", you can live streaming all the TV programs that you would like to watch in "Map services". (See screenshot below.)
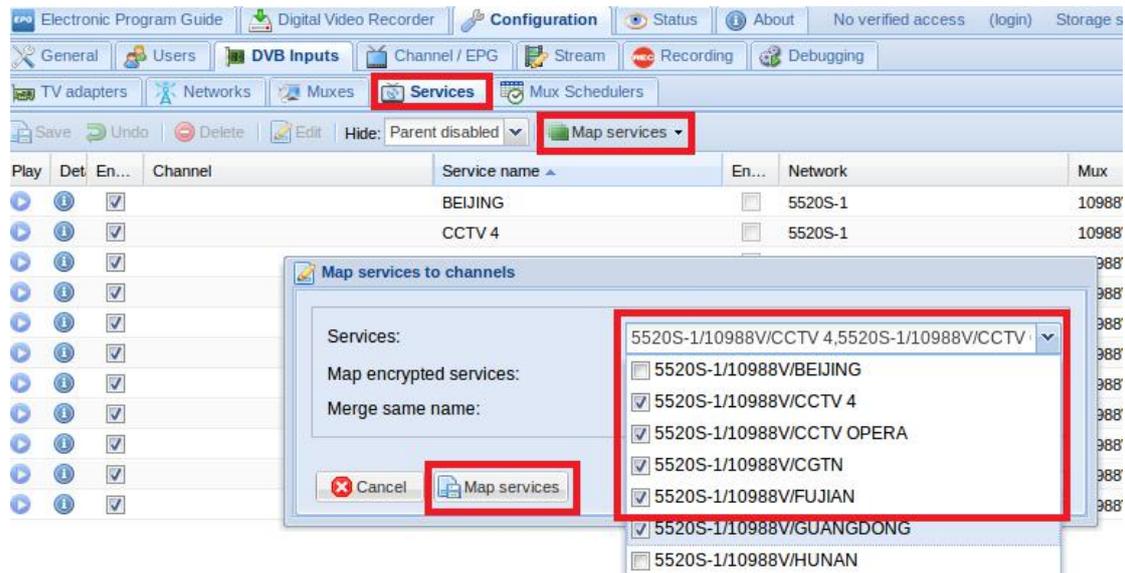
8.11   VLC input playback address http:\\192.168.8.61:9981/playlist
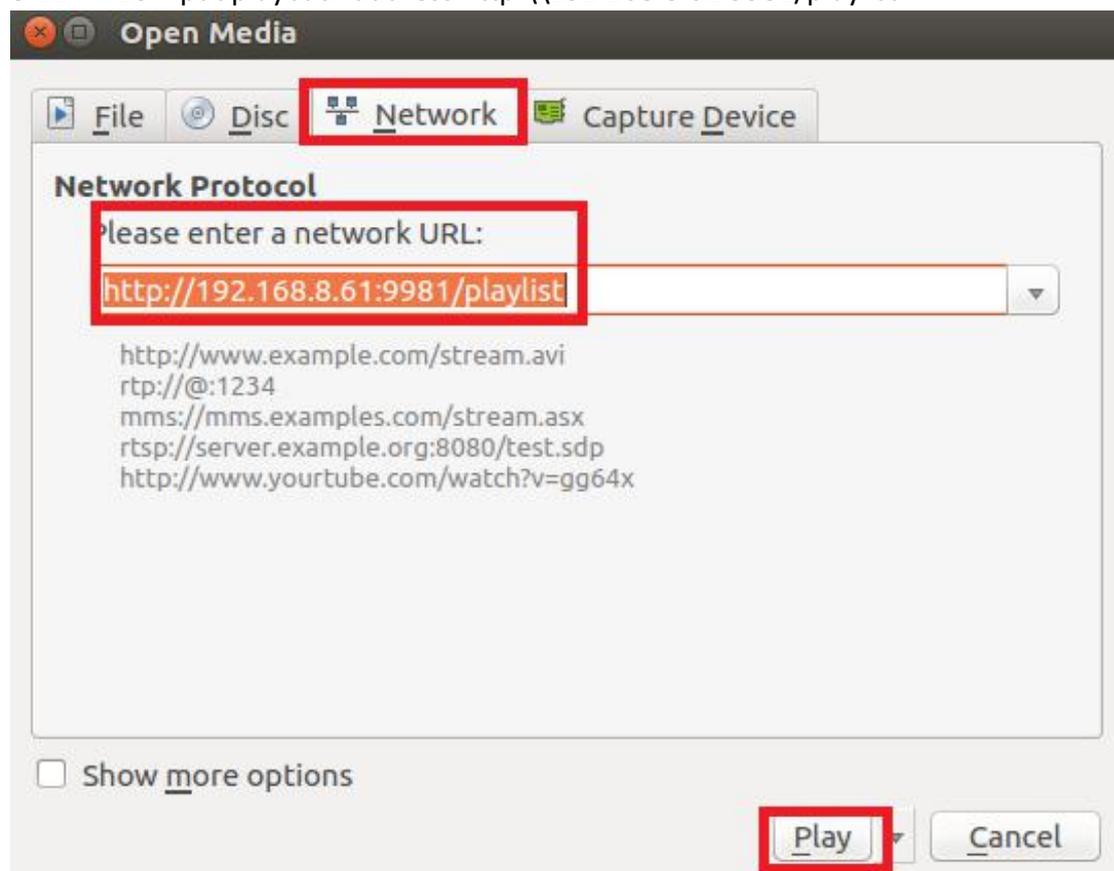
8.12 If you would like to broadcast other satellite programs, please set up the right configuration parameters according to "tvheadend 8.3-8.11" steps.

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+.