

## TBS6904 User Guide

Dear Customers,

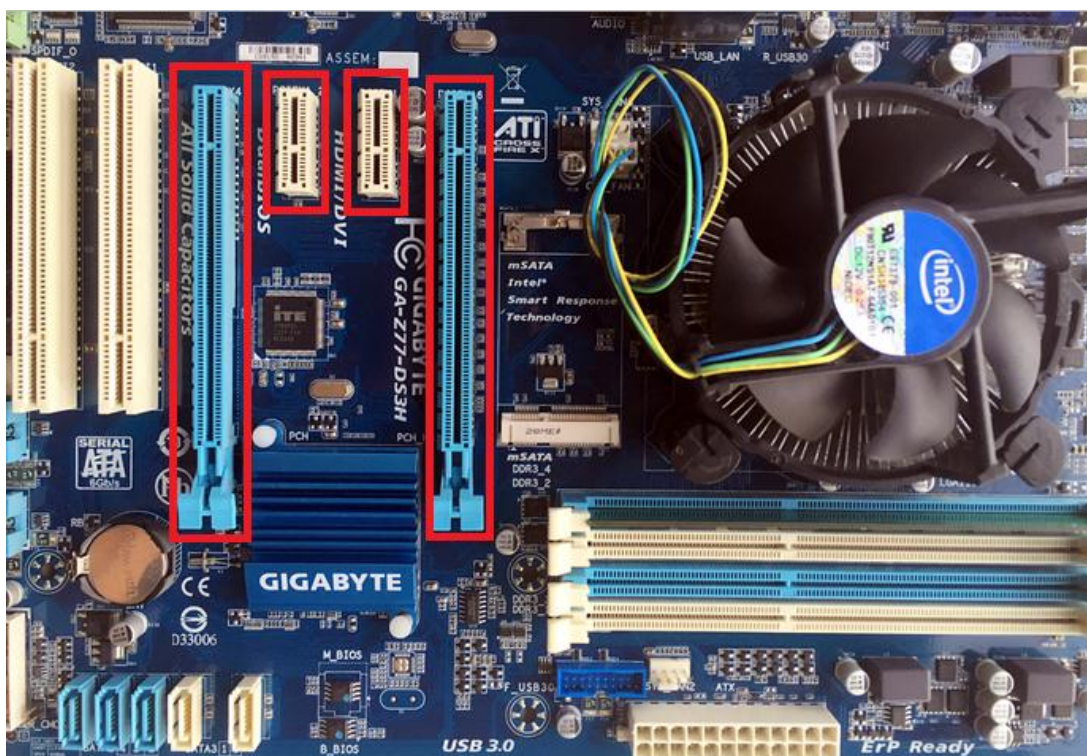
TBS6904 is a PCI Express interface digital satellite TV tuner card with four tuners for watching and recording Free to Air (FTA) satellite TV on PC. It can support DVBS/S2, modulation QPSK, 8PSK, 16APSK, 32APSK. This quad tuner card is one of the most popular TV tuners for building IPTV streaming systems.

In order to use this item correctly, please read this 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, all kinds of pcie slots like PCIEX1,PCIEX4,PCIEX8 or PCIEX16 is suitable for our card. Finally, put computer cover back and turn on your computer.

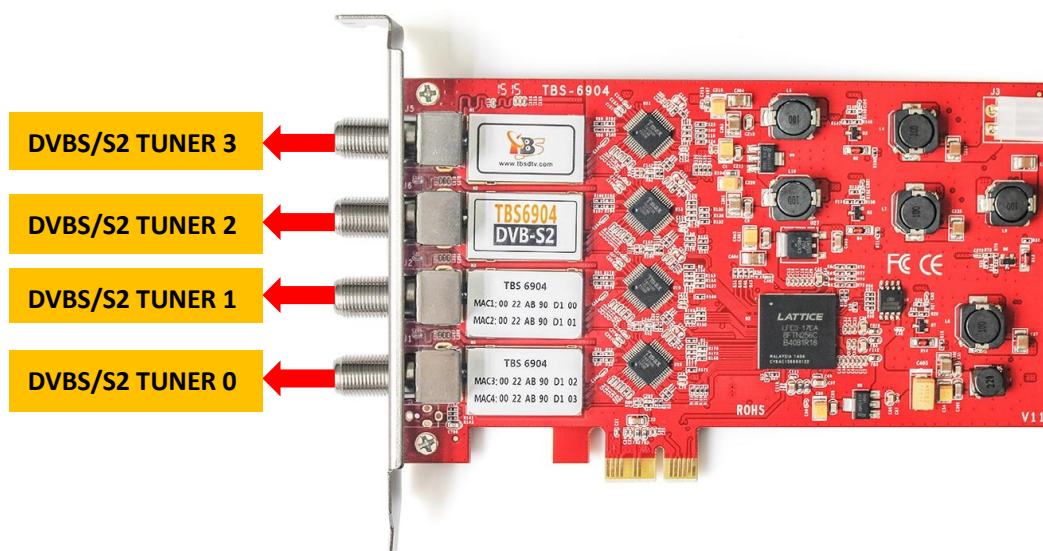


#### ATTENTION:

- 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 make sure to see the user manual of PC and peripheral equipment.

## 1.2 Connect satellite signal Cable to the PCI-e card on your PC

Please make sure connected the correct signal to corresponding tuner input. The following is sequence of the TBS6904 tuner:

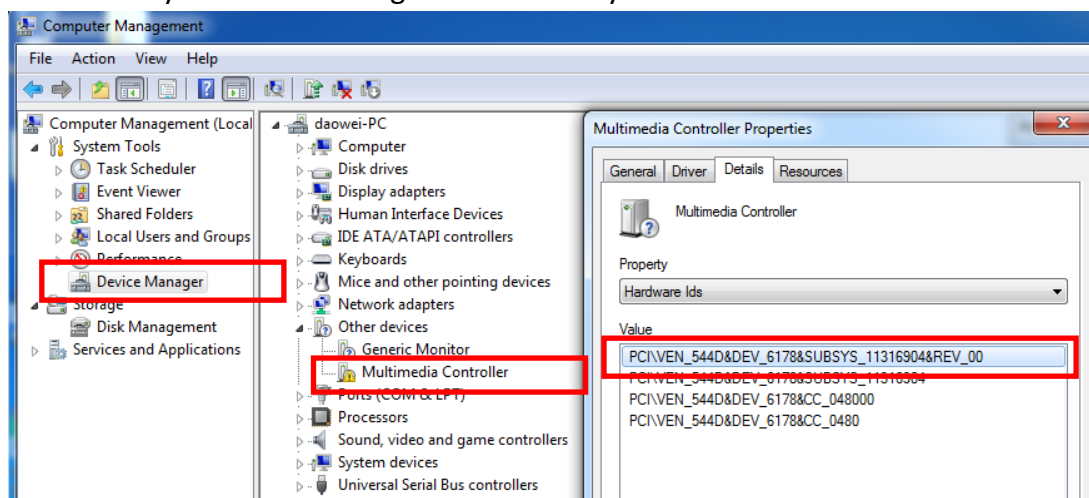


## 2. windows driver installation

2.1 Start your PC and jump to "Computer Management". There will pop up an unknown device "Multimedia Controller" in "Other devices" item before the driver install.

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. Every product has its own private hardware ID.

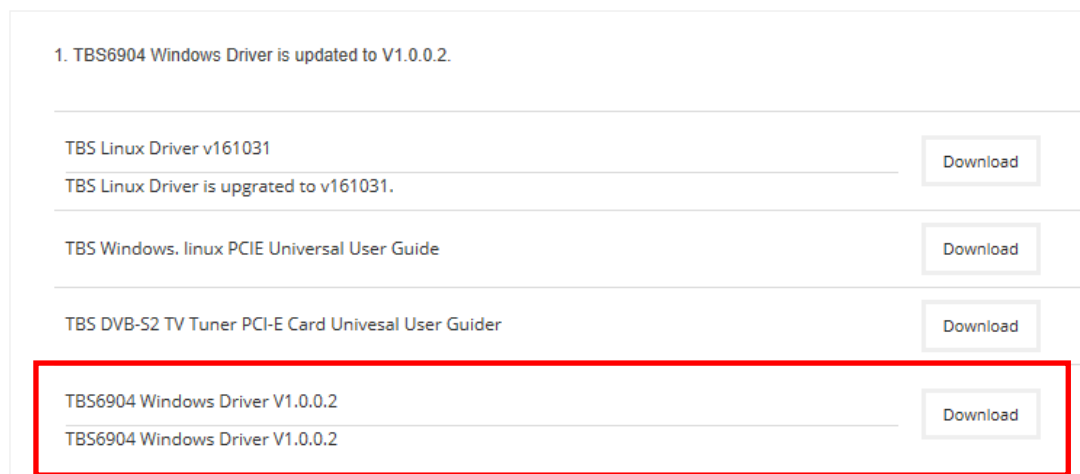
Please kindly see the following screenshot for your reference.



## 2. 2 Download TBS6904 Windows Driver from Our Website

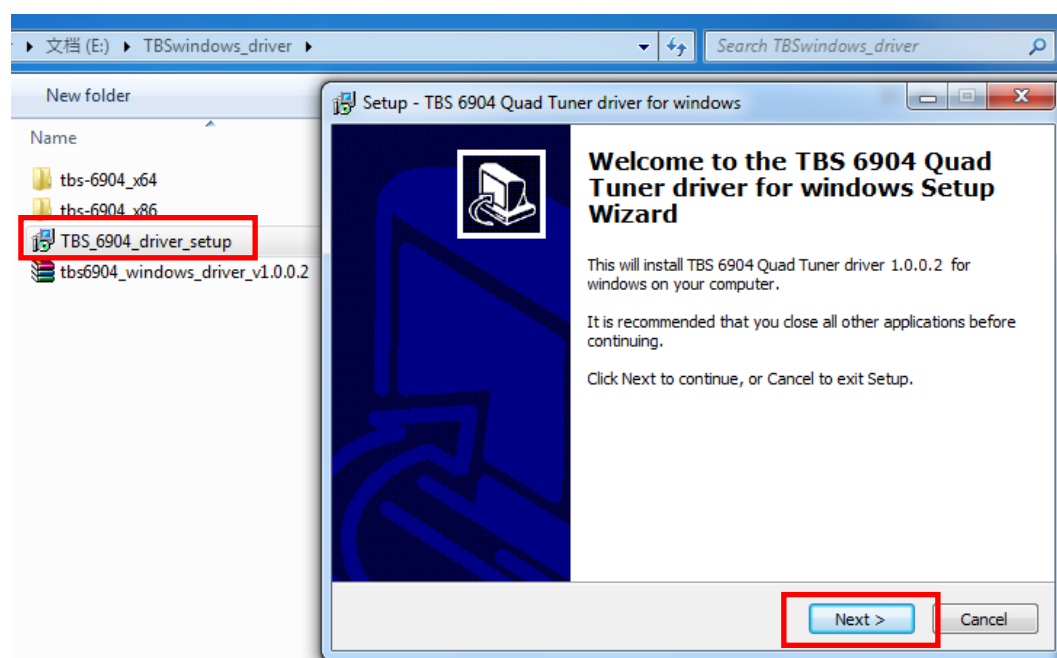
1 ) [http://www.tbsiptv.com/download/tbs6904/tbs6904\\_windows\\_driver\\_v1.0.0.2.zip](http://www.tbsiptv.com/download/tbs6904/tbs6904_windows_driver_v1.0.0.2.zip)

### TBS6904 DVB-S2 Quad Tuner PCIe Card

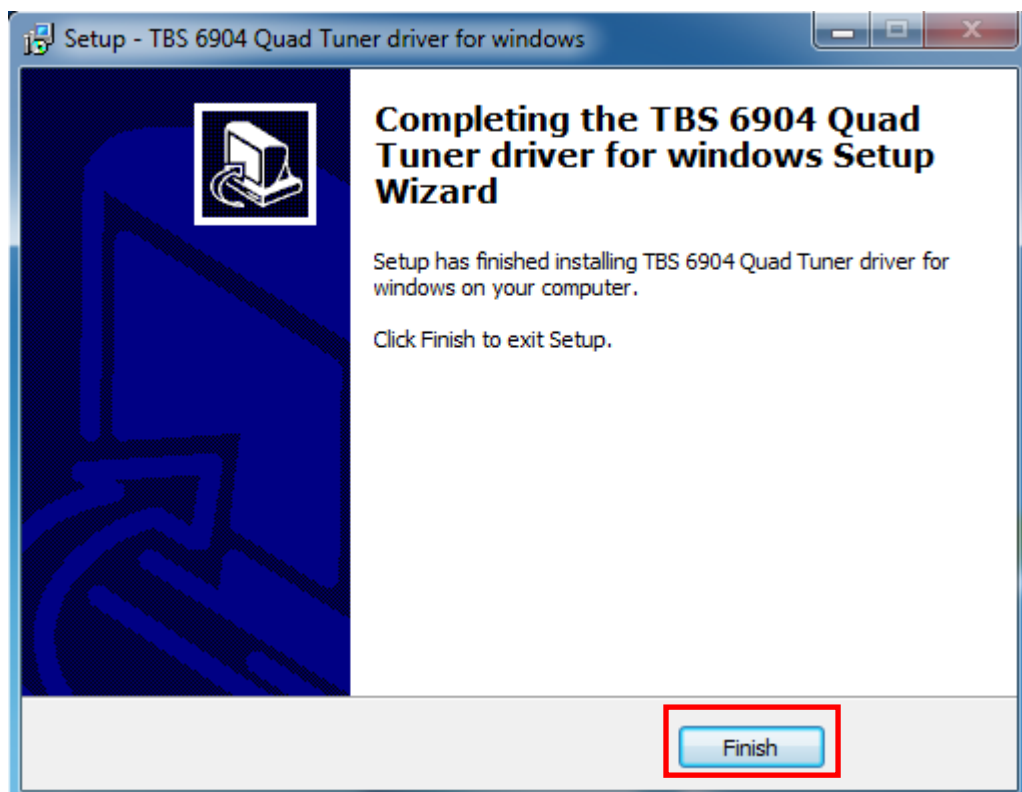
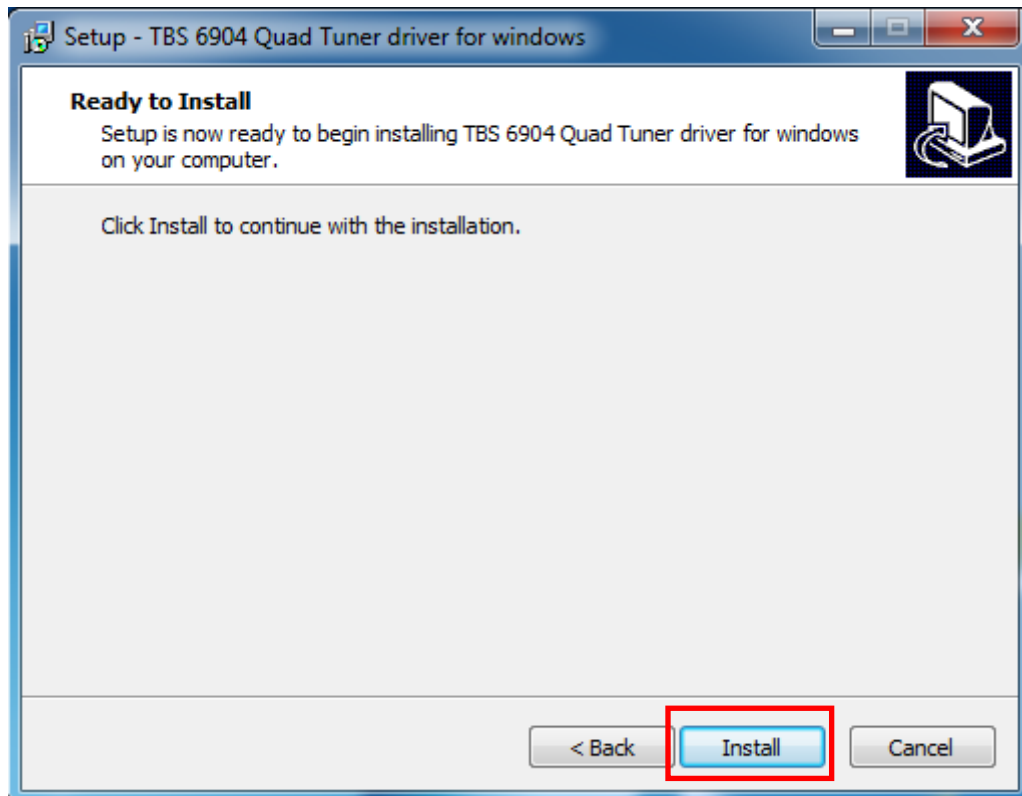


2 ) Download and then extract tbs\_windows\_driver\_v1.0.0.2.zip

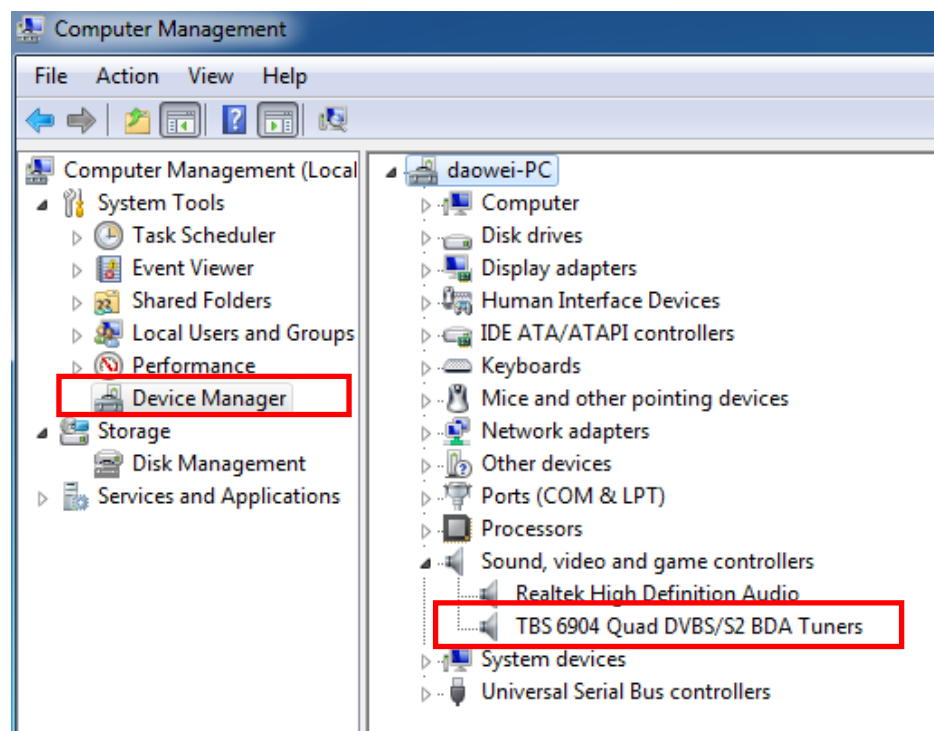
3 ) Click “TBS\_6904\_driver\_setup”, and then a new window will pop up



4 ) Click “Next”→ “Install”→ “Finish” to complete installation



5) To verify if the 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 “TBS6904 Quad DVB S/S2 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. For detailed 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/buydvd/videos>

#### ATTENTION:

① In 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 the golden finger is oxidized in the air, try to clean it by an eraser.

② Don't insert or pull the card out directly when your computer is working, otherwise 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 6904 (This command detects whether there is “Device 6904”, displaying as the following webui. )

```
daowei@daowei-All-Series:~$ lspci -vvv | grep 6904
Subsystem: Device 6904:1131
daowei@daowei-All-Series:~$
```

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

# mkdir tbsdriver (See screenshot below.)

```
xtream@xtream-To-be-filled-by-0-E-M:~$ sudo -s
[sudo] password for xtream:
root@xtream-To-be-filled-by-0-E-M:~# mkdir tbsdriver
root@xtream-To-be-filled-by-0-E-M:~#
```

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

# apt-get install git

```
xtream@xtream-To-be-filled-by-0-E-M:~$ sudo -s
[sudo] password for xtream:
root@xtream-To-be-filled-by-0-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-0-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-0-E-M:~/Desktop# cd tbsdriver/
root@xtream-To-be-filled-by-0-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-0-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-0-E-M:~/Desktop/tbsdriver# ls
media media_build
root@xtream-To-be-filled-by-0-E-M:~/Desktop/tbsdriver# cd media_build/
root@xtream-To-be-filled-by-0-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-0-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-0-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-0-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) #wgethttp://www.tbsdtv.com/download/document/linux/tbs-tuner-firmwares\_v1.0.tar.bz2

```
root@zhangweihua:~/Desktop/tbsdriver# wget http://www.tbsdtv.com/download/document/linux/tbs-tuner-firmwares_v1.0.tar.bz2
--2016-08-25 09:25:31-- http://www.tbsdtv.com/download/document/linux/tbs-tuner-firmwares_v1.0.tar.bz2
Resolving www.tbsdtv.com (www.tbsdtv.com)... 45.79.75.140
Connecting to www.tbsdtv.com (www.tbsdtv.com)|45.79.75.140|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1018149 (994K) [application/x-bzip2]
Saving to: 'tbs-tuner-firmwares_v1.0.tar.bz2'

tbs-tuner-firmwares 100%[=====] 994.29K 423KB/s in 2.4s

2016-08-25 09:25:39 (423 KB/s) - 'tbs-tuner-firmwares_v1.0.tar.bz2' saved [1018149/1018149]

root@zhangweihua:~/Desktop/tbsdriver#
```

2) #tar jxvf tbs-tuner-firmwares\_v1.0.tar.bz2 -C /lib/firmware/ ( See screenshot below.)

```
root@zhangweihua:~/Desktop/tbsdriver# tar jxvf tbs-tuner-firmwares_v1.0.tar.bz2 -C /lib/firmware/
dvb-demod-drxx-pctv.fw
dvb-demod-mn88472-02.fw
dvb-demod-mn88473-01.fw
dvb-demod-si2168-01.fw
dvb-demod-si2168-02.fw
dvb-demod-si2168-a20-01.fw
dvb-demod-si2168-a30-01.fw
dvb-demod-si2168-b40-01.fw
dvb-demod-si2183-b60-01.fw
dvb-fe-bcm3510-01.fw
dvb-fe-cx24116.fw
dvb-fe-cx24117.fw
dvb-fe-drxj-mc-1.0.8.fw
dvb-fe-drxj-mc-vsb-1.0.8.fw
dvb-fe-drxj-mc-vsb-qam-1.0.8.fw
dvb-fe-ds3000.fw
dvb-fe-ds300x.fw
dvb-fe-ds3103.fw
dvb-fe-mxl5xx.fw
dvb-fe-or51132-qam.fw
dvb-fe-or51132-vsb.fw
dvb-fe-or51211.fw
```

4.11 Executed all the above commands, you should have completed driver installation. Reboot your computer and enter the following command to check if the adapters are loaded successfully.

# reboot

# dmesg | grep frontend

```
daowei@daowei-All-Series:~$
daowei@daowei-All-Series:~$
daowei@daowei-All-Series:~$ dmesg | grep frontend
[ 12.058021] TBSECP3 driver 0000:02:00.0: DVB: registering adapter 0 frontend
0 (TurboSight TBS 6904 DVB-S/S2 )...
[ 12.250404] TBSECP3 driver 0000:02:00.0: DVB: registering adapter 1 frontend
0 (TurboSight TBS 6904 DVB-S/S2 )...
[ 12.478314] TBSECP3 driver 0000:02:00.0: DVB: registering adapter 2 frontend
0 (TurboSight TBS 6904 DVB-S/S2 )...
[ 12.706368] TBSECP3 driver 0000:02:00.0: DVB: registering adapter 3 frontend
0 (TurboSight TBS 6904 DVB-S/S2 )...
daowei@daowei-All-Series:~$
```

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

```
root@zhangweihua: ~/Desktop/tbsdriver/media_build
root@zhangweihua:~/Desktop/tbsdriver/media# git remote update
Fetching origin
root@zhangweihua:~/Desktop/tbsdriver/media# git pull
Already up-to-date.
root@zhangweihua:~/Desktop/tbsdriver/media# cd ../media_build
root@zhangweihua:~/Desktop/tbsdriver/media_build# git remote update
Fetching origin
root@zhangweihua:~/Desktop/tbsdriver/media_build# git pull
Already up-to-date.
root@zhangweihua:~/Desktop/tbsdriver/media_build# make
make -C /home/zhangweihua/Desktop/tbsdriver/media_build/v4l
make[1]: Entering directory '/home/zhangweihua/Desktop/tbsdriver/media_build/v4l'
creating symbolic links...
make -C firmware prep
make[2]: Entering directory '/home/zhangweihua/Desktop/tbsdriver/media_build/v4l/firmware'
make[2]: Leaving directory '/home/zhangweihua/Desktop/tbsdriver/media_build/v4l/firmware'
make -C firmware
make[2]: Entering directory '/home/zhangweihua/Desktop/tbsdriver/media_build/v4l/firmware'
make[2]: Nothing to be done for 'default'.
make[2]: Leaving directory '/home/zhangweihua/Desktop/tbsdriver/media_build/v4l/firmware'
```

## 6. Open Source install tips

1./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 duplicated 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

7.1 Lock TV Channels from DVB-S Signal

# dvblast -f 12538000 -s 41250000 -v 13 -a 0 (V signal)

```
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$ dvblast -f 12538000 -s 41250000 -v 13 -a 0
```

# dvblast -f 12429000 -s 3330000 -v 18 -a 1( H signal):

```
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$ dvblast -f 12429000 -s 3330000 -v 18 -a 1
```



## 7.2 Lock TV Channels from DVB-S2 Signal

# dvblast -f 12660000 -s 45000000 -v 13 -m psk\_8 -a 3 (V signal):

```
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$ dvblast -f 12660000 -s 45000000 -m psk_8 -v 13 -a 2
```

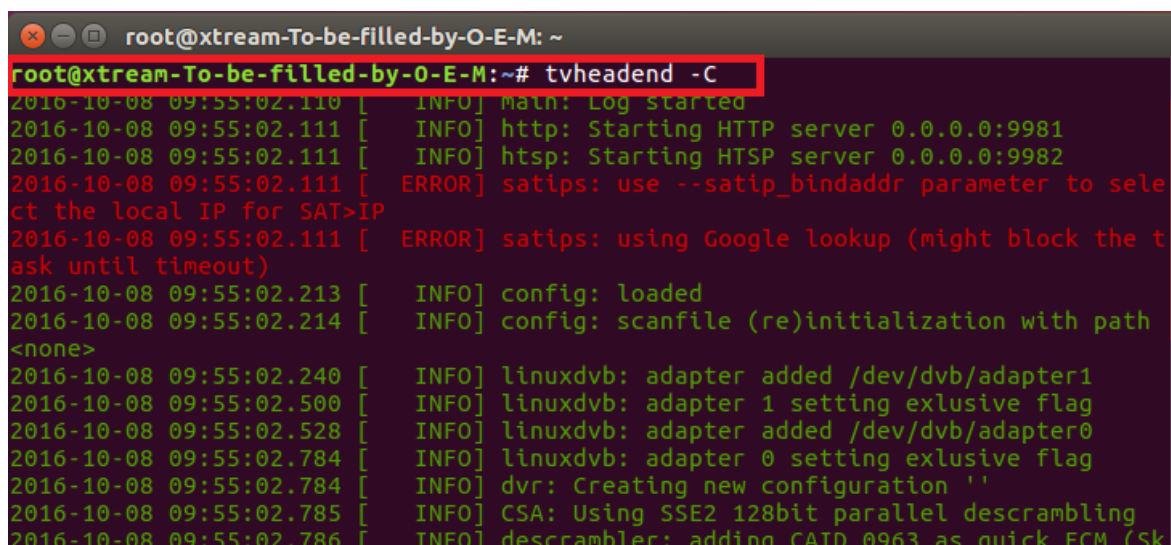
# dvblast -f 12630000 -s 43200000 -v 18 -m psk\_8 -a 4 (H signal):

```
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$ dvblast -f 12630000 -s 43200000 -m psk_8 -v 18 -a 3
```

## 8. Tvheadend User Guide

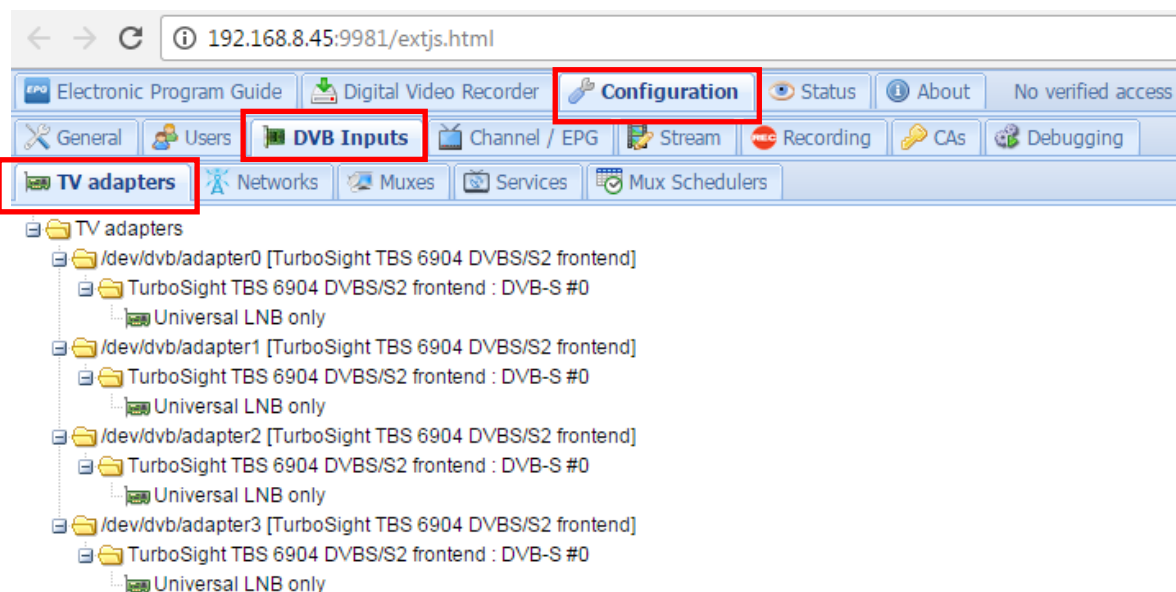
8.1 Connect the required TV signal cable to LNB-Input

8.2 Install and Run tvheadend-C software driver (See screenshot below.)

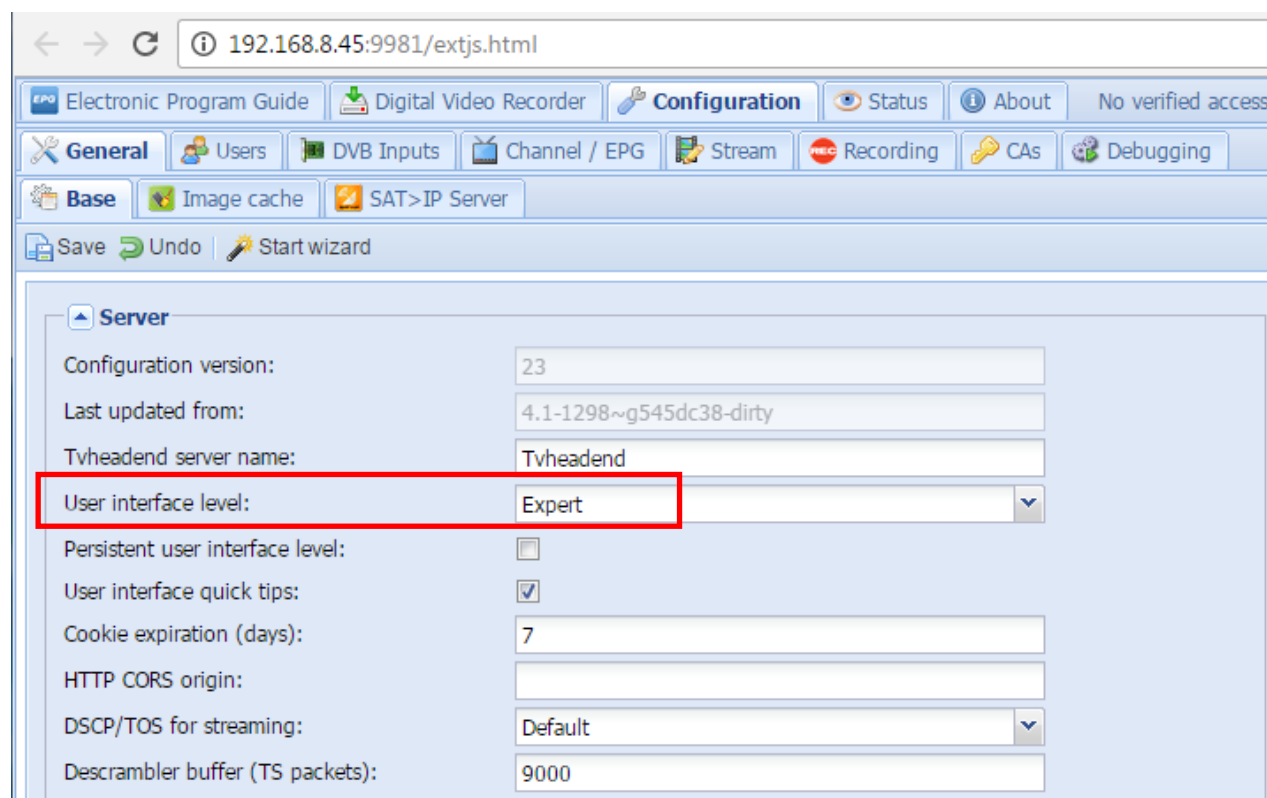


```
root@xtream-To-be-filled-by-O-E-M: ~  
root@xtream-To-be-filled-by-O-E-M:~# tvheadend -C  
2016-10-08 09:55:02.110 [ INFO] Main: Log started  
2016-10-08 09:55:02.111 [ INFO] http: Starting HTTP server 0.0.0.0:9981  
2016-10-08 09:55:02.111 [ INFO] htsp: Starting HTSP server 0.0.0.0:9982  
2016-10-08 09:55:02.111 [ ERROR] satips: use --satip_bindaddr parameter to select the local IP for SAT>IP  
2016-10-08 09:55:02.111 [ ERROR] satips: using Google lookup (might block the task until timeout)  
2016-10-08 09:55:02.213 [ INFO] config: loaded  
2016-10-08 09:55:02.214 [ INFO] config: scanfile (re)initialization with path <none>  
2016-10-08 09:55:02.240 [ INFO] linuxdvb: adapter added /dev/dvb/adapter1  
2016-10-08 09:55:02.500 [ INFO] linuxdvb: adapter 1 setting exclusive flag  
2016-10-08 09:55:02.528 [ INFO] linuxdvb: adapter added /dev/dvb/adapter0  
2016-10-08 09:55:02.784 [ INFO] linuxdvb: adapter 0 setting exclusive flag  
2016-10-08 09:55:02.784 [ INFO] dvr: Creating new configuration ''  
2016-10-08 09:55:02.785 [ INFO] CSA: Using SSE2 128bit parallel descrambling  
2016-10-08 09:55:02.786 [ INFO] descrambler: adding CAID 0963 as quick ECM (Sk
```

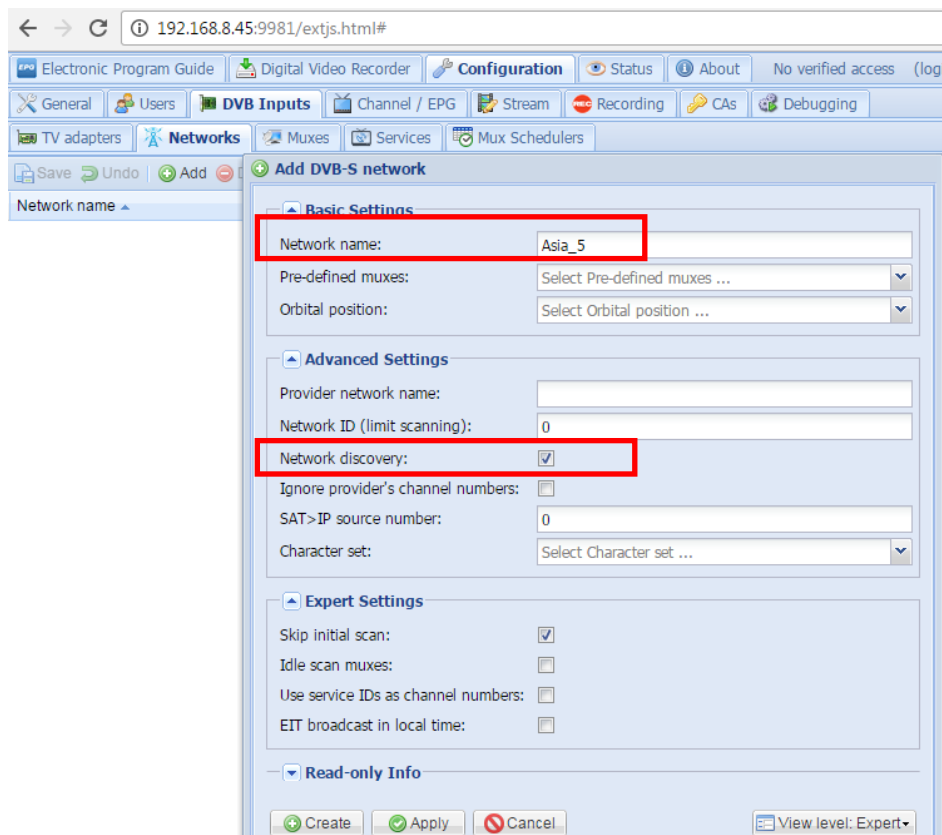
8.3 Open a browser like Firefox or Google Chrome, enter the IP address of your server and port number 9981 as below, then you can log in tvheadend configuration webpage. (See screenshot below.)



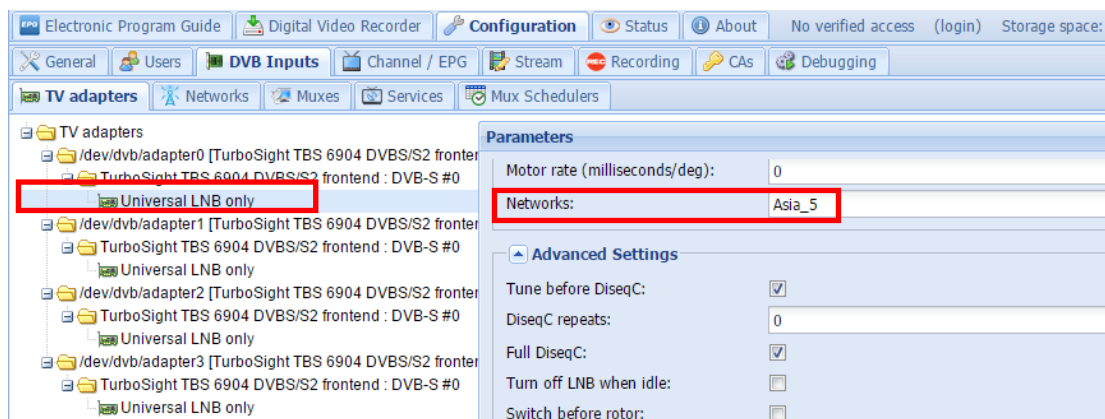
8.4 The default user mode is basic level, you can change it to expert user mode, then you can go to set some advanced settings, like this:



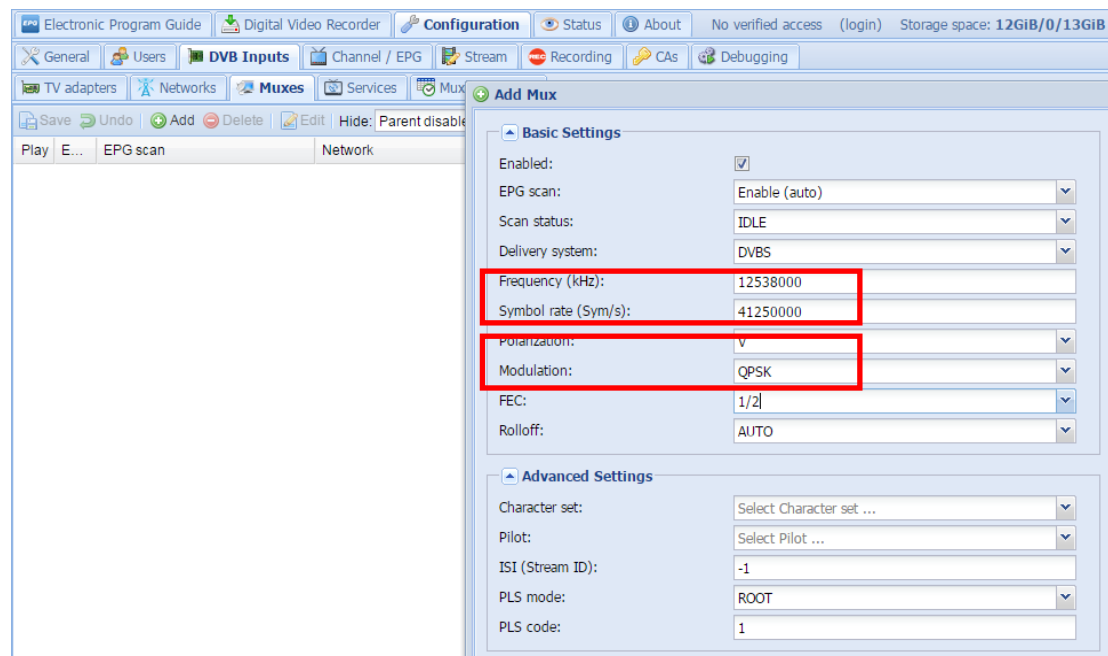
8.5 Click “Networks” item, select DVBS mode and add a network, enter a network name, if you don’t want to use “network discovery”, please don’t select it. (See screenshot below.)



8.6 After created a network, you need to add your network to the adapter. (See screenshot below.)



8.6 Click “Muxes” item add a new muxes. In this dialog box, please enter the correct transponder information including Frequency, Symbol rate, Modulation, FEC. Click “create” at last and wait a few seconds, the channels will be scanned out.(See the screenshot below.):



**Add Mux**

**Basic Settings**

Enabled: ☒

EPG scan: Enable (auto)

Scan status: IDLE

Delivery system: DVBS

Frequency (kHz): 12538000

Symbol rate (Sym/s): 41250000

Polarization: V

Modulation: QPSK

FEC: 1/2

Rolloff: AUTO

**Advanced Settings**

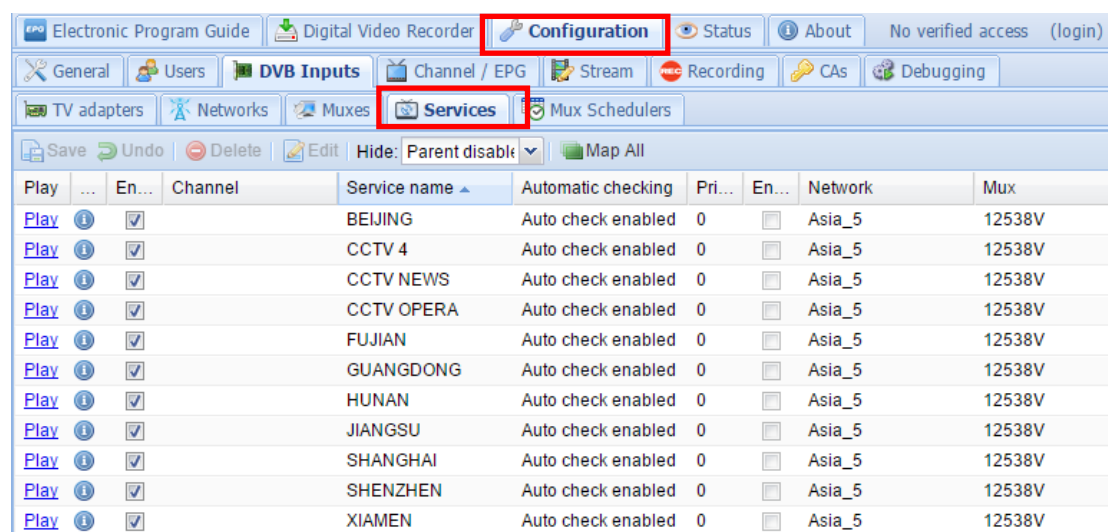
Character set: Select Character set ...

Pilot: Select Pilot ...

ISI (Stream ID): -1

PLS mode: ROOT

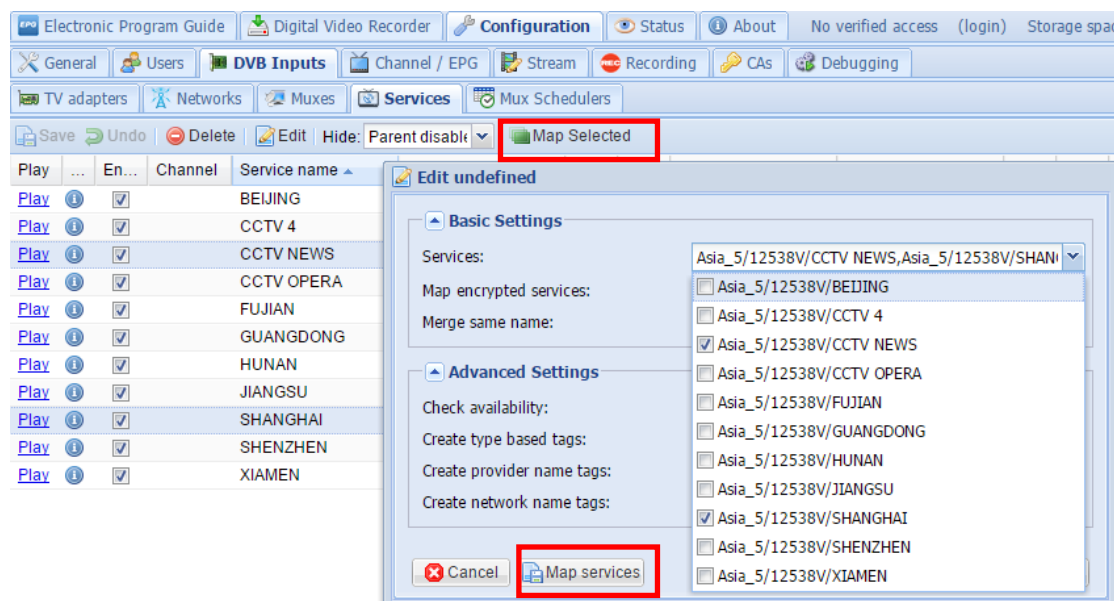
PLS code: 1



| Play | ... | En...                               | Channel | Service name | Automatic checking | Pri... | En...                    | Network | Mux    |
|------|-----|-------------------------------------|---------|--------------|--------------------|--------|--------------------------|---------|--------|
| Play | i   | <input checked="" type="checkbox"/> |         | BEIJING      | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | CCTV 4       | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | CCTV NEWS    | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | CCTV OPERA   | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | FUJIAN       | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | GUANGDONG    | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | HUNAN        | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | JIANGSU      | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | SHANGHAI     | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | SHENZHEN     | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |
| Play | i   | <input checked="" type="checkbox"/> |         | XIAMEN       | Auto check enabled | 0      | <input type="checkbox"/> | Asia_5  | 12538V |



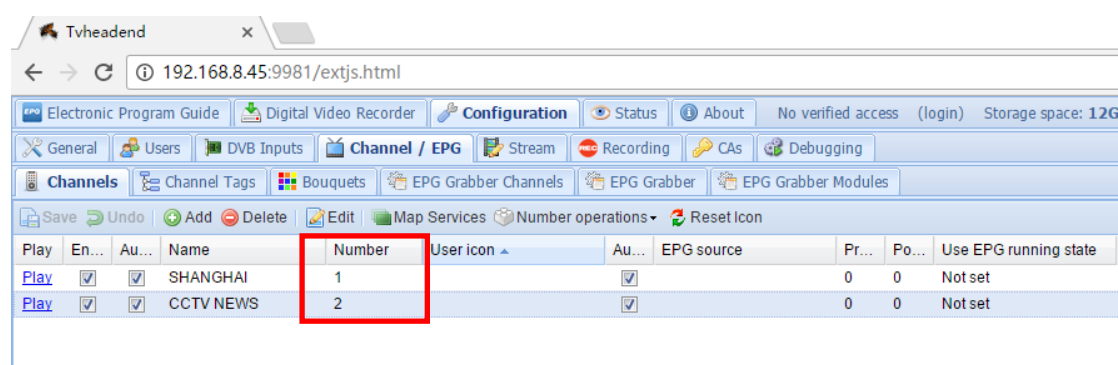
8.7 Click the “Services” item to check the the scan result, and pick these channels you want to map it out.



8.8 Click your map out result in “Channel/EPG”, now you can play your channels in media player which support network stream play like VLC. There are two ways to play your stream, the one is to play all the channels you map out, and the other is play them one by one. Like this:

URL1: <http://192.168.8.45:9981/playlist>

URL2: <http://192.168.8.45:9981/stream/channelNumber/1>



8.9 The left tuners configuration is same as the above steps. We can only get HTTP streams from tvheadend.

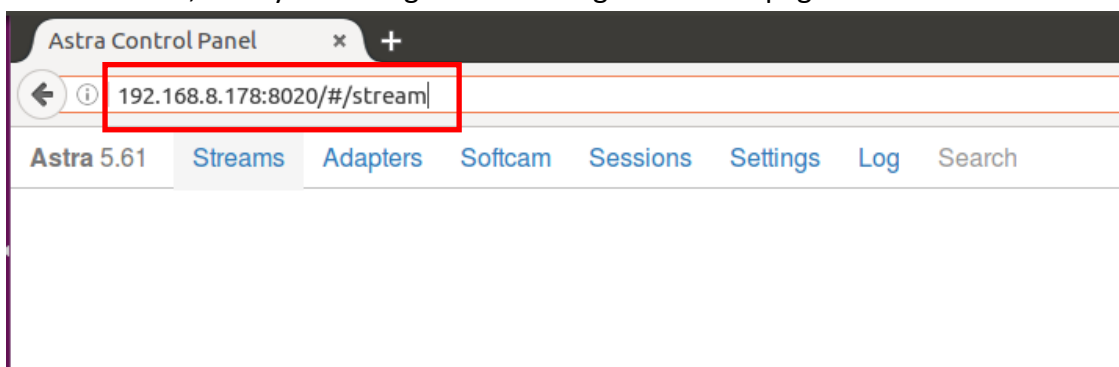
## 9. Astra User Guide

9.1 Connect the Required TV Signal Cable to LNB-Input

9.2 Install Astra for your system, then create an empty “test.json” file in “/etc/astra/” folder, now you can run Astra use the following command. The port is not only and stationary one, you can specify it yourself.(See screenshot below.)

```
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$  
daowei@daowei-All-Series:~$ astra -c /etc/astra/test.json -p 8020 --daemon  
daowei@daowei-All-Series:~$
```

9.3 Open Firefox browser, enter the IP address of your server and port number 8020 as below, then you can log in astra configuration webpage.



9.4 Create a new “Adapters” and then select an adapter, you can set Set parameters in this page, more advanced setting please click “Advanced Options”to set, click “Apply” first.(See screenshot below.)

192.168.8.178:8020/#/adapter/0

Astra 5.61 Streams **Adapters** Softcam Sessions Settings Log

Enable ☒

Name \* 6904\_0

Adapter \* 0.0 : TurboSight TBS 6904 DVB-S/S2 [FF:FF:FF:FF:FF:FF] Refresh

DVB-S2 ☐

TP \* 12538 Vertical 41250

Advanced Options ☐

Save Apply Back Scan

Status SIGNAL CARRIER FEC SYNC LOCK BER: UNC: Kbit/s

Signal

SNR

Astra 5.61 Streams **Adapters** Softcam Sessions Settings Log

Enable ☒

Name \* 6904\_0

Adapter \* 0.0 : TurboSight TBS 6904 DVB-S/S2 [FF:FF:FF:FF:FF:FF] Refresh

DVB-S2 ☐

TP \* 12538 Vertical 41250

Advanced Options ☐

Remove Adapter ☐

Save Apply Back Scan

Status SIGNAL CARRIER FEC SYNC LOCK BER:0 UNC:0 OKbit/s

Signal 95%

SNR 58%

9.5 Then click “Scan” button to scan the channel, the sequence can not be reversed. After scanned out, select the channels you want and save, like this:

Status: SIGNAL CARRIER FEC SYNC LOCK BER:0 UNC:0 101Kbit/s

Signal: 95%

SNR: 58%

|                   |        |                             |        |                      |        |                       |        |                      |
|-------------------|--------|-----------------------------|--------|----------------------|--------|-----------------------|--------|----------------------|
| CCTV 4<br>PNR: 1  | TV FTA | <b>CCTV NEWS<br/>PNR: 2</b> | TV FTA | CCTV OPERA<br>PNR: 3 | TV FTA | BEIJING<br>PNR: 101   | TV FTA | SHANGHAI<br>PNR: 102 |
| HUNAN<br>PNR: 104 | TV FTA | FUJIAN<br>PNR: 105          | TV FTA | XIAMEN<br>PNR: 106   | TV FTA | GUANGDONG<br>PNR: 107 | TV FTA |                      |

Select All Deselect All

9.6 After did that you can go back to webpage, now you find them in “Stream”. Then please set the output protocol according to your needs. Finally click “Apply” as below.

OUTPUT LIST ADD AN OUTPUT

Output #1 UDP/RTP **HTTP** NP File ↑ ↓ ...

Enable ☒

URL

Remove Output ☐

Advanced Options ☐

Remove Stream ☐

**Apply** Back

In Astra, we can get the HTTP, RTP or UDP stream. When you play the stream the status should be like this:

Astra Control Panel x +

192.168.8.178:8020/#/stream

Astra 5.61 Streams Adapters Softcam Sessions Settings Log Search

**CCTV NEWS**  
4319Kbit/s



## 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](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

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

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

4. 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](http://www.tbsdtv.com/download/document/common/tsreader-bdasource_v1.0.8.7-20150604.zip)

5. 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](http://www.tbsdtv.com/download/document/common/streamreader-dll_v1.0.0.3.zip)

6. 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](http://www.tbsdtv.com/download/document/common/win2008_bda.zip)

7. 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.

8. 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

9. 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.

10. Whether support CI+?

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