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A Reminder on Reporting Bugs

As the number of Jaunty users rapidly increases over the near future, the Ubuntu developers would like to remind our users of **the recommended procedure for filing bugs correctly**.

We encourage taking a moment of your time to read through the linked resource and **the official documentation on bug reporting**. A few minutes can mean a world of difference in getting your bug addressed in a timely manner.

Multimedia & Video

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N

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August 9th, 2008

#1

buntunub

Quad Shot of Ubuntu



Join Date: Jun 2007

Location: USA

Beans: 463

Ubuntu 8.04 Hardy

Heron



TvTime How to for Kworld plustv analog lite pci (SAA7134)

UPDATED - 1 February 2009 - (General Guide for Ubuntu (Hardy/Intrepid 32 or 64 bit, but also proven to work in Fedora10 64 bit as well)

This is by no means comprehensive for this crazy chip set, so take out of this what ya need and add to the thread to help others. This ~should~ work for most saa7134 chip sets. Here goes -

References:

[Gentoo wiki](#)

[V4LWiki](#)

Some background. lspci -vv info

Code:

```
03:0a.0 Multimedia controller: Philips Semiconductors SAA7134/SAA7135HL Video Broadcast D
Subsystem: KWorld Computer Co. Ltd. Device 7128
Control: I/O- Mem+ BusMaster+ SpecCycle- MemWINV- VGASnoop- ParErr- Stepping- SER
Status: Cap+ 66MHz- UDF- FastB2B+ ParErr- DEVSEL=medium >TAbort- <TAbort- <MAbort
Latency: 32 (4000ns min, 10000ns max)
Interrupt: pin A routed to IRQ 18
Region 0: Memory at fdefe000 (32-bit, non-prefetchable) [size=1K]
Capabilities: <access denied>
Kernel driver in use: saa7134
Kernel modules: saa7134
```

dmesg | grep saa

Code:

```
saa7130/34: v4l2 driver version 0.2.14 loaded
saa7134 0000:03:0a.0: PCI INT A -> Link[APC3] -> GSI 18 (level, low) -> IRQ 18
saa7134[0]: found at 0000:03:0a.0, rev: 1, irq: 18, latency: 32, mmio: 0xfdefe000
saa7134[0]: subsystem: 17de:7128, board: Kworld/TeVion V-Stream Xpert TV PVR7134 [card=59
saa7134[0]: board init: gpio is c0407f
input: saa7134 IR (Kworld/TeVion V-Str as /devices/pci0000:00/0000:00:10.0/0000:03:0a.0/i
saa7134[0]: i2c eeprom 00: de 17 28 71 10 28 ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 10: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 20: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 30: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 40: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 50: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 60: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 70: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 80: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom 90: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom a0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom b0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom c0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom d0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom e0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
saa7134[0]: i2c eeprom f0: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
tuner' 2-0060: chip found @ 0xc0 (saa7134[0])
tuner' 2-0061: chip found @ 0xc2 (saa7134[0])
saa7134[0]: registered device video0 [v4l2]
saa7134[0]: registered device vbi0
saa7134[0]: registered device radio0
saa7134 ALSA driver for DMA sound loaded
saa7134[0]/alsa: saa7134[0] at 0xfdefe000 irq 18 registered as card 1
saa7134 IR (Kworld/TeVion V-Str: unknown key: key=0x03 raw=0x03 down=1
```

In this configuration I have just that card in the system. You will have to swap configurations for multiple card arrays (card, tuner, video, etc.) but the basics are the same. Hardy picks this card up on as unknown, and auto assigns it the incorrect tuner/card, so you'll have to fix that. Picture quality is generally excellent ootb, but sound **IS** an issue. Some have reported that splitting the configurations up into two separate cards works, but I do it here the old fashioned way.

1. Plug your card in and power up the machine.
2. Upon boot up and login, pop a terminal and check your lspci and dmesg (as above) to make sure that the card was detected. If it wasn't, then you will have to manually modprobe your card into the kernel which I am not going to cover here.
3. Refer to that Gentoo link above for tuner and card inputs. You have to insert some options into your /etc/modprobe.d/options file thusly -

(for Ubuntu)

Code:

```
$sudo gedit /etc/modprobe.d/options
```

(For Fedora)

Code:

```
#gedit /etc/modprobe.d/saa7134
```

I input the following:

Code:

```
#options saa7134 card=42 tuner=17
options saa7134 card=59 tuner=56
install saa7134 /sbin/modprobe --ignore-install saa7134; /sbin/modprobe saa7134-alsa
options saa7134-alsa index=1
```

note: card and tuner #'s **WILL** vary according to your specific card and input (NTSC, PAL, SECAM, etc). However, tuner=17 seems to be the common tie for all of the Kworld cards that I have stumbled across. *Card 42, Tuner 17 works as well but I commented it out above because the other combo worked a little bit better for me.*

Some report that the following should be added to the file as well, however, I did not add this, and have no issues with my card.

Code:

```
alias char-major-81 videodev
alias char-major-81-0 saa7134
```

4. Reboot.

5. Launch tvtime. You should get a nice picture, but probably no sound. You can use tvtime channel scan options here, which work quite well. Now, on to sound. Two options here - alsa, or oss. The Saa7134-alsa-V4L wiki (linked above) has detailed instructions for oss, which I now use because there is no audio offset like there is when I use ALSA. For alsa, you don't need to do much of anything in Hardy because the saa7134-alsa module is already loaded. **The KEY is, either way, you must specify 32000 for sampling rate for this card to get regular sound.** In general, this should work from terminal after you start tvtime -

Code:

```
$arecord -D hw:1,0 -r 32000 -c 2 -f S16_LE | aplay -
```

You will probably see a delay of a second or two from live tv here. To fix this, you will need to specify a device. This is the tricky part here because you need to know what hardware you have for sound. You can do in terminal -

Code:

```
$arecord -l
```

to see what you have. I have a fairly general setup (no fancy sound card here!), and this works for me, but in truth, I have never been able to achieve 100% synch, and it does drift over time or when switching channels -

Code:

```
$tvtime -M | arecord -D hw:1,0 -r 32000 -c 2 -f S16_LE | aplay -Dplug:surround51
```

This command gives me tvtime in windowed mode with perfect picture and synchronous sound. Almost home now!.. I hate having to use a terminal every time I want to use tvtime, and using arecord like that always messes my system up because it stays open even after I close tvtime, forcing me to manually kill it every time. So, I created a bastardized script which you can create using vim, vi, nano, or any text editor like gedit, kate, etc.. in /home/user, named kworld_alsa.sh to make things easier as follows:

(For ALSA)

PHP Code:

```
#!/bin/sh
arecord -D hw:1,0 -r 32000 -c 2 -f S16_LE | aplay -Dplug:surround51 & tvtime -M;
wait 1 tvtime
killall arecord;
killall aplay;
killall tvtime
```

(For OSS. Like said above, oss works perfectly for me with fully synchronized sound without the use of the audio cable. Note that you will have to install oss for this to work.)

PHP Code:

```
#!/bin/sh
sox -c 2 -s -r 32000 -t ossdsp /dev/dsp1 -t ossdsp /dev/dsp & tvtime -M;
wait 1 tvtime
killall sox;
killall tvtime
```

Note: Dont forget to make this script executable with chmod +x, or simply right click the script and check the "Allow executing file as program" check box in the permissions tab of the properties.

Yea, I know, its a hack job but it works. I'm no shell scripting guru so I do what I can. Inputs are most welcome. 😊

I hope this helps. I have spent waaaay too much time on this google'ing around and following various wiki's mostly to no avail, so believe me, I definitely feel your frustration with getting these cards working in Linux! I have not heard of a working solution with these cards in Mythtv, so if anyone knows how to get that working, please feel free to post a solution! Please do post your solutions/workarounds, because everyone benefits!

Last edited by buntunub; February 1st, 2009 at 07:51 PM.. Reason: Update



QUOTE

September 13th,
2008

#2

k40nflux

First Cup of Ubuntu



Join Date: Sep 2008
Beans: 2

Re: TvTime How to for Kworld plustv analog lite pci (SAA7134)

this was a wonderful thread! thanks for all the help, but im still having problems with audio. when i do arecord -D etc etc, it seems to work, but i dont hear audio, all i hear is two loud blips and then it gives me underrun errors.

heres my lspci:

Code:

```
imtiazkocher:/dev$ lspci | grep SAA
02:08.0 Multimedia controller: Philips Semiconductors SAA7134/SAA7135HL Video Broadcast D
```

dmesg:

Code:

```
imtiazkocher:/dev$ dmesg | grep saa
[ 41.621347] saa7130/34: v4l2 driver version 0.2.14 loaded
[ 41.623479] saa7134[0]: found at 0000:02:08.0, rev: 1, irq: 19, latency: 64, mmio: 0xf
[ 41.623488] saa7134[0]: subsystem: 17de:7128, board: :Zolid Xpert TV7134 [card=43,insm
[ 41.623507] saa7134[0]: board init: gpio is c0407f
[ 41.762336] saa7134[0]: i2c eeprom 00: de 17 28 71 10 28 ff ff ff ff ff ff ff ff ff ff
[ 41.762354] saa7134[0]: i2c eeprom 10: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762368] saa7134[0]: i2c eeprom 20: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762382] saa7134[0]: i2c eeprom 30: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762396] saa7134[0]: i2c eeprom 40: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762410] saa7134[0]: i2c eeprom 50: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762423] saa7134[0]: i2c eeprom 60: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 41.762437] saa7134[0]: i2c eeprom 70: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 42.313765] tuner 0-0060: chip found @ 0xc0 (saa7134[0])
[ 42.321757] tuner 0-0061: chip found @ 0xc2 (saa7134[0])
[ 42.374637] saa7134[0]: registered device video0 [v4l2]
[ 42.374666] saa7134[0]: registered device vbi0
[ 42.889153] saa7134 ALSA driver for DMA sound loaded
[ 42.889197] saa7134[0]/alsa: saa7134[0] at 0xfe1ffc00 irq 19 registered as card -2
[ 2063.305041] saa7134 ALSA driver for DMA sound unloaded
[ 2112.092903] saa7130/34: v4l2 driver version 0.2.14 loaded
[ 2112.093299] saa7134[0]: found at 0000:02:08.0, rev: 1, irq: 19, latency: 64, mmio: 0xf
[ 2112.093311] saa7134[0]: subsystem: 17de:7128, board: :Zolid Xpert TV7134 [card=43,insm
[ 2112.093324] saa7134[0]: board init: gpio is c0407f
[ 2112.211066] tuner 0-0060: chip found @ 0xc0 (saa7134[0])
[ 2112.219055] tuner 0-0061: chip found @ 0xc2 (saa7134[0])
[ 2112.251025] saa7134[0]: i2c eeprom 00: de 17 28 71 10 28 ff ff ff ff ff ff ff ff ff ff
[ 2112.251044] saa7134[0]: i2c eeprom 10: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 2112.251059] saa7134[0]: i2c eeprom 20: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
[ 2112.251073] saa7134[0]: i2c eeprom 30: ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff ff
```

when i try to use arecord i get this:

Code:

```
imtiazkocher:/dev$ arecord -D hw:1,0 -r 32000 -c 2 -f S16_LE | aplayRecording WAVE 'stdi
Playing WAVE 'stdin' : Signed 16 bit Little Endian, Rate 32000 Hz, Stereo
underrun!!! (at least 663.848 ms long)
```

and arecord -l shows

Code:

```

imtiaz@kocher:/dev$ arecord -l
**** List of CAPTURE Hardware Devices ****
card 0: Live [SBLive! Value [CT4780]], device 0: emu10k1 [ADC Capture/Standard PCM Playba
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: Live [SBLive! Value [CT4780]], device 1: emu10k1 mic [Mic Capture]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: Live [SBLive! Value [CT4780]], device 2: emu10k1 efx [Multichannel Capture/PT Pla
Subdevices: 1/1
Subdevice #0: subdevice #0
card 1: SAA7134 [SAA7134], device 0: SAA7134 PCM [SAA7134 PCM]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 2: Camera [Camera], device 0: USB Audio [USB Audio]
Subdevices: 1/1
Subdevice #0: subdevice #0

```

i think card=43 may be wrong i dont have a zolid xpert, i have a kworld analog plusTV lite PCI card. anybody got any ideas for me?
 tvtime displays a picture, but i cant get audio to work for the life of me!
 thanks!!



QUOTE

October 18th, 2008

#3

kingpin7151

First Cup of Ubuntu

Join Date: Oct 2008
 Beans: 1



Re: TvTime How to for Kworld plustv analog lite pci (SAA7134)

make sure ur audio cable is plugged into ur sound card.... seriously, i am such a noob and have a sound card and the pci tv card and i had the audio cable plugged into my sound card but got nothing, then plugged it into the line out audio on my sound card and hey presto it worked...

only problem is that all my other programs run through the original sound card and so i havta keep switching the plugs... also the sound from the pci tv card doesnt stop... even when tv time is stopped... (unless i switch off the computer and back on)

dunno, think it might be due to the fact i have the sound card ASWELL as the tv card...

anyone have any ideas?

QUOTE

October 27th, 2008

#4

buntunub

Quad Shot of Ubuntu



Join Date: Jun 2007
 Location: USA
 Beans: 463
 Ubuntu 8.04 Hardy Heron



Re: TvTime How to for Kworld plustv analog lite pci (SAA7134)

Follow the steps of the guide, but particularly:

Quote:

3. Refer to that Gentoo link above for tuner and card inputs. You have to insert some options into your /etc/modprobe.d/options

You can experiment around with this until you get optimal settings. You also need to be sure your using the correct frequency settings on your app and etc, etc. Lots of things to futz around with here. I know this chipset works very well in Intrepid as I have been testing it extensively. I get a much better quality picture and WAY better sound output now strait out of the box with Kubuntu Intrepid and all I had to do was set the card options.

QUOTE

January 6th, 2009

#5

adamkaneGrande Half-n-Half Cinnamon
UbuntuJoin Date: Mar 2006
Location: Toronto, Canada
Beans: 857**Re: TvTime How to for Kworld plustv analog lite pci (SAA7134)**

Many thanks for the HOWTO. I have a KWorld PlusTV PVR TV 7134 SE. The HOWTO didn't work, until I disabled Compiz. So the following step should be step 1.

System -> Preferences -> Appearance -> Visual Effects -> None

QUOTE

February 1st, 2009

#6

buntunub

Quad Shot of Ubuntu

Join Date: Jun 2007
Location: USA
Beans: 463
Ubuntu 8.04 Hardy Heron**Re: TvTime How to for Kworld plustv analog lite pci (SAA7134)**

After many more moons of messing around with this card on both Ubuntu an Fedora, I have now tweaked and hacked my way to this card running very well indeed now. I have updated the thread with the newest info above.

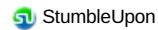
QUOTE

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