Polaris Linux SW Release Note

Version: 2.6.8.0

**Supported boards & Features:**

|  |  |  |
| --- | --- | --- |
| **No.** | **Board Name** | **Features** |
| 1 | RDE253S | Baseband AV+TV Tuner+DVB-T |
| 2 | RDU253S | Baseband AV+TV Tuner+ATSC |
| 3 | RDE250 | TV Tuner+DVBT |
| 4 | RDU250 | TV Tuner+ATSC |
| 5 | CARRERA | Baseband AV+TV Tuner+DVB-T |
| 6 | SHELBY | Baseband AV+TV Tuner+ATSC |
| 7 | VideoGrabber | Baseband AV+Mpeg2 |
| 8 | RDE258M | TV Tuner +DVBT |
| 9 | RDU259M | TV Tuner +ATSC |

**Boards & Unsupported Features:**

|  |  |  |
| --- | --- | --- |
| **No.** | **Board Name** | **Unsupported Features** |
| 1 | RDE253S | FM+Teletext+CC+SAP |
| 2 | RDU253S | FM+Teletext+CC+SAP |
| 3 | RDE250 | DVB-T+FM+Teletext+CC+SAP |
| 4 | RDU250 | ATSC/ClearQAM+FM+Teletext+CC+SAP |
| 5 | VideoGrabber | Teletext+CC |
| 6 | RDE258M | FM+Teletext+CC+SAP |
| 7 | RDU259M | FM+Teletext+CC+SAP |

2011-04-18: V2.6.8.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.8.0 | linux-media-2011-02-28.tar.bz2 | 2011-02-28 |

**Changes:**

|  |  |
| --- | --- |
| PR Number | Description |
| [**PLRSLIN-38**](http://nbjira02.nb.eng.conexant.com:8080/browse/PLRSLIN-38) | adding new board support on RDx257M |

2010-08-04: V2.6.7.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.7.0 | v4l-dvb-ee9826bc7106 | 2010-04-30 |

**Changes:**

|  |  |
| --- | --- |
| PR Number | Description |
| 24795 | [All]Stagger video is present in TVTime after multiple switch for RF/CVBS/S-Vide |
| 24360 | [RDU253S-L1-8]ATSC can't be played after playing CVBS or S-Video |
| 24359 | [RDE253S-L1-8]DVB-T can't be played after playing CVBS or S-Video |
| 24853 | [All]Optimize the power mode design per Windows |
| 24396 | [Shelby-L1-8]ATSC can't be played after playing CVBS or S-Video |
| 24387 | [Carrera-L1-8]DVB-T can't be played after playing CVBS or S-Video |
| 24394 | [VideoGrabber-L1-16]Board can't be powered on after disconnection and connection |
| 24395 | [VideoGrabber-L1-13]No audio can be played after resuming from Suspend |
| 24386 | [Shelby-RDX250-L1-5]There is some crackling noise when doing channel change test |
| 24451 | [RDX250] Resume from suspend, need wait more than 1minute. |
| 24329 | [RDU253S-L1-5]There is some crackling noise when doing channel change test |
| 24389 | [Carrera-RDE250-L1-4]DVB-T 7M can't be played |
|  |  |

2010-05-14: V2.6.6.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.6.0 | v4l-dvb-ee9826bc7106 | 2010-04-30 |

**Changes:**

|  |  |
| --- | --- |
| **PR** | **Description** |
| 24141 | DVB-T support on RDE250/Carrera |
| 24142 | ATSC support on RDU250/Shelby. |
| 23840 | [VideoGrabber-L1]No audio after switch from playing RAW A/V to MPEG A/V |
| 23841 | [VideoGrabber-L1]NTSC MPEG video can't be played after playing RAW PAL video |
| 24234 | Merge Polaris Linux into latest V4L2 code base in V4L2 community |
| 23894 | [VideoGrabber-MPEG]No sequence header has been found for the recorded MPEG file |
| 23819 | [VideoGrabber-L1]Video0/1 were changed to Video2/3 after disconnection/connection |
| 23824 | [VideoGrabber-L1]Unwanted white line is present in MPlayer for PAL S-Video |
| 24063 | [Shelby-L1-2]No audio can be played |
| 24064 | [Shelby-L1-2]Can't change to play another channel in TVTime |
| 23566 | [RDU250]Add RDU250 support in Polaris Linux SW |
| 22573 | [RDE253S-L1]Suspend and hibernate is not supported |
| 22598 | [RDE253S-L1]Dual card test is not supported |
| 24065 | [Carrera-L1-2]The TV programme cannot be played |
| 24069 | [Shelby-L1-8]No video can be displayed after switching from CVBS/S-Video to RF |

2010-03-11: V2.6.5.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.5.0 | v4l-dvb-19c0469c02c3 | 2009-11-8 |

**Changes:**

|  |  |
| --- | --- |
| **PR** | **Description** |
| 23582 | cx231xx alsa audio drvier will not be displayed when Using 'arecord -l' command |
| 22871 | [VideoGrabber]VideoGrabber can't work on Fedora |
| 23440 | [VideoGrabber-L1]Video setting didn't take effect when changing between NTSC/PAL |
| 23244 | [VideoGrabber-L1]Driver can't be loaded after disconnection and connection |
| 23432 | [VideoGrabber-L1]Crackling noise appears when playing the second time in MPlayer |
| 23246 | [VideoGrabber-L1]CVBS/SVideo just can be played for first time in tvtime/mplayer |
| 23247 | [VideoGrabber-L1]A/V can't be displayed when switching between CVBS and S-Video |
| 23222 | [VedioGrabber-L1]No A/V can be displayed with VideoGrabber in TVtime on Ubuntu |
| 22725 | [RDU253S] Use existing Samsung S5H1411 files instead of Cx24228 files for Polari |
| 22832 | [RDU253S-L1]USB Enumeration Stress Test - Fast failed on Fedora |
| 22726 | [RDE253S]Use existing Samsung S5H1432 files instead of Cx24232 files for Polaris |
| 23148 | [RDE253S-L1]There is some noise at the beginning of playing live TV with MPlayer |
| 22837 | [RDE253S-L1]Live TV cannot be played after switching from CVBS/S-Video to RF |
| 23496 | Adding ISO support on Mpeg2 VideoGrabber |

2010-01-28: V2.6.4.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.4.0 | v4l-dvb-19c0469c02c3 | 2009-11-8 |

**Changes:**

|  |  |
| --- | --- |
| **PR** | **Description** |
| 22628 | [VideoGrabber]Add Cx23417 MPEG support in Polaris Linux SW |

**Special notes:**

The entire following guides are based on Ubuntu9.04.

1. How to play NTSC mpeg2 on Grabber board with Mplayer?

mplayer pvr:// -tv driver=v4l2:device=/dev/video0

1. How to play PAL mpeg2 on Grabber board with Mplayer?

Default standard is ntsc, so need set the standard to pal first.

v4l2-ctl --set-standard=pal

mplayer pvr:// -tv driver=v4l2:device=/dev/video0

1. What is the Linux driver’s default parameter?

stream\_type: 0

stream\_vbi\_format: 0

audio\_sampling\_frequency: 1

audio\_layer\_ii\_bitrate: 10

audio\_stereo\_mode: 0

audio\_stereo\_mode\_extension: 0

audio\_emphasis: 0

audio\_crc: 0

video\_encoding: 1

video\_aspect: 1

video\_b\_frames: 2

video\_gop\_size: 12

video\_gop\_closure: 1

video\_bitrate\_mode: 0

video\_bitrate: 6000000

video\_peak\_bitrate: 8000000

video\_temporal\_decimation: 0

spatial\_filter\_mode: 0

spatial\_filter: 0

spatial\_luma\_filter\_type: 1

spatial\_chroma\_filter\_type: 1

temporal\_filter\_mode: 0

temporal\_filter: 8

median\_filter\_type: 0

median\_luma\_filter\_minimum: 0

median\_luma\_filter\_maximum: 255

median\_chroma\_filter\_minimum: 0

median\_chroma\_filter\_maximum: 255

1. How to change the MPEG2 parameter?

Using the command just like follows, v4l2-ctl will set the mpeg2 parameter to driver.

v4l2-ctl --set-ctrl=video\_bitrate=1500000

v4l2-ctl --set-ctrl=video\_peak\_bitrate=2500000

1. How to get the MPEG2 parameter?

Using the command just like follows, driver wills send back the parameter value.

v4l2-ctl --get-ctrl=video\_bitrate

1. How to select input source (Composite or Svideo)?

Composite ‘v4l2-ctl --set-input 0’

Svideo ‘v4l2-ctl --set-input 1’

2009-12-10: V2.6.3.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.3.0 | v4l-dvb-19c0469c02c3 | 2009-11-8 |

**Changes:**

|  |  |
| --- | --- |
| **PR** | **Description** |
| 22867 | [RDU253S]No services can be scanned for ClearQAM |
| 22850 | [RDU253S-L1]Resolution 720x480 is not supported for NTSC RF with MPlayer |
| 22911 | [RDU253S-L1]DVB module can't be loaded after disconnection and connection |
| 22810 | [RDU253S-L1]Audio for PAL CVBS/S-Video can be played for 2 seconds on Fedora |
| 22812 | [RDU253S-L1]Audio can't be played if excuting SOX command for the second time |
| 22940 | [RDE253S]DVB-T can only be played one time on the same carrier frequency in VLC |
| 22834 | [RDE253S-L1]Live TV cannot be played after changing channel for PAL in TVtime |
| 22838 | [RDE253S-L1]CVBS/S-Video cannot be played after playing live TV for NTSC |
| 22754 | [RDU253S] 38Mbps QAM cannot work stable in Linux |
| 22898 | Adding tuner and demod support in LicrumApp |
| 22868 | Adding registers R/W for tda18271, cx24232 and cx24228 in Licrum. |

2009-11-13: V2.6.2.0

**Version & date:**

|  |  |  |
| --- | --- | --- |
| **Polaris version** | **V4L2 community version** | **V4L2 date** |
| 2.6.2.0 | v4l-dvb-19c0469c02c3 | 2009-11-8 |

**Changes:**

|  |  |
| --- | --- |
| **PR** | **Description** |
| 22350 | Add bulk transfer mode for TI DaVinci processor. |
| 22578 | Use module option instead of v4l2-ctl for selecting ISO/BULK |
| 22537 | [RDE253S-L1]No audio can be played for analog TV/CVBS |
| 22575 | [RDE253S-L1]RF signal for NTSC can't be played in MPlayer |
| 22574 | [RDE253S-L1]RF signal for PAL can't be played |
| 22349 | [RDU253]implement ATSC function |
| 22351 | [VideoGrabber]Provide Linux SW support to baseband AV on VideoGrabber board |
|  |  |

**Special notes:**

1. How to switch BULK and ISO transfer mode?

Two ways have been implemented to change Polaris Linux USB transfer mode.

(1). Module option method:

Take Ubuntu system as example, create file \etc\modprobe.d\Cx231xx-transfer-mode.conf, then input below lines to customize your default USB transfer mode.

|  |
| --- |
| # Polaris USB transfer mode selection: 1—ISO, 0--BULK  options cx231xx transfer\_mode=1 |

(2). IO control method

'v4l2-ctl -d /dev/video0 --set-input 11' ==>ISO

'v4l2-ctl -d /dev/video0 --set-input 10' ==>BULK