USB drivers

The USB boards are identified by an identification called USB ID.

The lsusb command allows identifying the USB IDs:

```
$ lsusb
...
Bus 001 Device 015: ID 046d:082d Logitech, Inc. HD Pro Webcam C920
Bus 001 Device 074: ID 2040:b131 Hauppauge
Bus 001 Device 075: ID 2013:024f PCTV Systems nanoStick T2 290e
...
```

Newer camera devices use a standard way to expose themselves as such, via USB Video Class. Those cameras are automatically supported by the uvc-driver.

Older cameras and TV USB devices uses USB Vendor Classes: each vendor defines its own way to access the device. This section contains card lists for such vendor-class devices.

While this is not as common as on PCI, sometimes the same USB ID is used by different products. So, several media drivers allow passing a card= parameter, in order to setup a card number that would match the correct settings for an specific product type.

The current supported USB cards (not including staging drivers) are listed below[1].

[1] some of the drivers have sub-drivers, not shown at this table. In particular, gspca driver has lots of sub-drivers, for cameras not supported by the USB Video Class (UVC) driver, as shown at :doc: 'gspca card list <gspca-cardlist>'.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\media\[linux-master] [Documentation] [admin-guide] [media] usb-cardlist.rst, line 35); backlink
Unknown interpreted text role "doc".
```

Driver Name airspy AirSpy au0828 Auvitek AU0828 b2c2-flexcop-usb Technisat/B2C2 Air/Sky/Cable2PC USB cpia2 CPiA2 Video For Linux cx231xx Conexant cx231xx USB video capture dvb-as102 Abilis AS102 DVB receiver dvb-ttusb-budget Technotrend/Hauppauge Nova - USB devices dvb-usb-a800 AVerMedia AverTV DVB-T USB 2.0 (A800) dvb-usb-af9005 Afatech AF9005 DVB-T USB1.1 dvb-usb-af9015 Afatech AF9015 DVB-T USB2.0 dvb-usb-af9035 Afatech AF9035 DVB-T USB2.0 Anysee DVB-T/C USB2.0 dvb-usb-anysee dvb-usb-au6610 Alcor Micro AU6610 USB2.0 dvb-usb-az6007 AzureWave 6007 and clones DVB-T/C USB2.0 dvb-usb-az6027 Azurewave DVB-S/S2 USB2.0 AZ6027 dvb-usb-ce6230 Intel CE6230 DVB-T USB2.0 dvb-usb-cinergyT2 Terratec CinergyT2/qanu USB 2.0 DVB-T dvb-usb-cxusb Conexant USB2.0 hybrid dvb-usb-dib0700 DiBcom DiB0700 dvb-usb-dibusb-common DiBcom DiB3000M-B dvb-usb-dibusb-mc DiBcom DiB3000M-C/P dvb-usb-digitv Nebula Electronics uDigiTV DVB-T USB2.0 WideView WT-200U and WT-220U (pen) DVB-T dvb-usb-dtt200u dvb-usb-dtv5100 AME DTV-5100 USB2.0 DVB-T dvb-usb-dvbsky DVBSky USB dvb-usb-dw2102 DvbWorld & TeVii DVB-S/S2 USB2.0 dvb-usb-ec168 E3C EC168 DVB-T USB2.0 dvb-usb-gl861 Genesys Logic GL861 USB2.0 dvb-usb-gp8psk GENPIX 8PSK->USB module dvb-usb-lmedm04 LME DM04/QOBOX DVB-S USB2.0 dvb-usb-m920x Uli m920x DVB-T USB2.0 Hauppauge WinTV-NOVA-T usb2 DVB-T USB2.0 dvb-usb-nova-t-usb2

| Driver | Name |
|------------------------|---|
| dvb-usb-opera | Opera1 DVB-S USB2.0 receiver |
| dvb-usb-pctv452e | Pinnacle PCTV HDTV Pro USB device/TT Connect S2-3600 |
| dvb-usb-rtl28xxu | Realtek RTL28xxU DVB USB |
| dvb-usb-technisat-usb2 | Technisat DVB-S/S2 USB2.0 |
| dvb-usb-ttusb2 | Pinnacle 400e DVB-S USB2.0 |
| dvb-usb-umt-010 | HanfTek UMT-010 DVB-T USB2.0 |
| dvb_usb_v2 | Support for various USB DVB devices v2 |
| dvb-usb-vp702x | TwinhanDTV StarBox and clones DVB-S USB2.0 |
| dvb-usb-vp7045 | TwinhanDTV Alpha/MagicBoxII, DNTV tinyUSB2, Beetle USB2.0 |
| em28xx | Empia EM28xx USB devices |
| go7007 | WIS GO7007 MPEG encoder |
| gspca | Drivers for several USB Cameras |
| hackrf | HackRF |
| hdpvr | Hauppauge HD PVR |
| msi2500 | Mirics MSi2500 |
| mxl111sf-tuner | MxL111SF DTV USB2.0 |
| pvrusb2 | Hauppauge WinTV-PVR USB2 |
| pwc | USB Philips Cameras |
| s2250 | Sensoray 2250/2251 |
| s2255drv | USB Sensoray 2255 video capture device |
| smsusb | Siano SMS1xxx based MDTV receiver |
| stkwebcam | USB Syntek DC1125 Camera |
| tm6000-alsa | TV Master TM5600/6000/6010 audio |
| tm6000-dvb | DVB Support for tm6000 based TV cards |
| tm6000 | TV Master TM5600/6000/6010 driver |
| ttusb_dec | Technotrend/Hauppauge USB DEC devices |
| usbtv | USBTV007 video capture |
| uvcvideo | USB Video Class (UVC) |
| zd1301 | ZyDAS ZD1301 |
| zr364xx | USB ZR364XX Camera |

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\media\[linux-master] [Documentation] [admin-guide] [media]usb-cardlist.rst, line 107)

Unknown directive type "toctree".

```
.. toctree::
       :maxdepth: 1
       au0828-cardlist
       cx231xx-cardlist
       em28xx-cardlist
       tm6000-cardlist
       siano-cardlist
       gspca-cardlist
       dvb-usb-dib0700-cardlist
       dvb-usb-dibusb-mb-cardlist
       dvb-usb-dibusb-mc-cardlist
       dvb-usb-a800-cardlist
       dvb-usb-af9005-cardlist
       dvb-usb-az6027-cardlist
       dvb-usb-cinergyT2-cardlist
       dvb-usb-cxusb-cardlist
       dvb-usb-digitv-cardlist
       dvb-usb-dtt200u-cardlist
       dvb-usb-dtv5100-cardlist
       dvb-usb-dw2102-cardlist
       dvb-usb-gp8psk-cardlist
       dvb-usb-m920x-cardlist
       dvb-usb-nova-t-usb2-cardlist
       dvb-usb-operal-cardlist
       dvb-usb-pctv452e-cardlist
       dvb-usb-technisat-usb2-cardlist
       dvb-usb-ttusb2-cardlist
```

dvb-usb-umt-010-cardlist dvb-usb-vp702x-cardlist dvb-usb-vp7045-cardlist dvb-usb-af9015-cardlist dvb-usb-af9035-cardlist ${\tt dvb-usb-any see-card list}$ dvb-usb-au6610-cardlist dvb-usb-az6007-cardlist dvb-usb-ce6230-cardlist dvb-usb-dvbsky-cardlist dvb-usb-ec168-cardlist dvb-usb-gl861-cardlist dvb-usb-lmedm04-cardlist dvb-usb-mxl111sf-cardlistdvb-usb-rtl28xxu-cardlist dvb-usb-zd1301-cardlist other-usb-cardlist