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
dvb-usb-anysee	Anysee DVB-T/C USB2.0
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
dvb-usb-dtt200u	WideView WT-200U and WT-220U (pen) DVB-T
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/QQBOX DVB-S USB2.0
dvb-usb-m920x	Uli m920x DVB-T USB2.0
dvb-usb-nova-t-usb2	Hauppauge WinTV-NOVA-T usb2 DVB-T USB2.0

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-opera1-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
dvb-usb-anysee-cardlist
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-cardlist
dvb-usb-rtl28xxu-cardlist
dvb-usb-zd1301-cardlist

other-usb-cardlist
```