IÂ²C drivers

The IÂ²C (Inter-Integrated Circuit) bus is a three-wires bus used internally at the media cards for communication between different chips. While the bus is not visible to the Linux Kernel, drivers need to send and receive commands via the bus. The Linux Kernel driver abstraction has support to implement different drivers for each component inside an IÂ²C bus, as if the bus were visible to the main system board.

One of the problems with IÂ²C devices is that sometimes the same device may work with different IÂ²C hardware. This is common, for example, on devices that comes with a tuner for North America market, and another one for Europe. Some drivers have a `tuner=` modprobe parameter to allow using a different tuner number in order to address such issue.

The current supported of IÂ²C drivers (not including staging drivers) are listed below.

Audio decoders, processors and mixers

Driver	Name
cs3308	Cirrus Logic CS3308 audio ADC
cs5345	Cirrus Logic CS5345 audio ADC
cs53l32a	Cirrus Logic CS53L32A audio ADC
msp3400	Micronas MSP34xx audio decoders
sony-btf-mpx	Sony BTF's internal MPX
tda1997x	NXP TDA1997x HDMI receiver
tda7432	Philips TDA7432 audio processor
tda9840	Philips TDA9840 audio processor
tea6415c	Philips TEA6415C audio processor
tea6420	Philips TEA6420 audio processor
tlv320aic23b	Texas Instruments TLV320AIC23B audio codec
tvaudio	Simple audio decoder chips
uda1342	Philips UDA1342 audio codec
vp27smpx	Panasonic VP27's internal MPX
wm8739	Wolfson Microelectronics WM8739 stereo audio ADC
wm8775	Wolfson Microelectronics WM8775 audio ADC with input mixer

Audio/Video compression chips

Driver	Name
saa6752hs	Philips SAA6752HS MPEG-2 Audio/Video Encoder

Camera sensor devices

Driver	Name
ccs	MIPI CCS compliant camera sensors (also SMIA++ and SMIA)
et8ek8	ET8EK8 camera sensor
hi556	Hynix Hi-556 sensor
hi846	Hynix Hi-846 sensor
imx208	Sony IMX208 sensor
imx214	Sony IMX214 sensor
imx219	Sony IMX219 sensor
imx258	Sony IMX258 sensor
imx274	Sony IMX274 sensor
imx290	Sony IMX290 sensor
imx319	Sony IMX319 sensor

Driver	Name
imx334	Sony IMX334 sensor
imx355	Sony IMX355 sensor
imx412	Sony IMX412 sensor
m5mols	Fujitsu M-5MOLS 8MP sensor
mt9m001	mt9m001
mt9m032	MT9M032 camera sensor
mt9m111	mt9m111, mt9m112 and mt9m131
mt9p031	Aptina MT9P031
mt9t001	Aptina MT9T001
mt9t112	Aptina MT9T111/MT9T112
mt9v011	Micron mt9v011 sensor
mt9v032	Micron MT9V032 sensor
mt9v111	Aptina MT9V111 sensor
noon010pc30	Siliconfile NOON010PC30 sensor
ov13858	OmniVision OV13858 sensor
ov13b10	OmniVision OV13B10 sensor
ov2640	OmniVision OV2640 sensor
ov2659	OmniVision OV2659 sensor
ov2680	OmniVision OV2680 sensor
ov2685	OmniVision OV2685 sensor
ov5640	OmniVision OV5640 sensor
ov5645	OmniVision OV5645 sensor
ov5647	OmniVision OV5647 sensor
ov5670	OmniVision OV5670 sensor
ov5675	OmniVision OV5675 sensor
ov5695	OmniVision OV5695 sensor
ov6650	OmniVision OV6650 sensor
ov7251	OmniVision OV7251 sensor
ov7640	OmniVision OV7640 sensor
ov7670	OmniVision OV7670 sensor
ov772x	OmniVision OV772x sensor
ov7740	OmniVision OV7740 sensor
ov8856	OmniVision OV8856 sensor
ov9640	OmniVision OV9640 sensor
ov9650	OmniVision OV9650/OV9652 sensor
rj54n1cb0c	Sharp RJ54N1CB0C sensor
s5c73m3	Samsung S5C73M3 sensor
s5k4ecgx	Samsung S5K4ECGX sensor
s5k5baf	Samsung S5K5BAF sensor
s5k6a3	Samsung S5K6A3 sensor
s5k6aa	Samsung S5K6AAFX sensor
sr030pc30	Siliconfile SR030PC30 sensor
vs6624	ST VS6624 sensor

Flash devices

Driver	Name
adp1653	ADP1653 flash
lm3560	LM3560 dual flash driver
lm3646	LM3646 dual flash driver

IR I2C driver

Driver	Name
ir-kbd-i2c	I2C module for IR

Lens drivers

Driver	Name
ad5820	AD5820 lens voice coil

Driver	Name
ak7375	AK7375 lens voice coil
dw9714	DW9714 lens voice coil
dw9768	DW9768 lens voice coil
dw9807-vcm	DW9807 lens voice coil

Miscellaneous helper chips

Driver	Name
video-i2c	I2C transport video
m52790	Mitsubishi M52790 A/V switch
st-mipid02	STMicroelectronics MIPID02 CSI-2 to PARALLEL bridge
ths7303	THS7303/53 Video Amplifier

RDS decoders

Driver	Name
saa6588	SAA6588 Radio Chip RDS decoder

SDR tuner chips

Driver	Name
max2175	Maxim 2175 RF to Bits tuner

Video and audio decoders

Driver	Name
cx25840	Conexant CX2584x audio/video decoders
saa717x	Philips SAA7171/3/4 audio/video decoders

Video decoders

Driver	Name
adv7180	Analog Devices ADV7180 decoder
adv7183	Analog Devices ADV7183 decoder
adv748x	Analog Devices ADV748x decoder
adv7604	Analog Devices ADV7604 decoder
adv7842	Analog Devices ADV7842 decoder
bt819	BT819A VideoStream decoder
bt856	BT856 VideoStream decoder
bt866	BT866 VideoStream decoder
ks0127	KS0127 video decoder
ml86v7667	OKI ML86V7667 video decoder
saa7110	Philips SAA7110 video decoder
saa7115	Philips SAA7111/3/4/5 video decoders
tc358743	Toshiba TC358743 decoder
tvp514x	Texas Instruments TVP514x video decoder
tvp5150	Texas Instruments TVP5150 video decoder
tvp7002	Texas Instruments TVP7002 video decoder
tw2804	Techwell TW2804 multiple video decoder
tw9903	Techwell TW9903 video decoder
tw9906	Techwell TW9906 video decoder
tw9910	Techwell TW9910 video decoder
vpx3220	vpx3220a, vpx3216b & vpx3214c video decoders

Video encoders

Driver	Name
ad9389b	Analog Devices AD9389B encoder
adv7170	Analog Devices ADV7170 video encoder

Driver	Name
adv7175	Analog Devices ADV7175 video encoder
adv7343	ADV7343 video encoder
adv7393	ADV7393 video encoder
adv7511-v4l2	Analog Devices ADV7511 encoder
ak881x	AK8813/AK8814 video encoders
saa7127	Philips SAA7127/9 digital video encoders
saa7185	Philips SAA7185 video encoder
ths8200	Texas Instruments THS8200 video encoder

Video improvement chips

Driver	Name
upd64031a	NEC Electronics uPD64031A Ghost Reduction
upd64083	NEC Electronics uPD64083 3-Dimensional Y/C separation

Tuner drivers

Driver	Name
e4000	Elonics E4000 silicon tuner
fc0011	Fitipower FC0011 silicon tuner
fc0012	Fitipower FC0012 silicon tuner
fc0013	Fitipower FC0013 silicon tuner
fc2580	FCI FC2580 silicon tuner
it913x	ITE Tech IT913x silicon tuner
m88rs6000t	Montage M88RS6000 internal tuner
max2165	Maxim MAX2165 silicon tuner
mc44s803	Freescale MC44S803 Low Power CMOS Broadband tuners
msi001	Mirics MSi001
mt2060	Microtune MT2060 silicon IF tuner
mt2063	Microtune MT2063 silicon IF tuner
mt20xx	Microtune 2032 / 2050 tuners
mt2131	Microtune MT2131 silicon tuner
mt2266	Microtune MT2266 silicon tuner
mxl301rf	MaxLinear MxL301RF tuner
mxl5005s	MaxLinear MSL5005S silicon tuner
mxl5007t	MaxLinear MxL5007T silicon tuner
qm1d1b0004	Sharp QM1D1B0004 tuner
qm1d1c0042	Sharp QM1D1C0042 tuner
qt1010	Quantek QT1010 silicon tuner
r820t	Rafael Micro R820T silicon tuner
si2157	Silicon Labs Si2157 silicon tuner
tuner-types	Simple tuner support
tda18212	NXP TDA18212 silicon tuner
tda18218	NXP TDA18218 silicon tuner
tda18250	NXP TDA18250 silicon tuner
tda18271	NXP TDA18271 silicon tuner
tda827x	Philips TDA827X silicon tuner
tda8290	TDA 8290/8295 + 8275(a)/18271 tuner combo
tda9887	TDA 9885/6/7 analog IF demodulator
tea5761	TEA 5761 radio tuner
tea5767	TEA 5767 radio tuner
tua9001	Infineon TUA9001 silicon tuner
xc2028	XCeive xc2028/xc3028 tuners
xc4000	Xceive XC4000 silicon tuner
xc5000	Xceive XC5000 silicon tuner

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\media\[linux-master][Documentation][admin-guide][media]i2c-cardlist.rst, line 292`)

Unknown directive type "toctree".

```
.. toctree::
        :maxdepth: 1

        tuner-cardlist
        frontend-cardlist
```