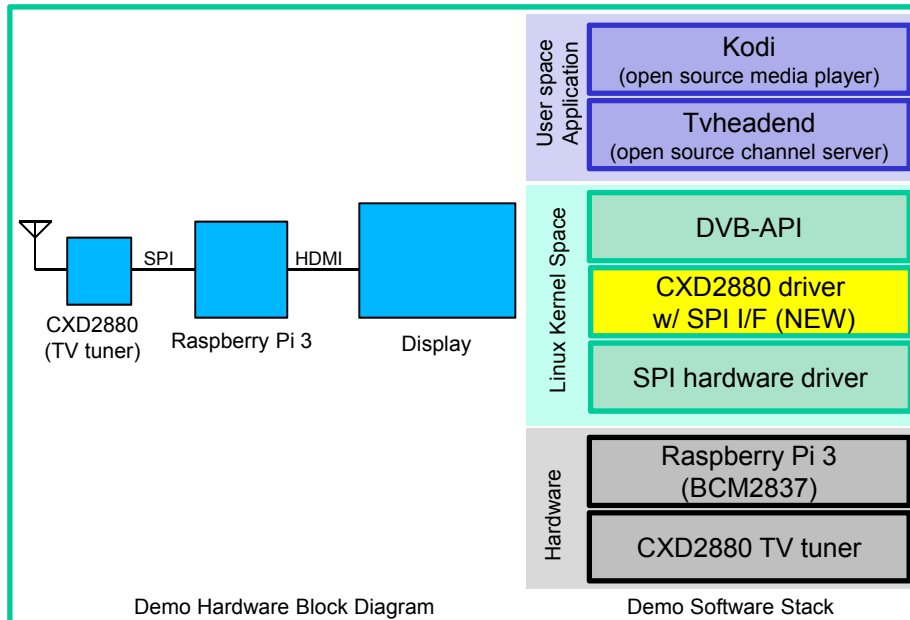# TV tuner CXD2880 SPI I/F support in DVB-API

Paul Johns / Sony Europe Limited
Masayuki Yamamoto / Sony Semiconductor Solutions Corporation

What is demonstrated

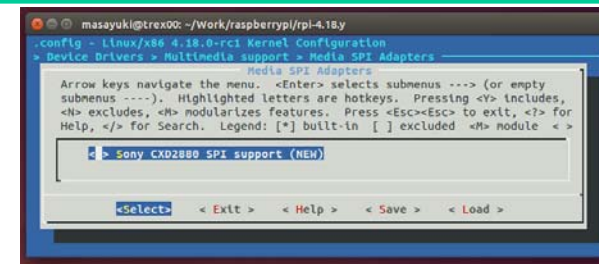Demo Hardware Block Diagram   Demo Software Stack

The CXD2880 receives DVB-T2/T signals and transfers an MPEG-2 transport stream via a SPI bus to the Raspberry Pi for picture decoding. An embedded MPEG-2 TS Packet ID (PID) filter reduces the data rate, which makes streaming over SPI possible. The CXD2880 driver is running in the Linux kernel space and has the common DVB API.
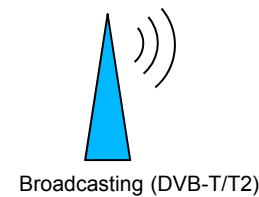
Hardware Information

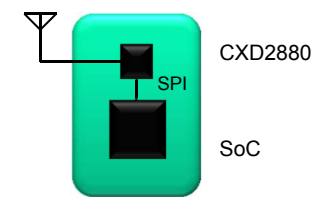TV tuner: Sony CXD2880
SoC: Broadcom BCM2837 on Raspberry Pi 3

What was improved

SPI I/F supported TV tuner is now available in Linux Kernel

Broadcasting (DVB-T/T2)

CXD2880
SPI
SoC
TV receiver

A low cost TV receiver can be designed with CXD2880 and embedded Linux SoC.

Single board computers have become popular. A low power TV tuner CXD2880 features SPI interface allowing direct attachment to a single board computer such as Raspberry Pi to make your own TV receiver with open source software. It may also be extended to new broadcasting services.

Source code or detail technical information availability

linux/drivers/media/dvb-frontends/cxd2880/
linux/drivers/media/spi/cxd2880-spi.c
In Linux Kernel 4.17 or later versions