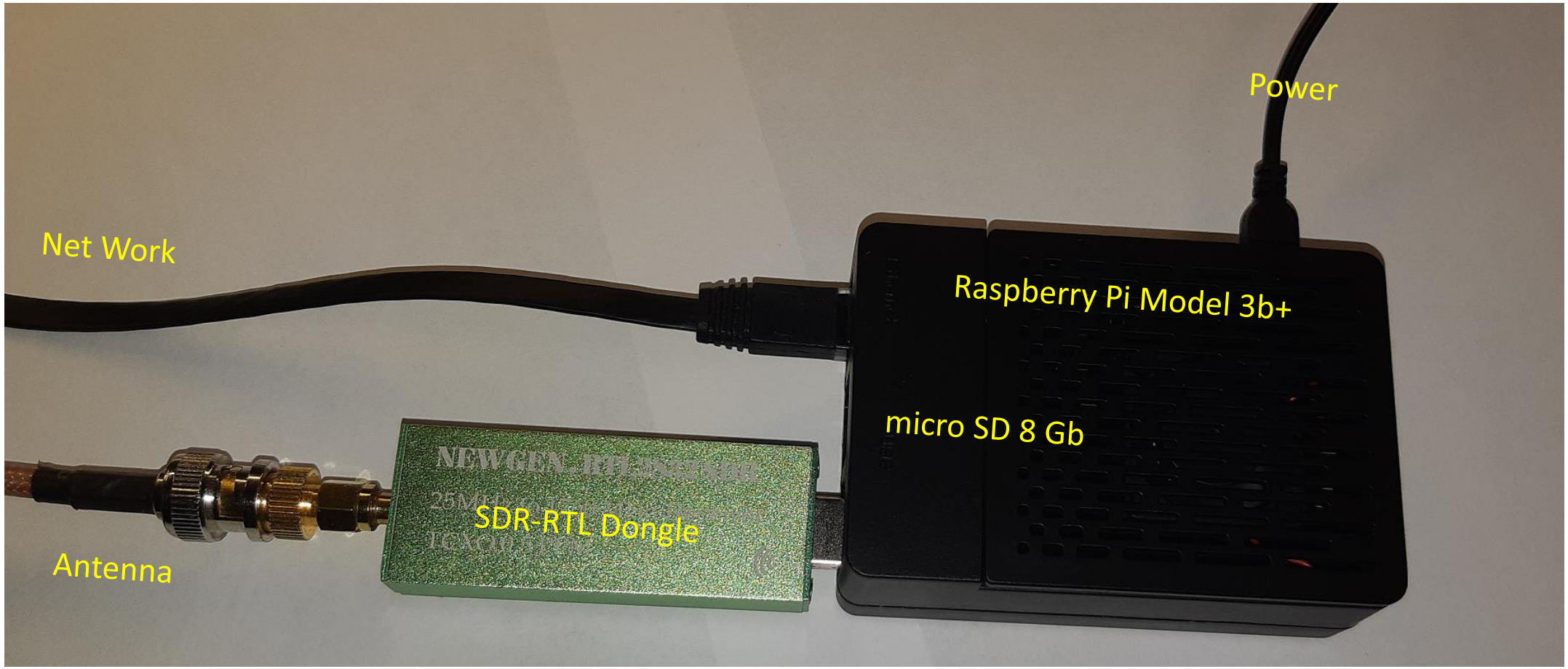
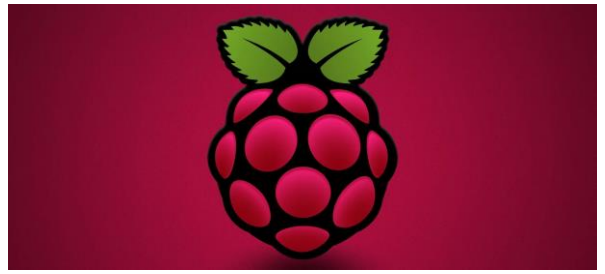
Raspberry pi Remote Receiver

Met SDR-RTL USB Ontvanger

Ontvangst Station



Installatie Raspberry Pi



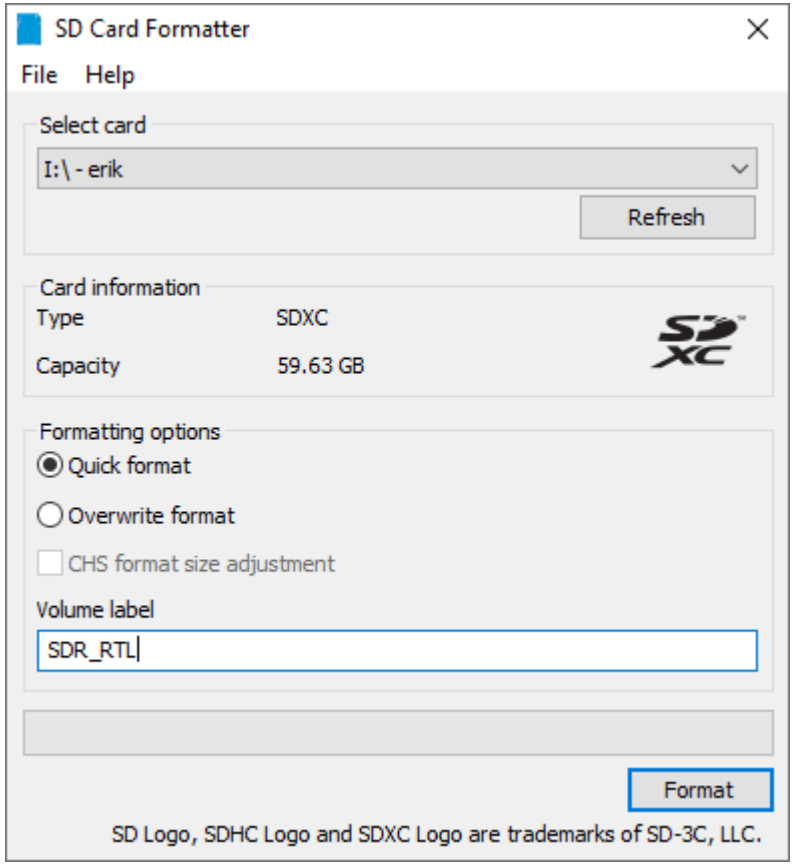
- Download de meest recente Raspbian versie.

- Download SD Memory Card Formatter.

- Download de meest recente versie van Etcher.

Installatie Raspberry Pi

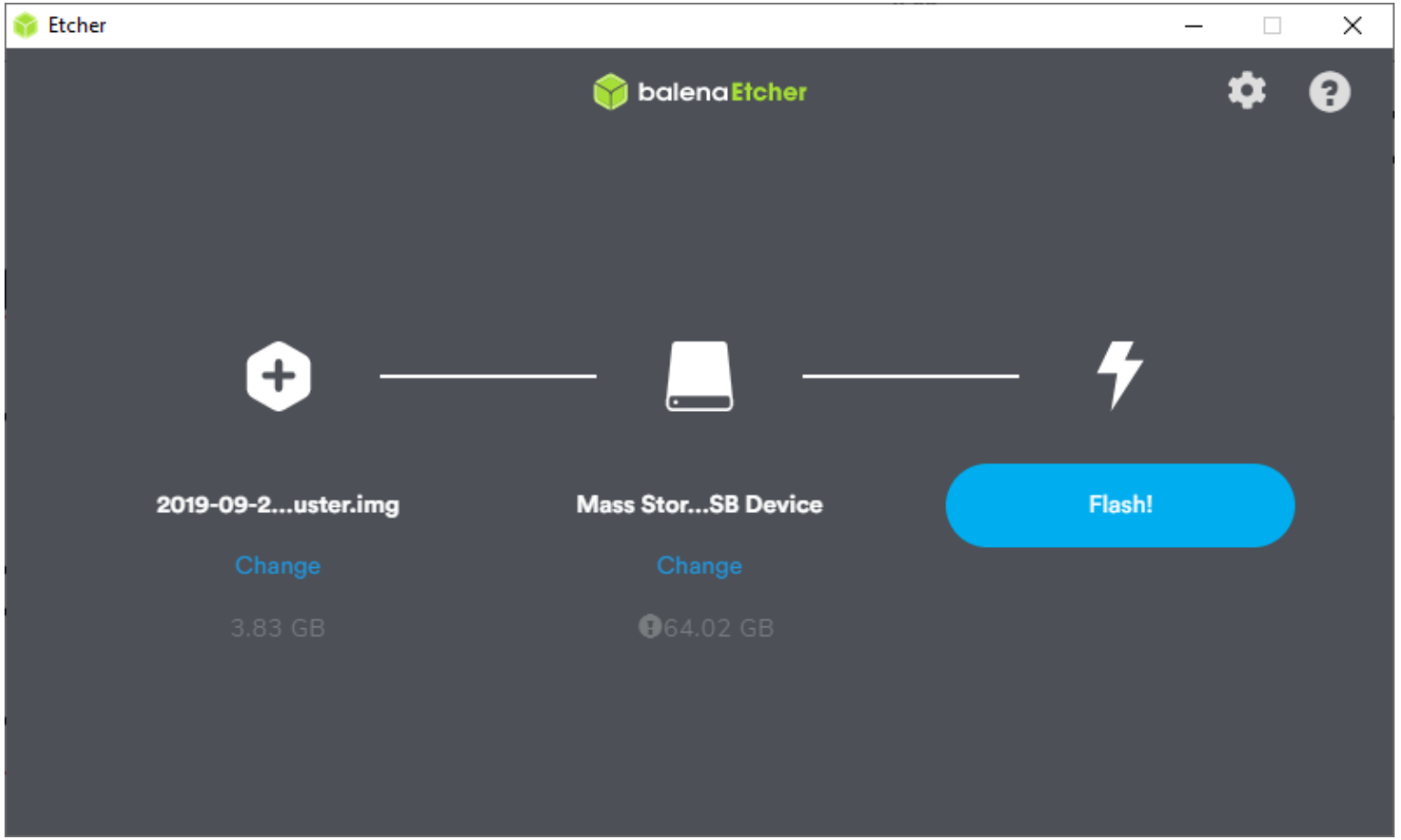
- Format memory card met SD Memory Card Formatter.



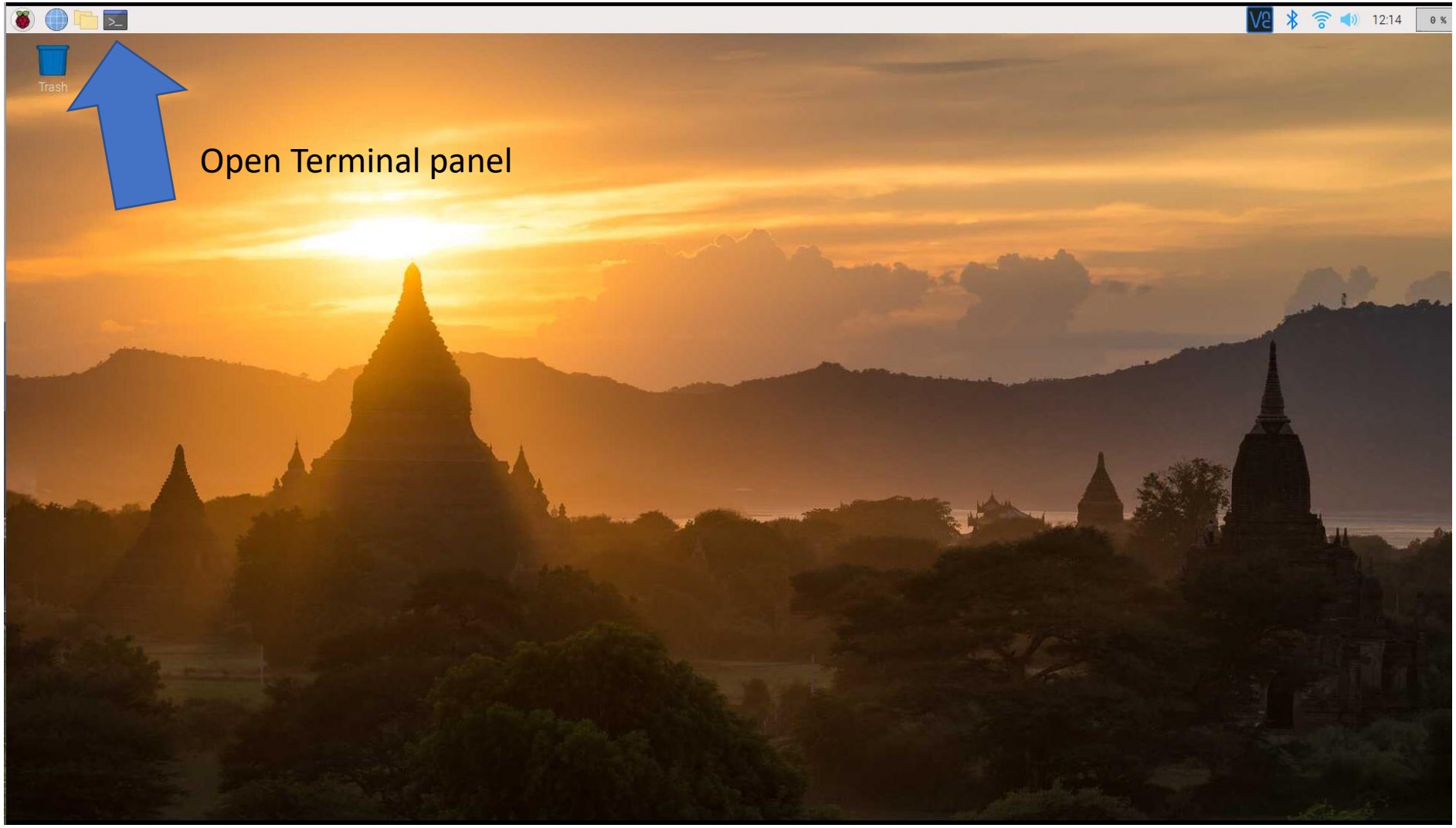
Installatie Raspberry Pi

- Format memory card met SD Memory Card Formatter.
- Start de Etcher tool.
- 1. Selecteer het .IMG bestand of het gecomprimeerde ZIP bestand.
- 2. Selecteer de drive (micro SD kaart).
- 3. Klik op burn.
- 4. Wanneer het process voltooid is, wordt de SD kaart automatisch unmount.

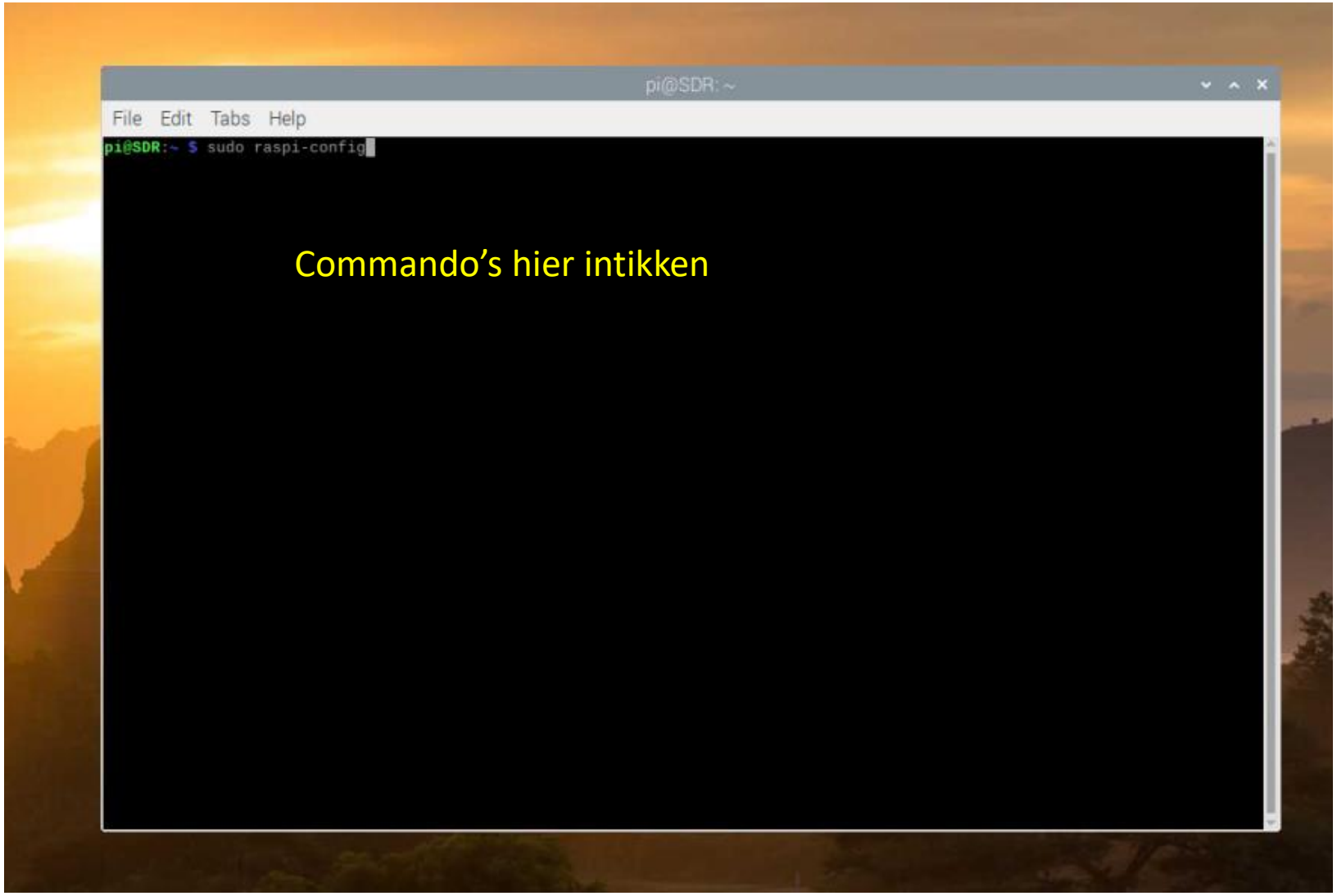
Installatie Raspberry Pi



Installatie Raspberry Pi

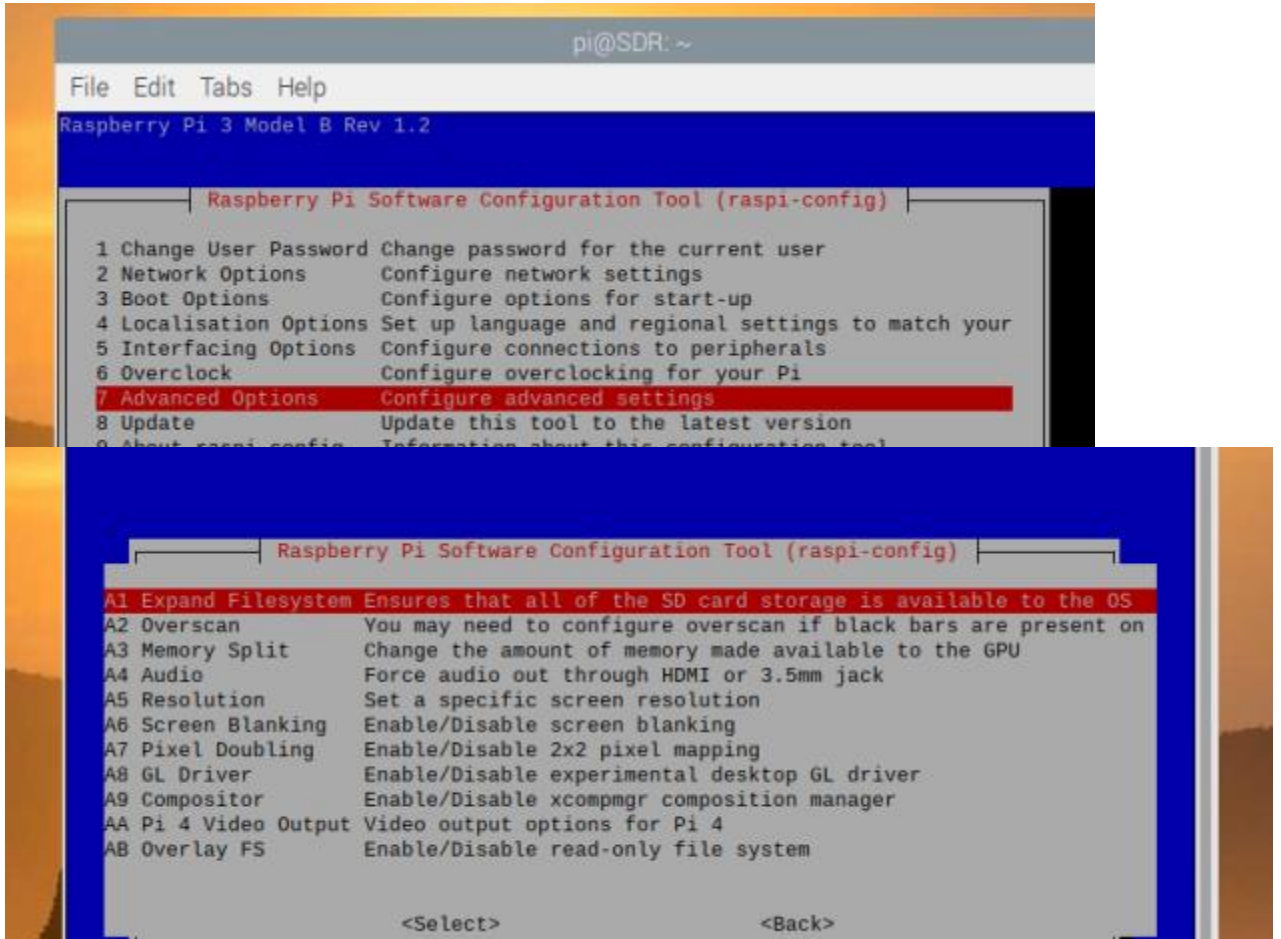


Installatie Raspberry Pi



Installatie Raspberry Pi

sudo raspi-config
# Choose option 1 to "Expand Filesystem" - Ensures that all of the SD card storage is available to the OS
# Choose Finish & reboot



Blacklist aanmaken:

- cat <<EOF >no-rtl.conf
- blacklist dvb_usb_rtl28xxu
- blacklist rtl2832
- blacklist rtl2830
- EOF
- sudo mv no-rtl.conf /etc/modprobe.d/

- sudo apt-get update
- sudo apt-get upgrade

Installatie Raspberry Pi

Raspberry voorbereiden voor installatie

- sudo apt-get install git-core
- sudo apt-get install git
- sudo apt-get install cmake
- sudo apt-get install libusb-1.0-0-dev
- sudo apt-get install build-essential

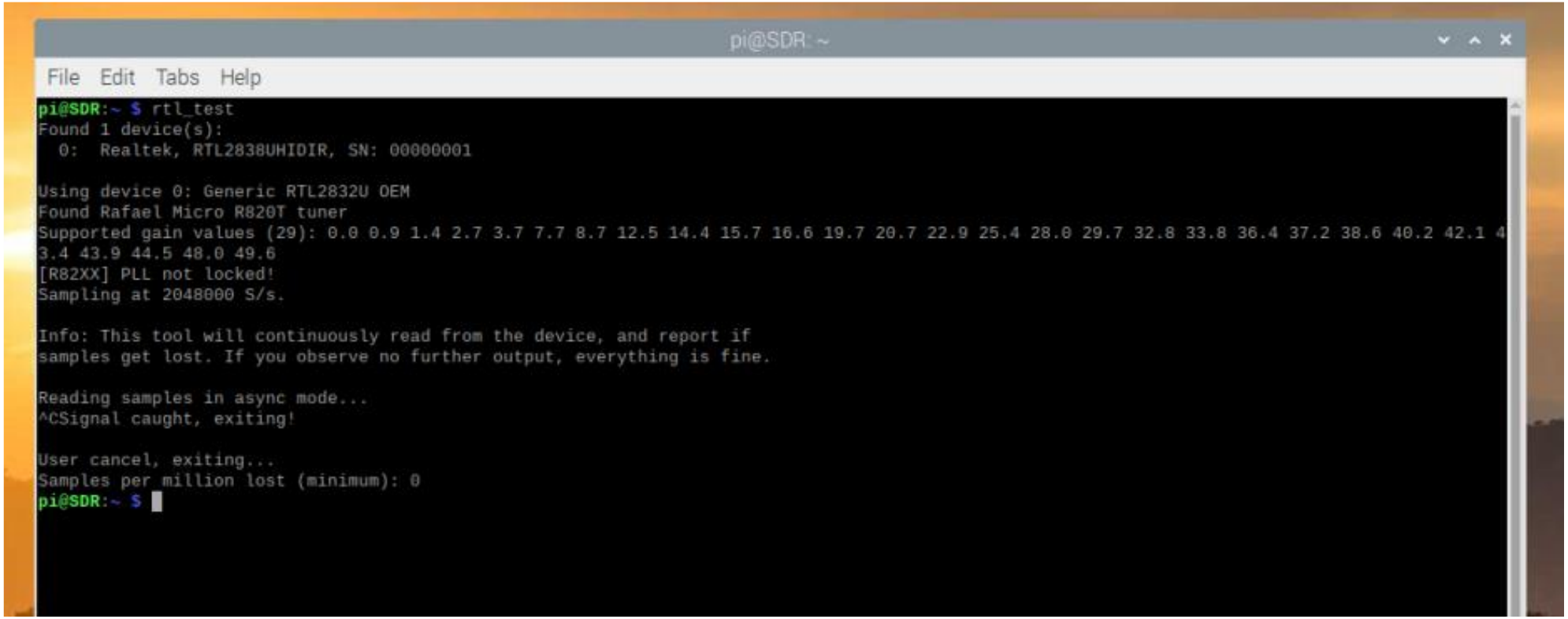
Installatie Raspberry Pi

SDR software installeren:

```
git clone git://git.osmocom.org/rtl-sdr.git
cd rtl-sdr/
mkdir build
cd build
cmake ../ -DINSTALL_UDEV_RULES=ON
make
sudo make install
sudo ldconfig
cd ~
sudo cp ./rtl-sdr/rtl-sdr.rules /etc/udev/rules.d/
sudo reboot
```

Installatie Raspberry Pi

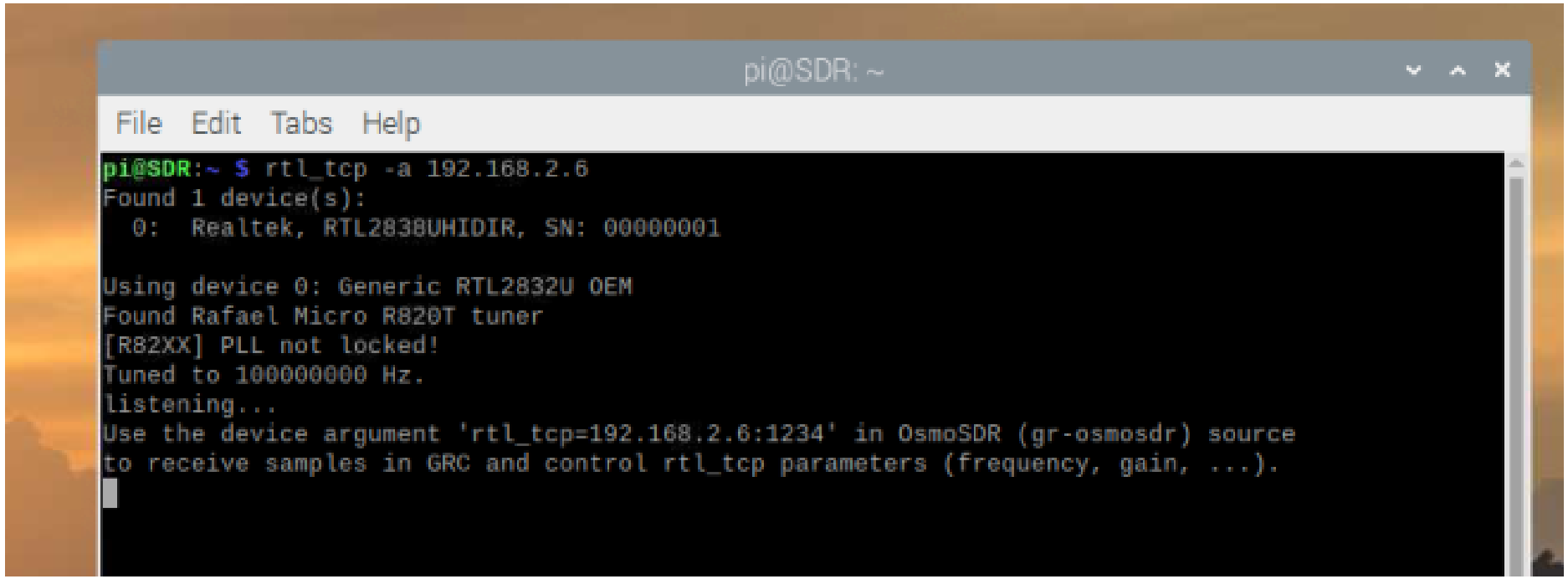
Afluiten, SDR aansluiten en opnieuw booten.
SDR software Testen:



Met Ctrl C onderbreken.

Installatie Raspberry Pi

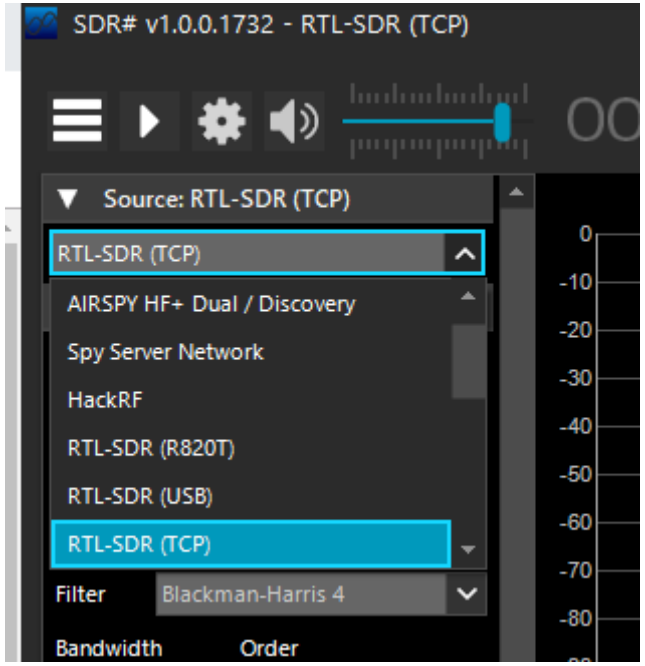
Server opstarten met:
rtl_tcp –a 192.168.2.6
Eigen ip adres gebruiken

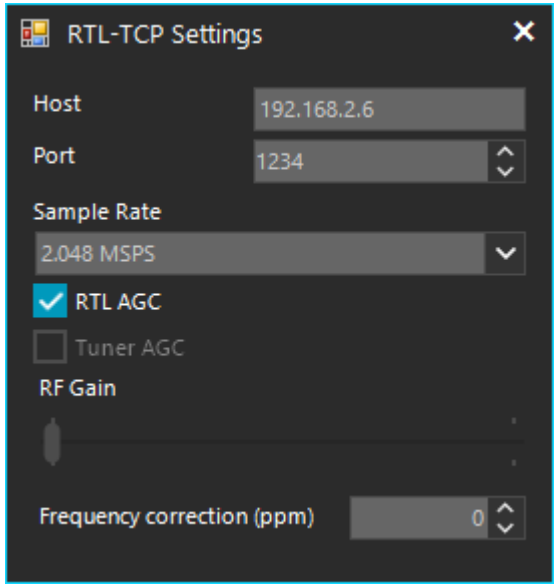


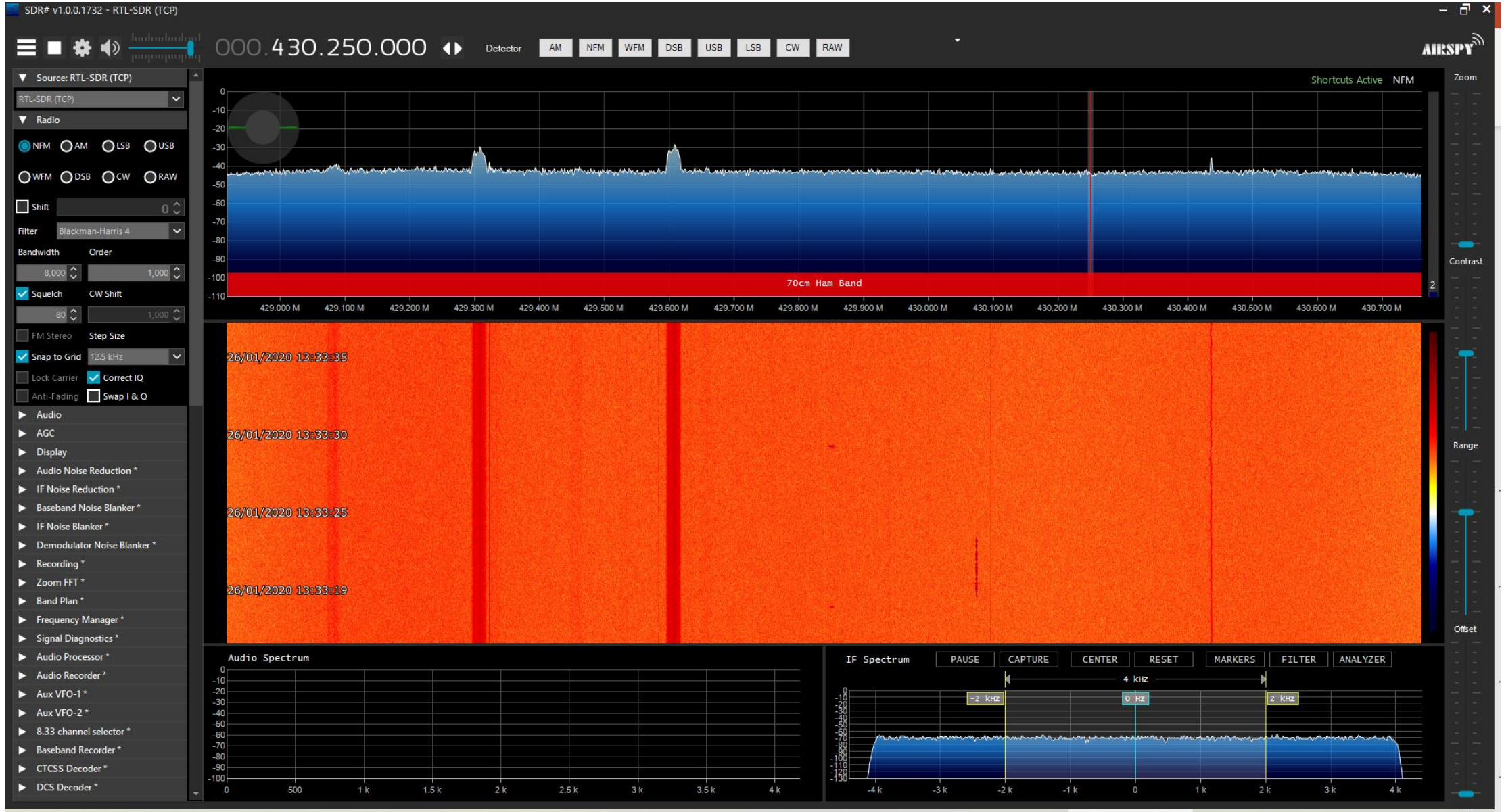
Installatie Raspberry Pi

Download op PC: SDR# van Airspy
https://airspy.com/download/
Community Package with Plugins

Instellen als:
RTL-SDR(TCP)

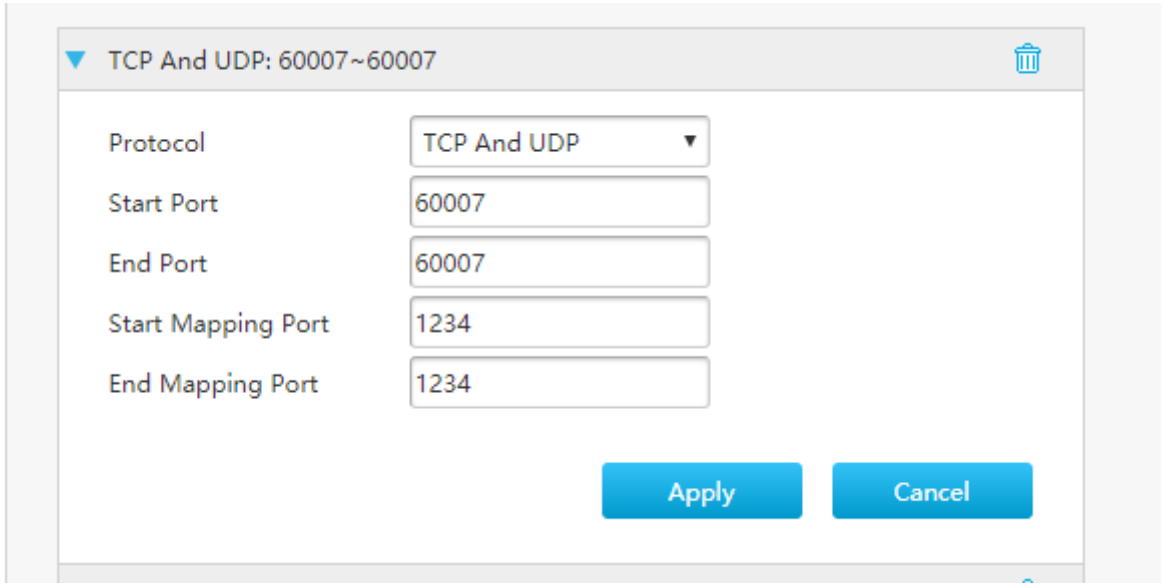


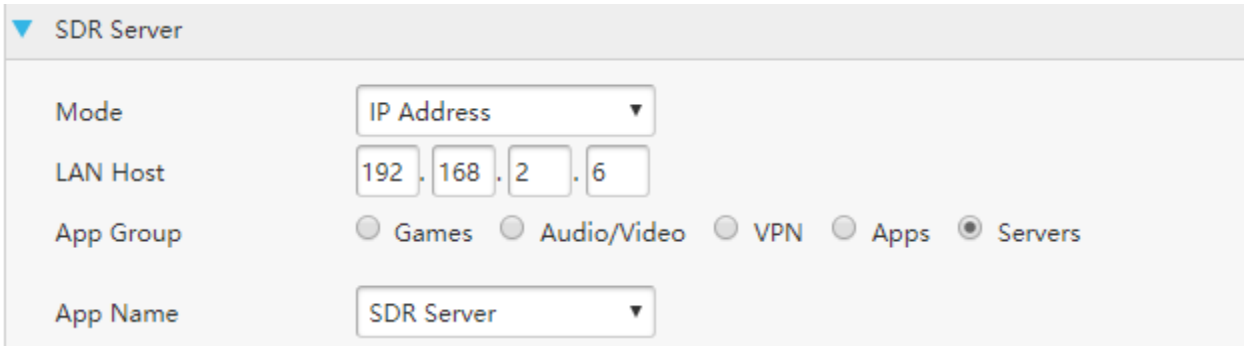



SDR# v1.0.0.1732 - RTL-SDR (TCP)
000.430.250.000
Detector
AM
NFM
WFM
DSB
USB
LSB
CW
RAW
AIRSPY
Source: RTL-SDR (TCP)
RTL-SDR (TCP)
Radio
NFM
AM
LSB
USB
WFM
DSB
CW
RAW
Shift
Filter
Blackman-Harris 4
Bandwidth
Order
8,000
1,000
Squelch
CW Shift
80
1,000
FM Stereo
Step Size
Snap to Grid
12.5 kHz
Lock Carrier
Correct IQ
Anti-Fading
Swap I & Q
Audio
AGC
Display
Audio Noise Reduction *
IF Noise Reduction *
Baseband Noise Blanker *
IF Noise Blanker *
Demodulator Noise Blanker *
Recording *
Zoom FFT *
Band Plan *
Frequency Manager *
Signal Diagnostics *
Audio Processor *
Audio Recorder *
Aux VFO-1 *
Aux VFO-2 *
8.33 channel selector *
Baseband Recorder *
CTCSS Decoder *
DCS Decoder *
Shortcuts Active
NFM
70cm Ham Band
429.000 M
429.100 M
429.200 M
429.300 M
429.400 M
429.500 M
429.600 M
429.700 M
429.800 M
429.900 M
430.000 M
430.100 M
430.200 M
430.300 M
430.400 M
430.500 M
430.600 M
430.700 M
26/01/2020 13:33:35
26/01/2020 13:33:30
26/01/2020 13:33:25
26/01/2020 13:33:19
Audio Spectrum
IF Spectrum
PAUSE
CAPTURE
CENTER
RESET
MARKERS
FILTER
ANALYZER
4 kHz
-2 kHz
0 Hz
2 kHz
Zoom
Contrast
Range
Offset

Installatie Raspberry Pi

Voor internet port forwarding gebruiken via je router.





Installatie Raspberry Pi

Vragen?