

## How to start OLED (SSD1306) on Khadas VIM4 while using the I2C port

*This example is based on useage with Ubuntu 22.04 on VIM4.*

*- To be used with the xvim1306display program we have made.*

Ubuntu 22.04 need more activation of drivers, then Ubuntu 20.04 witch is alredy clear for use.

In our project (XVIM) we are using the I2C port on pin 24 to 27. This has now on Khadas on VIM4 being named I2C\_A – but in number value its still port nr. 0.

In the filsystem on Ubuntu there is a text file called **kvim4.dtb.overlay.env**. You have to ad a line to this file saying:

**fdt\_overlays=i2cm\_a**

- Simplest way to edit is using the nano editor typing this from terminal:

**sudo nano /boot/dtb/amlogic/kvim4.dtb.overlay.env**

- After this you have to save the file (ctrl x, then y, then enter) and then restart.

To start the display, you can run the program **xvim1306display -p0**. The OLED should then start. On VIM3 it is port 4 (p4, **xvim1306display -p4**).

### To start it up automatically.

It is easy on Ubuntu to start a program or a servicefile automatic when you log in.

What you need to do is to get gnome startup applications, from terminal you type:

**sudo apt install gnome-startup-applications**

After installation and startup of **gnome-startup-applications** , it will be easy to see how to get programs and servicefiles to start automatic every time you start up ubuntu. Remember the parameters like -p0 or -p4 for vim3 after the program name!!

### Other important information

Remember, you can't direct use pin 1 to 1 on an 4-pins dupont cabel between OLED and Khadas's I2C port (GPIO). Here the Cabel has to be «twisted» as follows:

OLED GND pin are going to the VIM's GPIO pin 24.

OLED VCC pin are going to the VIM's GPIO pin 27.

OLED SCL pin are going to the VIM's GPIO pin 25.

OLED SDK pin are going to the VIM's GPIO pin 26.

The xvim1306display program you can pickup on our Khadas pages on [www.minibase.no](http://www.minibase.no)

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