SiliconMotion

SMI Linux USB Display Driver for Ubuntu
User Manual

Revision History

Revision	Release Date	Description
V1.0.0	05/8/2024	First version.

IMPORTANT NOTICE

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1.   Overview

Linux USB Display Driver is a USB graphics driver developed by SMI. It provides complete function for the USB graphics card SM768 under the Ubuntu system. SMI Linux USB Display Driver software can drive HDMI and VGA display output. It can support full-screen display and video playback, in addition to supporting different screen resolutions and refresh rates.

SMI Linux USB Display Driver provides USB device plug and play ease of use, in addition to providing a single screen up to 4K high-definition multimedia playback display function, and support HDMI audio output.

2.   Requirements

2.1   Hardware and OS Support

Minimum Hardware Requirements:
➢   A SMI USB Display Adapter
➢   USB 3.0 host port
➢   Ubuntu system x86 architecture host

OS Support:
➢   Ubuntu 20.04 or later

3.   How to Use Linux USB Display Driver

This chapter introduces the functions of SMI Linux USB Display Driver and recommended steps to use the App.

There is a method to get the SMI Linux USB Display Driver.

- Download the App from: https://www.siliconmotion.com/downloads/index.html:

3.1   Install SMI Linux USB Display Driver

The SMI USB Display software for Ubuntu features is a simple installer, that aims to perform the installation process in a single step if possible.

The installer should be started with administrative privileges:

    sudo ./ SMIUSBDisplay-driver.*.**.*.*.run

The installer is going to check for dependencies automatically, and execute apt package manager when needed.

The messages may vary depending on the packages already installed in the system. Press ENTER to proceed.The packages required by the driver are dkms and libdrm-dev.The first one is needed to enable loading of EVDI module. libevdi is built during installation,the latter is necessary for the build process.

WARNING:

Should the permission to install the packages not be granted, the installation process stops.

During the installation process, if the package cannot be automatically installed, you need to install it manually:

    sudo apt update

    sudo apt install dkms

    sudo apt install libdrm-dev

The installation is complete as shown in the following figure:

Figure 2.1 SMI Linux USB Display Driver is installed

3.2   Use of SMI Linux USB Display Driver

SMI Linux USB Display Driver is a software that does not need to be opened, only needs to run continuously in the background, and can easily achieve multi-screen extended display function. Whether it is an office environment or an entertainment occasion, just correctly connect the USB graphics card device to the host, without complicated settings, you can immediately enjoy the rich experience brought by multiple screens. The user can operate the monitor in "Settings -> Monitor".
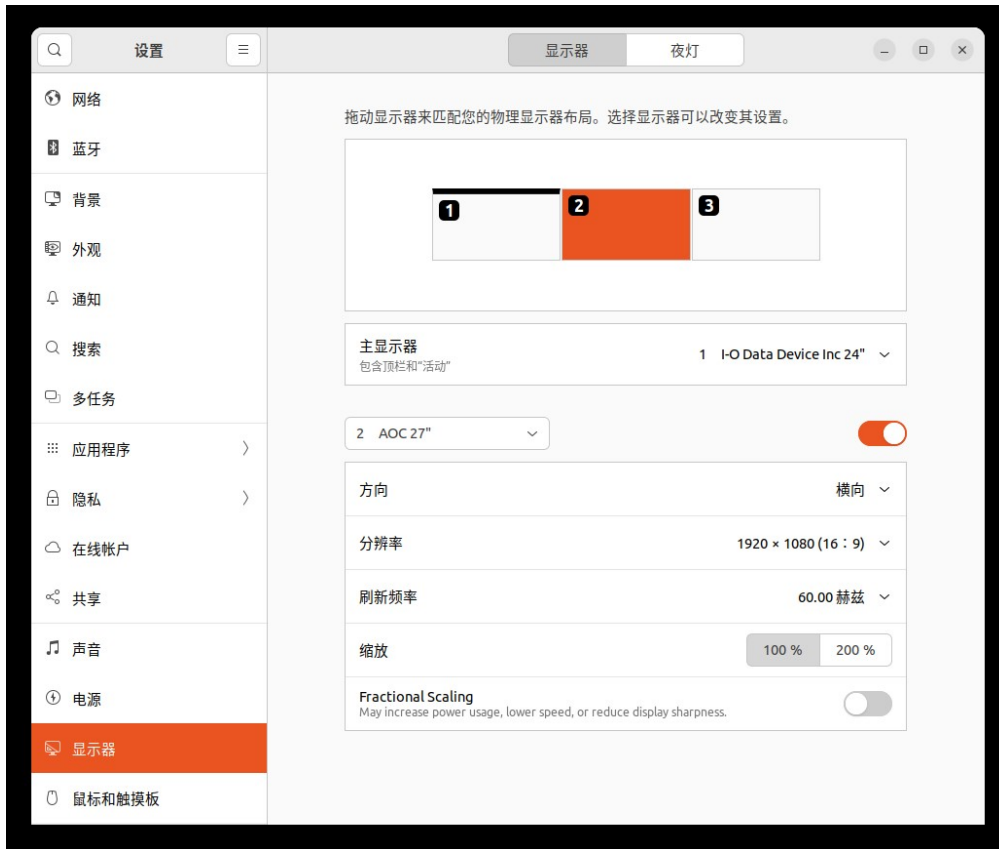
Figure 3.1 Monitor Mode Setting

3.2.1 Display mode

The software provides a powerful Extend mode feature that enables each connected monitor on USB graphics devices to display independent content, effectively expanding the desktop space. In Extend mode, users can multitask at the same time or easily switch between different applications. This flexibility greatly improves work efficiency, and users can assign different applications, files or tasks to different displays as needed, making operations more orderly and smooth.

Figure 3.2 Extend Display Mode

In addition, the software also supports the rotation function, the user can simply set the "Settings -> Display" if the display setting support rotation. This feature is very useful for portrait display or special scenes, to bring users more choices and personalized experience.

3.2.2   Multi-channel display

Support for dual device display, this software will bring users a more flexible work environment, effectively improve work efficiency. At the same time, if the device is connected to a single 4K display, the software can provide 4K high-definition image support, allowing users to immerse in a high-quality visual experience. This superior image performance will greatly increase user satisfaction, making both work and play a better experience.

4.   Uninstall SMI Linux USB Display Driver

Use./run package name + uninstall with root permission. For example:

sudo ./SMIUSBDisplay-driver.*.**.*.*.run uninstall. The uninstallation is complete, as shown in Figure 4.1.

Figure 4.1 SMI Linux USB Display Driver Uninstallation is completed