
AdafruitSSD1608 Library Documentation

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Contents

1	Dependencies	3
2	Installing from PyPI	5
3	Usage Example	7
4	Contributing	9
5	Documentation	11
6	Table of Contents	13
6.1	Simple test	13
6.2	adafruit_ssd1608	14
6.2.1	Implementation Notes	14
7	Indices and tables	15
	Python Module Index	17
	Index	19

CircuitPython `displayio` driver for SSD1608-based ePaper displays

CHAPTER 1

Dependencies

This driver depends on:

- [Adafruit CircuitPython](#)

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the [Adafruit library and driver bundle](#).

CHAPTER 2

Installing from PyPI

Note: This library is not available on PyPI yet. Install documentation is included as a standard element. Stay tuned for PyPI availability!

On supported GNU/Linux systems like the Raspberry Pi, you can install the driver locally [from PyPI](#). To install for current user:

```
pip3 install adafruit-circuitpython-ssd1608
```

To install system-wide (this may be required in some cases):

```
sudo pip3 install adafruit-circuitpython-ssd1608
```

To install in a virtual environment in your current project:

```
mkdir project-name && cd project-name
python3 -m venv .env
source .env/bin/activate
pip3 install adafruit-circuitpython-ssd1608
```


CHAPTER 3

Usage Example

```
"""Simple test script for 1.54" 200x200 monochrome display.

Supported products:
 * Adafruit 1.54" Monochrome ePaper Display Breakout
 * https://www.adafruit.com/product/4196
"""

import time
import board
import displayio
import adafruit_ssd1608

displayio.release_displays()

# This pinout works on a Feather M4 and may need to be altered for other boards.
spi = board.SPI() # Uses SCK and MOSI
epd_cs = board.D9
epd_dc = board.D10
epd_reset = board.D5
epd_busy = board.D6

display_bus = displayio.FourWire(spi, command=epd_dc, chip_select=epd_cs, reset=epd_
↳reset,
                                baudrate=1000000)

time.sleep(1)

display = adafruit_ssd1608.SSD1608(display_bus, width=200, height=200, busy_pin=epd_
↳busy)

g = displayio.Group()

f = open("/display-ruler.bmp", "rb")

pic = displayio.OnDiskBitmap(f)
```

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```
t = displayio.TileGrid(pic, pixel_shader=displayio.ColorConverter())
g.append(t)

display.show(g)

display.refresh()

print("refreshed")

time.sleep(120)
```

CHAPTER 4

Contributing

Contributions are welcome! Please read our [Code of Conduct](#) before contributing to help this project stay welcoming.

CHAPTER 5

Documentation

For information on building library documentation, please check out [this guide](#).

6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/ssd1608_simpletest.py

```
1  """Simple test script for 1.54" 200x200 monochrome display.
2
3  Supported products:
4      * Adafruit 1.54" Monochrome ePaper Display Breakout
5      * https://www.adafruit.com/product/4196
6      """
7
8  import time
9  import board
10 import displayio
11 import adafruit_ssd1608
12
13 displayio.release_displays()
14
15 # This pinout works on a Feather M4 and may need to be altered for other boards.
16 spi = board.SPI() # Uses SCK and MOSI
17 epd_cs = board.D9
18 epd_dc = board.D10
19 epd_reset = board.D5
20 epd_busy = board.D6
21
22 display_bus = displayio.FourWire(
23     spi, command=epd_dc, chip_select=epd_cs, reset=epd_reset, baudrate=1000000
24 )
25 time.sleep(1)
26
27 display = adafruit_ssd1608.SSD1608(
```

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```
28     display_bus, width=200, height=200, busy_pin=epd_busy
29 )
30
31 g = displayio.Group()
32
33 f = open("/display-ruler.bmp", "rb")
34
35 pic = displayio.OnDiskBitmap(f)
36 t = displayio.TileGrid(pic, pixel_shader=displayio.ColorConverter())
37 g.append(t)
38
39 display.show(g)
40
41 display.refresh()
42
43 print("refreshed")
44
45 time.sleep(120)
```

6.2 adafruit_ssd1608

CircuitPython `displayio` driver for SSD1608-based ePaper displays

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6.2.1 Implementation Notes

Hardware:

- Adafruit 1.54" Monochrome ePaper Display Breakout

Software and Dependencies:

- Adafruit CircuitPython firmware (version 5+) for the supported boards: <https://github.com/adafruit/circuitpython/releases>

class `adafruit_ssd1608.SSD1608` (*bus*, ***kwargs*)
SSD1608 driver

CHAPTER 7

Indices and tables

- `genindex`
- `modindex`
- `search`

a

adafruit_ssd1608, 14

A

adafruit_ssd1608 (*module*), 14

S

SSD1608 (*class in adafruit_ssd1608*), 14