IMX219-77IR Camera

IMX219 Camera, 800 megapixels and 77 FOV. Compatible with Jetson nano, support night vision. You can also use it with CM3/CM3+ expansion boards like Raspberry Pi Compute Module IO board, Compute Module IO Board Plus, Compute Module POE Board of Waveshare and the StereoPi board.

Test with Jetson Nano

Hardware connection

- Connect the camera to CSI interface of Jetson Nano.Set the metal side of FFC into Heat-sink
- Connect an HDMI LCD to Jetson Nano

Software setting

- Power on Jetson Nano and open the Terminal (Ctrl+ALT+T)
- Test camera with command:

```
DISPLAY=:0.0 gst-launch-1.0 nvarguscamerasrc ! 'video/x-raw(memory:NVMM), width=3280, height=2464,
format=(string)NV12, framerate=(fraction)20/1' ! nvoverlaysink -e
```

- Test dual-camera
  - IF you want to test dual cameras with B01 Developer Kit.You can just add sensor-id=x to the pipeline. x can be 0 or 1.

```
#test video0
DISPLAY=:0.0 gst-launch-1.0 nvarguscamerasrc sensor-id=0 ! 'video/x-raw(memory:NVMM), width=3280, height=2464,
format=(string)NV12, framerate=(fraction)20/1' ! nvoverlaysink -e
#test video1
DISPLAY=:0.0 gst-launch-1.0 nvarguscamerasrc sensor-id=1 ! 'video/x-raw(memory:NVMM), width=3280, height=2464,
format=(string)NV12, framerate=(fraction)20/1' ! nvoverlaysink -e
```

- If you find that the image captured is reddish. You can try to download .isp file and installed:

```
wget https://www.waveshare.com/w/upload/e/eb/Camera_overrides.tar.gz
tar zxvf Camera_overrides.tar.gz
sudo cp camera_overrides.isp /var/nvidia/nvcam/settings/
sudo chmod 664 /var/nvidia/nvcam/settings/camera_overrides.isp
sudo chown root:root /var/nvidia/nvcam/settings/camera_overrides.isp
```

Test with Compute Module

The IMX219 series can be used with Compute Module series of Raspberry Pi with carriers. And the usage are same as other Raspberry Pi cameras

Becuase of the encropytoin, the IMX219 series cameras cannot be used with Raspberry Pi board like the Raspberry Pi 4B, please note it.

- Connect the camera to Compute Module Carrier board (like [Compute Module 4 PoE Board](#)), please take care of the direction.
- Open a terminal and configure the camera

```
sudo raspi-config
```

Select Interfacing Options -> Camera -> Yes

- Reboot
- Test the camera with command:

```
sudo raspistill -t 0
```

- For more information about commands for camera, please refer to this guides:

[Application guides of Raspberry Pi camera](#)