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### Overview

This firmware is for LI-USB30-AR0239-GW5200-FPDLINKIII camera.  
This firmware supports 1920x1080@30fps RGB and IR mode.

### Download link

<https://www.dropbox.com/sh/mm3vibwfvfu4w28/AACSwtQv8C0EpvSN0-C-UW8ka?dl=0>

### Platform

1 x LI-USB30-DESER-TI954

### Camera

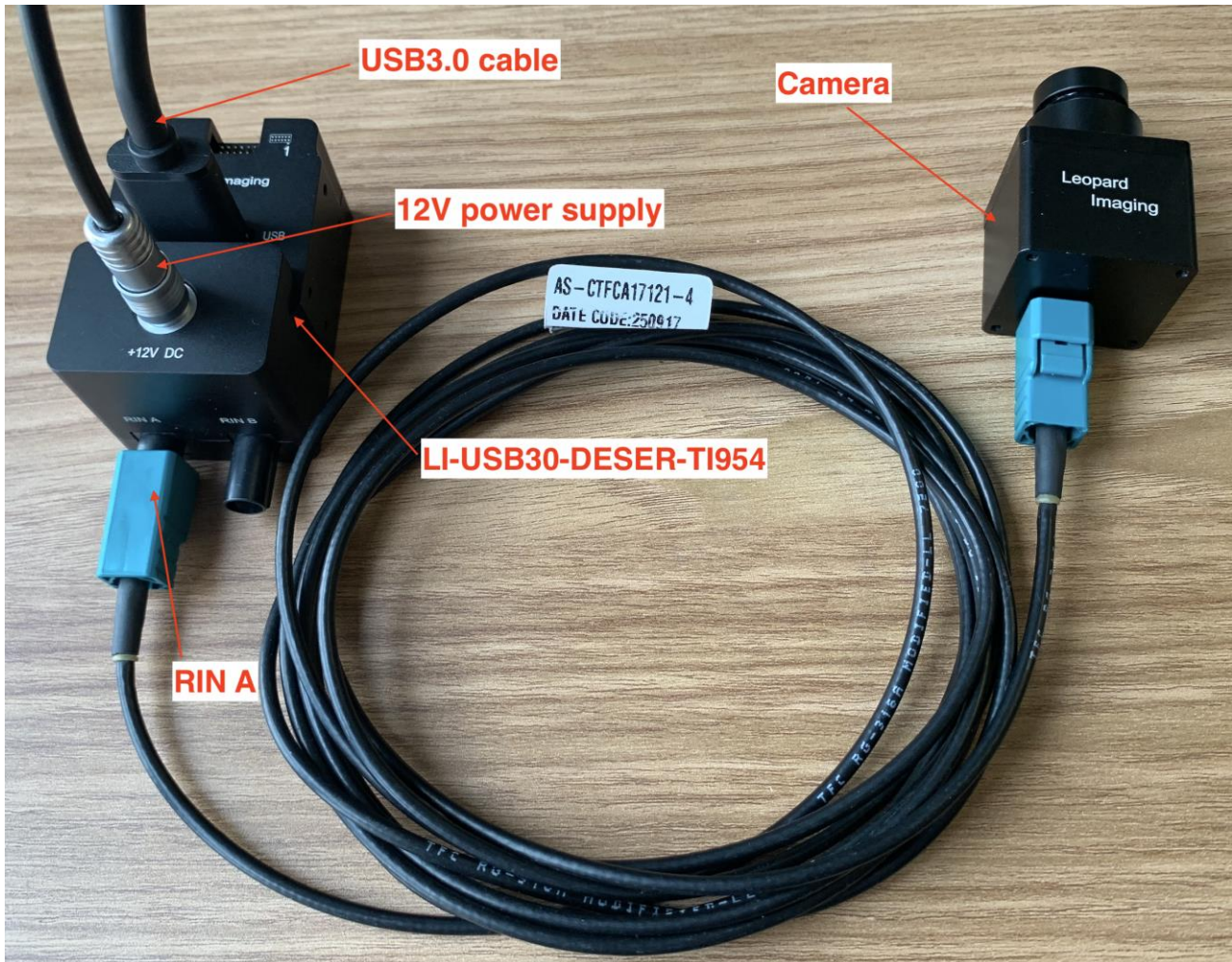
1 x LI-AR0239-GW5200-FPDLINKIII

### Cable

1 x USB 3.0 Micro-B cable  
1 x FAK-SMZSMZ Fakra cable

Adapter/Carrier Board

1 x 12VDC power supply





# LI-USB30-AR0239-GW5200-FPDLINKIII\_USB3.0-Firmware\_Release\_Note

Revision	SVN version	Release Date	Author	Tested By
2020_01_10	Rev1566	01/10/2020	Chuan Jin	Simon Zhu

## Updates

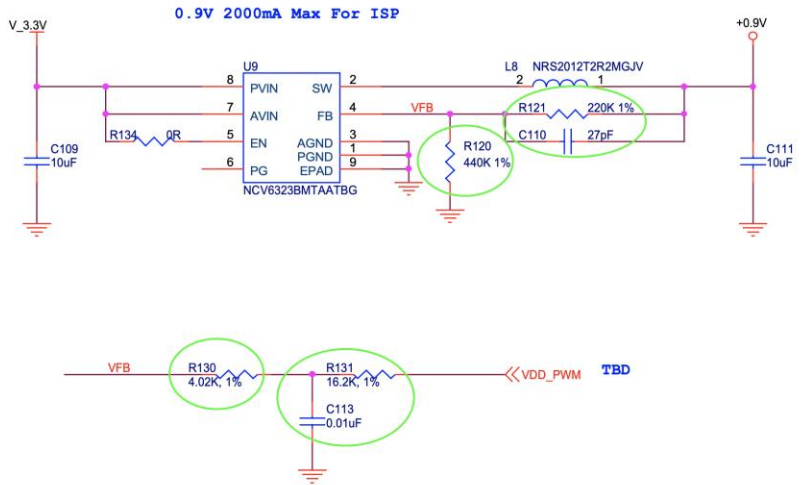
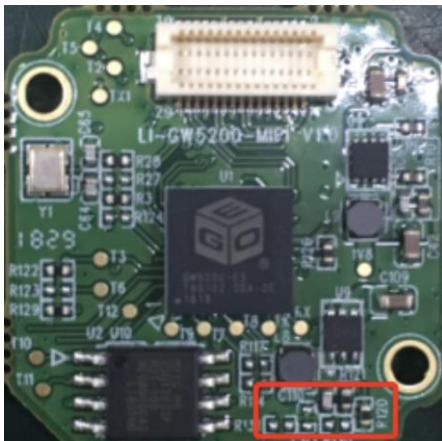
- 2020\_01\_10: First version.
1. Supports 1920x1080@30fps.
  2. Support RGB and IR mode.
  3. All sensor settings are controlled by on-board ISP automatically.
  4. The camera includes LI-AR0239-MIPI-FKR V1.0, LI-GW5200-MIPI V1.0 and LI-TI953-FKR V1.1.

## Known bugs

## Rework board

For GW5300/GW5400 ISP board only:

- Add 49.9K resistor R121.
- Add 88.7K resistor to R120.
- Add 27pF resistor to C110.
- Add 562K resistor to R130.
- Add 16.2K resistor to R131.
- Add 0.01uF capacitor to C113.



Note: The board should be reworked before shipping it to customer.



## Setup Procedure 1/2

### - Hardware:

1. LI-AR0239-GW5200-FPDLINKIII x 1
2. LI-USB30-DESER-TI954 Tester x 1
3. FAK-SMZSMZ Fakra cable x 1
4. USB 3.0 cable x 1
5. IR LED/ Light (if needed for IR mode testing)

### - Hardware Setup:

Connect the camera and US 3.0 Tester as the picture in the first page.



## Setup Procedure 2/2

### - Software:

This camera kit can be tested with any one of below software or other software.

#### 1. AMcap (Windows OS)

The AMcap can be downloaded from link below.

<http://noeld.com/programs.asp?cat=video>

#### 2. Camera tool (Windows OS)

The Camera tool can be downloaded from link below.

[https://www.dropbox.com/s/bxb66xro4b1776j/Release\\_AR0239-GW5200.7z?dl=0](https://www.dropbox.com/s/bxb66xro4b1776j/Release_AR0239-GW5200.7z?dl=0)

It's better to use the 7-zip to uncompress the package.

<http://www.7-zip.org/download.html>

And install below software to your PC.

[https://www.dropbox.com/s/c4e3fi31fhopqdl/VC\\_redist.x86.exe?dl=0](https://www.dropbox.com/s/c4e3fi31fhopqdl/VC_redist.x86.exe?dl=0)

#### 3. Gvvcview (Linux OS)

<https://sourceforge.net/projects/gvvcview/files/source/>

or use below command to install gvvcview.

```
sudo add-apt-repository main
sudo add-apt-repository universe
sudo add-apt-repository restricted
sudo add-apt-repository multiverse
sudo apt-get update
sudo apt-get install gvvcview
```



## Run Camera

### - RGB mode

1. Plug in 12V power supply to USB 3.0 Tester.
2. Plug the camera to PC (on **USB 3.0** port) with USB 3.0 cable.
3. Open video software. There will be video output.



### - IR mode

1. Plug in 12V power supply to USB 3.0 Tester.
2. Plug the camera to PC (on **USB 3.0** port) with USB 3.0 cable.
3. Open **camera tool**. There will be video output.
4. Click "IR" button on the left panel.
5. Put camera in low visible light condition and use IR LED/ Light to test IR mode.





Note 1/1

**- Firmware Update:**

This camera kit includes ISP binary (in camera module) and Firmware (in USB 3.0 Tester). The ISP binary normally will be pre-loaded in our factory and can only be updated by Leopard Imaging. The customer can update the Firmware.

Please use the **LP\_USB3\_FirmwareUpdateTool** in below camera tool folder to update the firmware.

[https://www.dropbox.com/s/s4sr5hrerzc3ms0/CameraUSB30\\_3\\_2\\_20190622.7z?dl=0](https://www.dropbox.com/s/s4sr5hrerzc3ms0/CameraUSB30_3_2_20190622.7z?dl=0)  
[https://www.dropbox.com/s/jgld3gjeuzjjlfi/vcredist\\_x86.exe?dl=0](https://www.dropbox.com/s/jgld3gjeuzjjlfi/vcredist_x86.exe?dl=0)

- 1) Click “Erase” to erase the old firmware.
- 2) Click “FW Update” button to select the lif file. (If the “FW\_Update is unavailable, please install the WestBridge driver, check below)
- 3) The update process may take about 15 seconds.
- 4) If the process takes too long, please disconnect the USB and reconnect it to PC. Then try the update tool again.

——Install WestBridge:

If the camera cannot be recognized after you update the firmware, and there is a device name “WestBridge” on the Device Manager, please download the driver from the link below and install it.

[https://www.dropbox.com/s/4yx2p31b7qo2gjx/WestBridge\\_driver.zip?dl=0](https://www.dropbox.com/s/4yx2p31b7qo2gjx/WestBridge_driver.zip?dl=0)

- 1) Right click on “WestBridge” and select Update Driver Software.
- 2) Choose browse my computer for driver software.
- 3) Click Browse, locate the driver at the downloaded and unzipped folder. (C:\temp\driver\bin\ for example) If your PC has Win7 or later version, please select the folder “win7”.
- 4) Click next and complete the installation process.

After install the driver, please update the firmware again.