**THine**®

**Camera SerDes Starter Kit Quick Start Guide**

**V by One**® **HS**
High speed and Reduced digital connection concept

Camera SerDes Starter Kit

# Quick Start Guide

Contents

1.    Product Configuration List

| No. | Item | Description | Comment |
|---|---|---|---|
| 1 | THEVA241A-RJ45-V1 | Tx Board | Included in THEVA24-RJ45-SET-V1 |
| 2 | THEVA242A-RJ45-V1 | Rx Board | Included in THEVA24-RJ45-SET-V1 |
| 3 | Cable | Ethernet Cable | Included in THEVA24-RJ45-SET-V1 |
| 4 | UC930 | Frame Grabber | Included in THEVA-GRABBER-V1 |
| 5 | USB Cable | USB 3.0 Cable | Included in THEVA-GRABBER-V1 |
| 6 | AC Adapter | DC 12V Output | Included in THEVA-GRABBER-V1 |
| 7 | Camera Module | Supported Camera Module | Needed to prepare by a user |

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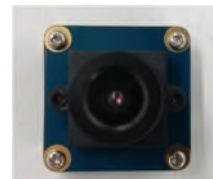
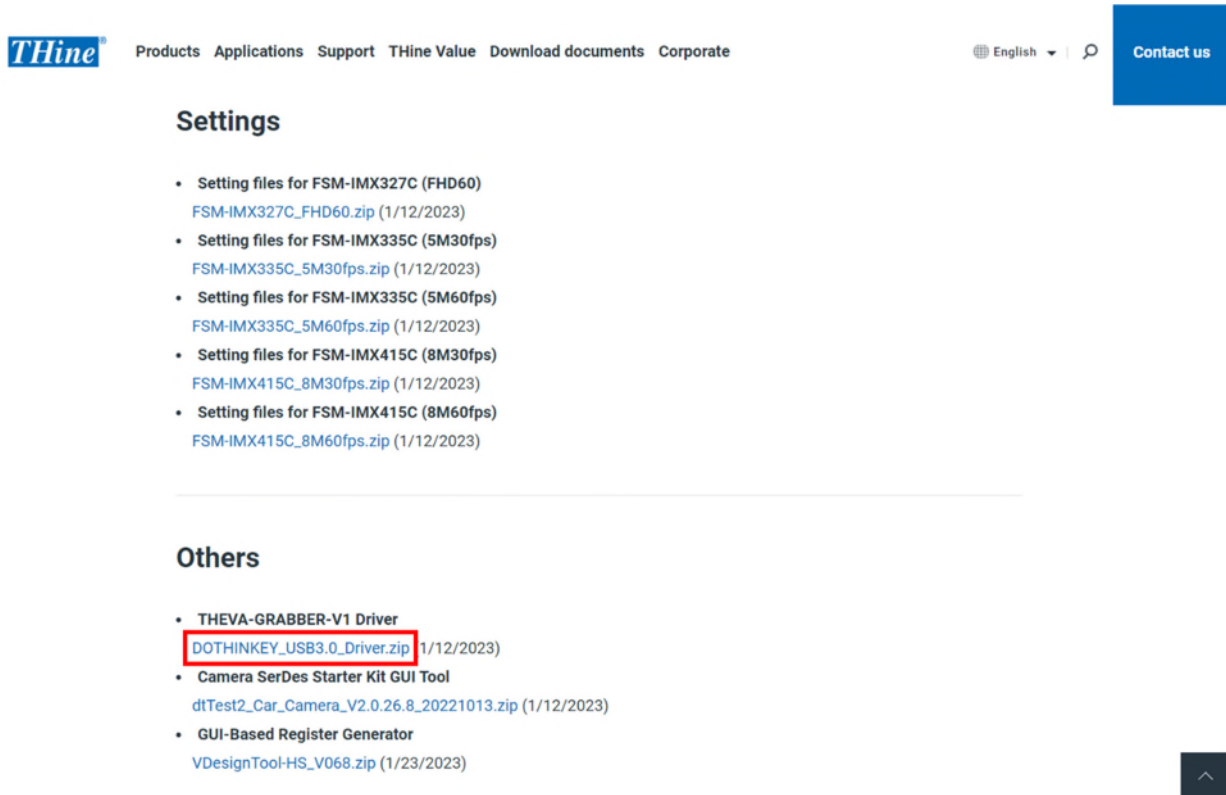## 2.    Connection

Connect with All Systems of Camera SerDes Starter Kit as below.
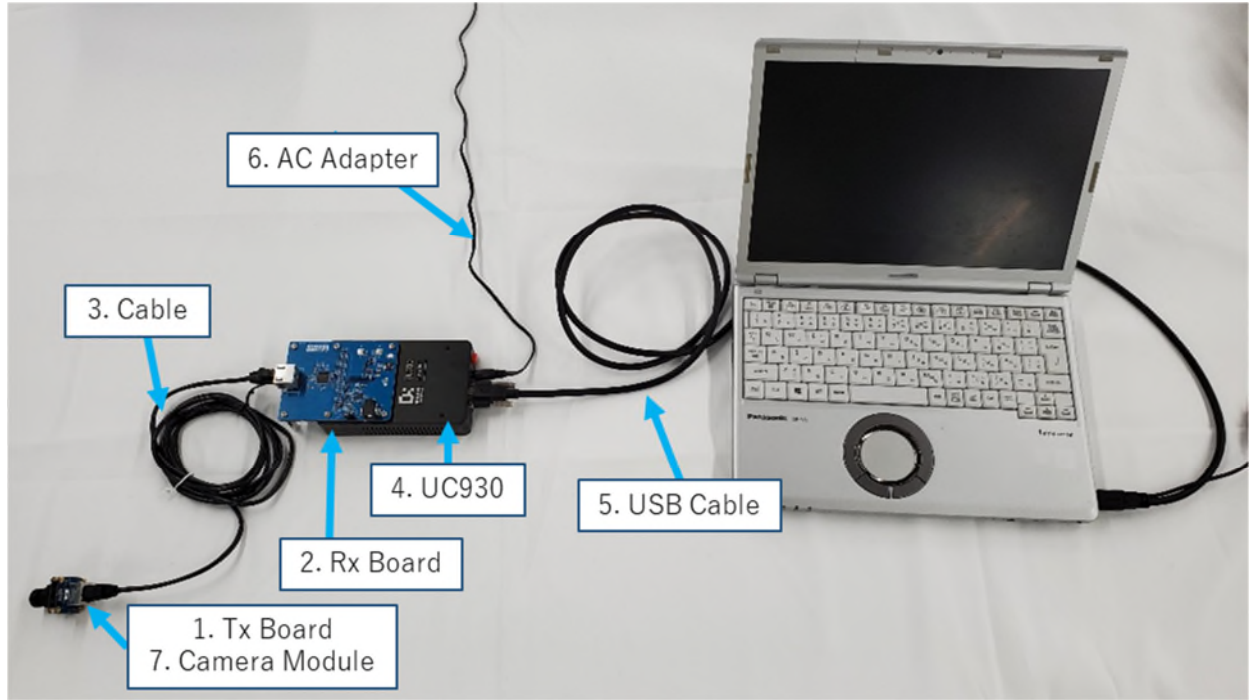
3. USB Driver

3.1. Download the USB Driver for UC930 from the download page (Access to the page is available after Starter Kit user registration).



Save the downloaded DOTHINKEY_USB3.0_Driver.zip compression file to the computer.

## 3.2. USB 3.0 Driver Install

3.2.1. USB 3.0 Cable of UC930 connects with the PC and connects the +12V AC Adapter to the power source and then push the red button for power to turn on.

3.2.2. If the UC930 device is detected in Device Manager on the PC, proceed with the Update driver.
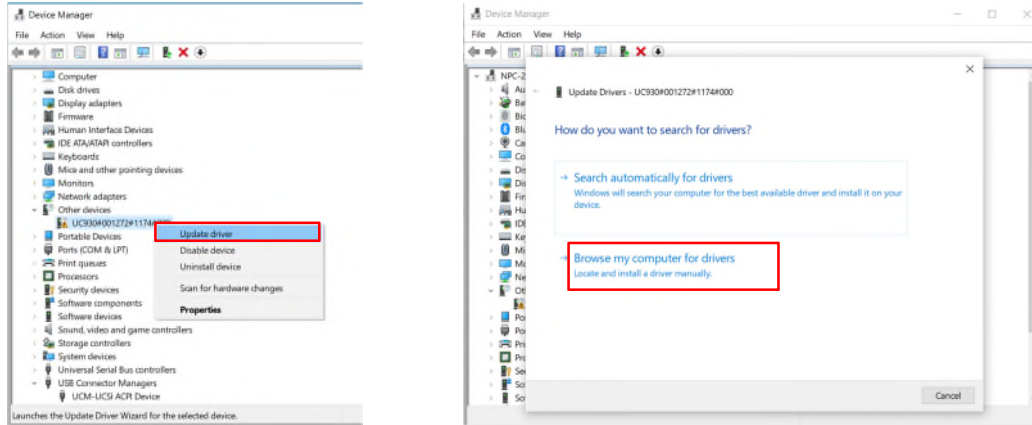


If the update is completed, you can see the device of `**DOTHINKEY USB3.0 ImageKit**` in the Device Manager.
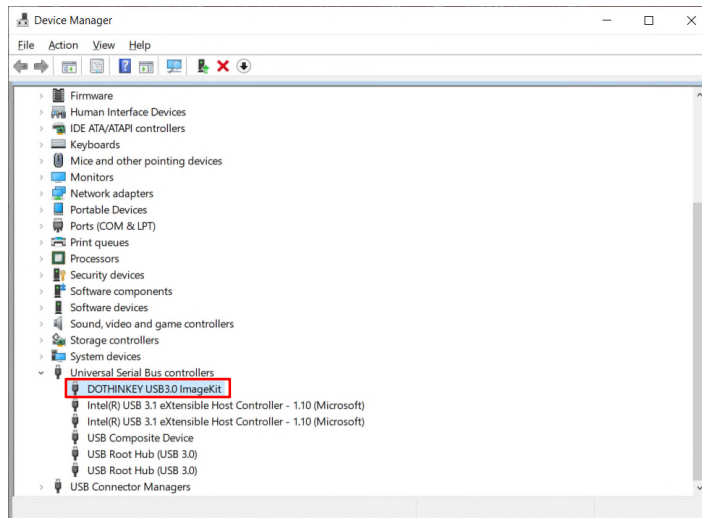
4.    DtTest Software Tool

4.1.    Download the DtTest software tool from the download page (Access to the page is available after Starter
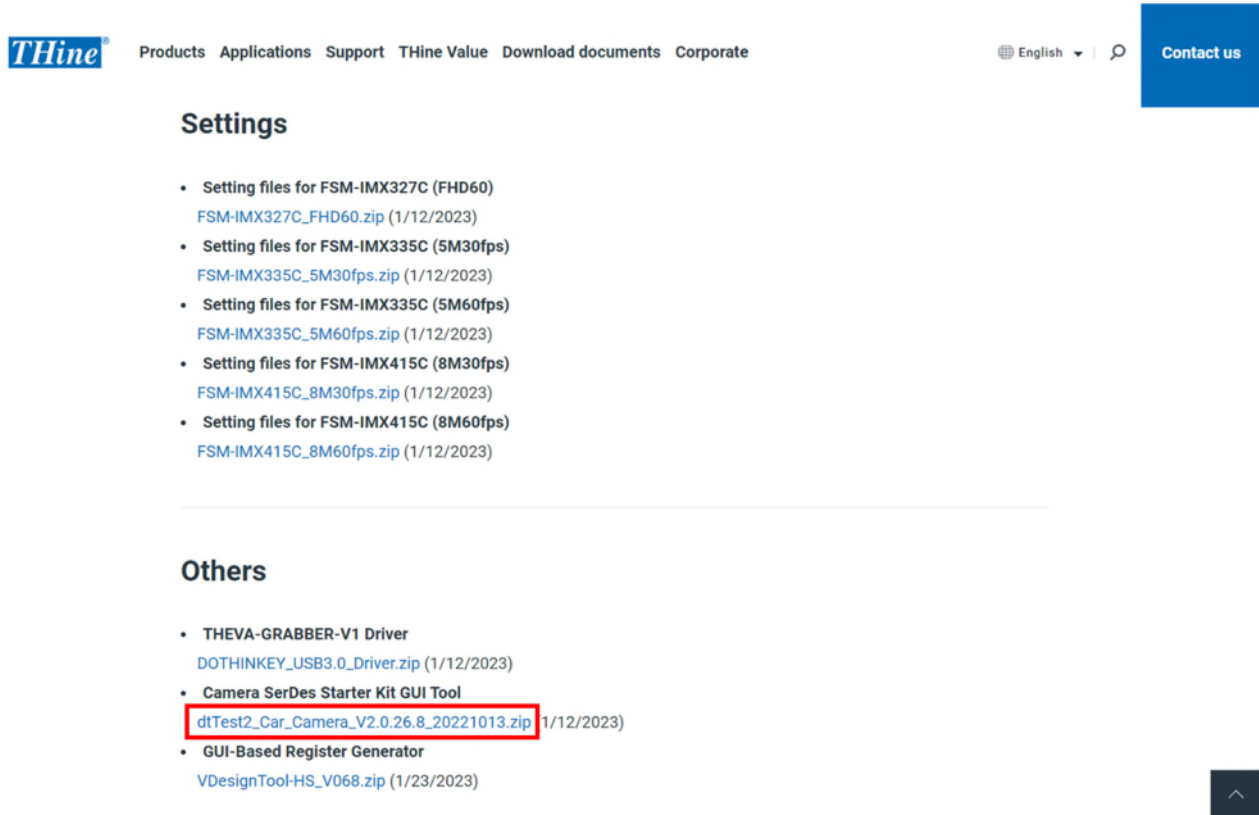        Kit user registration).



Save the downloaded dtTest2_Car_Camera_Vx.x.xx.x_yyyymmdd.zip compression file to the computer and
unzip the file.

4.2.　Download the initial settings files that a user needs from the download page (Access to the page is available after Starter Kit user registration).



Save the downloaded compression files to the computer and unzip the file.

4.3. Double-click the folder named "dtTest2_Car_Camera_Vx.x.xx.x_yyyymmdd" you just downloaded and unzipped.

4.4. Double-click the executable file named "**dtTeste.exe**" to open the tool execution window.

If the connection is successful, the UC930 device is detected on the left side of the execution window.
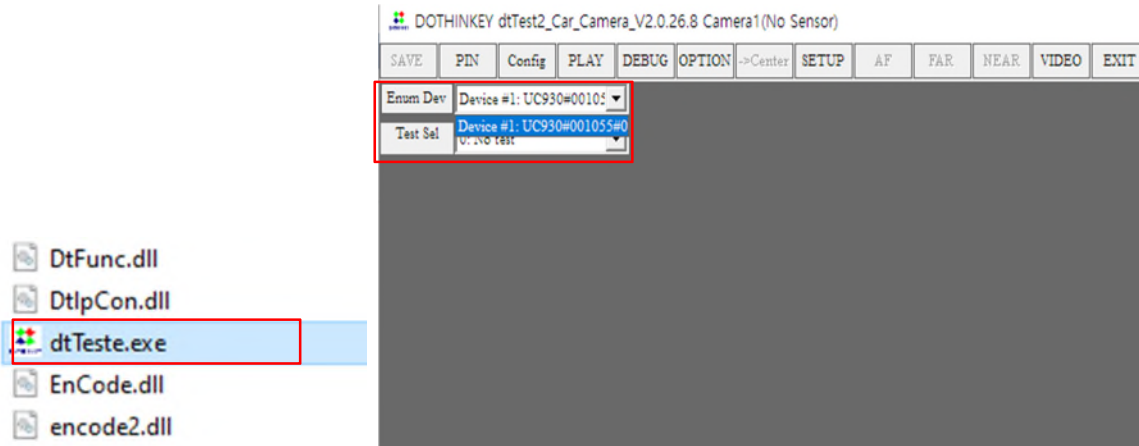
4.5. I/O Pin of UC930 Settings

① PIN → ②MIPI std → ③OK
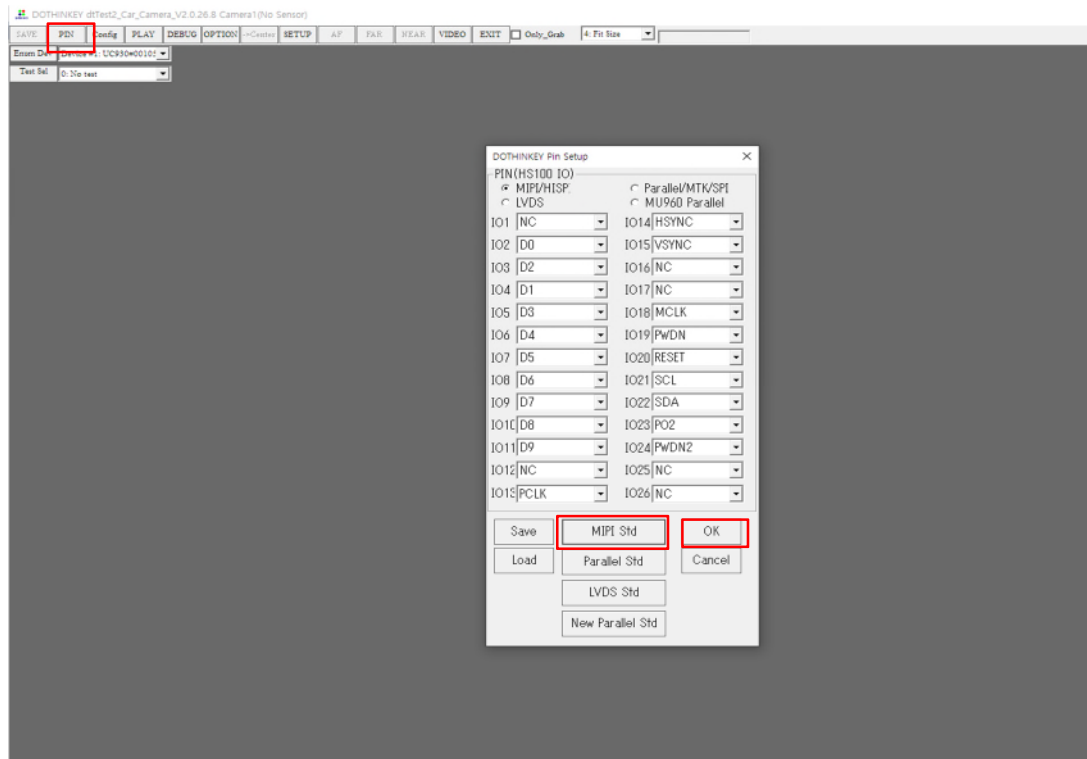
## 4.6. Power Supply Settings

① OPTION → ② OK （No password is needed. ）→ ③ CLK LP Box check → ④DOVDC(1800mV) →
⑤ VPP(5000mV ) Box Check → ⑥ OK
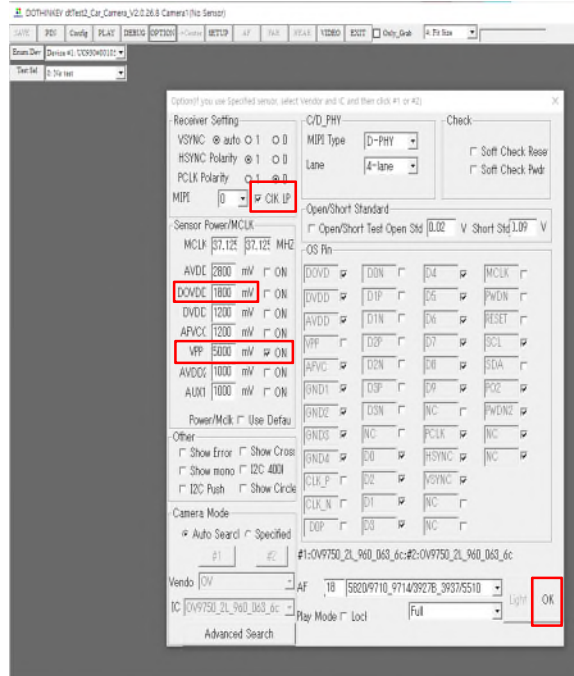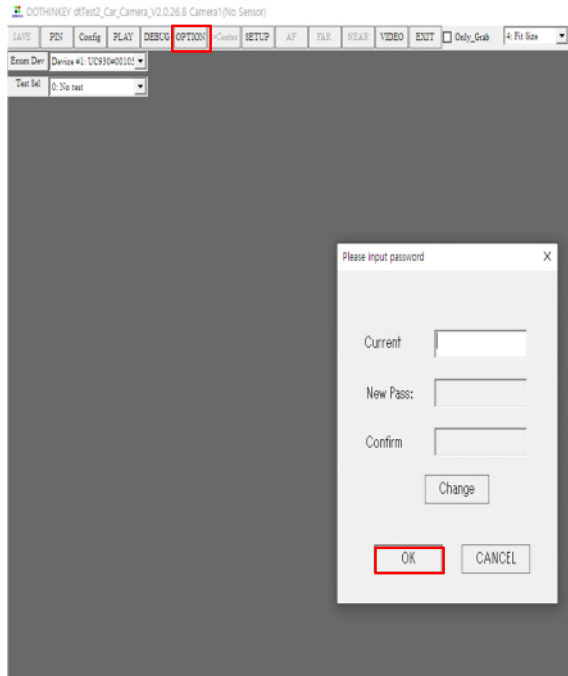
4.7.    Please press 'L' on the keyboard to load the initial settings file.

Open the selected initial settings file to proceed with the initial setup of all devices for image output.

Ex.) IMX415_8M30fps_4LANE_891Mbps_2MAINLINK_CV241A_CV242A_Passthrough.ini
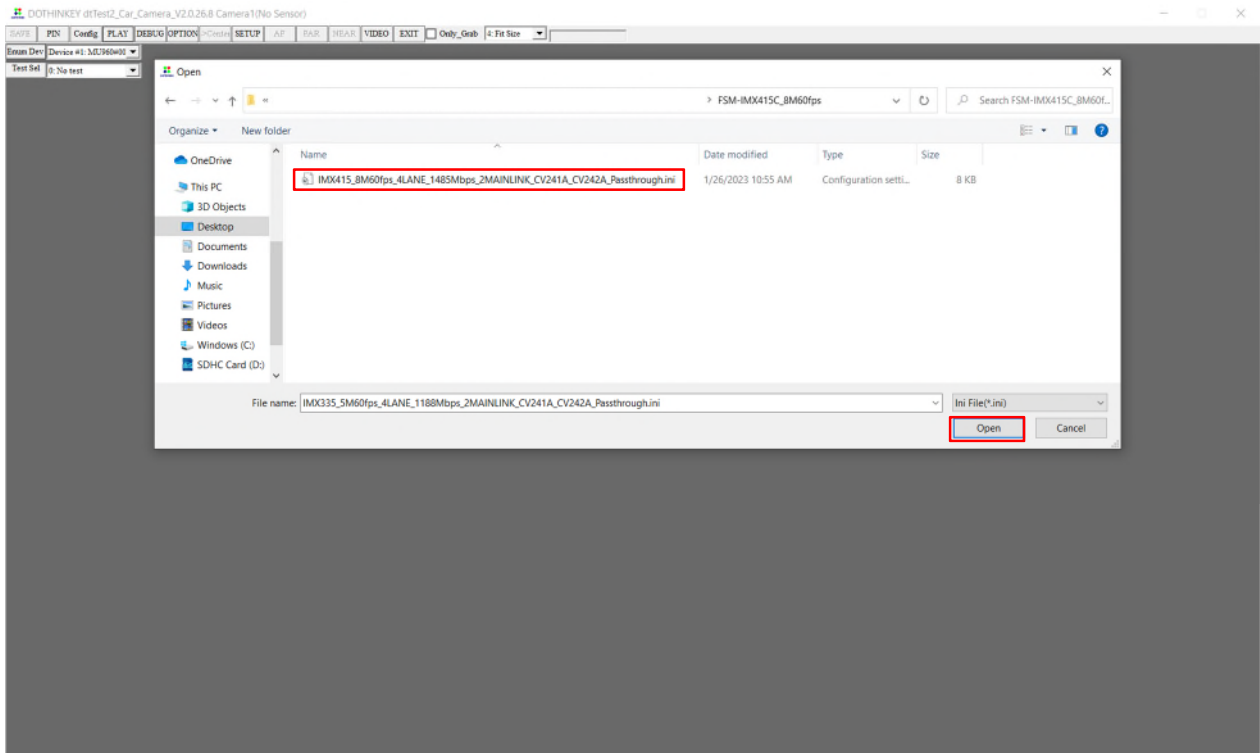


※ Select the appropriate initial settings file for the sensor connected to THEVA241A-RJ45-V1.

4.8.  Once the initial setup is completed, the camera image output can be viewed on the dtTest2 tool.

4.9. Simply adjust the image by entering the ISP Menu after outputting the image.

Adjust color easily with Auto White Balance (AWB).
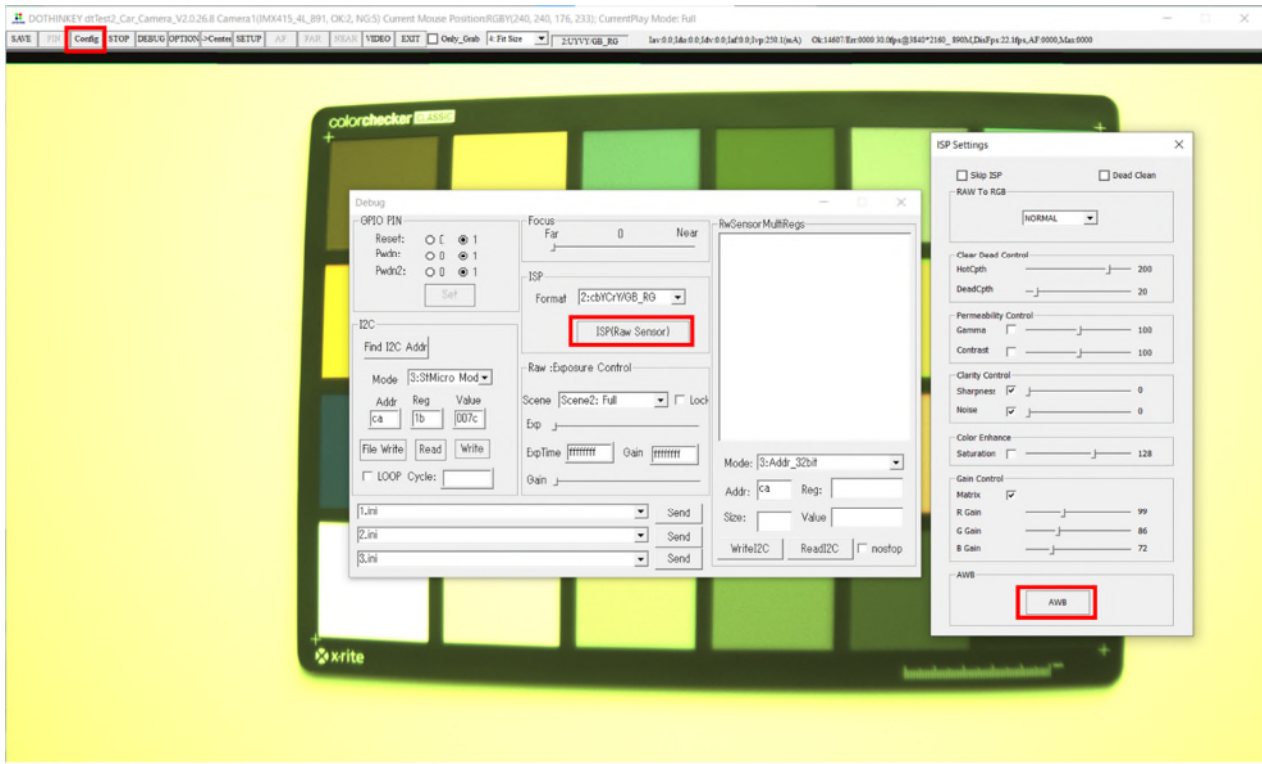


If "AWB" is applied, the image will change as follows.
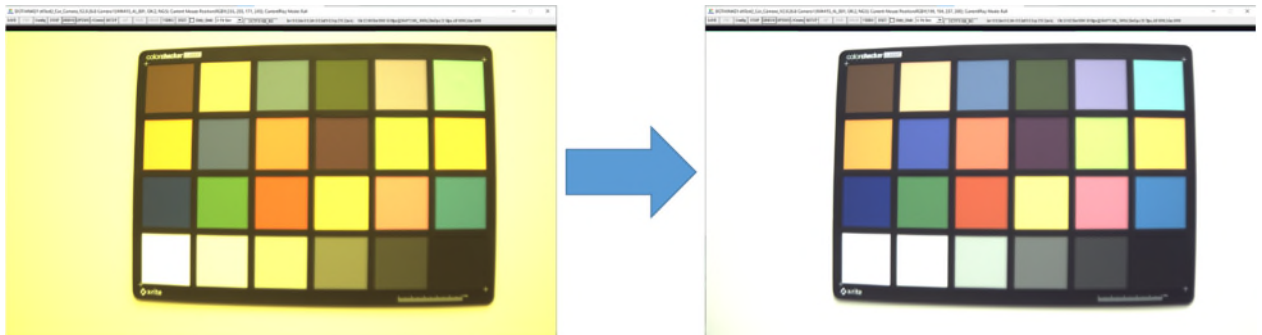
## 4.10. MIPI Signal Information Window

It can check MIPI information by pressing **'I'** on the keyboard while the image is output.

Ex.) MIPI Status information, Frames, Stream…
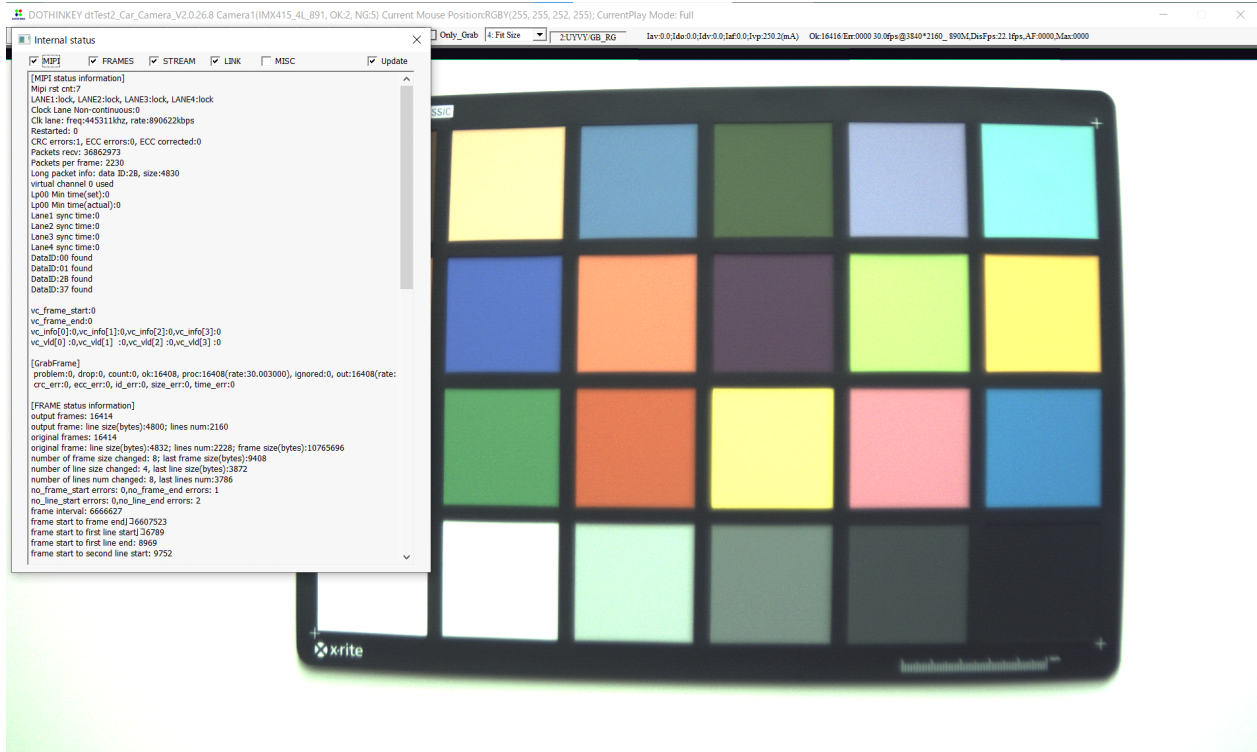
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5.1 Application of this product is intended for and limited to the following applications: audio-video device, office automation device, communication device, consumer electronics, smartphone, feature phone, and amusement machine device. This product must not be used for applications that require extremely high-reliability/safety such as aerospace device, traffic device, transportation device, nuclear power control device, combustion chamber device, medical device related to critical care, or any kind of safety device.
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5.3 THine accepts liability for demands and specifications of the Specified Product only to the extent that the user and THine have been previously and explicitly agreed to each other.

6. Despite our utmost efforts to improve the quality and reliability of the product, faults will occur with a certain small probability, which is inevitable to a semi-conductor product. Therefore, you are encouraged to have sufficiently redundant or error preventive design applied to the use of the product so as not to have our product cause any social or public damage.

7. Please note that this product is not designed to be radiation-proof.

8. Testing and other quality control techniques are used to this product to the extent THine deems necessary to support warranty for performance of this product. Except where mandated by applicable law or deemed necessary by THine based on the user's request, testing of all functions and performance of the product is not necessarily performed.

9. Customers are asked, if required, to judge by themselves if this product falls under the category of strategic goods under the Foreign Exchange and Foreign Trade Act.

10. The product or peripheral parts may be damaged by a surge in voltage over the absolute maximum ratings or malfunction, if pins of the product are shorted by such as foreign substance. The damages may cause a smoking and ignition. Therefore, you are encouraged to implement safety measures by adding protection devices, such as fuses.