DCAM Configurator
Instruction Manual

⚠CAUTION	• The manual describes the correct handling method of the system and provides cautions in order to avoid accidents. Read this manual carefully beforehand in order to use the system correctly. • After reading the manual, store it in a location where you can refer to it at any time.

15.01

HAMAMATSU PHOTONICS K.K.

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1 INTRODUCTION

DCAMCFG is a software tool designed to display information about installed DCAM modules and connected cameras. This tool also allows for the modification of camera parameter settings when available. This document describes the software's specification and how to use it.

1.1 SYSTEM REQUIREMENTS

The system requirements for this software are as follows.

Type of computer	PC-AT compatibles
OS	Windows 8.1 / 8 / 7 / Vista (32bit and 64bit)
Interface	Serial, USB 3.0
Additional software	DCAM-API 14.12 or later

Note

- DCAMCFG may not work satisfactorily on some computers. DCAMCFG may fail to operate due to the operating system or system requirements.

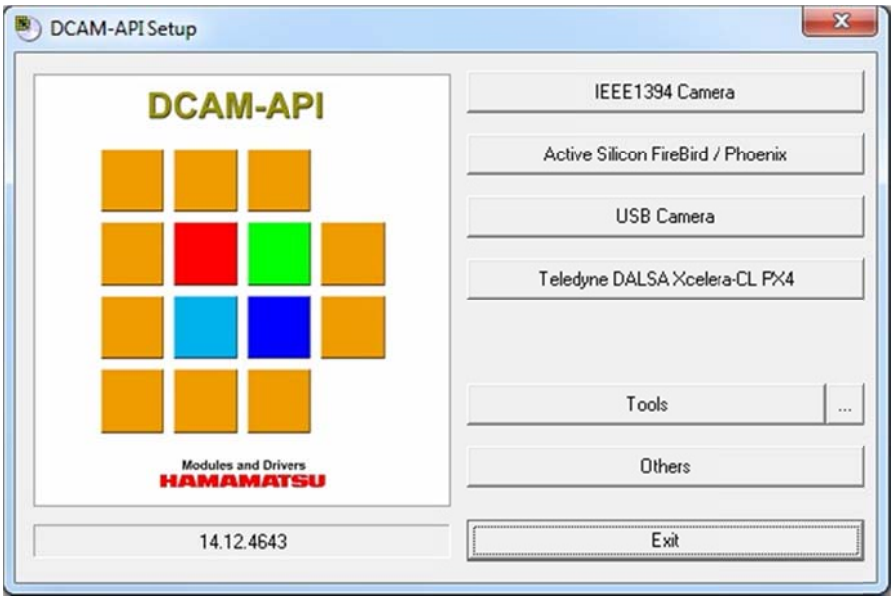
1.2 TRADEMARKS

Windows Vista, Windows 7, Windows 8 and Windows 8.1 are the registered trademarks of Microsoft Corporation in the United States and other countries. Other brand names are the trademarks or registered trademarks of their respective companies.

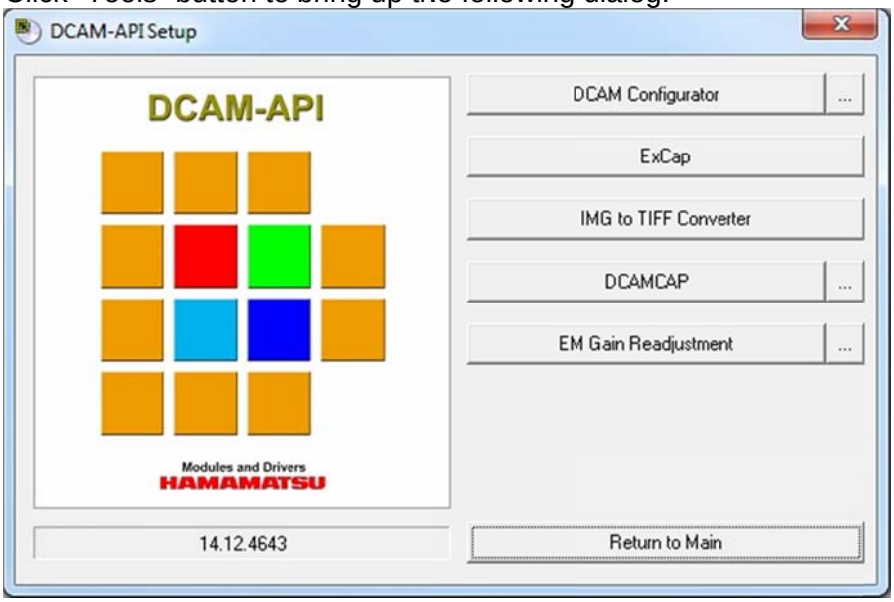
2 HOW TO USE

2.1 START

1) To run DCAM Configurator from DCAM-API CD, please insert DCAM-API CD into your CD drive. If the following window does not appear, please run "Setup.exe" in root folder of CD.



2) Click "Tools" button to bring up the following dialog.

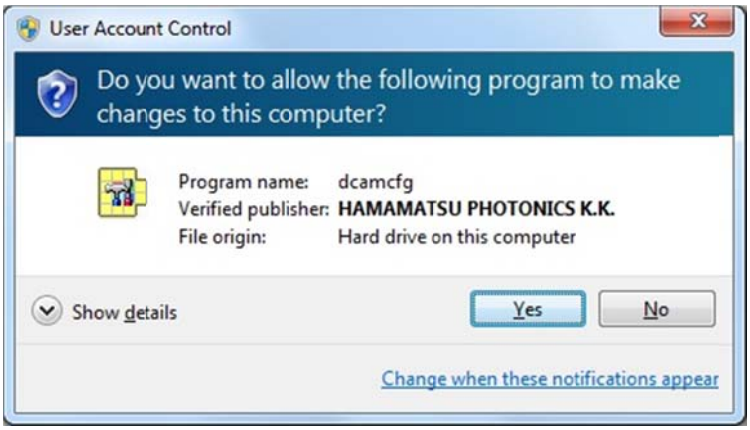


3) Click "DCAM Configurator" button to start DCAMCFG.

4) You may run DCAMCFG using the desktop icon if it has been installed on your computer. Double click the icon to start DCAMCFG.

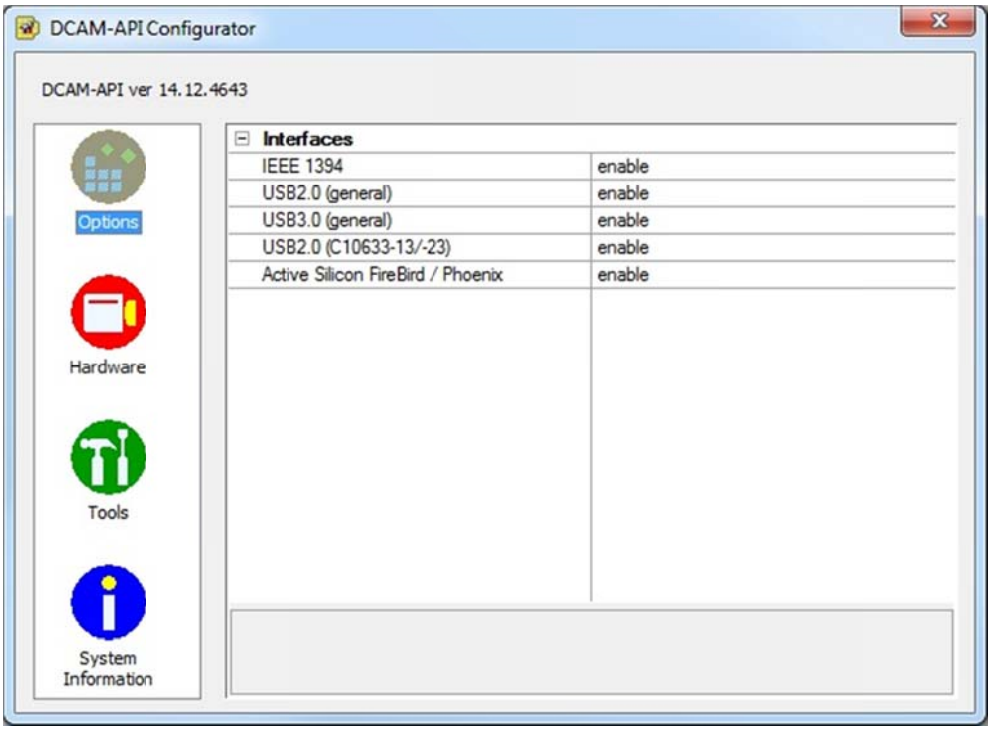


5) On Windows VISTA/7, certain User Account Control settings will cause the following window to appear. Please confirm publisher is “Hamamatsu Photonics K.K.” and click “Yes” to run DCAMCFG.



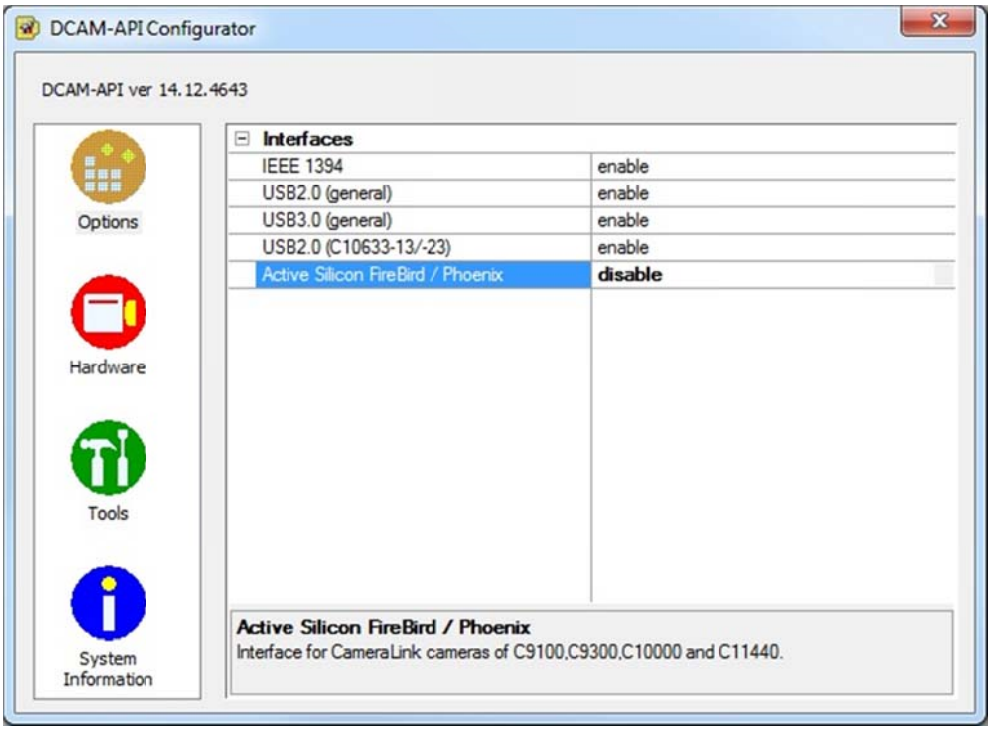
2.2 INITIAL VIEW

You will see following dialog at the start of DCAMCFG.



The left bar lists three category icons to select from, which will determine the information displayed in right pane. Each category is explained in following sections so please refer to them.
At initialization, the “Options” category is selected.

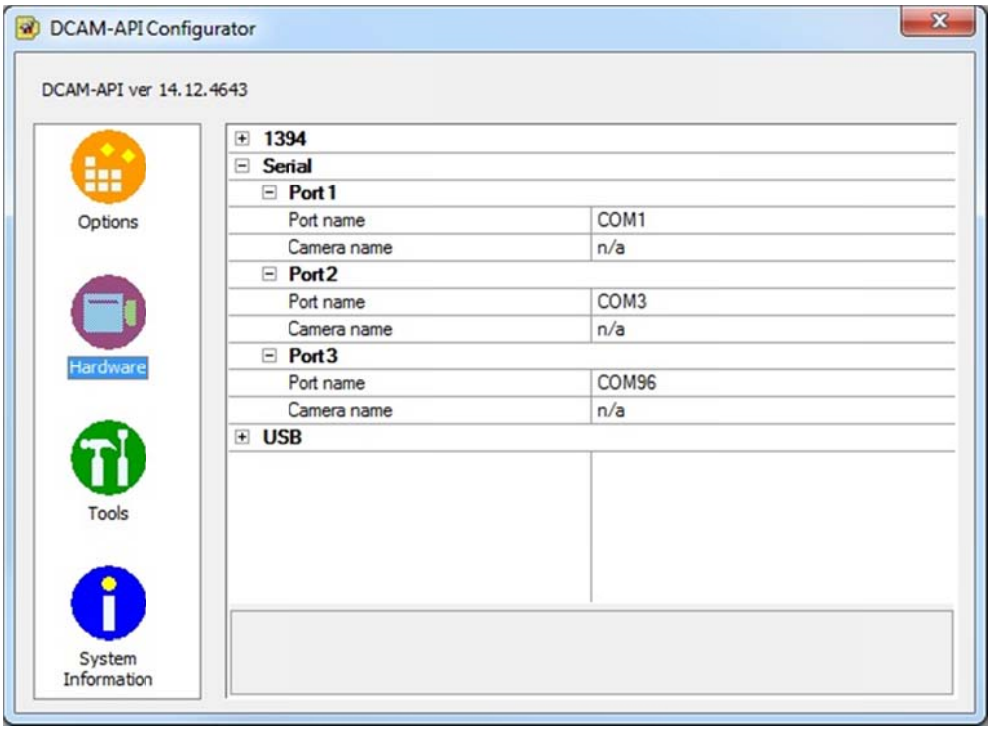
2.3 OPTIONS



The Options category lists all interfaces where DCAM modules and drivers are installed. Each interface lists its current status. If the status is “enable”, the interface will be loaded when a DCAM application is executed.

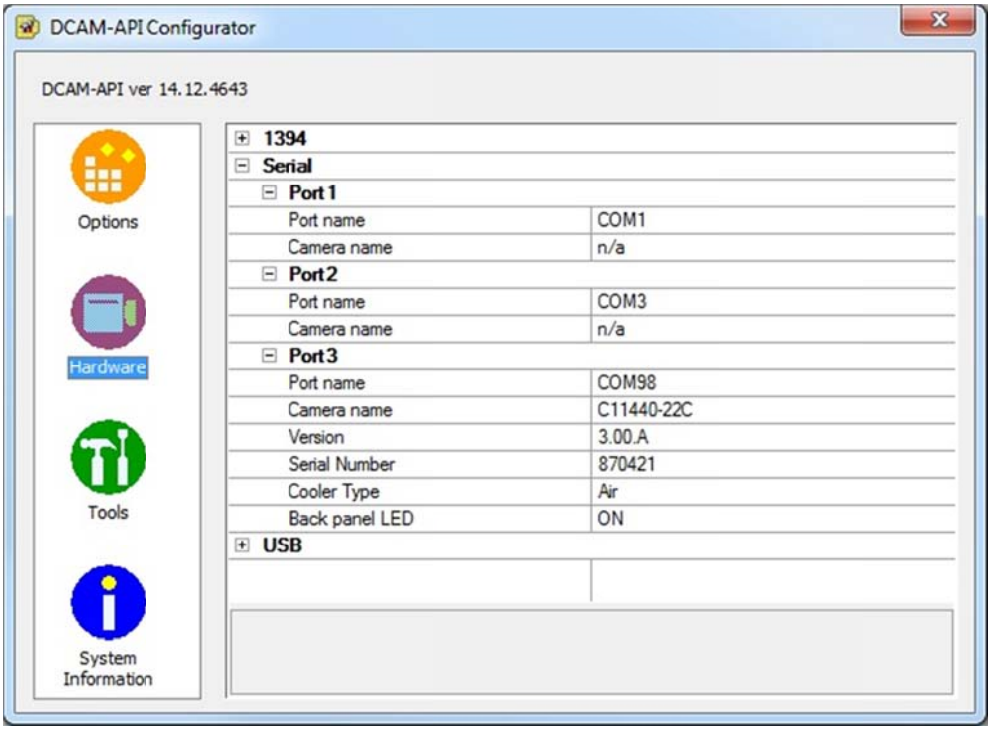
Double-click the status text to toggle between “enable”/”disable”. Modified values are shown in bold. In the figure above, you can see that the “Active Silicon Phoenix/FireBird” has been recently disabled.

2.4 HARDWARE

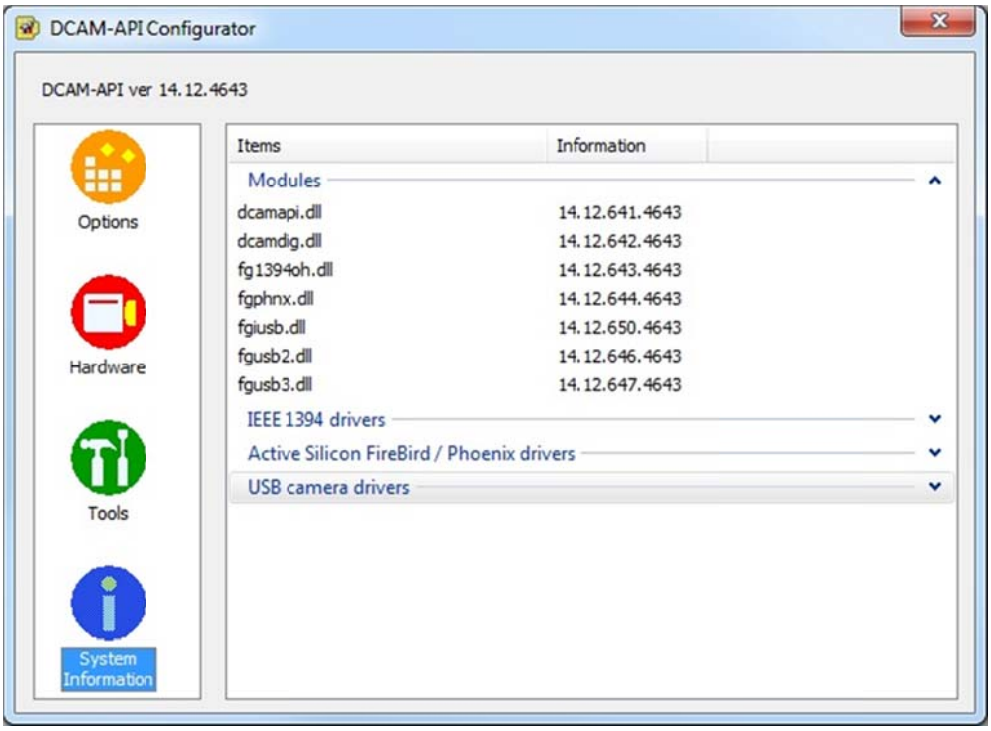


"Hardware" lists the names and version information of cameras which are connected through Camera Link, LVDS and USB 3.0.

Some cameras may have additional information. The following is an example of information shown with the C11440-22CU.



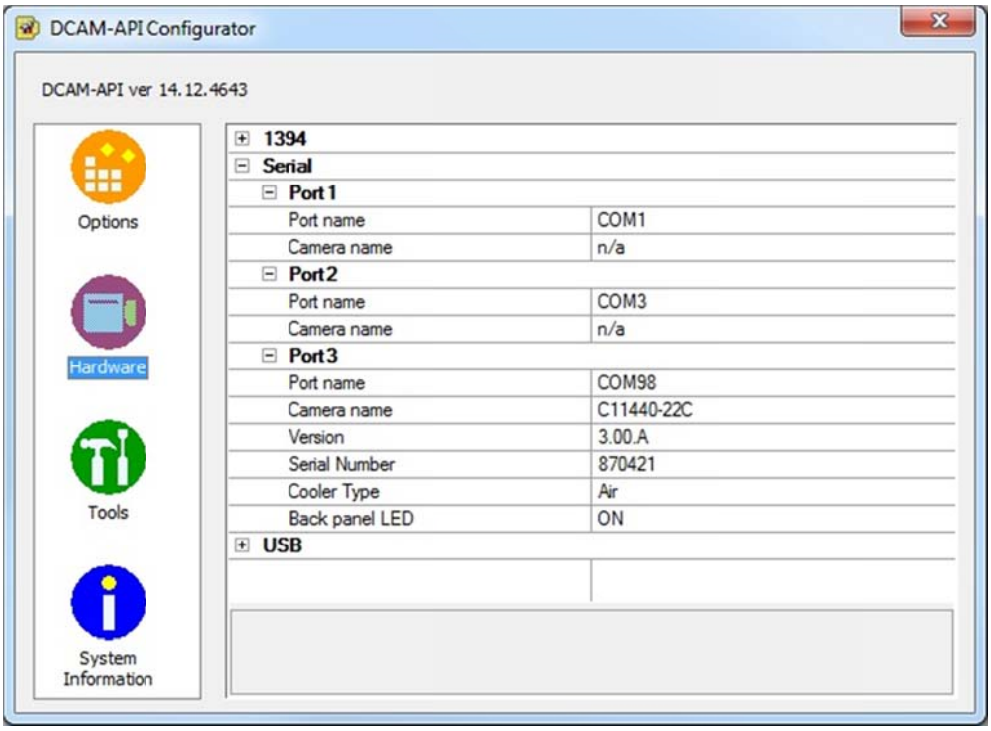
2.5 SYSTEM INFORMATION



“System Information” displays Version information of DCAM Modules and related files.

3 Camera Option

3.1 C11440-22CU



C11440-22CU has three options, “Cooler Type”, “Back panel LED” and “Sensor Cooler”.

3.1.1 Cooler type

The camera has two cooling modes, Air-cooling mode and Water-cooling mode.

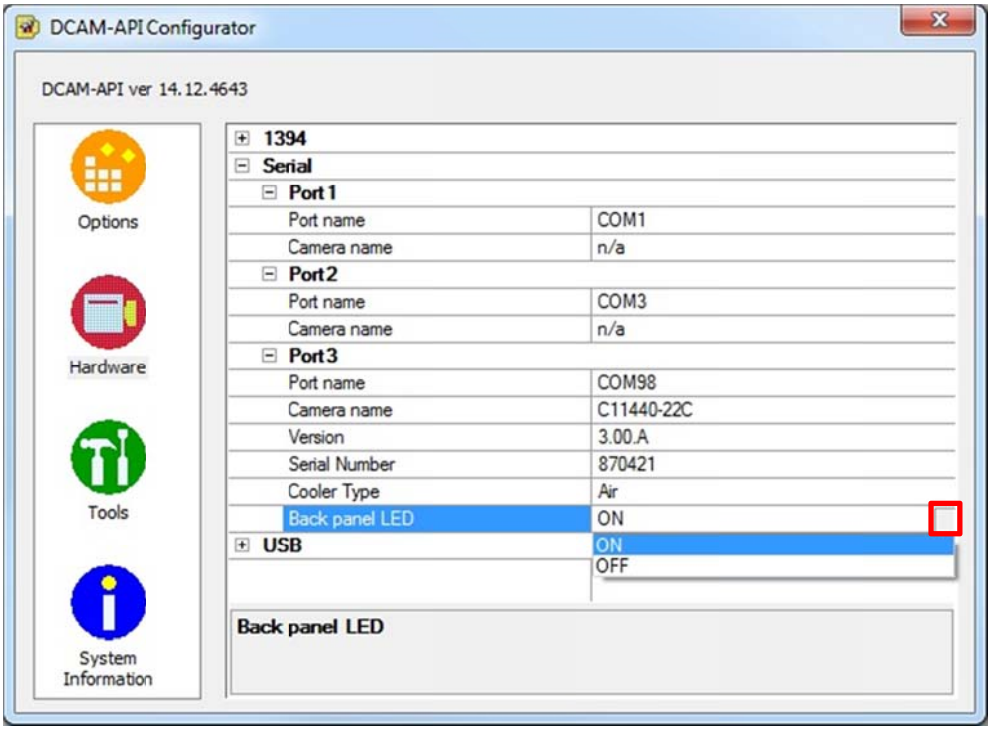
Keyword	Cooling method	
Air	Air-cooling mode (Forced air-cooled)	The heated side of a peltier element is cooled by a fan of the camera. When the camera is turned on, the fan starts rotating and cooling. This is default value.
Water	Water-cooling mode	The heated side of a peltier element should be cooled by circulated water. When using the camera in this mode, the user must connect the water pipe to an optional circulating water cooler. The fan does not rotate in this mode unless any heat trouble happens. Cooling does not start automatically so user needs to start cooling by application software.

3.1.2 Back panel LED

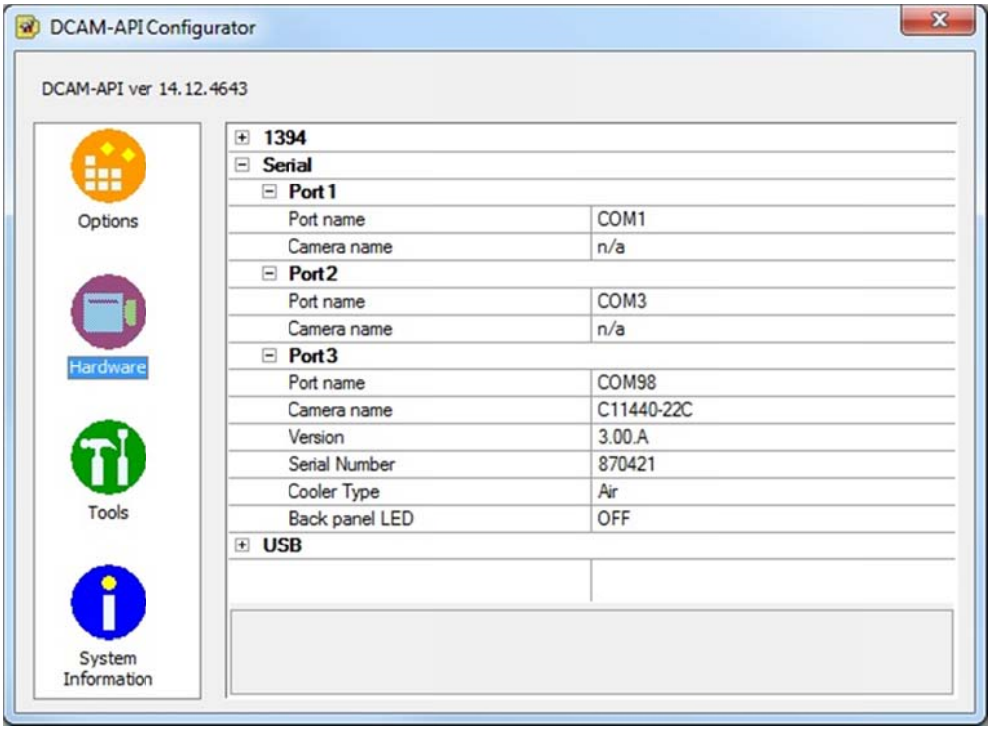
Back panel LED can be turned off. Default value is ON.

3.1.3 Changing Back panel LED through Camera Link

Camera will be listed under Serial port. When you change Back panel LED, click the box next of value in “Back panel LED” row. Please refer to the figure below. The button is marked with red square. Click this button will display the LED Options.

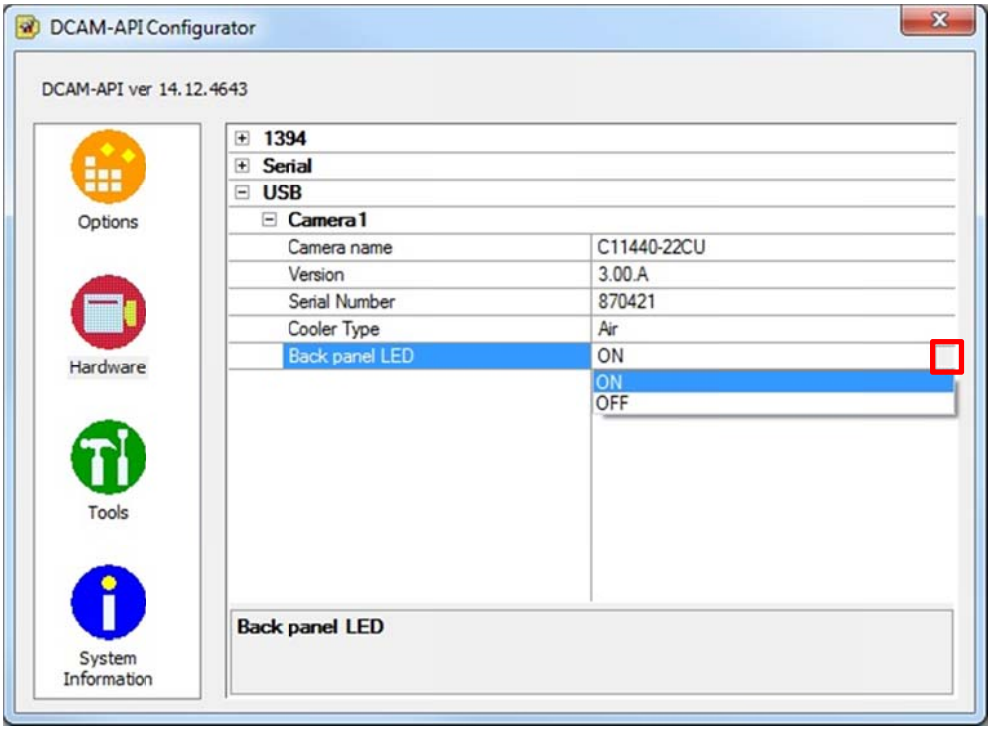


After changing Back panel LED, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Back panel LED is correctly changed.

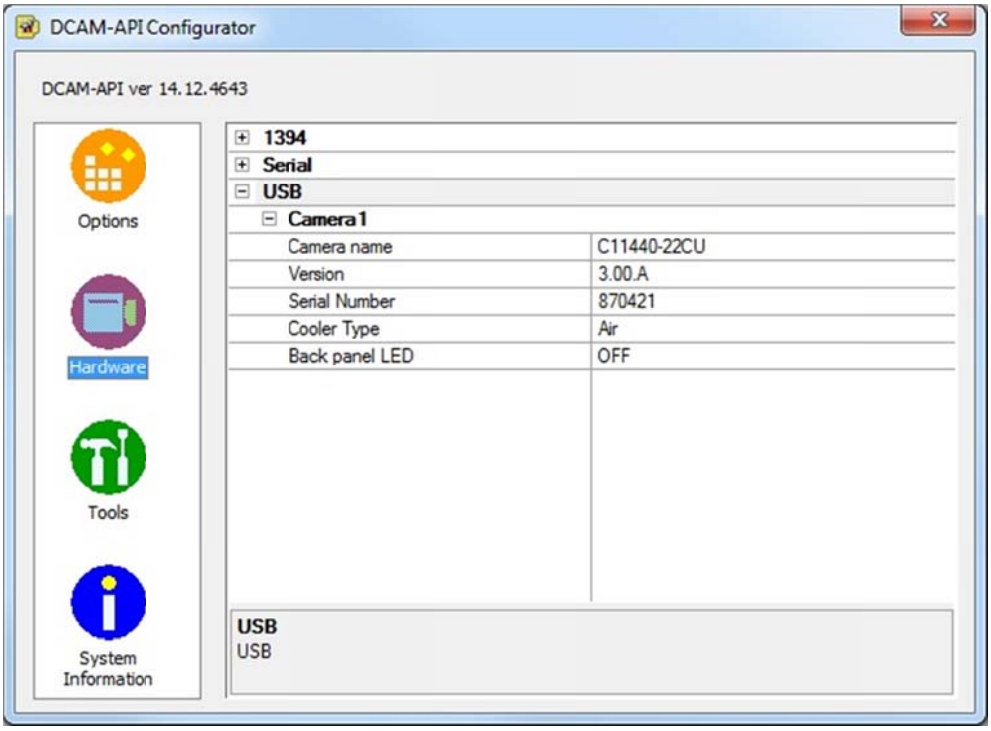


3.1.4 Changing Back panel LED through USB 3.0

Camera will be listed under USB port. When you change Back panel LED, click the box next of value in “Back panel LED” row. Please refer to the figure below. The button is marked with red square. Click this button will display the LED Options.



After changing Back panel LED, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Back panel LED is correctly changed.



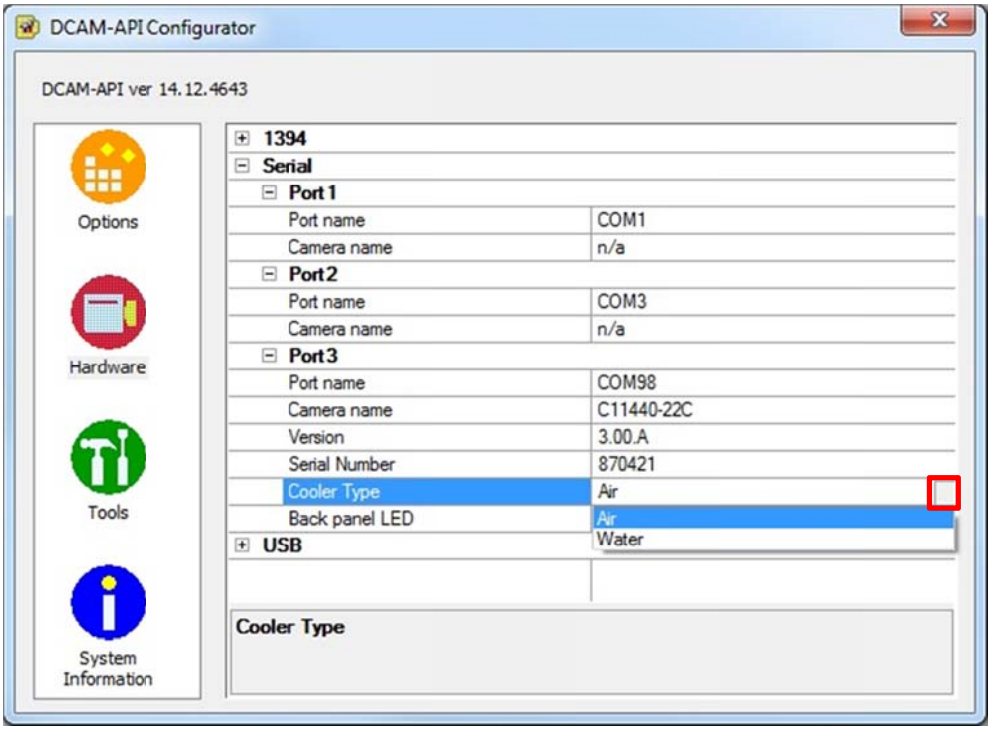
3.1.5 Sensor Cooler

The camera has three sensor cooling functions, OFF, ON and MAX. In case the camera with Water-cooling mode, this function can be selected.

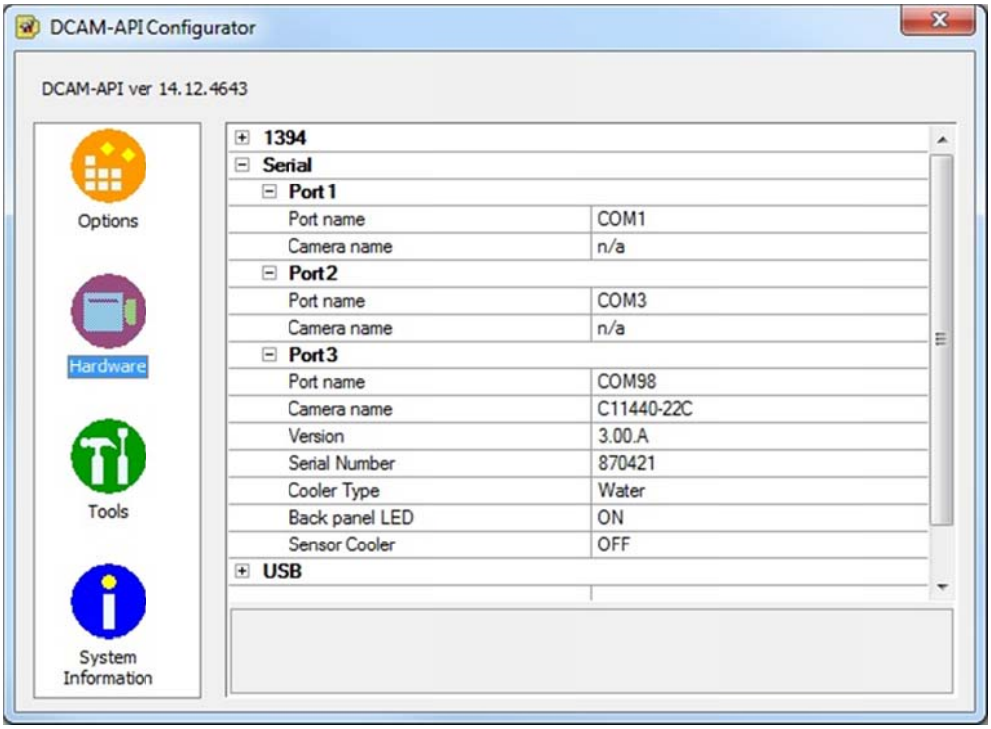
[OFF] – Keep no cooling. This is value default.
[ON] – The sensor cooled up to the cooling temperature target.
[MAX] – The sensor is as cooled as possible.

3.1.6 Changing cooler type through Camera Link

Camera will be listed under Serial port. When you change cooler type, click the box next of value in “Cooler Type” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options.

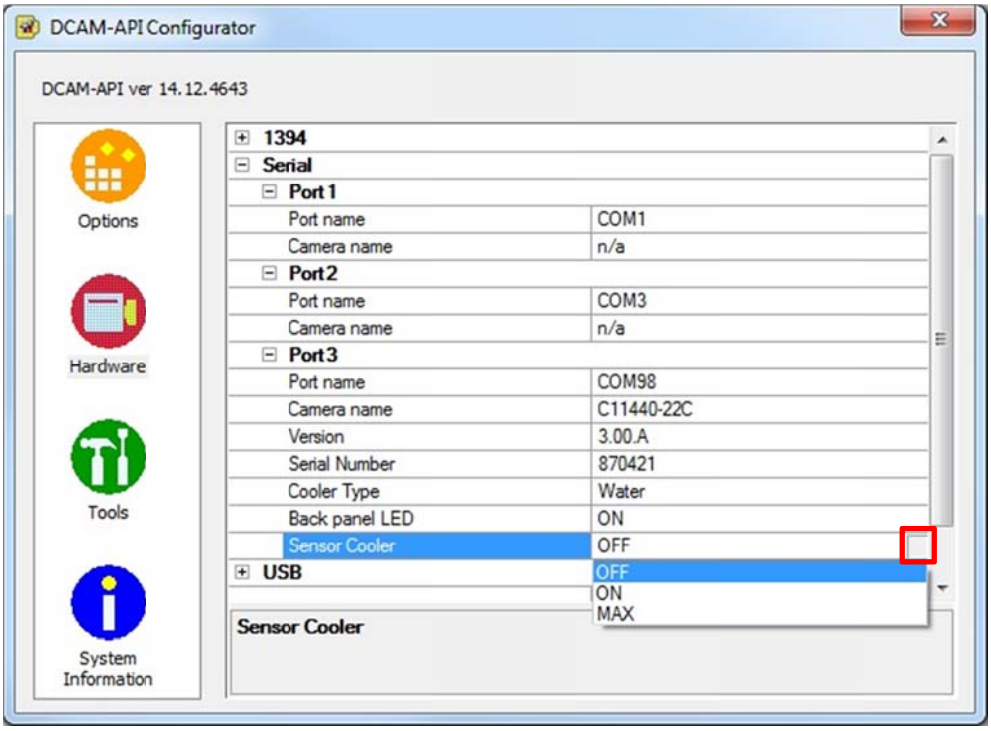


After changing cooler type, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the cooler type is correctly changed.



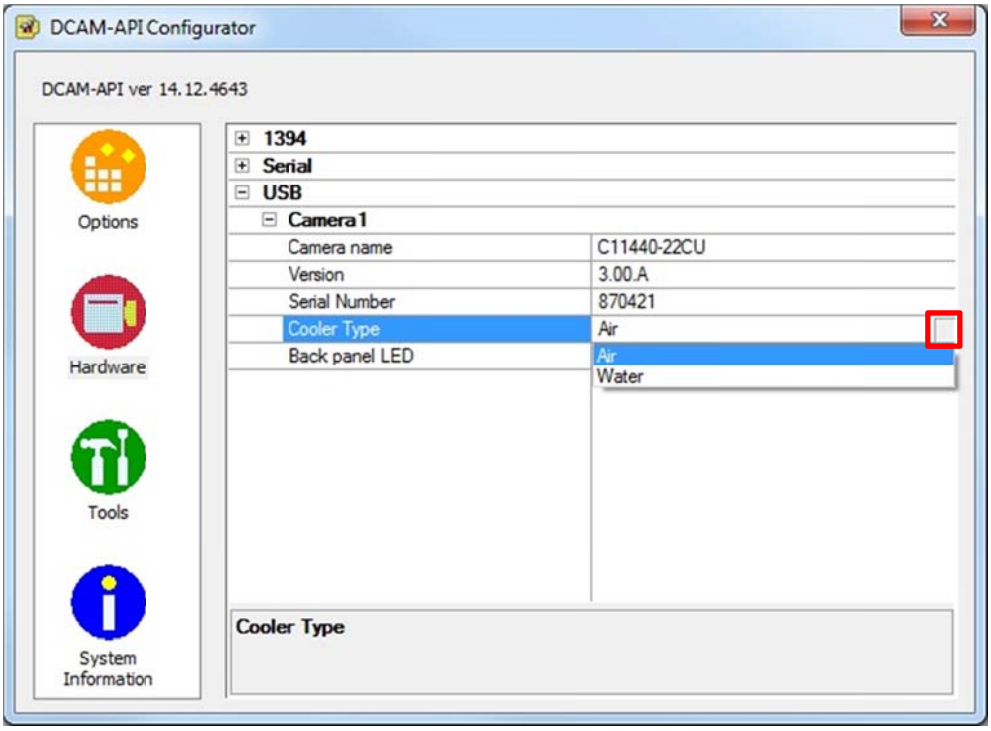
3.1.7 Changing sensor cooler through Camera Link

In case the camera with Water-cooling mode, Cooler Type = WATER, the keyword of sensor cooler is added. When you change sensor cooler function, click the box next of value in “Sensor Cooler” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options.

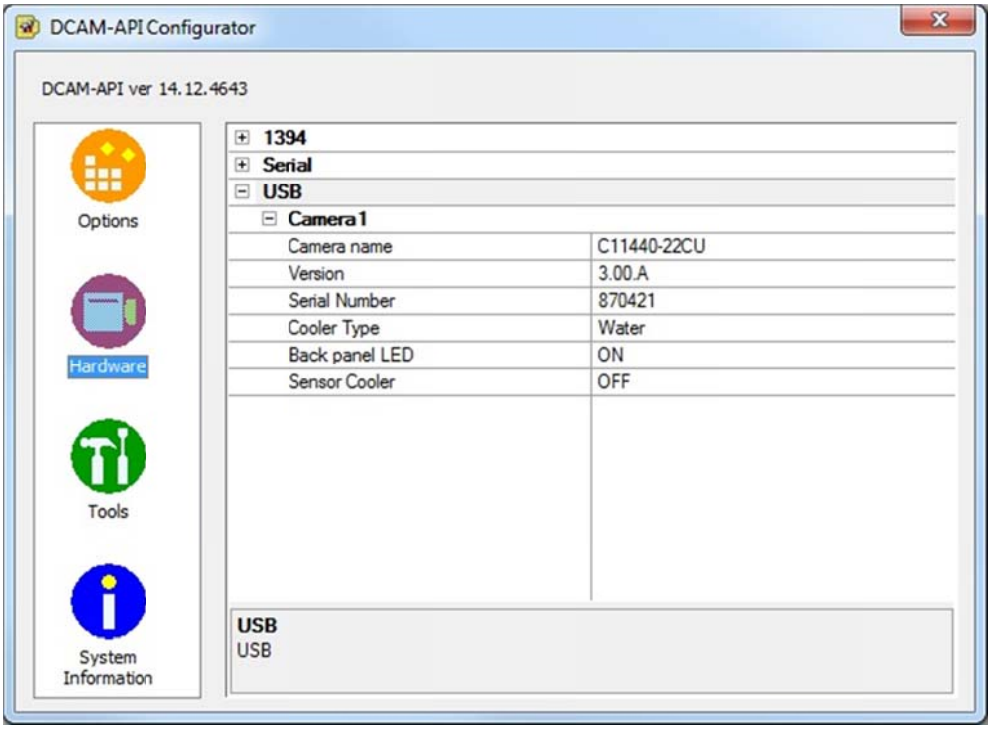


3.1.8 Changing cooler type through USB 3.0

Camera will be listed under USB. When you change cooler type, click the box next of value in “Cooler Type” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options.

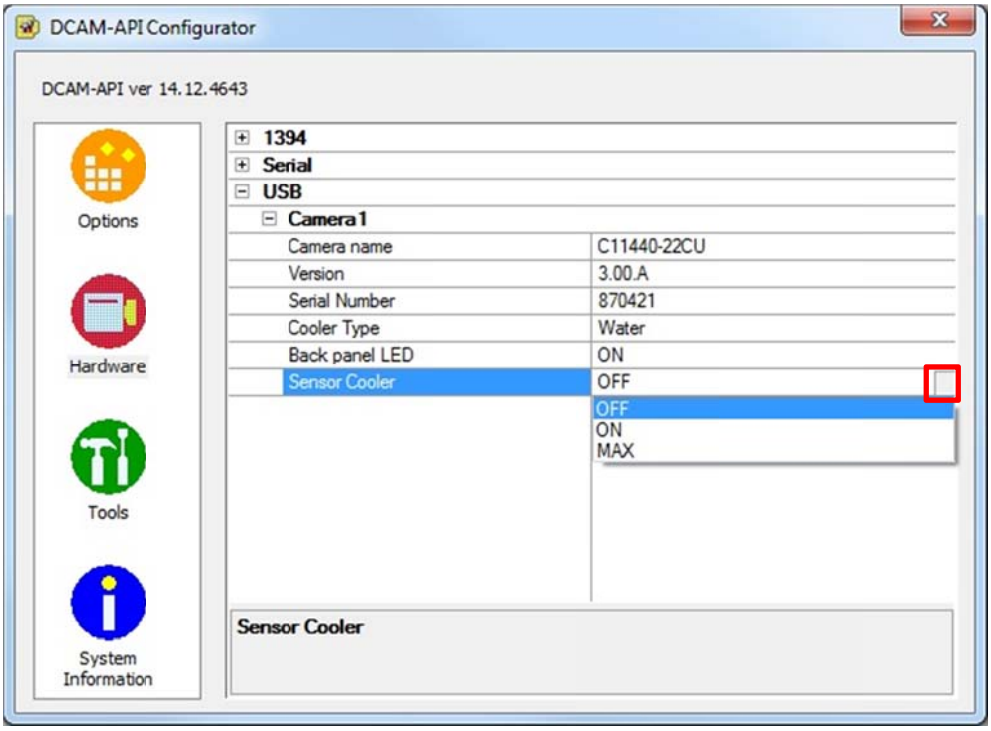


After changing cooler type, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the cooler type is correctly changed.

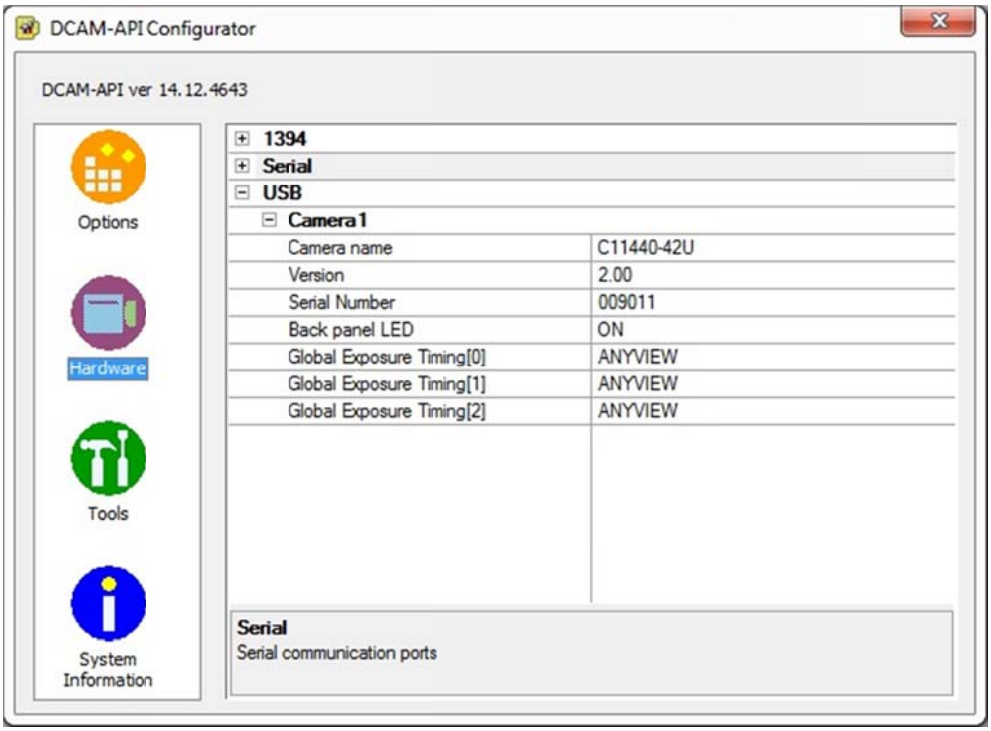


3.1.9 Changing sensor cooler through USB 3.0

In case the camera with Water-cooling mode, Cooler Type = WATER, the keyword of sensor cooler is added. When you change sensor cooler function, click the box next of value in “Sensor Cooler” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options.



3.2 C11440-42U



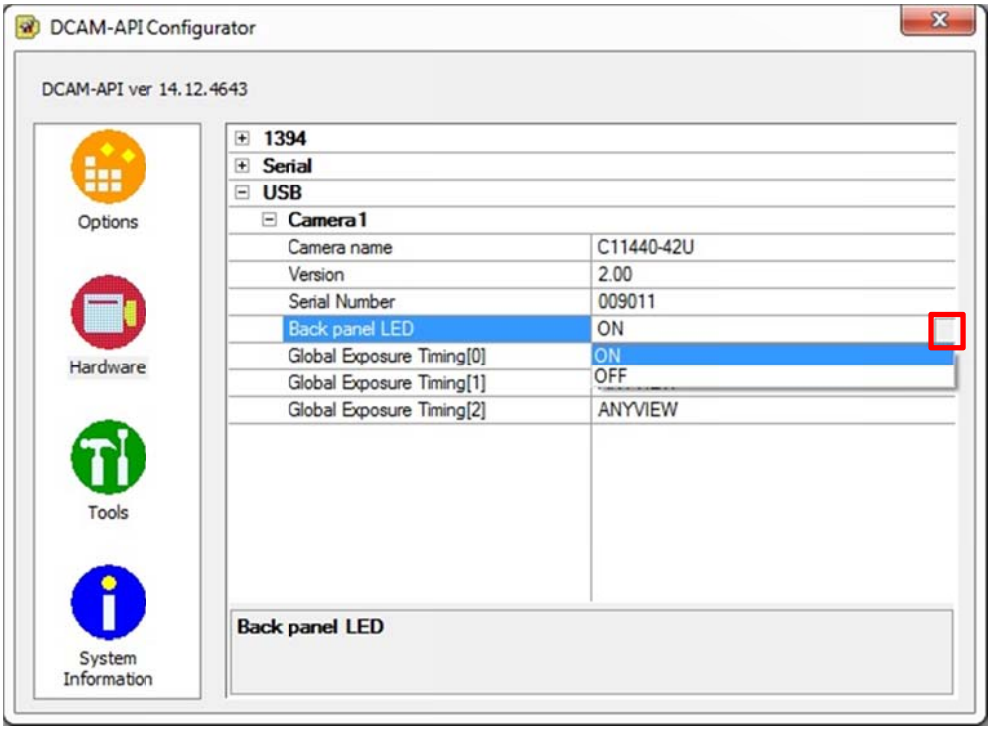
The options for C11440-42U are different by camera versions. “Back panel LED” is supported by all camera version. “Global Exposure Timing” is supported by ver2.0 or later.

3.2.1 Back panel LED

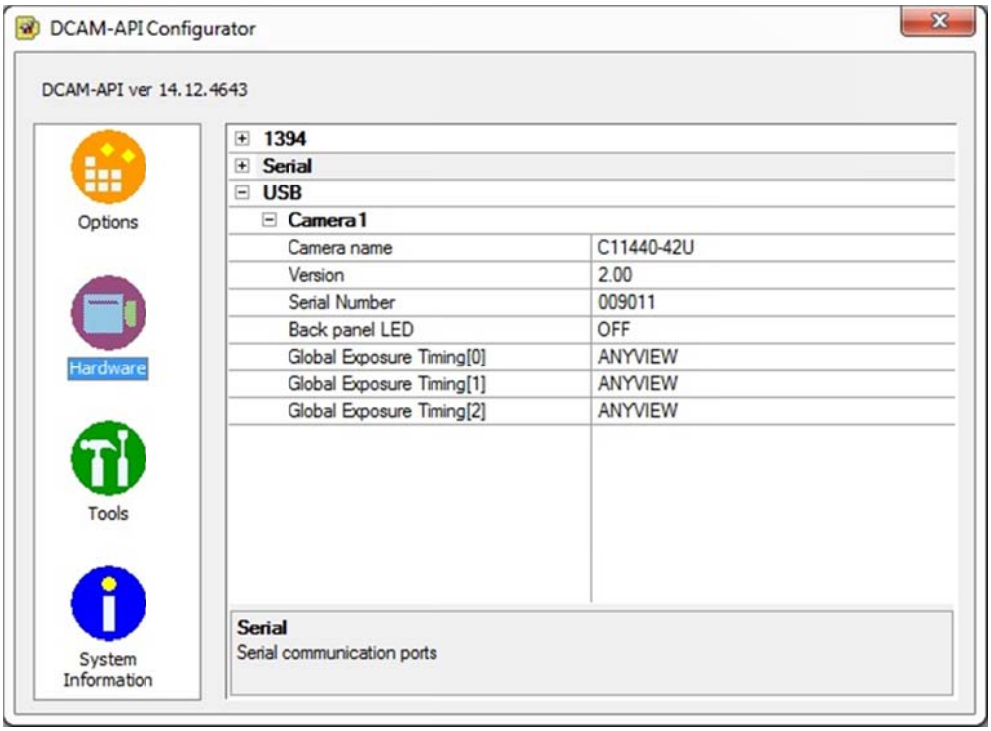
Back panel LED can be turned off. Default value is ON.

3.2.2 Changing Back panel LED

Camera will be listed under “USB”. When you change Back panel LED, click the box next of value in “Back panel LED” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the LED Options.



After changing Back panel LED, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Back panel LED is correctly changed.



3.2.3 Global Exposure Timing

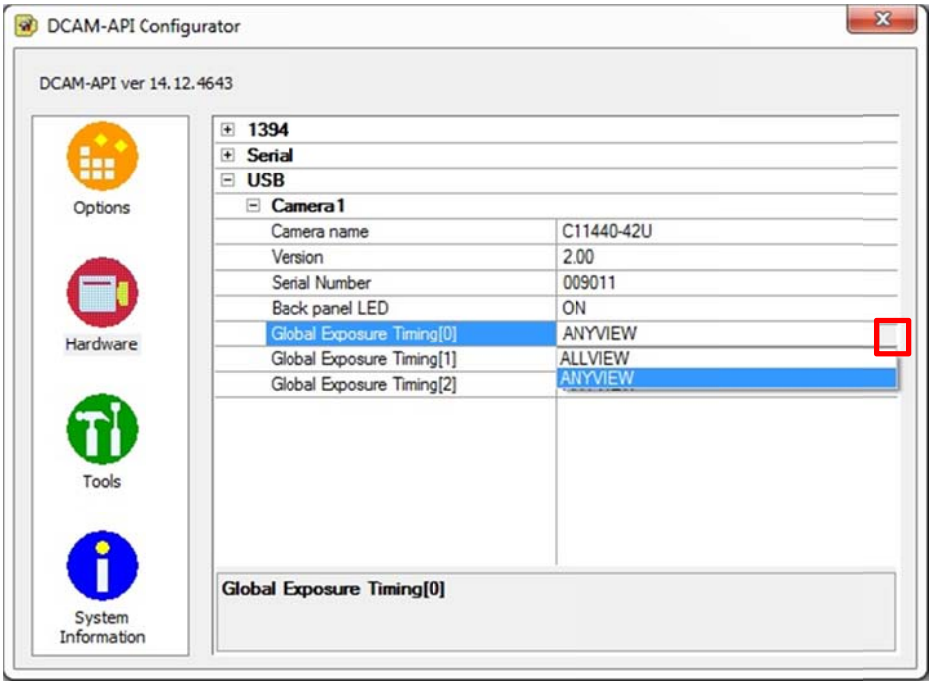
This function is used on W-View mode. If C11440-42U has W-View mode, the camera has two kinds of global exposure timing output functions, ANYVIEW and ALLVIEW.

[ANYVIEW] – The signal based on the longer exposure time is output.
[ALLVIEW] – The signal based on the shorter exposure time is output.

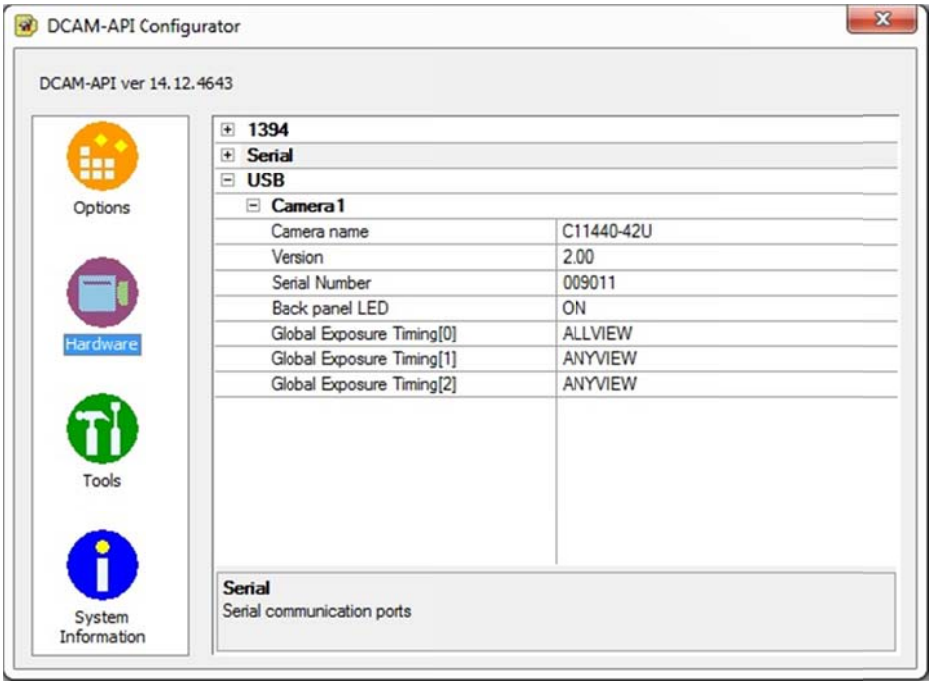
The camera has three output channels. You can change the global exposure timing output in each channel individually.

3.2.4 Changing Global Exposure Timing

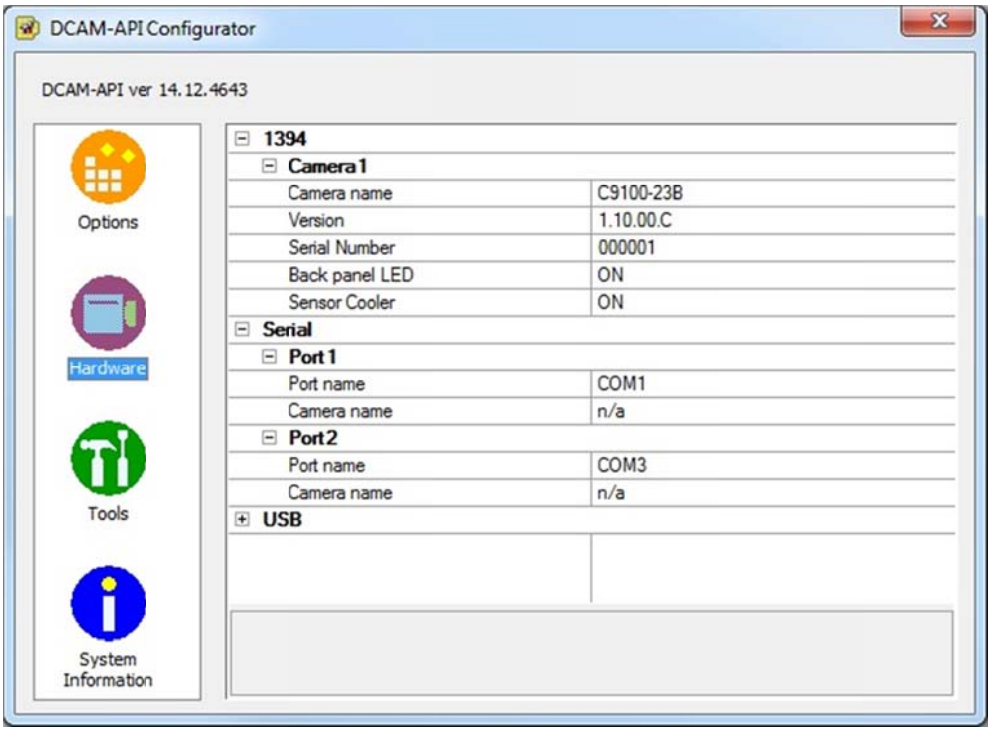
When you change Global Exposure Timing function, click the box next of value in “Global Exposure Timing[x]” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Global Exposure Timing Options.



After changing Global Exposure Timing, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Global Exposure Timing is correctly changed.



3.3 C9100-23B / -24B



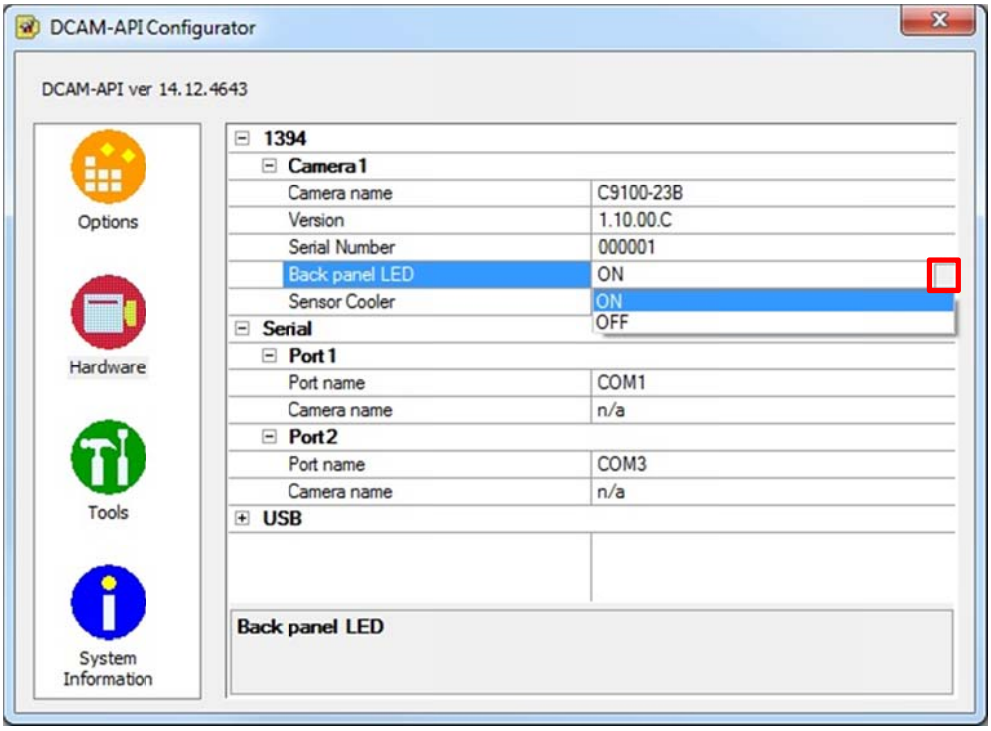
C9100-23B / -24B has two options, “Back panel LED” and “Sensor Cooler”.

3.3.1 Back panel LED

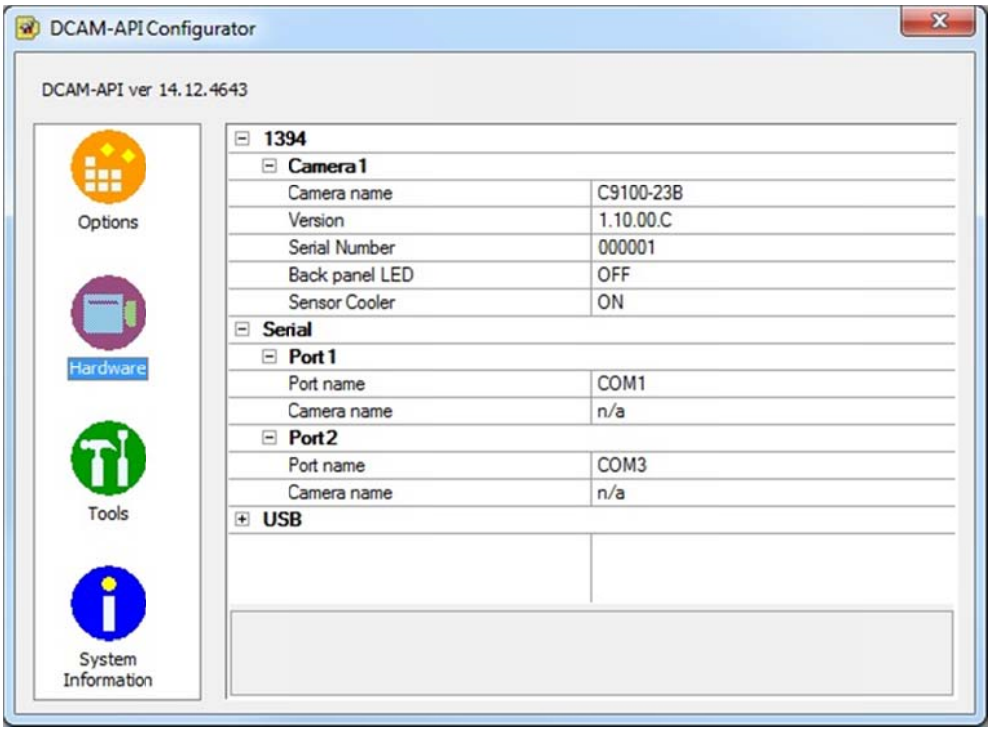
Back panel LED can be turned off. Default value is ON.

3.3.2 Changing Back panel LED

Camera will be listed under 1394. When you change Back panel LED, click the box next of value in “Back panel LED” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the LED Options.



After changing Back panel LED, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Back panel LED is correctly changed.



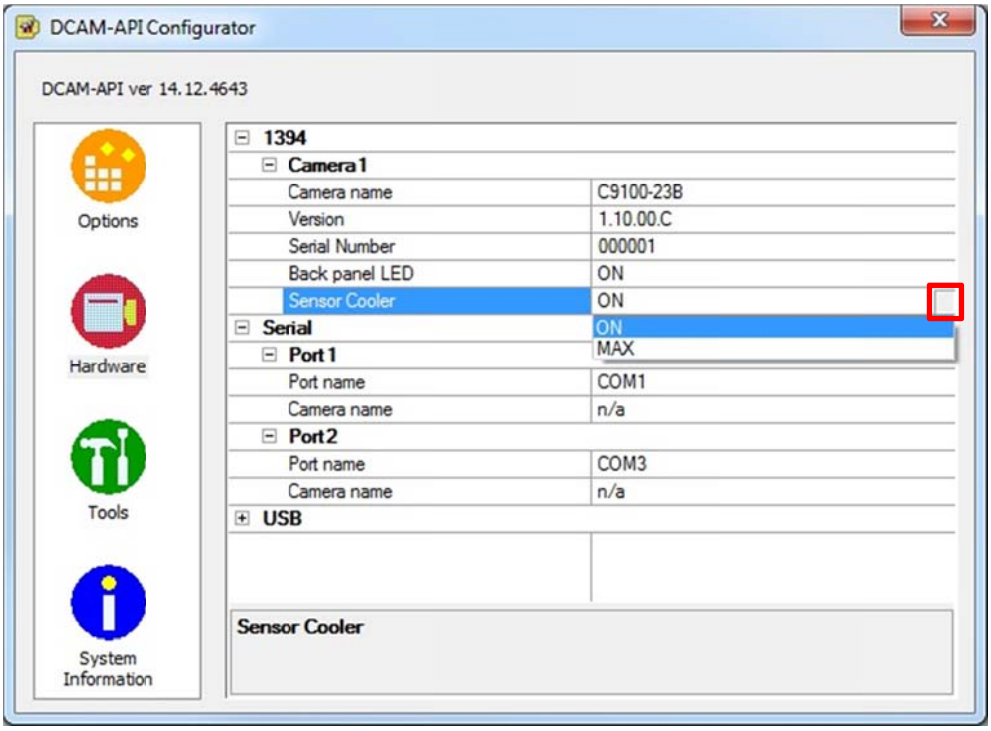
3.3.3 Sensor Cooler

The camera has two or three sensor cooling functions, OFF, ON and MAX.

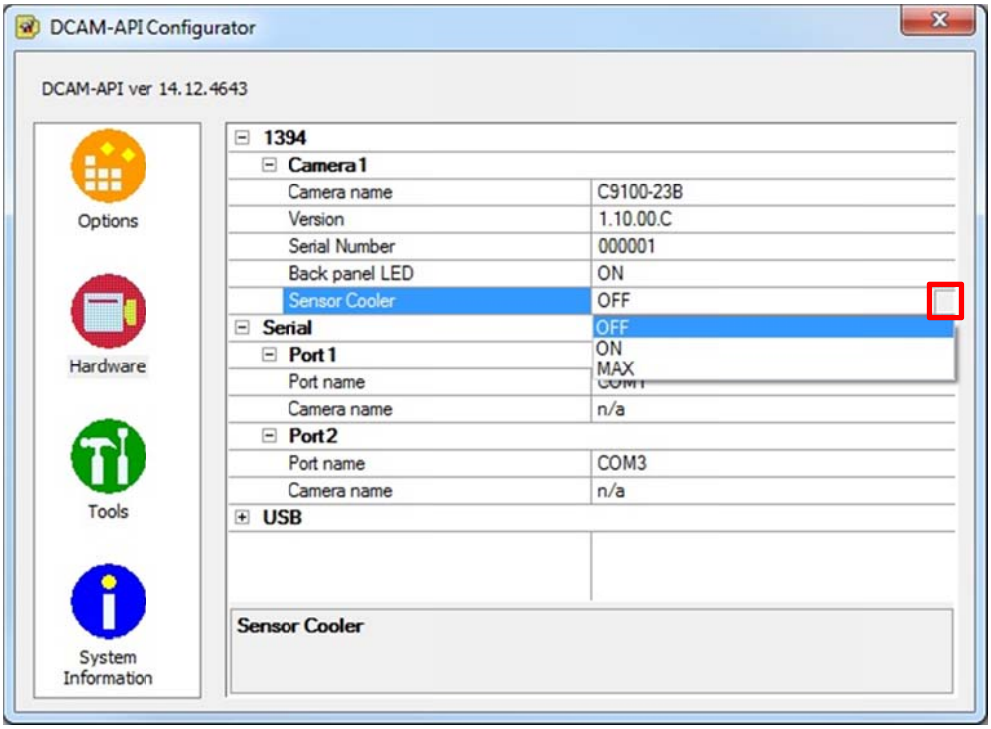
[OFF] – Keep no cooling. In case the camera with Water-cooling mode, this value can be selected.
[ON] – The sensor cooled up to the cooling temperature target.
[MAX] – The sensor is as cooled as possible.

3.3.4 Changing sensor cooler

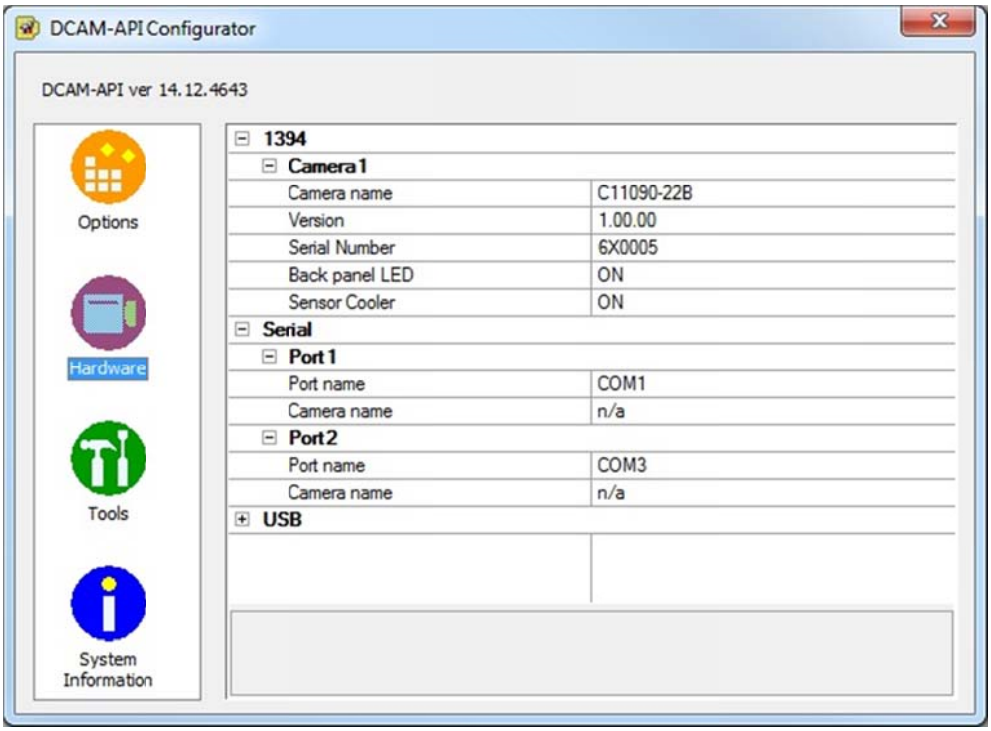
When you change sensor cooler function, click the box next of value in “Sensor Cooler” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options. The following is a case of Air-cooling mode.



The following is a case of Water-cooling mode.



3.4 C11090-22B



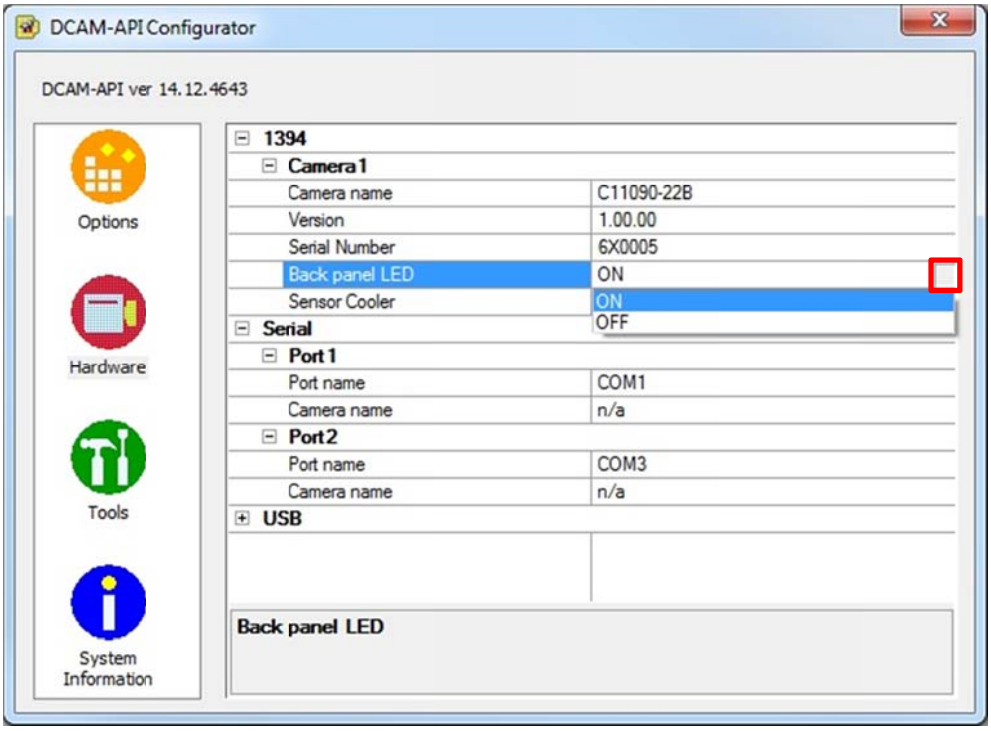
C11090-22B has two options, “Back panel LED” and “Sensor Cooler”.

3.4.1 Back panel LED

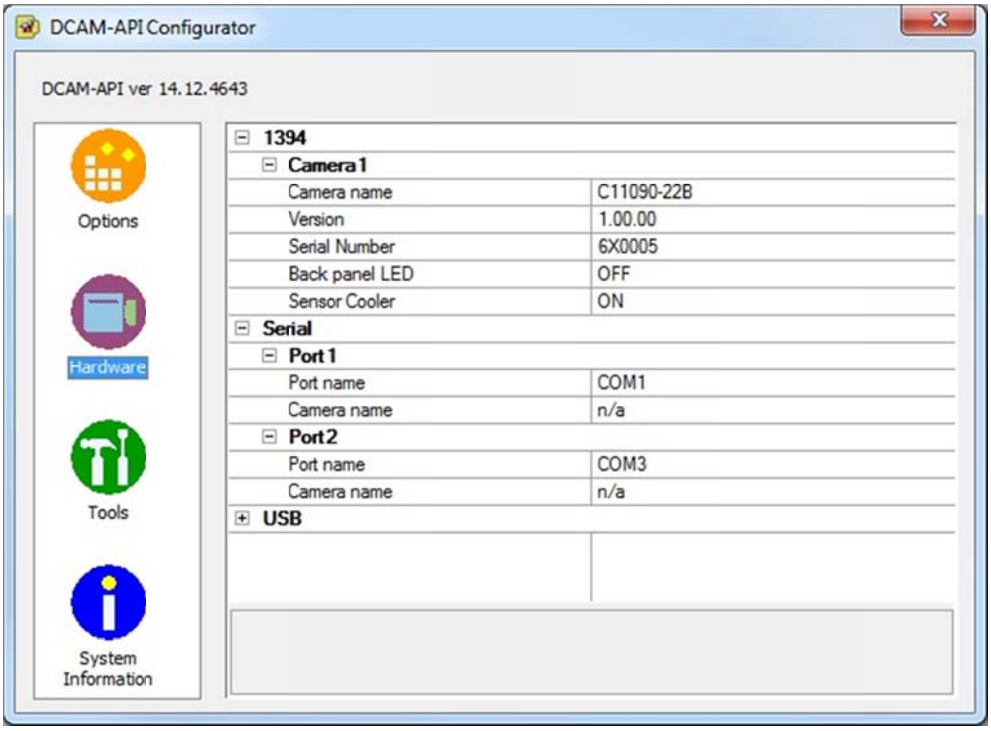
Back panel LED can be turned off. Default value is ON.

3.4.2 Changing Back panel LED

Camera will be listed under 1394. When you change Back panel LED, click the box next of value in “Back panel LED” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the LED Options.



After changing Back panel LED, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Back panel LED is correctly changed.



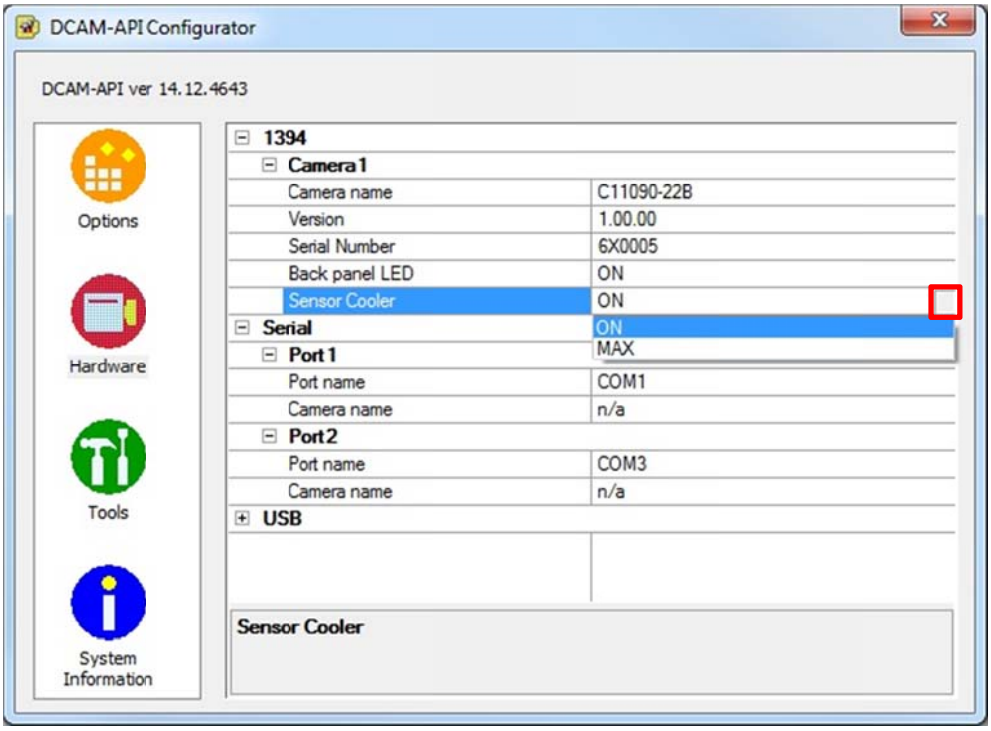
3.4.3 Sensor Cooler

The camera has two or three sensor cooling functions, OFF, ON and MAX.

[OFF] – Keep no cooling. In case the camera with Water-cooling mode, this value can be selected.
[ON] – The sensor cooled up to the cooling temperature target.
[MAX] – The sensor is as cooled as possible.

3.4.4 Changing sensor cooler

When you change sensor cooler function, click the box next of value in “Sensor Cooler” row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Cooling Options. The following is a case of Air-cooling mode.



The following is a case of Water-cooling mode.

