DCAM Configurator Instruction Manual

•	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.

18.11

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 10 / 8.1 / 8 / 7 (32bit and 64bit)
Interface	Serial, USB 3.0
Additional software	DCAM-API 18.11 or later



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 7, Windows 8, Windows 8.1 and Windows 10 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.

DCAM-API	IEEE1394 Camera
	Active Silicon FireBird / Phoenix
	USB Camera
	GigE Camera for Flat Panel Senso
	Tools
Modules and Drivers	Others

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

DCAM-API	DCAM Configurator
	ExCap
	IMG to TIFF Converter
	DCAMCAP
	EM Gain Readjustment
Modules and Drivers HAMAMATSU	

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 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.

ت (ي د)o yoi hangi	u want to allow es to this comp	the following program to make uter?
	78)	Program name: Verified publisher: File origin:	dcamcfg HAMAMATSU PHOTONICS K.K. Hard drive on this computer
Shov	w <u>d</u> etai	ls	Yes No
			Change when these notifications app

2.2 INITIAL VIEW

IEEE 1394	enable
USB3.0 (general)	enable
Active Silicon FireBird / Phoenix	enable
ware	

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

	Interfaces	
	IEEE 1394	enable
	USB3.0 (general)	enable
lardware		
Tools		

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

E 139	4		
😑 🗉 Seria	al		
	ort 1		
P	ort name	COM1	
C	amera name	n/a	
EP	ort2		
P	ort name	COM3	
C	amera name	n/a	
EP	ort3		
P	ort name	COM96	
C	amera name	n/a	
🕀 USE	1		
87			

"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 C13440-20CU.

A	∃ 1394		
	Serial		
	E Port 1		
tions	Port name	COM1	
	Camera name	n/a	
-	E Port2		
	Port name	COM3	
	Camera name	n/a	
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
	Serial Number	930012	
	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Allview	
	Global Evoneure Timina[1]	ΔΙΙνίσια	

2.5 SYSTEM INFORMATION

	Items	Information	
	Modules		
tions	dcamapi.dll	16.8.641.5114	
0113	dcamdig.dll	16.8.642.5114	
	fg1394oh.dll	16.8.643.5114	
	fgphnx.dll	16.8.644.5114	
	fgu <mark>s</mark> b3.dll	16.8.647.5114	
	IEEE 1394 drivers		
	Active Silicon FireBird /	Phoenix drivers	
	USB camera drivers —		

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

3 Camera Option

3.1 C9100-23B / -24B

	E 1394	
	🗆 Camera 1	
	Camera name	C9100-23B
Options	Version	1.10.00.C
	Serial Number	000001
	Back panel LED	ON
	Sensor Cooler	ON
	🗉 Serial	Wi
and up to	Port 1	
hardware	Port name	COM1
	Camera name	n/a
	Port2	1.0000
	Port name	COM3
U	Camera name	n/a
Tools	± USB	

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

3.1.1 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.1.2 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.

□ 1394	
🖂 🖂 Camera 1	
Camera name	C9100-23B
3 Version	1.10.00.C
Serial Number	000001
Back panel LED	ON
Sensor Cooler	ON
🗉 Serial	OFF
Port 1	
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
USB	
8.7	

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.

	E 1394	
	Camera 1	· · · · · · · · · · · · · · · · · · ·
	Camera name	C9100-23B
ptions	Version	1.10.00.C
	Serial Number	000001
	Back panel LED	OFF
	Sensor Cooler	ON
	🗉 Serial	
rdware	Port 1	
ruware	Port name	COM1
	Camera name	n/a
	E Port2	
	Port name	COM3
	Camera name	n/a
pols	USB	

3.1.3 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.

3.1.4 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 Aircooling mode.

□ 1394			
E Camer	ra1		
Camera	aname	C9100-23B	
ns Version	1	1.10.00.C	
Serial N	Number	000001	
Back p	anel LED	ON	
Sensor	Cooler	ON	
E Serial		ON	
E Port 1		MAX	_
Port na	me	COM1	
Camera	aname	n/a	
E Port2			
Port na	me	COM3	
Camera	aname	n/a	
+ USB		No	

The following is a case of Water-cooling mode.

	⊟ 1394	
	Camera1	
	Camera name	C9100-23B
Options	Version	1.10.00.C
	Serial Number	000001
	Back panel LED	ON
	Sensor Cooler	OFF
	🗉 Serial	OFF
Hardware	Port 1	ON
nardware	Port name	COM
	Camera name	n/a
	E Port2	
	Port name	COM3
U	Camera name	n/a
Tools	🗄 USB	
1000		

3.2 C11090-22B

E 1394		
😑 🗆 🖂	1	
Camera n	ame	C11090-22B
ns Version		1.00.00
Serial Nu	mber	6X0005
Back par	nel LED	ON
Sensor C	ooler	ON
E Serial		
E Port 1		
Port name	e	COM1
Camera n	ame	n/a
E Port2		
Port name	е	COM3
Camera n	ame	n/a
± USB		

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

3.2.1 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.2.2 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.

E 1394	
🖂 🖂 Camera 1	
Camera name	C11090-22B
s Version	1.00.00
Serial Number	6X0005
Back panel LE	D ON
Sensor Cooler	ON
🗉 Serial	OFF
E Port 1	
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
± USB	
82	

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.

	⊡ 1394	
	E Camera 1	74
	Camera name	C11090-22B
otions	Version	1.00.00
	Serial Number	6X0005
	Back panel LED	OFF
	Sensor Cooler	ON
	🗉 Serial	ivê
dwara	Port 1	
uware	Port name	COM1
	Camera name	n/a
	Port2	1.0000
1 7	Port name	COM3
	Camera name	n/a
ools	± USB	Asis
<u> </u>		

3.2.3 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.

3.2.4 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 Aircooling mode.

	E 1394	
	Camera 1	
	Camera name	C11090-22B
ons	Version	1.00.00
	Serial Number	6X0005
	Back panel LED	ON
	Sensor Cooler	ON
	Serial	ON
	Port 1	MAX
	Port name	COM1
	Camera name	n/a
	E Port2	
	Port name	COM3
	Camera name	n/a
	• USB	
<u>s:</u>		

The following is a case of Water-cooling mode.

⊟ 1394		
🖂 🖂 Camera 1		
Camera name	C11090-	22B
Version	1.00.00	
Serial Number	6X0005	
Back panel LE	D ON	
Sensor Cooler	OFF	
E Serial	OFF	
E Port 1	ON	
Port name	MAX GOM1	
Camera name	n/a	
E Port2		
Port name	COM3	
Camera name	n/a	
± USB	in the second second	
87		

3.3 C11440-22CU

□ Serial □ Port 1 Port name COM1 Camera name n/a □ Port2 Port name COM3 Camera name n/a □ Port3 Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON USB	± 13	94		
□ Port 1 Port name COM1 Camera name n/a □ Port 2 Port name COM3 Camera name n/a □ Port 3 Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON ¥ USB	E Se	rial		
Port name COM1 Camera name n/a □ Port2 Port name COM3 Camera name n/a □ Port3 Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON USB	E	Port 1		
Camera name n/a □ Port 2 Port name COM3 Camera name n/a □ Port 3 Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON USB		Port name	COM1	
Port 2 Port name COM3 Camera name n/a Port 3 - Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON + USB		Camera name	n/a	
Port name COM3 Camera name n/a □ Port 3 Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON ♥ USB USB	Ξ	Port2		
Camera name n/a □ Port 3 Pot name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON Image: USB Image: Constraint of the second		Port name	COM3	
□ Port 3 Pot name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON Image: USB USB		Camera name	n/a	
Port name COM96 Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON !! USB	E	Port3		
Camera name C11440-22C Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON ••• USB		Port name	COM96	
Version 4.00.A Serial Number 920003 Cooler Type Air Back panel LED ON		Camera name	C11440-22C	
Serial Number 920003 Cooler Type Air Back panel LED ON USB		Version	4.00.A	
Cooler Type Air Back panel LED ON •••••••••••••••••••••••••		Serial Number	920003	
Back panel LED ON USB		Cooler Type	Air	
+ USB		Back panel LED	ON	
	± US	B		

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

3.3.1 Cooler type

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

Keyword	Cooling method	
Air	Air-cooling	The heated side of a peltier element is cooled by a
	mode	fan of the camera. When the camera is turned on,
	(Forced air-	the fan starts rotating and cooling.
	cooled)	This is factory setting.
Water	Water-cooling	The heated side of a peltier element should be
	mode	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.

3.3.2 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.3.3 Changing Back panel LED

Camera will be listed under Serial or 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.

∃ 1394	
E Serial	
E Port 1	S
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
Port3	
Port name	COM96
Camera name	C11440-22C
Version	4.00.A
Serial Number	920003
Cooler Type	Air
Back panel LED	ON
USB	ON
	OFF

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.

± 1394	
E Serial	
E Port 1	
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
E Port3	
Port name	COM96
Camera name	C11440-22C
Version	4.00.A
Serial Number	920003
Cooler Type	Air
Back panel LED	OFF
± USB	

3.3.4 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.

3.3.5 Changing cooler type

Camera will be listed under Serial or USB 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.

∃ 1394			
🖃 Serial			
- Port 1			
Port n	ame	COM1	
Camer	a name	n/a	
E Port2	1		
Port n	ame	COM3	
Camer	a name	n/a	
E Port3			
Port n	ame	COM96	
Camer	a name	C11440-22C	
Versio	n	4.00.A	
Serial	Number	920003	
Cooler	Туре	Air	
Back	panel LED	Air	
± USB		Water	
rmation Cooler	panel LED	Air Air Water	

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.

± 1394		
Serial		
Port 1	157	
Port name	COM1	
Camera name	n/a	
Port2		
Port name	COM3	
Camera name	n/a	
E Port3		
Port name	COM96	
Camera name	C11440-22C	
Version	4.00.A	
Serial Number	920003	
Cooler Type	Water	
Back panel LED	ON	
Sensor Cooler	OFF	
± USB		

3.3.6 Changing sensor cooler

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.

	± 1394		
	E Serial		
	Port 1	127	
Options	Port name	COM1	
	Camera name	n/a	
	E Port2		
	Port name	COM3	
	Camera name	n/a	
duara	E Port3	100	
ware	Port name	COM96	
	Camera name	C11440-22C	
	Version	4.00.A	
	Serial Number	920003	
21. I	Cooler Type	Water	
em	Back panel LED	ON	_
ion	Sensor Cooler	OFF	
	🗄 USB	OFF	
		ON	
	Sensor Cooler	MAX	

3.4 C11440-42U

· ± 1394	
USB	
🗆 Camera 1	
Camera name	C11440-42U
Version	2.40
Serial Number	000179
Back panel LED	ON
Global Exposure Timing[0]	ALLVIEW
Global Exposure Timing[1]	ALLVIEW
Global Exposure Timing[2]	ALLVIEW
1	

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.

3.4.1 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.4.2 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.

	± 1394	
	Serial	
	🖃 USB	
Options	🗆 Camera 1	
	Camera name	C11440-42U
	Version	2.40
	Serial Number	000179
Hardware	Back panel LED	ON
	Global Exposure Timing[0]	ON
riardware	Global Exposure Timing[1]	OFF.
1000 C	Global Exposure Timing[2]	ALLVIEW
System		
nformation	Pask paged LED	

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.

	± 1394	
-		
	USB	
Options	E Camera 1	
	Camera name	C11440-42U
	Version	2.40
	Serial Number	000179
.	Back panel LED	OFF
ardware	Global Exposure Timing[0]	ALLVIEW
	Global Exposure Timing[1]	ALLVIEW
	Global Exposure Timing[2]	ALLVIEW
ystem		

3.4.3 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.

3.4.4 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.

H 1394	
E Serial	
🗆 USB	
🗆 Camera 1	
Camera name	C11440-42U
Version	2.40
Serial Number	000179
Back panel LED	ON
Global Exposure Timing[0]	ALLVIEW
Global Exposure Timing[1]	ALLVIEW
Global Exposure Timing[2]	ANYVIEW
Global Exposure Timing[0]	1 as

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.

A	∃ 1394	
	Serial	
	🗉 USB	
Options	Camera 1	
	Camera name	C11440-42U
	Version	2.40
	Serial Number	000179
	Back panel LED	ON
lardware	Global Exposure Timing[0]	ANYVIEW
and that c	Global Exposure Timing[1]	ALLVIEW
	Global Exposure Timing[2]	ALLVIEW
Task		
TOOIS		

3.5 C13440-20CU

	± 1394		
	⊡ Serial		
	Port 1		
Options	+ Port2		
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
	Serial Number	900008	
	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
1	Global Exposure Timing[0]	Allview	
1	Global Exposure Timing[1]	Allview	
	Global Exposure Timing[2]	Allview	
on	Hot Pixel Correction Level	Standard	
	± USB		

C13440-20CU has six options, "Cooler Type", "Back panel LED", "Sensor Cooler", "V2 Compatibility Mode", "Global Exposure Timing" and "Hot Pixel Correction Level".

3.5.1 Cooler type

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

Keyword	Cooling method	
Air	Air-cooling	The heated side of a peltier element is cooled by a
	mode	fan of the camera. When the camera is turned on,
	(Forced air-	the fan starts rotating and cooling.
	cooled)	This is factory setting.
Water	Water-cooling	The heated side of a peltier element should be
	mode	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.

3.5.2 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.5.3 Changing Back panel LED

Camera will be listed under Serial or 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.

	⊞ 1394		
C	🗉 Serial		
	E Port 1		
Options	± Port2		
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
Hardware	Serial Number	900008	
rial aware	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	ON	
	Global Exposure Timing[0]	OFF	
	Global Exposure Timing[1]	Allview	
System	Global Exposure Timing[2]	Allview	
Information	Hot Pixel Correction Level	Standard	
	± USB		

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.

	± 1394		
	E Serial		
	Port 1		
ns	Port2		
	Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
	Serial Number	900008	
	Cooler Type	Air	
	Back panel LED	OFF	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Allview	5
	Global Exposure Timing[2]	Allview	
	Hot Pixel Correction Level	Standard	
	± USB		
	Hot Pixel Correction Level	Standard	

3.5.4 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.

3.5.5 Changing cooler type

Camera will be listed under Serial or USB 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.

	± 1394		
(CHA)	E Serial		
	Port 1		
Options	Port2		
	Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
Hardware	Serial Number	900008	
naruware	Cooler Type	Air	
	Back panel LED	Air	
	V2 Compatibility Mode	Water	
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Allview	
System	Global Exposure Timing[2]	Allview	
Information	Hot Pixel Correction Level	Standard	
	± USB		

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.

	± 1394		
	Serial		
	E Port 1		
Options	E Port2		
	E Port3		
	Port name	COM96	i.
1	Camera name	C13440-20C	
10	Version	4.03.B	
	Serial Number	900008	
	Cooler Type	Water	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	č
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Allview	
	Global Exposure Timing[2]	Allview	
1	Hot Pixel Correction Level	Standard	
	Sensor Cooler	OFF	

3.5.6 Changing sensor cooler

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.

-	∃ 1394		
00	E Serial		
	Port 1		
Options	+ Port2		
	E Port3		
and the second	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
Hardware	Serial Number	900008	
rial uware	Cooler Type	Water	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Allview	
System	Global Exposure Timing[2]	Allview	
Information	Hot Pixel Correction Level	Standard	
	Sensor Cooler	OFF	
	I HSR	OFF	_
	Sensor Cooler	ON	

3.5.7 V2 Compatibility Mode

The camera can be operated as C11440-22CU. Please change this function to "ON" if you want to run as C11440-22CU.

3.5.8 Changing V2 Compatibility Mode

Camera will be listed under Serial or USB port. When you change V2 Compatibility Mode, click the box next of value in "V2 Compatibility Mode" row. Please refer to the figure below. The button is marked with red square. Click this button will display the V2 Compatibility Options.

	± 1394		
CCC I	Serial		
	Port 1		
Options	Port2		
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
tware	Serial Number	900008	
ware	Cooler Type	Air	
	Back panel LED	ON	_
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	OFF	
	Global Exposure Timing[1]	ON	
em	Global Exposure Timing[2]	Allview	
tion	Hot Pixel Correction Level	Standard	
	+ USB		

After changing V2 Compatibility Mode, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the V2 Compatibility Mode is correctly changed and Camera name returned C11440-22C(U).

∃ 1394	
E Serial	
E Port 1	
E Port2	
E Port3	
Port name	COM96
Camera name	C11440-22C
Version	4.03.B
Serial Number	900008
Cooler Type	Air
Back panel LED	ON
V2 Compatibility Mode	ON
Hot Pixel Correction Level	Standard
	11

3.5.9 Global Exposure Timing

This function is used on W-View mode. The camera has four kinds of global exposure timing output functions, Anyview, Allview, Top and Bottom.

[Anyview] – The signal based on the longer exposure time is output. [Allview] – The signal based on the shorter exposure time is output. [Top] – The signal based on the upper view exposure time is output. [Bottom] – The signal based on the lower view exposure time is output.

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

3.5.10 Changing Global Exposure Timing

Camera will be listed under Serial or USB port. 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.

	± 1394		
	🖻 Serial		
	Port 1		
ions	Port2		
	E Port3		
33	Port name	COM96	
	Camera name	C13440-20C	
1	Version	4.03.B	
	Serial Number	900008	
1	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Alview	
	Global Exposure Timing[2]	Anyview	
	Hot Pixel Correction Level	Bottom	
	I LICD	- Martine -	

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.

	± 1394		
	Serial		
-	E Port 1		
ns	E Port2		
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
	Serial Number	900008	
	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Anyview	
	Global Exposure Timing[1]	Allview	
	Global Exposure Timing[2]	Allview	
	Hot Pixel Correction Level	Standard	
	± USB		

3.5.11 Hot Pixel Correction Level

The camera has three level correction maps, Minimum, Standard and Aggressive. You can select the hot pixel correction level depending on the purpose, clean image with longer exposure or quantitatively. Please refer to the camera instruction manual for more information.

3.5.12 Changing Hot Pixel Correction Level

Camera will be listed under Serial or USB port. When you change Hot Pixel Correction Level function, click the box next of value in "Hot Pixel Correction Level" row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Hot Pixel Correction Levels.

	∃ 1394		
Cinc de la cince d	🗉 Serial		
	E Port 1		
Options	E Port2		
	E Port3		
	Port name	COM96	
	Camera name	C13440-20C	
	Version	4.03.B	
Hardware	Serial Number	900008	
Hardware	Cooler Type	Air	
	Back panel LED	ON	
	V2 Compatibility Mode	OFF	
	Global Exposure Timing[0]	Allview	
	Global Exposure Timing[1]	Allview	
System	Global Exposure Timing[2]	Allview	_
Information	Hot Pixel Correction Level	Standard	
	± USB	Standard	
	-	Minimum	
	Link Direct Compations Laural	Aggressive	

After changing Hot Pixel Correction Level, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the Hot Pixel Correction Level is correctly changed.

⊞ 1394		
🗉 Serial		
Port 1		
Port2		
🖃 Port3		
Port name	COM96	
Camera name	C13440-20C	
Version	4.03.B	
Serial Number	900008	
Cooler Type	Air	
Back panel LED	ON	
V2 Compatibility Mode	OFF	
Global Exposure Timing[0]	Allview	
Global Exposure Timing[1]	Allview	
Global Exposure Timing[2]	Allview	
Hot Pixel Correction Level	Minimum	
± USB	104 	

3.6 C14041-10U

± 1394	
E Serial	
E Port 1	
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
USB	
Camera 1	U7
Camera name	C14041-10U
Version	1.00
Serial Number	900005
Shutter Mode	Rolling

C14041-10U has one option, "Shutter Mode".

3.6.1 Shutter Mode

The camera has two shutter modes Rolling shutter mode and Global shutter mode. The Rolling shutter mode provides high image quality while the Global shutter mode is respond to short exposure time.

3.6.2 Changing Shutter Mode

Camera will be listed under USB. When you change Shutter Mode, click the box next of value in "Shutter Mode" row. Please refer to the figure below. The button is marked with red square. Clicking this button will display the Shutter Modes.

Serial Port 1 Port name	
Port 1 Port name	
Port name	00111
	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
🖃 USB	
🗉 Camera 1	W
Camera name	C14041-10U
Version	1.00
Serial Number	900005
Shutter Mode	Rolling
	Rolling
	Global

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

± 1394	
🖃 Serial	
E Port 1	
Port name	COM1
Camera name	n/a
E Port2	
Port name	COM3
Camera name	n/a
E USB	
🗆 Camera 1	
Camera name	C14041-10U
Version	1.00
Serial Number	900005
Shutter Mode	Global

3.7 C14440-20UP

-	∃ 1394		
	Active Silicon CoaXPress		
HH -	E CoaXPress1		
Options	Camera name	C14440-20UP	
1	Version	1.00	
-	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	ON	
	V3 Emulation Mode	OFF	
laruware			
	USB		
Tools			
B System	Active Silicon CoaXPress Active Silicon CoaXPress		

C14440-20UP has four options, "Cooler Type", "Back panel LED", "Sensor Cooler" and "V3 Emulation Mode".

3.7.1 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 factory setting.
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.

3.7.2 Back panel LED

Back panel LED can be turned off. Factory setting is ON.

3.7.3 Changing Back panel LED

Camera will be listed under Active Silicon CoaXPress or 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.

DCAM-API Conf	igurator		
-	± 1394		
00	Active Silicon CoaXPress		
	CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	ON	
Hardware	V3 Emulation Mode	ON	
i lai uwai e		OFF	
	USB		
5			
I OOIS			
1412 - 201			
		1	
•	Back panel LED		
System			
Information			

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.

	± 1394		
	Active Silicon CoaXPress		
	CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	OFF	
The state of the s	V3 Emulation Mode	OFF	
naruware	Serial	Letter and the second sec	
	± USB		
Tools			
System	Active Silicon CoaXPress Active Silicon CoaXPress		

3.7.4 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.

3.7.5 Changing cooler type

Camera will be listed under Active Silicon CoaXPress or USB 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.

CAM-API Conf	igurator		
-	. . 1394		
C C C C C C C C C C	Active Silicon CoaXPress		
	- CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	Air	
Mandanana	V3 Emulation Mode	Water	
naroware	🗄 Serial		
	± USB		
0			
Tools			
0	Cooler Type		
System Information			

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.

	± 1394		
	Active Silicon CoaXPress		
	CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
	Serial Number	920004	
	Cooler Type	Water	
	Back panel LED	ON	
	V3 Emulation Mode	OFF	
ardware	Sensor Cooler	OFF	
	± Serial	- M(1999)	
	± USB		
U			
Tools			

3.7.6 Changing sensor cooler

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.

	± 1394		
	Active Silicon CoaXPress		
	CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
-	Serial Number	920004	
	Cooler Type	Water	
	Back panel LED	ON	
Hardware	V3 Emulation Mode	OFF	
riai uwai e	Sensor Cooler	OFF	
		OFF	
	USB	ON	
		MAX	
U			
Tools			

3.7.7 V3 Emulation Mode

The camera can emulate C13440-20CU specification. Please change this function to "ON" if you want to run as C13440-20CU.

3.7.8 Changing V3 Emulation Mode

Camera will be listed under Active Silicon CoaXPress or USB port. When you change V3 Emulation Mode, click the box next of value in "V3 Emulation Mode" row. Please refer to the figure below. The button is marked with red square. Click this button will display the V3 Emulation Options.

-	1394		
66	Active Silicon CoaXPress		
	CoaXPress1		
Options	Camera name	C14440-20UP	
	Version	1.00	
-	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	ON	
Hardware	V3 Emulation Mode	OFF	
rial uware		OFF	
	USB	ON	
Tools			
System	V3 Emulation Mode		

After changing V3 Emulation Mode, close DCAM Configurator and restart the camera. You may run DCAM Configurator again to verify the V3 Emulation Mode is correctly changed. Camera name is "C14440-20UP" even it is running in V3 Emulation Mode.

-	± 1394		
	Active Silicon CoaXPress		
	CoaXPress1		
ptions	Camera name	C14440-20UP	
	Version	1.00	
-	Serial Number	920004	
	Cooler Type	Air	
	Back panel LED	ON	
relucing a	V3 Emulation Mode	ON	
ruware			
	∃ USB		
Tools			
~			