

# **DCAM-API**

## **Property List**

For

**C11440-22CU**

(Version 2.50)

**August 2013**

**HAMAMATSU**

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## INTRODUCTION

This manual describes about properties which camera supports. To refer the detail explanation of each property, please see "Property Reference".

## PROPERTY LIST AND VALUES

### C11440-22CU

Sensor mode		
DCAM_IDPROP_SENSORMODE	R/W	MODE
DCAMPROP_SENSORMODE_AREA		(DEFAULT)
DCAMPROP_SENSORMODE_PROGRESSIVE		(V2.50)
DCAM_IDPROP_READOUTSPEED	R/W	LONG (V2.50)
1 to 2		default 2
DCAM_IDPROP_READOUTDIRECTION	R/W	MODE (V2.50)
DCAMPROP_READOUT_DIRECTION_FORWARD		(DEFAULT)
DCAMPROP_READOUT_DIRECTION_BACKWARD		

Trigger		
DCAM_IDPROP_TRIGGERSOURCE	R/W	MODE
DCAMPROP_TRIGGERSOURCE_INTERNAL		(DEFAULT)
DCAMPROP_TRIGGERSOURCE_EXTERNAL		
DCAMPROP_TRIGGERSOURCE_SOFTWARE		
DCAM_IDPROP_TRIGGER_MODE	R/W	MODE
DCAMPROP_TRIGGER_MODE_NORMAL		(DEFAULT)
DCAMPROP_TRIGGER_MODE_START		
DCAM_IDPROP_TRIGGERACTIVE	R/W	MODE
DCAMPROP_TRIGGERACTIVE_EDGE		(DEFAULT)
DCAMPROP_TRIGGERACTIVE_LEVEL		
DCAMPROP_TRIGGERACTIVE_SYNCREADOUT		
DCAM_IDPROP_TRIGGER_GLOBALEXPOSURE	R/W	MODE
DCAMPROP_TRIGGER_GLOBALEXPOSURE_DELAYED		(DEFAULT)
DCAMPROP_TRIGGER_GLOBALEXPOSURE_GLOBALRESET		(V2.50)
DCAM_IDPROP_TRIGGERPOLARITY	R/W	MODE
DCAMPROP_TRIGGERPOLARITY_NEGATIVE		(DEFAULT)
DCAMPROP_TRIGGERPOLARITY_POSITIVE		
DCAM_IDPROP_TRIGGER_CONNECTOR	R/W	MODE
DCAMPROP_TRIGGER_CONNECTOR_INTERFACE		
DCAMPROP_TRIGGER_CONNECTOR_BNC		(DEFAULT)
DCAM_IDPROP_TRIGGERTIMES	R/W	LONG
1 to 10000		default 1
DCAM_IDPROP_TRIGGERDELAY	R/W	REAL, Second
0 sec to 10 sec		default 0 sec

Binning and ROI		
DCAM_IDPROP_BINNING	R/W	MODE
DCAMPROP_BINNING_1		(DEFAULT)
DCAMPROP_BINNING_2		
DCAMPROP_BINNING_4		
DCAM_IDPROP_SUBARRAYHPOS	R/W	LONG
0 to 2044		default 0
DCAM_IDPROP_SUBARRAYHSIZE	R/W	LONG
4 to 2048		default 2048
DCAM_IDPROP_SUBARRAYVPOS	R/W	LONG
0 to 2044		default 0
DCAM_IDPROP_SUBARRAYVSIZE	R/W	LONG
4 to 2048		default 2048
DCAM_IDPROP_SUBARRAYMODE	R/W	MODE
DCAMPROP_MODE_OFF		(DEFAULT)
DCAMPROP_MODE_ON		

Feature			
DCAM_IDPROP_SENSORCOOLERSTATUS		R/O	MODE
	DCAMPROP_SENSORCOOLER_OFF		(DEFAULT)
	DCAMPROP_SENSORCOOLER_READY		
	DCAMPROP_SENSORCOOLER_BUSY		
DCAM_IDPROP_EXPOSURETIME		R/W	REAL, Second
0.001004 sec to 10 sec			default 0.009998 sec

ALU			
DCAM_IDPROP_DEFECTCORRECT_MODE		R/W	MODE
	DCAMPROP_MODE_OFF		
	DCAMPROP_MODE_ON		(DEFAULT)

Output Trigger			
DCAM_IDPROP_NUMBEROF_OUTPUTTRIGGERCONNECTOR		R/O	LONG
3			
DCAM_IDPROP_OUTPUTTRIGGER_SOURCE		R/W	MODE (V2.50)
	DCAMPROP_OUTPUTTRIGGER_SOURCE_READOUTEND		(DEFAULT)
	DCAMPROP_OUTPUTTRIGGER_SOURCE_VSYNC		
	DCAMPROP_OUTPUTTRIGGER_SOURCE_HSYNC		Only SENSORMODE is PROGRESSIVE
DCAM_IDPROP_OUTPUTTRIGGER_POLARITY		R/W	MODE
	DCAMPROP_OUTPUTTRIGGER_POLARITY_NEGATIVE		(DEFAULT)
	DCAMPROP_OUTPUTTRIGGER_POLARITY_POSITIVE		
DCAM_IDPROP_OUTPUTTRIGGER_ACTIVE		R/O	MODE
DCAMPROP_OUTPUTTRIGGER_ACTIVE_EDGE			
DCAM_IDPROP_OUTPUTTRIGGER_DELAY		R/W	REAL, Second
0 sec to 10 sec			default 0 sec
DCAM_IDPROP_OUTPUTTRIGGER_PERIOD		R/W	REAL, Second
10 usec to 10 sec			default 0.001 sec
DCAM_IDPROP_OUTPUTTRIGGER_KIND		R/W	MODE
	DCAMPROP_OUTPUTTRIGGER_KIND_LOW		(DEFAULT)
	DCAMPROP_OUTPUTTRIGGER_KIND_EXPOSURE		
	DCAMPROP_OUTPUTTRIGGER_KIND_PROGRAMABLE		
	DCAMPROP_OUTPUTTRIGGER_KIND_TRIGGERREADY		
	DCAMPROP_OUTPUTTRIGGER_KIND_HIGH		
DCAM_IDPROP_OUTPUTTRIGGER_PREHSYNCCOUNT		R/W	LONG (V2.50)
0 to 2047			default 0

Synchronous timing			
DCAM_IDPROP_TIMING_READOUTTIME		R/O	REAL, Second
return seconds how long takes to reading out a frame.			
DCAM_IDPROP_TIMING_CYCLICTRIGGERPERIOD		R/O	REAL, Second
return seconds which period cyclic trigger happens in.			
DCAM_IDPROP_TIMING_MINTRIGGERBLANKING		R/O	REAL, Second
return seconds required minimum trigger blanking.			
DCAM_IDPROP_TIMING_MINTRIGGERINTERVAL		R/O	REAL, Second
return seconds required minimum trigger interval.			
DCAM_IDPROP_TIMING_GLOBALEXPOSUREDELAY		R/O	REAL, Second
0 to 0.109998			
DCAM_IDPROP_TIMING_EXPOSURE		R/O	MODE
DCAMPROP_TIMING_EXPOSURE_ROLLING			
DCAM_IDPROP_TIMING_INVALIDEXPOSUREPERIOD		R/O	REAL
0.001004 to 0.1			
DCAM_IDPROP_INTERNALFRAMERATE		R/O	REAL, Second
0.1 to 100.022862			
DCAM_IDPROP_INTERNAL_FRAMEINTERVAL		R/O	REAL, Second
0.009998 to 10.0			
DCAM_IDPROP_INTERNALLINESPEED		R/O	REAL, meter / second
0.0065 to 0.667			(V2.50)
DCAM_IDPROP_INTERNAL_LINEINTERVAL		R/O	REAL, Second
0.0000097 to 0.001			(V2.50)

<b>System information</b>			
DCAM_IDPROP_COLORTYPE	R/O	MODE	
DCAMPROP_COLORTYPE_BW			
DCAM_IDPROP_BITSPERCHANNEL	R/W	LONG	
DCAMPROP_BITSPERCHANNEL_16			DCAM_DATATYPE_UINT16
DCAM_IDPROP_IMAGE_WIDTH	R/O	LONG	
return width pixel of current setting			
DCAM_IDPROP_IMAGE_HEIGHT	R/O	LONG	
return height line of current setting			
DCAM_IDPROP_IMAGE_ROWBYTES	R/O	LONG	
return horizontal rowbytes of current setting			
DCAM_IDPROP_IMAGE_FRAMEBYTES	R/O	LONG	
return bytes per frame of current setting			
DCAM_IDPROP_IMAGE_TOPOFFSETBYTES	R/O	LONG	
return 0			
DCAM_IDPROP_IMAGE_PIXELTYPE	R/O	MODE	
DCAMPROP_MODE_ON			
DCAM_IDPROP_BUFFER_ROWBYTES	R/O	LONG	
return horizontal rowbytes for attached buffer.			
DCAM_IDPROP_BUFFER_FRAMEBYTES	R/O	LONG	
return bytes per frame for attached buffer.			
DCAM_IDPROP_BUFFER_TOPOFSETBYTES	R/O	LONG	
return top offset bytes for attached buffer.			
DCAM_IDPROP_BUFFER_PIXELTYPE	R/O	MODE	
DCAMPROP_MODE_ON			
DCAM_IDPROP_SYSTEM_ALIVE	R/O	MODE	
DCAMPROP_SYSTEM_ALIVE_OFFLINE			
DCAMPROP_SYSTEM_ALIVE_ONLINE			(DEFAULT)
DCAM_IDPROP_CONVERSIONFACTOR_COEFF	R/O	REAL	
return current conversion factor coefficient			
DCAM_IDPROP_CONVERSIONFACTOR_OFFSET	R/O	REAL	
return current conversion factor offset			

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