

# **DCAM-API**

## **Property List**

For

**C11440-10C**

**Build 3601**

July 2011

**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

### C11440-10C

<b>C11440-10C Sensor mode</b>		
DCAM_IDPROP_SENSORMODE	R/O	MODE
DCAMPROP_SENSORMODE_AREA		
<b>C11440-10C Trigger</b>		
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_EMULATE		
DCAM_IDPROP_FIRSTTRIGGER_BEHAVIOR	R/W	MODE
DCAMPROP_FIRSTTRIGGER_BEHAVIOR_STARTEXPOSURE		
DCAMPROP_FIRSTTRIGGER_BEHAVIOR_STARTREADOUT		
DCAM_IDPROP_TRIGGERPOLARITY	R/W	MODE
DCAMPROP_TRIGGERPOLARITY_NEGATIVE (DEFAULT)		
DCAMPROP_TRIGGERPOLARITY_POSITIVE		
DCAM_IDPROP_TRIGGERDELAY	R/W	REAL, Second
0 sec to 10 sec, default 0 sec		
DCAM_IDPROP_TRIGGERTIMES	R/W	LONG
1 to 10000, default 1		
<b>C11440-10C Binning and ROI</b>		
DCAM_IDPROP_BINNING	R/W	MODE
DCAMPROP_BINNING_1 (DEFAULT)		
DCAMPROP_BINNING_2		
DCAM_IDPROP_SUBARRAYHPOS	R/W	LONG
0 to 1918, default 0		
DCAM_IDPROP_SUBARRAYHSIZE	R/W	LONG
2 to 1920, default 1920		
DCAM_IDPROP_SUBARRAYVPOS	R/W	LONG
0 to 1432, default 0		
DCAM_IDPROP_SUBARRAYVSIZE	R/W	LONG
8 to 1440, default 1440		
DCAM_IDPROP_SUBARRAYMODE	R/W	MODE
DCAMPROP_MODE_OFF(DEFAULT)		
DCAMPROP_MODE_ON		
<b>C11440-10C Feature</b>		
DCAM_IDPROP_EXPOSURETIME	R/W	REAL, Second
21 usec to 10 sec, default 0.021991 sec		
DCAM_IDPROP_CONTRASTGAIN	R/W	LONG
0 to 255, default 0		

C11440-10C ALU			
DCAM_IDPROP_CAPTUREMODE		R/W	MODE
	DCAMPROP_CAPTUREMODE_NORMAL (DEFAULT)		
	DCAMPROP_CAPTUREMODE_DARKCALIB		
	DCAMPROP_CAPTUREMODE_SHADINGCALIB		
DCAM_IDPROP_DEFECTCORRECT_MODE		R/W	MODE
	DCAMPROP_MODE_OFF		
	DCAMPROP_MODE_ON (DEFAULT)		
DCAM_IDPROP_SUBTRACT		R/W	MODE
	DCAMPROP_MODE_OFF (DEFAULT)		
	DCAMPROP_MODE_ON		
DCAM_IDPROP_SUBTRACTOFFSET		R/W	LONG
	0 to 10000, default 0		
DCAM_IDPROP_DARKCALIB_SAMPLES		R/W	LONG
	1 to 256, default 100		
DCAM_IDPROP_SUBTRACTIMAGEMEMORY		R/W	LONG
	1, 2, 3 or 4		
DCAM_IDPROP_STORESUBTRACTIMAGETOMEMORY		W/O	LONG
	1, 2, 3 or 4		
DCAM_IDPROP_SHADINGCORRECTION		R/W	MODE
	DCAMPROP_MODE_OFF (DEFAULT)		
	DCAMPROP_MODE_ON		
DCAM_IDPROP_SHADINGCALIB_SAMPLES		R/W	LONG
	1 to 256, default 100		
DCAM_IDPROP_SHADINGCALIBDATAMEMORY		R/W	LONG
	1, 2, 3 or 4		
DCAM_IDPROP_STORESHADINGCALIBDATATOMEMORY		W/O	LONG
	1, 2, 3 or 4		
C11440-10C Output Trigger			
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 22 usec		
DCAM_IDPROP_OUTPUTTRIGGER_KIND		R/W	MODE
	DCAMPROP_OUTPUTTRIGGER_KIND_LOW (DEFAULT)		
	DCAMPROP_OUTPUTTRIGGER_KIND_EXPOSURE		
	DCAMPROP_OUTPUTTRIGGER_KIND_PROGRAMABLE		
	DCAMPROP_OUTPUTTRIGGER_KIND_TRIGGERREADY		

<b>C11440-10C Synchronous timing</b>		
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_EXPOSURE	R/O	MODE
DCAMPROP_TIMING_EXPOSURE_ROLLING		
DCAM_IDPROP_INTERNALFRAMERATE	R/O	REAL, Second
0.1 to 45.454591		
DCAM_IDPROP_INTERNAL_FRAMEINTERVAL	R/O	REAL, Second
0.022 to 10.0		
DCAM_IDPROP_TIMING_GLOBALEXPOSUREDELAY	R/O	REAL, Second
0.0 to 0.022		
		See also EFFECTIVE flag
DCAM_IDPROP_TIMING_INVALIDEXPOSUREPERIOD	R/O	REAL, Second
0.0 to 0.021979		

<b>C11440-10C System information</b>		
DCAM_IDPROP_COLORTYPE	R/O	MODE
DCAMPROP_COLORTYPE BW		
DCAM_IDPROP_BITSPERCHANNEL	R/W	LONG
DCAMPROP_BITSPERCHANNEL_12		DCAM_DATATYPE_UINT16
DCAMPROP_BITSPERCHANNEL_14		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		

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