

DCAM-API

Property List

For

C9100-13

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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

C9100-13

C9100-13 Sensor mode		
DCAM_IDPROP_SENSORMODE	R/O	MODE
DCAMPROP_SENSORMODE__AREA		
DCAM_IDPROP_CCDMODE	R/W	MODE
DCAMPROP_CCDMODE__NORMALCCD		
DCAMPROP_CCDMODE__EMCCD (DEFAULT)		
DCAM_IDPROP_EMCCD_CALIBRATIONMODE	R/W	MODE
DCAMPROP_MODE__OFF (DEFAULT)		
DCAMPROP_MODE__ON		

C9100-13 Readout Speed		
DCAM_IDPROP_READOUTSPEED	R/W	LONG
1 to 3, default 3		DCAMPROP_CCDMODE__EMCCD
1 to 2, default 2		DCAMPROP_CCDMODE__NORMALCCD

C9100-13 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_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)		
DCAMPROP_TRIGGER_CONNECTOR__MULTI		
DCAM_IDPROP_TRIGGERTIMES	R/W	LONG
1 to 10000, default 1		
DCAM_IDPROP_INTERNALTRIGGER_HANDLING	R/W	MODE
DCAMPROP_INTERNALTRIGGER_HANDLING__SHORTEREXPOSURETIME		
DCAMPROP_INTERNALTRIGGER_HANDLING__FASTERFRAMERATE (DEFAULT)		

C9100-13 Sensor cooler		
DCAM_IDPROP_SENSORTEMPERATURE	R/O	REAL
-100 to 50, default 1		
DCAM_IDPROP_SENSORCOOLER	R/W	MODE
DCAMPROP_SENSORCOOLER__OFF (DEFAULT)		Available in water cooler mode
DCAMPROP_SENSORCOOLER__ON (DEFAULT)		Default in air cooler mode.
DCAMPROP_SENSORCOOLER__MAX		
DCAM_IDPROP_SENSORTEMPERATURETARGET	R/O	REAL
-100 to -65		
DCAM_IDPROP_SENSORCOOLERFAN	R/W	MODE
DCAMPROP_MODE__OFF		
DCAMPROP_MODE__ON (DEFAULT)		

C9100-13 Sensitivity			
DCAM_IDPROP_DIRECTEMGAIN_MODE	R/W	MODE	
DCAMPROP_MODE__OFF (DEFAULT)			
DCAMPROP_MODE__ON			
DCAM_IDPROP_SENSITIVITYMODE	R/O	MODE	
DCAMPROP_SENSITIVITYMODE__ON			
DCAM_IDPROP_SENSITIVITY	R/W	REAL	
0 to 255, default 0			
DCAM_IDPROP_PHOTONIMAGINGMODE	R/W	MODE	
DCAMPROP_PHOTONIMAGINGMODE__0 (DEFAULT)			
DCAMPROP_PHOTONIMAGINGMODE__1			
DCAMPROP_PHOTONIMAGINGMODE__2			
DCAMPROP_PHOTONIMAGINGMODE__3			
DCAM_IDPROP_EMGAINWARNING_STATUS	R/O	MODE	
DCAMPROP_EMGAINWARNING_STATUS__NORMAL			
DCAMPROP_EMGAINWARNING_STATUS__WARNING			
DCAMPROP_EMGAINWARNING_STATUS__PROTECTED			
DCAM_IDPROP_EMGAINWARNING_LEVEL	R/W	LONG	
1 to 3, default 3			
DCAM_IDPROP_EMGAINWARNING_ALARM	R/W	MODE	
DCAMPROP_MODE__OFF (DEFAULT)			
DCAMPROP_MODE__ON			
DCAM_IDPROP_EMGAINPROTECT_MODE	R/W	MODE	
DCAMPROP_MODE__OFF (DEFAULT)			
DCAMPROP_MODE__ON			
DCAM_IDPROP_EMGAINPROTECT_AFTERFRAMES	R/W	LONG	
1 to 255, default 1			

C9100-13 Binning and ROI			
DCAM_IDPROP_BINNING	R/W	MODE	
DCAMPROP_BINNING__1 (DEFAULT)			
DCAMPROP_BINNING__2			
DCAMPROP_BINNING__4			
DCAMPROP_BINNING__8			M10354-01 option
DCAMPROP_BINNING__16			M10354-01 option
DCAM_IDPROP_SUBARRAYHPOS	R/W	LONG	
0 to 504, default 0			
DCAM_IDPROP_SUBARRAYHSIZE	R/W	LONG	
8 to 512, default 512			
DCAM_IDPROP_SUBARRAYVPOS	R/W	LONG	
0 to 496, default 0			
DCAM_IDPROP_SUBARRAYVSIZE	R/W	LONG	
16 to 512, default 512			
DCAM_IDPROP_SUBARRAYMODE	R/W	MODE	
DCAMPROP_MODE__OFF (DEFAULT)			
DCAMPROP_MODE__ON			

C9100-13 Feature			
DCAM_IDPROP_EXPOSURETIME	R/W	REAL	
0.030530 to 7200, default 0.030530			Depends on binning and ROI
DCAM_IDPROP_HIGHDYNAMICRANGE_MODE	R/W	MODE	
DCAMPROP_MODE__OFF (DEFAULT)			
DCAMPROP_MODE__ON			
DCAM_IDPROP_CONTRASTGAIN	R/W	LONG	
1 to 5, default 1			

C9100-13 ALU			
DCAM_IDPROP_CAPTUREMODE		R/W	MODE
	DCAMPROP_CAPTUREMODE_NORMAL (DEFAULT)		
	DCAMPROP_CAPTUREMODE_DARKCALIB		
	DCAMPROP_CAPTUREMODE_SHADINGCALIB		
DCAM_IDPROP_INTERFRAMEALU_ENABLE		R/W	MODE
	DCAMPROP_INTERFRAMEALU_ENABLE_OFF		
	DCAMPROP_INTERFRAMEALU_ENABLE_TRIGGERSOURCE_ALL		
	DCAMPROP_INTERFRAMEALU_ENABLE_TRIGGERSOURCE_INTERNAL (DEFAULT)		
DCAM_IDPROP_FRAMEAVERAGINGMODE		R/W	MODE
	DCAMPROP_MODE_OFF (DEFAULT)		
	DCAMPROP_MODE_ON		
DCAM_IDPROP_FRAMEAVERAGINGMODE		R/W	MODE
	2 or 4, default 2		
DCAM_IDPROP_RECURSIVEFILTER		R/W	MODE
	DCAMPROP_MODE_OFF (DEFAULT)		
	DCAMPROP_MODE_ON		
DCAM_IDPROP_RECURSIVEFILTERFRAMES		R/W	MODE
	DCAMPROP_RECURSIVEFILTERFRAMES_2 (DEFAULT)		
	DCAMPROP_RECURSIVEFILTERFRAMES_4		
	DCAMPROP_RECURSIVEFILTERFRAMES_8		
	DCAMPROP_RECURSIVEFILTERFRAMES_16		
DCAM_IDPROP_SPOTNOISEREDUCER		R/W	MODE
	DCAMPROP_MODE_OFF (DEFAULT)		
	DCAMPROP_MODE_ON		
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_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_SHADINGCALIBDATAMEMORY		R/W	LONG
	1, 2, 3 or 4		
DCAM_IDPROP_STORESHADINGCALIBDATATOMEMORY		W/O	LONG
	1, 2, 3 or 4		

C9100-13 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 7200 sec, default 1 msec		

C9100-13 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_EXPOSURE	R/O	MODE
DCAMPROP_TIMING_EXPOSURE_AFTERREADOUT		
DCAMPROP_TIMING_EXPOSURE_OVERLAPREADOUT		
DCAM_IDPROP_INTERNALFRAMERATE	R/O	REAL, frames/Second
0.000139 to 31.939049		
DCAM_IDPROP_INTERNAL_FRAMEINTERVAL	R/O	REAL, Second
0.031310 to 7200 sec		

C9100-13 System information		
DCAM_IDPROP_COLORTYPE	R/O	MODE
DCAMPROP_COLORTYPE_BW		
DCAM_IDPROP_BITSPERCHANNEL	R/O	MODE
DCAMPROP_BITSPERCHANNEL_16		
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
0		

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