SVS-VISTEK

Featureset Reference Manual

SVCam-GigE Series

Digital GigEVision Area Scan Cameras

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Device Control

Device control features provides general information and control for the device (camera) and its sensor. This is mainly used to identify the device during the enumeration process and to obtain information about the sensor resolution. Other information and controls pertaining to the general state of the device are also included in this category.

Feature

Vendor Name

Type: String

GenICam Name: DeviceVendorName

Name of the manufacturer of the device.

Direct Register Access

AccessMode	Address	Length
Read Only	0x0048	32

Feature

Model Name

Type: String

GenICam Name: DeviceModelName

Model of the device.

Direct Register Access

AccessMode	Address	Length
Read Only	0x0068	32

Feature

Manufacturer Info

Type: String

GenICam Name: DeviceManufacturerInfo

Manufacturer information about the device.

Direct Register Access

AccessMode	Address	Length
Read Only	0x00A8	48

Feature

Device Version

Type: String

GenICam Name: DeviceVersion

Version of the device.

Direct Register Access

AccessMode	Address	Length
Read Only	0x0088	32

Feature

Device ID

Type: String

GenICam Name: DeviceID

A unique identifier such as a serial number or a GUID

Direct Register Access

AccessMode	Address	Length
Read Only	0x00D8	16

Feature

Device User ID

Type: String

GenICam Name: DeviceUserID

User-programmable device identifier.

Direct Register Access

AccessMode	Address	Length
Read/Write	0x00E8	16

Feature

Device Scan Type

Type: Enumeration

GenICam Name: DeviceScanType

Scan type of the sensor of the device.

Enumeration Entities

Name	GenICam Name	Register Value
Area Scan	*Areascan*	0
Description:	*Scan type is areascan.*	

Feature

Device Temperature Selector

Type: Enumeration

GenICam Name: DeviceTemperatureSelector

Selects the location within the device, where the temperature will be measured.

Enumeration Entities

Name	GenICam Name	Register Value
Mainboard	*Mainboard*	0
Description:	*This enumeration value selects the temperature measured on the mainboard.*	
Powersupply	*Power*	1
Description:	*This enumeration value selects the temperature measured at the powersupply.*	
FPGA	*FPGA*	2
Description:	*This enumeration value selects the temperature measured at the FPGA.*	
Imager	*Imager*	3
Description:	*This enumeration value selects the temperature measured at the imager.*	

Feature

Device Temperature

Type: Float

GenICam Name: DeviceTemperature

Device temperature in degrees Celsius (C). It is measured at the location selected by DeviceTemperatureSelector.

Direct Register Access

AccessMode	Address
Read Only	Formula

Feature

Device Clock Selector

Type: Enumeration

GenICam Name: DeviceClockSelector

Selects the clock frequency to access from the device.

Enumeration Entities

Name	GenICam Name	Register Value
Sensor	*Sensor*	0

Description: *Clock frequency of the image sensor of the camera.*

Feature

Device Clock Frequency

Type: Float

GenICam Name: DeviceClockFrequency

Returns the frequency in Hertz of the selected Clock.

Direct Register Access

AccessMode	Address
Read Only	0xB350

Feature

Device Reset

Type: Command

GenICam Name: DeviceReset

Resets the device to its power up state.

Direct Register Access

AccessMode	Address
Write Only	0xB0E8

Feature

Device Link Throughput Limit Mode

Type: Enumeration

GenICam Name: DeviceLinkThroughputLimitMode

Controls if the DeviceLinkThroughputLimit is active.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0

Description: *Disables the DeviceLinkThroughputLimit feature.*

On	*On*	1

Description: *Enables the DeviceLinkThroughputLimit feature.*

Direct Register Access

AccessMode	Address
Read/Write	0xB3E8

Feature

Device Link Throughput Limit

Type: Integer

GenICam Name: DeviceLinkThroughputLimit

Limits the maximum bandwidth of the data that will be streamed out by the device on the selected Link.

Direct Register Access

AccessMode	Address
Read/Write	0xB3F4

Feature

Maximum Packets Resend

Type: Integer

GenICam Name: MaxPacketsResend

This value sets the maximum packets that can be resend

Direct Register Access

AccessMode	Address
Read/Write	0xB304

Feature

LED Intensity

Type: Integer

GenICam Name: LEDIntensity

This integer value control camera's status LED brightness.

Direct Register Access

AccessMode	Address
Read/Write	0xA7FC

Feature

Fan Control

Type: Enumeration

GenICam Name: FanControl

Control the Fan of the Device.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*OFF*	0
Description:	*The Fan is permanently off.*	
On	*ON*	1
Description:	*The Fan is permanently on.*	
Auto	*AUTO*	2
Description:	*The Fan is controlled by temperature.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB39C

Feature

Fan Control Threshold

Type: Float

GenICam Name: FanControlThreshold

Temperature in C when the Fan should be switched on with a hysteresis of 2C.

Direct Register Access

AccessMode	Address
Read/Write	0xB3FC

Image Format Control

This category includes items that control the size of the acquired image and the format of the transferred pixel data

Feature

Sensor Width

Type: Integer

GenICam Name: SensorWidth

This is a read only element. It is an integer that indicates the actual width of the camera's sensor in pixels.

Direct Register Access

AccessMode	Address
Read Only	0xB0A4

Feature

Sensor Height

Type: Integer

GenICam Name: SensorHeight

This is a read only element. It is an integer that indicates the actual width of the camera's sensor in pixels.

Direct Register Access

AccessMode	Address
Read Only	0xB0A8

Feature

X Offset

Type: Integer

GenICam Name: OffsetX

This value sets the left offset for the area of interest in pixels, i.e., the distance in pixels between the left side of the sensor and the left side of the image.

Direct Register Access

AccessMode	Address
Read/Write	0xB050

Feature

Y Offset

Type: Integer

GenICam Name: OffsetY

This value sets the top offset for the area of interest, i.e., the distance in pixels between the top of the sensor and the top of the image.

Direct Register Access

AccessMode	Address
Read/Write	0xB054

Feature

Width

Type: Integer

GenICam Name: Width

This value sets the width of the area of interest in pixels.

Direct Register Access

AccessMode	Address
Read/Write	0xB058

Feature

Height

Type: Integer

GenICam Name: Height

This value sets the height of the area of interest in pixels.

Direct Register Access

AccessMode	Address
Read/Write	0xB05C

Feature

Max Width

Type: Integer

GenICam Name: WidthMax

This is a read only element. It is an integer that indicates maximum allowed width of the image in pixels taking into account any function that may limit the allowed width.

Direct Register Access

AccessMode	Address
Read Only	0xB060

Feature

Max Height

Type: Integer

GenICam Name: HeightMax

This is a read only element. It is an integer that indicates maximum allowed height of the image in pixels taking into account any function that may limit the allowed height.

Direct Register Access

AccessMode	Address
Read Only	0xB064

Feature

Sensor Pixel Size

Type: Enumeration

GenICam Name: SensorPixelSize

This enumeration lists the sensor pixel sizes available.

Enumeration Entities

Name	GenICam Name	Register Value
SensorBppAuto	*SensorBppAuto*	0
Description:	*Sensor bitdepth will be selected according the active Pixel Format.*	
SensorBpp8	*SensorBpp8*	1
Description:	*Sensor bitdepth will be set to 8bpp.*	
SensorBpp10	*SensorBpp10*	3
Description:	*Sensor bitdepth will be set to 10bpp.*	
SensorBpp11	*SensorBpp11*	4
Description:	*Sensor bitdepth will be set to 11bpp.*	
SensorBpp12	*SensorBpp12*	5
Description:	*Sensor bitdepth will be set to 12bpp.*	
SensorBpp14	*SensorBpp14*	7
Description:	*Sensor bitdepth will be set to 14bpp.*	

Enumeration Entities

Name	GenICam Name	Register Value
SensorBpp16	*SensorBpp16*	9
Description:	*Sensor bitdepth will be set to 16bpp.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB268

Feature

Pixel Size Type: Enumeration

GenICam Name: PixelSize

This is a read only feature. This enumeration provides a list of values that indicate the depth of the pixel values in the acquired images in bits per pixel.

Enumeration Entities

Name	GenICam Name	Register Value
Bpp8	*Bpp8*	0
Description:	*This enumeration value indicates that the depth of the pixel values in the acquired images is 8 bits per pixel.*	
Bpp12	*Bpp12*	2
Description:	*This enumeration value indicates that the depth of the pixel values in the acquired images is 12 bits per pixel.*	
Bpp16	*Bpp16*	3
Description:	*This enumeration value indicates that the depth of the pixel values in the acquired images is 16 bits per pixel.*	

Direct Register Access

AccessMode	Address
Read Only	0xB094

Feature

Pixel Format Type: Enumeration

GenICam Name: PixelFormat

Indicates the current pixelformat.

Enumeration Entities

Name	GenICam Name	Register Value
Mono8	*Mono8*	1080001 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Mono 8'.*	
Mono12Packed	*Mono12Packed*	10C0006 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Mono 12 packed'.*	
Mono16	*Mono16*	1100007 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Mono 16'.*	
BayerGR8	*BayerGR8*	1080008 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GR 8'.*	

Enumeration Entities

Name	GenICam Name	Register Value
BayerRG8	*BayerRG8*	1080009 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer RG 8'.*	
BayerGB8	*BayerGB8*	108000A hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GB 8'.*	
BayerBG8	*BayerBG8*	108000B hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer BG 8'.*	
BayerGR12Packed	*BayerGR12Packed*	10C002A hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GR 12 packed'.*	
BayerRG12Packed	*BayerRG12Packed*	10C002B hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer RG 12 packed'.*	
BayerGB12Packed	*BayerGB12Packed*	10C002C hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GB 12 packed'.*	
BayerBG12Packed	*BayerBG12Packed*	10C002D hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer BG 12 packed'.*	
BayerGR16	*BayerGR16*	110002E hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GR 12'.*	
BayerRG16	*BayerRG16*	110002F hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer RG 12'.*	
BayerGB16	*BayerGB16*	1100030 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer GB 12'.*	
BayerBG16	*BayerBG16*	1100031 hex
Description:	*This enumeration value sets the pixel format of the image data transmitted by the camera to 'Bayer BG 12'.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB010

Feature

Pixel Color Filter

Type: Enumeration

GenICam Name: PixelColorFilter

This is a read only feature. This enumeration provides a list of values that indicate the alignment of the camera's Bayer filter to the pixels in the acquired images.

Enumeration Entities

Name	GenICam Name	Register Value
None	*None*	0
Description:	*This enumeration value indicates that no Bayer filter is present on the camera.*	

Enumeration Entities

Name	GenICam Name	Register Value
BayerRG	*BayerRG*	1
Description:	*This enumeration value indicates that the Bayer filter has an RG/GB alignment to the pixels in the acquired images.*	
BayerGR	*BayerGR*	2
Description:	*This enumeration value indicates that the Bayer filter has an RG/GB alignment to the pixels in the acquired images.*	
BayerGB	*BayerGB*	3
Description:	*This enumeration value indicates that the Bayer filter has an RG/GB alignment to the pixels in the acquired images.*	
BayerBG	*BayerBG*	4
Description:	*This enumeration value indicates that the Bayer filter has an RG/GB alignment to the pixels in the acquired images.*	

Direct Register Access

AccessMode	Address
Read Only	0xB0CC

Feature

PixelDynamicRangeMin Type: Integer

GenICam Name: PixelDynamicRangeMin

Minimum value that can be returned during the digitization process. This corresponds to the darkest value of the camera.

Direct Register Access

AccessMode	Address
Read Only	0xB3BC

Feature

PixelDynamicRangeMax Type: Integer

GenICam Name: PixelDynamicRangeMax

Maximum value that will be returned during the digitization process. This corresponds to the brightest value of the camera.

Direct Register Access

AccessMode	Address
Read Only	0xB3C0

Feature

Binning Horizontal Type: Enumeration

GenICam Name: BinningHorizontal

This enumeration controls the horizontal binning setting.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*horizontal binning disable.*	
On	*On*	1
Description:	*horizontal binning enable.*	

Enumeration Entities

Name	GenICam Name	Register Value
X4	*X4*	3
Description:	*horizontal x4 binning enable.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB004

Feature

Binning Vertical

Type: Enumeration

GenICam Name: BinningVertical

This enumeration controls the horizontal binning setting.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Vertical binning disable.*	
On	*On*	1
Description:	*Vertical binning enable.*	
X4	*X4*	3
Description:	*Vertical x4 binning enable.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB004

Feature

ReverseX

Type: Boolean

GenICam Name: ReverseX

Flip horizontally the image sent by the device. The Region of interest is applied after the flipping.

Direct Register Access

AccessMode	Address
Read/Write	0xB338

Feature

ReverseY

Type: Boolean

GenICam Name: ReverseY

Flip vertically the image sent by the device. The Region of interest is applied after the flipping.

Direct Register Access

AccessMode	Address
Read/Write	0xB338

Acquisition Control

This category includes items used to set the image acquisition parameters and to start and stop acquisition

Feature

Acquisition Mode

Type: Enumeration

GenICam Name: AcquisitionMode

This enumeration sets the image acquisition mode.

Enumeration Entities

Name	GenICam Name	Register Value
Single Frame	*SingleFrame*	0
Description:	*This enumeration value sets the camera's acquisition mode to single frame.*	
Multi Frame	*MultiFrame*	1
Description:	*This enumeration value sets the camera's acquisition mode to multi frame.*	
Continuous	*Continuous*	2
Description:	*This enumeration value sets the camera's acquisition mode to continuous.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB2AC

Feature

Acquisition Start

Type: Command

GenICam Name: AcquisitionStart

This command starts the acquisition of images. If the camera is set for single frame acquisition, it will start acquisition of one frame. If the camera is set for continuous frame acquisition, it will start continuous acquisition of frames.

Direct Register Access

AccessMode	Address
Write Only	0xB038

Feature

Acquisition Stop

Type: Command

GenICam Name: AcquisitionStop

If the camera is set for continuous image acquisition and acquisition has been started, this command stops the acquisition of images.

Direct Register Access

AccessMode	Address
Write Only	0xB038

Feature

Trigger Selector

Type: Enumeration

GenICam Name: TriggerSelector

This enumeration lists the types of trigger that are available for selection. Once a trigger type has been selected, all the other trigger features will be applied to the selected trigger.

Enumeration Entities

Name	GenICam Name	Register Value
Acquisition Start	*AcquisitionStart*	0
Description:	*This enumeration value selects the acquisition start trigger.*	
Frame Start	*FrameStart*	1
Description:	*This enumeration value selects the frame start trigger.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB238

Feature

Trigger Mode

Type: Enumeration

GenICam Name: TriggerMode

This enumeration provides a list of the values available for setting the trigger mode for the selected trigger.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value sets the mode for the selected trigger to off.*	
On	*On*	1
Description:	*This enumeration value sets the mode for the selected trigger to on.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB23C

Feature

Generate Software Trigger

Type: Command

GenICam Name: TriggerSoftware

This command generates a software trigger signal. The software trigger signal will be used if the trigger source is set to 'software'.

Direct Register Access

AccessMode	Address
Write Only	0xB248

Feature

Trigger Source

Type: Enumeration

GenICam Name: TriggerSource

This enumeration lists the available trigger sources for the selected trigger.

Enumeration Entities

Name	GenICam Name	Register Value
Trigger Software	*Software*	0
Description:	*This enumeration value sets the source for the selected trigger to software trigger.*	
Line 1	*Line1*	1
Description:	*This enumeration value sets the source for the selected trigger to line 1.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB240

Feature

Trigger Activation

Type: Enumeration

GenICam Name: TriggerActivation

This enumeration lists the trigger activation types available for the selected trigger.

Enumeration Entities

Name	GenICam Name	Register Value
Rising Edge	*RisingEdge*	0
Description:	*This enumeration value sets the trigger to be valid when the trigger signal is going high.*	
Falling Edge	*FallingEdge*	1
Description:	*This enumeration value sets the trigger to be valid when the trigger signal is going low.*	
Both Edges	*BothEdges*	2
Description:	*This enumeration value sets the trigger to be valid when the trigger signal is going high or low.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB244

Feature

Trigger Delay

Type: Float

GenICam Name: TriggerDelay

Trigger Delay specifies the absolute delay in microseconds (us) to apply the trigger reception before effectively activating it.

Direct Register Access

AccessMode	Address
Read/Write	0xB24C

Feature

Sensor Trigger Mode

Type: Enumeration

GenICam Name: SensorTriggerMode

This enumeration lists the sensor trigger modes available.

Enumeration Entities

Name	GenICam Name	Register Value
Precise	*Precise*	0
Description:	*This enumeration value sets the trigger mode to a constant delay*	
Fast	*Fast*	1
Description:	*This enumeration value sets the trigger mode to a variable delay*	
Freerunning	*Freerunning*	2
Description:	*Camera is running at max speed according to programmable Integration Time. Trigger not possible.*	
FixedFrequency	*FixedFrequency*	3
Description:	*Camera is triggered by internal or external timer, Integration is overlapping.*	

Enumeration Entities

Name	GenICam Name	Register Value
Triggered	*Triggered*	4
Description:	*Camera is triggered by internal or external trigger, Integration is non-overlapping.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB264

Feature

Acquisition FrameCount Type: Integer

GenICam Name: AcquisitionFrameCount

This value sets the number of frames acquired in the multiframe acquisition mode.

Direct Register Access

AccessMode	Address
Read/Write	0xB2F8

Feature

Exposure Mode Type: Enumeration

GenICam Name: ExposureMode

This enumeration lists the available exposure modes.

Enumeration Entities

Name	GenICam Name	Register Value
Timed	*Timed*	0
Description:	*This enumeration value sets the exposure mode to timed.*	
Trigger Width	*TriggerWidth*	1
Description:	*This enumeration value sets the exposure mode to trigger width.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB254

Feature

Acquisition Frame Rate Type: Float

GenICam Name: AcquisitionFrameRate

This float value sets the camera's acquisition frame rate in Hz.

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xB030	TO / 1000	FROM * 1000

Feature

Exposure Time Type: Float

GenICam Name: ExposureTime

This float value sets the camera's exposure time in microseconds.

Direct Register Access

AccessMode	Address

Direct Register Access

AccessMode	Address
Read/Write	0xB02C

Feature

Readout Memory Content

Type: Enumeration

GenICam Name: ReadoutMemory

This enumeration controls the readout of the memory content.

Enumeration Entities

Name	GenICam Name	Register Value
disable	*disable*	0
Description:	*Disabled the readout of the memory content .*	
once	*once*	1
Description:	*Readout of the memory content once.*	
continue	*continue*	2
Description:	*Readout of the memory content as loop.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB3C4

Feature

Readout Memory Direction

Type: Enumeration

GenICam Name: ReadMemoryDirection

Set the memory content readout direction.

Enumeration Entities

Name	GenICam Name	Register Value
backward	*Backwards*	0
Description:	*Readout memory content backwards.*	
forward	*Forwards*	1
Description:	*Readout memory content forwards.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB3D0

Feature

Readout Memory Images

Type: Integer

GenICam Name: ReadMemoryImages

Set the number of memory content to read out.

Direct Register Access

AccessMode	Address
Read/Write	0xB3C8

Feature

Readout Control

Type: Enumeration

GenICam Name: ReadoutControl

This enumeration controls the readout behavior of the device.

Enumeration Entities

Name	GenICam Name	Register Value
disable	*disable*	0
Description:	*Disabled means readout the image immediately.*	
wait	*wait*	1
Description:	*The image readout will be initiated by ReadoutControlNext.*	
delayed readout	*delay*	2
Description:	*The image readout will be delayed by the time stated in ReadoutDelay.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB0F4

Feature

Readout Control Next

Type: Command

GenICam Name: ReadoutControlNext

Readout Control trigger next frame.

Direct Register Access

AccessMode	Address
Write Only	0xB0F0

Feature

Readout Delay

Type: Integer

GenICam Name: ReadoutDelay

Readout delay in milliseconds.

Direct Register Access

AccessMode	Address
Read/Write	0xB0EC

Feature

Exposure Auto

Type: Enumeration

GenICam Name: ExposureAuto

Sets the automatic exposure mode when ExposureMode is Timed. The exact algorithm used to implement this control is device-specific.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Exposure duration is user controlled using ExposureTime.*	
Once	*Once*	2
Description:	*Exposure duration is adapted once by the device. Once it has converged, it returns to the Off state.*	

Enumeration Entities

Name	GenICam Name	Register Value
Continuous	*Continuous*	1

Description: *Exposure duration is constantly adapted by the device to maximize the dynamic range.*

Direct Register Access

AccessMode	Address
Read/Write	0xA624

Feature

Exposure First

Type: Boolean

GenICam Name: ExposureAutoOrder

This value sets the priority of both exposure and gain settings. True means exposure before gain.

Direct Register Access

AccessMode	Address
Read/Write	0xA628

Feature

ExposureTimeMin

Type: Float

GenICam Name: ExposureTimeMin

This float value sets the camera's minimum exposure time for auto exposure in microseconds.

Direct Register Access

AccessMode	Address
Read/Write	0xA608

Feature

ExposureTimeMax

Type: Float

GenICam Name: ExposureTimeMax

This float value sets the camera's maximum exposure time for auto exposure in microseconds.

Direct Register Access

AccessMode	Address
Read/Write	0xA60C

Feature

Multi Exposure

Type: Enumeration

GenICam Name: MultiExposure

Selects the multi exposure

Enumeration Entities

Name	GenICam Name	Register Value
Multi Exposure	*Multi*	0

Description: *Selects the multi exposure.*

Feature

Multi Exposure Enable

Type: Boolean

GenICam Name: MultiExposureEnable

This boolean value enables the multi exposure.

Direct Register Access

AccessMode	Address
Read/Write	0xB3A4

Feature

Multi Exposure Period Type: Integer

GenICam Name: MultiExposurePeriod

Set the period between 2 exposure time ticks(1 tick equals 15 nanoseconds).

Direct Register Access

AccessMode	Address
Read/Write	0xB3AC

Feature

Multi Exposure Time Type: Integer

GenICam Name: MultiExposureTime

Set the time of multi exposure in ticks(1 tick equals 15 nanoseconds).

Direct Register Access

AccessMode	Address
Read/Write	0xB3B0

Feature

Multi Exposure Number Type: Integer

GenICam Name: MultiExposureNumber

Set the number of multi exposure.

Direct Register Access

AccessMode	Address
Read/Write	0xB3A8

Feature

Multi Exposure MinGap Type: Integer

GenICam Name: MultiExposureMinGap

Minimum intervall between 2 trigger pulses in ticks.

Direct Register Access

AccessMode	Address
Read Only	0xB3B4

Feature

Multi Exposure Min Type: Integer

GenICam Name: MultiExposureMin

Minimum expotime

Direct Register Access

AccessMode	Address
Read Only	0xB3B8

Feature

Sensor Shutter Mode

Type: Enumeration

GenICam Name: SensorShutterMode

This enumeration sets the shutter mode.

Enumeration Entities

Name	GenICam Name	Register Value
Global Shutter	*Global*	0
Description:	*This enumeration value sets the camera's shutter mode to global shutter*	
Rolling Shutter	*Rolling*	1
Description:	*This enumeration value sets the camera's shutter mode to rolling shutter.*	
Global Reset Shutter	*GlobalReset*	2
Description:	*This enumeration value sets the camera's shutter mode to global reset shutter.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB33C

Analog Control

This category includes items that control the analog characteristics of the video signal

Feature

Gain Selector

Type: Enumeration

GenICam Name: GainSelector

This enumeration selects the gain control to configure. Once a gain control has been selected, all changes to the gain settings will be applied to the selected control.

Enumeration Entities

Name	GenICam Name	Register Value
All	*All*	0

Description: *This enumeration value selects all available gain controls for adjustment.*

Feature

Gain (dB)

Type: Float

GenICam Name: Gain

Sets the dB value of the selected gain control.

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xB048	TO/1000	FROM*1000

Feature

Black Level Selector

Type: Enumeration

GenICam Name: BlackLevelSelector

This enumeration selects the black level control to configure. Once a black level control has been selected, all changes to the black level settings will be applied to the selected control.

Enumeration Entities

Name	GenICam Name	Register Value
All	*All*	0

Description: *This enumeration value selects all available black level controls for adjustment.*

Feature

Black Level (Offset)

Type: Integer

GenICam Name: BlackLevelRaw

This value sets the selected black level control as an integer.

Direct Register Access

AccessMode	Address
Read/Write	0xB04C

Feature

Black Clamp Disable

Type: Boolean

GenICam Name: BlackClampDisable

This boolean value disables sensor black level clamping.

Direct Register Access

AccessMode	Address
Read/Write	0xB3E4

Feature

Gain Auto

Type: Enumeration

GenICam Name: GainAuto

Sets the automatic gain control (AGC) mode. The exact algorithm used to implement AGC is device-specific.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Gain is User controlled using Gain.*	
Once	*Once*	2
Description:	*Gain is automatically adjusted once by the device. Once it has converged, it automatically returns to the Off state.*	
Continuous	*Continuous*	1
Description:	*Gain is constantly adjusted by the device.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA600

Feature

Gain Speed

Type: Enumeration

GenICam Name: GainSpeed

This value sets the speed of the autogain:standard speed or fast speed.

Enumeration Entities

Name	GenICam Name	Register Value
Standard	*Standard*	0
Description:	*Autogain speed standard setting, gain will change smoothly.*	
Fast	*Fast*	1
Description:	*Autogain speed standard setting, gain will change fast.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA620

Feature

Autogain Level

Type: Integer

GenICam Name: GainAutoLevel

this feature sets the automatic gain level

Direct Register Access

AccessMode	Address
Read/Write	0xA604

Feature

GainAutoMin

Type: Float

GenICam Name: GainAutoMin

This Float value sets the minimum applied gain for AGC in dB

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xA610	TO/1000	FROM*1000

Feature

GainAutoMax

Type: Float

GenICam Name: GainAutoMax

This Float value sets the maximum applied gain for AGC in dB

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xA614	TO/1000	FROM*1000

Feature

Balance Ratio Selector

Type: Enumeration

GenICam Name: BalanceRatioSelector

This enumeration selects a balance ratio control to configuration. Once a balance ratio control has been selected, all changes to the balance ratio settings will be applied to the selected control.

Enumeration Entities

Name	GenICam Name	Register Value
Red	*Red*	0
Description:	*This enumeration value selects the red balance ratio control for adjustment.*	
Green	*Green*	1
Description:	*This enumeration value selects the green balance ratio control for adjustment.*	
Blue	*Blue*	2
Description:	*This enumeration value selects the blue balance ratio control for adjustment.*	

Feature

Balance Ratio

Type: Float

GenICam Name: BalanceRatio

Controls ratio of the selected color component to a reference color component. It is used for white balancing.

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	Formula	TO / 256	FROM * 256

Feature

Gain Auto Balance

Type: Enumeration

GenICam Name: GainAutoBalance

Sets the mode for automatic gain balancing between the aps. The gain coefficients of each channel or tap are adjusted so they are matched.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Gain tap balancing is user controlled using Gain.*	
Once	*Once*	1
Description:	*Gain tap balancing is automatically adjusted once by the device. Once it has converged, it automatically returns to the Off state.*	

Enumeration Entities

Name	GenICam Name	Register Value
Continuous	*Continuous*	2
Description:	*Gain tap balancing is constantly adjusted by the device.*	
Reset	*Reset*	3
Description:	*Gain tap balancing is resetted.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB0D0

Feature

BalanceWhiteAuto

Type: Enumeration

GenICam Name: BalanceWhiteAuto

Controls the mode for automatic white balancing between the color channels.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Auto white balancing is user controlled using Gain.*	
Once	*Once*	1
Description:	*Auto white balancing is automatically adjusted once by the device. Once it has converged, it automatically returns to the Off state.*	
Continuous	*Continuous*	2
Description:	*Auto white balancing is constantly adjusted by the device.*	
Reset	*Reset*	3
Description:	*Auto white balancing is resetted.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB30C

Digital IO Control

This category includes items used to control the operation of the camera's digital I/O lines.

Feature

LineSelector

Type: Enumeration

GenICam Name: LineSelector

Selects the physical line (or pin) of the external device connector to configure.

Enumeration Entities

Name	GenICam Name	Register Value
Output 0 - Line0	*Line0*	0
Description:	*This enumeration value selects 'Output 0' for configuration.*	
Output 1 - Line1	*Line1*	1
Description:	*This enumeration value selects 'Output 1' for configuration.*	
Output 2 - Line2	*Line2*	2
Description:	*This enumeration value selects 'Output 2' for configuration.*	
Output 3 - Line3	*Line3*	3
Description:	*This enumeration value selects 'Output 3' for configuration.*	
Output 4 - Line4	*Line4*	4
Description:	*This enumeration value selects 'Output 4 for configuration.*	
Uart In - Line5	*Line5*	5
Description:	*This enumeration value selects 'Uart In' for configuration.*	
Trigger - Line6	*Line6*	6
Description:	*This enumeration value selects 'Trigger' for configuration.*	
Sequencer - Line7	*Line7*	7
Description:	*This enumeration value selects 'Sequencer' for configuration.*	
Debouncer - Line8	*Line8*	8
Description:	*This enumeration value selects 'Debouncer' for configuration.*	
Prescaler - Line9	*Line9*	9
Description:	*This enumeration value selects 'Prescaler' for configuration.*	
Logic A - Line15	*Line15*	10
Description:	*This enumeration value selects 'Logic A' for configuration.*	
Logic B - Line16	*Line16*	11
Description:	*This enumeration value selects 'Logic B' for configuration.*	
Lens TXD - Line17	*Line17*	12
Description:	*This enumeration value selects 'Lens TXD' for configuration.*	
Pulse 0 - Line18	*Line18*	13
Description:	*This enumeration value selects 'Pulse 0' for configuration.*	
Pulse 1 - Line19	*Line19*	14
Description:	*This enumeration value selects 'Pulse 1' for configuration.*	
Pulse 2 - Line20	*Line20*	15
Description:	*This enumeration value selects 'Pulse 2' for configuration.*	

Enumeration Entities

Name	GenICam Name	Register Value
Pulse 3 - Line21	*Line21*	16
Description:	*This enumeration value selects 'Pulse 3' for configuration.*	
Uart2 In - Line22	*Line22*	17
Description:	*This enumeration value selects 'Uart2' In for configuration.*	
Input 0 - Line10	*Line10*	32
Description:	*This enumeration value selects 'Input 0' for configuration.*	
Input 1 - Line11	*Line11*	33
Description:	*This enumeration value selects 'Input 1' for configuration.*	
Input 2 - Line12	*Line12*	34
Description:	*This enumeration value selects 'Input 2' for configuration.*	
Input 3 - Line13	*Line13*	35
Description:	*This enumeration value selects 'Input 3' for configuration.*	
Input 4 - Line14	*Line14*	36
Description:	*This enumeration value selects 'Input 4' for configuration.*	

Feature

LineMode

Type: Enumeration

GenICam Name: LineMode

Controls if the physical Line is used to Input or Output a signal.

Enumeration Entities

Name	GenICam Name	Register Value
Input	*Input*	0
Description:	*This enumeration value sets the mode for the selected line to 'input', i.e., the line is used to input an electrical signal.*	
Output	*Output*	1
Description:	*This enumeration value sets the mode for the selected line to 'Output', i.e., the line is used to output an electrical signal.*	

Feature

LineInverter

Type: Boolean

GenICam Name: LineInverter

Controls the invertion of the signal of the selected input or output Line.

Direct Register Access

AccessMode	Address
Read/Write	0xB0200

Feature

LineStatus

Type: Boolean

GenICam Name: LineStatus

This boolean value indicates the current logical state for the selected line.

Feature

LineSource

Type: Enumeration

GenICam Name: LineSource

Selects which internal acquisition or I/O source signal to output on the selected Line. LineMode must be Output.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value sets the source signal for the selected output line to Off.*	
Input 0	*Input0*	1
Description:	*This enumeration value sets the source signal for the selected output line to 'Input 0'.*	
Input 1	*Input1*	2
Description:	*This enumeration value sets the source signal for the selected output line to 'Input 1'.*	
Input 2	*Input2*	3
Description:	*This enumeration value sets the source signal for the selected output line to 'Input 2'.*	
Input 3	*Input3*	4
Description:	*This enumeration value sets the source signal for the selected output line to 'Input 3'.*	
Input 4	*Input4*	5
Description:	*This enumeration value sets the source signal for the selected output line to 'Input 4'.*	
User Output 0	*UserOutput0*	26
Description:	*This enumeration value sets the source signal for the selected output line to 'User Output 0'.*	
User Output 1	*UserOutput1*	27
Description:	*This enumeration value sets the source signal for the selected output line to 'User Output 1'.*	
User Output 2	*UserOutput2*	28
Description:	*This enumeration value sets the source signal for the selected output line to 'User Output 2'.*	
User Output 3	*UserOutput3*	29
Description:	*This enumeration value sets the source signal for the selected output line to 'User Output 3'.*	
User Output 4	*UserOutput4*	30
Description:	*This enumeration value sets the source signal for the selected output line to 'User Output 4'.*	
UART Out	*UartOut*	6
Description:	*This enumeration value sets the source signal for the selected output line to 'UART Out'.*	
Strobe 0	*Strobe0*	7
Description:	*This enumeration value sets the source signal for the selected output line to 'Strobe 0'.*	
Strobe 1	*Strobe1*	8
Description:	*This enumeration value sets the source signal for the selected output line to 'Strobe 1'.*	
Strobe 2	*Strobe2*	21
Description:	*This enumeration value sets the source signal for the selected output line to 'Strobe 2'.*	
Strobe 3	*Strobe3*	22
Description:	*This enumeration value sets the source signal for the selected output line to 'Strobe 3'.*	
PWM 0	*PWM0*	9
Description:	*This enumeration value sets the source signal for the selected output line to 'PWM 0'.*	
PWM 1	*PWM1*	10
Description:	*This enumeration value sets the source signal for the selected output line to 'PWM 1'.*	

Enumeration Entities

Name	GenICam Name	Register Value
PWM 2	*PWM2*	14
Description:	*This enumeration value sets the source signal for the selected output line to 'PWM 2'.*	
PWM 3	*PWM3*	15
Description:	*This enumeration value sets the source signal for the selected output line to 'PWM 3'.*	
Expose	*Expose*	11
Description:	*This enumeration value sets the source signal for the selected output line to 'Expose'.*	
Readout	*Readout*	12
Description:	*This enumeration value sets the source signal for the selected output line to 'Readout'.*	
SeqPulse A	*SeqPulseA*	13
Description:	*This enumeration value sets the source signal for the selected output line to 'SeqPulse A'.*	
SeqPulse B	*SeqPulseB*	19
Description:	*This enumeration value sets the source signal for the selected output line to 'SeqPulse B'.*	
Sequencer active	*SeqActive*	16
Description:	*This enumeration value sets the source signal for the selected output line to 'Sequencer active'.*	
Debouncer	*Debouncer*	17
Description:	*This enumeration value sets the source signal for the selected output line to 'Debouncer'.*	
Prescaler	*Prescaler*	18
Description:	*This enumeration value sets the source signal for the selected output line to 'Prescaler'.*	
Logic	*Logic*	20
Description:	*This enumeration value sets the source signal for the selected output line to 'Logic'.*	
PtpTrigger	*PtpTrigger*	23
Description:	*This enumeration value sets the source signal for the selected output line to 'PtpTrigger'.*	
Triggerfeedback	*Triggerfeedback*	24
Description:	*This enumeration value sets the source signal for the selected output line to 'Triggerfeedback'.*	
Uart 2 Out	*Uart2Out*	25
Description:	*This enumeration value sets the source signal for the selected output line to 'Uart 2 Out'.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB0100

Feature

LineStatusAll Type: Integer

GenICam Name: LineStatusAll

This integer value is a single bitfield that indicates the current logical state of all available lines at time of polling.

Feature

UserOutputSelector Type: Enumeration

GenICam Name: UserOutputSelector

Selects which bit of the User Output register will be set by 'User Output Value'.

Enumeration Entities

Name	GenICam Name	Register Value
UserOutput 0	*UserOutput0*	0
Description:	*This enumeration value selects user settable output 'UserOutput 0' for configuration.*	
UserOutput 1	*UserOutput1*	1
Description:	*This enumeration value selects user settable output 'UserOutput 1' for configuration.*	
UserOutput 2	*UserOutput2*	2
Description:	*This enumeration value selects user settable output 'UserOutput 2' for configuration.*	
UserOutput 3	*UserOutput3*	3
Description:	*This enumeration value selects user settable output 'UserOutput 3' for configuration.*	
UserOutput 4	*UserOutput4*	4
Description:	*This enumeration value selects user settable output 'UserOutput 4' for configuration.*	

Feature

UserOutputValue

Type: Boolean

GenICam Name: UserOutputValue

This boolean value sets the state of the selected user settable output signal.

Direct Register Access

AccessMode	Address
Read/Write	0xB0080

Feature

UserOutputValueAll

Type: Integer

GenICam Name: UserOutputValueAll

Sets the value of all the bits of the User Output register.

Direct Register Access

AccessMode	Address
Read/Write	0xB0018

Feature

UserOutputValueAllMask

Type: Integer

GenICam Name: UserOutputValueAllMask

Sets the write mask to apply to the value specified by UserOutputValueAll before writing it in the User Output register.setting the user Output register using UserOutputValueAll will only change the bits that have a corresponding bit in the mask set to one.

Direct Register Access

AccessMode	Address
Read/Write	0xB001C

Feature

UseroutputStatusLevel

Type: Enumeration

GenICam Name: UseroutputStatusLevel

Mapping of the camera status level to a Useroutput.

Enumeration Entities

Name	GenICam Name	Register Value
CamStatus_undefined	*CamStatus_undefined*	0
Description:	*Device is in undefined condition.*	
CamStatus_cable_disconnected	*CamStatus_cable_disconnected*	1
Description:	*No Ethernet link active. Maybe no cable connected.*	
CamStatus_setup_network	*CamStatus_setup_network*	2
Description:	*Network setup in progress.*	
CamStatus_initialized	*CamStatus_initialized*	3
Description:	*Device is ready.*	
CamStatus_linked_to_application	*CamStatus_linked_to_application*	4
Description:	*Device is connected to application.*	
CamStatus_streaming_channel_establishe	*CamStatus_streaming_channel_established*	5
Description:	*Device is connected to application and streaming channel is established.*	
CamStatus_acquisition_enabled	*CamStatus_acquisition_enabled*	6
Description:	*Device is connected to application, streaming channel is established and acquisition in progress.*	
CamStatus_initialization_problem	*CamStatus_initialization_problem*	7
Description:	*Device is not properly initialized.*	
CamStatus_overheating	*CamStatus_overheating*	8
Description:	*Device is overheating.*	

Direct Register Access

AccessMode	Address
Read/Write	0xC800

Feature

UseroutputStatusMask

Type: Integer

GenICam Name: UseroutputStatusMask

UseroutputMask set by UseroutputStatusLevel.

Direct Register Access

AccessMode	Address
Read/Write	0xC804

Strobe Control

This category includes items used to set the parameters for the integrated strobe controller

Feature

Strobe Selector

Type: Enumeration

GenICam Name: StrobeSelector

Selector for the strobe signal to be configure.

Enumeration Entities

Name	GenICam Name	Register Value
Strobe 0	*Strobe0*	0
Description:	*Selects 'Strobe 0' to configure.*	
Strobe 1	*Strobe1*	1
Description:	*Selects 'Strobe 1' to configure.*	
Strobe 2	*Strobe2*	2
Description:	*Selects 'Strobe 2' to configure.*	
Strobe 3	*Strobe3*	3
Description:	*Selects 'Strobe 3' to configure.*	

Feature

Strobe Polarity

Type: Enumeration

GenICam Name: StrobePolarity

This Enumeration sets the camera's strobe polarity.

Enumeration Entities

Name	GenICam Name	Register Value
positive	*positive*	0
Description:	*Sets the strobe polarity to be positive.*	
negative	*negative*	1
Description:	*Sets the strobe polarity to be negative.*	

Direct Register Access

AccessMode	Address
Read/Write	Formula

Feature

Strobe Duration

Type: Float

GenICam Name: StrobeDuration

This float value sets the camera's strobe duration in microseconds.

Direct Register Access

AccessMode	Address
Read/Write	Formula

Feature

Strobe Delay

Type: Float

GenICam Name: StrobeDelay

This float value sets the camera's strobe delay in microseconds.

Direct Register Access

AccessMode	Address
Read/Write	Formula

Enhanced IO

This category includes items used to control the integrated PWM Controller

Feature

PWMEnable

Type: Boolean

GenICam Name: PWMEnable

This feature enables or disables the PWM settings.

Direct Register Access

AccessMode	Address
Read/Write	0xA7E4

Feature

PWMMax

Type: Integer

GenICam Name: PWMMax

This feature sets the common PWM frequency in system clock ticks.

Direct Register Access

AccessMode	Address
Read/Write	0xA7E8

Feature

PWMChange0

Type: Integer

GenICam Name: PWMChange0

This feature sets the Duty Cycle for PWM register

Direct Register Access

AccessMode	Address
Read/Write	0xA7EC

Feature

PWMChange1

Type: Integer

GenICam Name: PWMChange1

This feature sets the Duty Cycle for PWM register

Direct Register Access

AccessMode	Address
Read/Write	0xA7F0

Feature

PWMChange2

Type: Integer

GenICam Name: PWMChange2

This feature sets the Duty Cycle for PWM register

Direct Register Access

AccessMode	Address
Read/Write	0xA7C4

Feature

PWMChange3

Type: Integer

GenICam Name: PWMChange3

This feature sets the Duty Cycle for PWM register

Direct Register Access

AccessMode	Address
Read/Write	0xA7C8

Feature

SeqTrigger

Type: Command

GenICam Name: SeqTrigger

This feature starts the sequencer with a software signal.

Direct Register Access

AccessMode	Address
Write Only	0xA7BC

Feature

SeqTriggermode

Type: Enumeration

GenICam Name: SeqTriggermode

This feature selects the sequencer trigger mode.

Enumeration Entities

Name	GenICam Name	Register Value
Trigger on high level	*LevelHigh*	0
Description:	*This feature sets the sequencer trigger on high level.*	
Trigger on rising edge	*RisingEdge*	1
Description:	*This feature sets the sequencer trigger on rising edge.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA7D4

Feature

SeqSelector

Type: Integer

GenICam Name: SeqSelector

Index to the sequencer array.

Direct Register Access

AccessMode	Address
Read/Write	0xA7D0

Feature

SeqCount

Type: Integer

GenICam Name: SeqCount

Number of sequencer inputs.

Direct Register Access

AccessMode	Address
Read/Write	0xA7CC

Feature

SeqEnable

Type: Boolean

GenICam Name: SeqEnable

Activate the sequencer.

Direct Register Access

AccessMode	Address
Read/Write	0xA7D4

Feature

SeqLoop

Type: Boolean

GenICam Name: SeqLoop

Sequencer loop enables/disables.

Direct Register Access

AccessMode	Address
Read/Write	0xA7C0

Feature

DebounceDuration

Type: Integer

GenICam Name: DebounceDuration

Sets the value for the debouncer duration.

Direct Register Access

AccessMode	Address
Read/Write	0xA7A8

Feature

PrescaleDivisor

Type: Integer

GenICam Name: PrescaleDivisor

Sets the value of the prescaler divisor.

Direct Register Access

AccessMode	Address
Read/Write	0xA7AC

Feature

LogicFunction

Type: Enumeration

GenICam Name: LogicFunction

Controls if the physical Line is used to Input or Output a signal.

Enumeration Entities

Name	GenICam Name	Register Value
AND	*AND_Function*	0
Description:	*AND logic block.*	
OR	*OR_Function*	1
Description:	*OR logic block.*	
XOR	*XOR_Function*	2
Description:	*XOR logic block.*	
NAND	*NAND_Function*	3
Description:	*NAND logic block.*	
NOR	*NOR_Function*	4
Description:	*NOR logic block.*	

Enumeration Entities

Name	GenICam Name	Register Value
XNOR	*XNOR_Function*	5
Description:	*XNOR logic block.*	
Trigger Enable	*TRIGGER_ENABLE*	6
Description:	*Trigger enable logic block.*	

Direct Register Access

AccessMode	Address
Read/Write	0xC85C

Feature

SeqInterval Type: Integer

GenICam Name: SeqInterval

Sets the duration of the sequencer segments.

Direct Register Access

AccessMode	Address
Read/Write	0xA7DC

Feature

SeqPulseAStart Type: Integer

GenICam Name: SeqPulseAStart

Begin of the integration time in the sequencer segment.

Direct Register Access

AccessMode	Address
Read/Write	0xA7D8

Feature

SeqPulseAStop Type: Integer

GenICam Name: SeqPulseAStop

End of the integration time in the sequencer segment.

Direct Register Access

AccessMode	Address
Read/Write	0xA7B0

Feature

SeqPulseBStart Type: Integer

GenICam Name: SeqPulseBStart

Begin of the PWM mask in the sequencer segment.

Direct Register Access

AccessMode	Address
Read/Write	0xA7B4

Feature

SeqPulseBStop Type: Integer

GenICam Name: SeqPulseBStop

End of the integration time in the sequencer segment.

Direct Register Access

AccessMode	Address
Read/Write	0xA7B8

LUT Control

Category that includes the LUT control features.

Feature

LUT Selector

Type: Enumeration

GenICam Name: LUTSelector

Selects which LUT to control.

Enumeration Entities

Name	GenICam Name	Register Value
Luminance	*Luminance*	0

Description: *Selects the Luminace LUT.*

Feature

LUT Enable

Type: Boolean

GenICam Name: LUTEnable

This boolean value enables the selected LUT.

Direct Register Access

AccessMode	Address
Read/Write	0xB0B4

Feature

LUT Index

Type: Integer

GenICam Name: LUTIndex

Control the index (offset) of the coefficient to access in the selected LUT.

Feature

LUT Value

Type: Integer

GenICam Name: LUTValue

Returns the Value at entry LUTIndex of the LUT selected by LUTSelector.

Direct Register Access

AccessMode	Address
Read/Write	Formula

Feature

Gamma

Type: Float

GenICam Name: Gamma

Controls the gamma correction of pixel intensity. This is typically used to compensate for nonlinearity of the display system (such as CRT). The realization of the gamma correction is implemented using a LUT. Therefore, some LUT functionality is not available when gamma correction is activated.

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xB384	TO/1000	FROM*1000

Customer ID Protection

This category includes items used for licensing.

Feature

Customer ID

Type: Integer

GenICam Name: CustomerID

Customer ID set by manufacturer.

Direct Register Access

AccessMode	Address
Read/Write	0xA524

Feature

Customer Value

Type: Integer

GenICam Name: CustomerValue

Customer Value set by customer.

Direct Register Access

AccessMode	Address
Read/Write	0xA52C

Feature

Customer Value Key

Type: Integer

GenICam Name: CustomerValueKey

Key for setting Customer Value.

Direct Register Access

AccessMode	Address
Read/Write	0xA528

Feature

Customer Data Index

Type: Integer

GenICam Name: CustomerDataIndex

Control the index (offset) of the CustomerData Array.

Feature

Customer Data Value

Type: Integer

GenICam Name: CustomerDataValue

Returns the Value at entry CustomerDataIndex of the CustomerData Array.

Direct Register Access

AccessMode	Address
Read/Write	0xA0200

Lens Control

This category includes items used to set the parameters for lens control.

Feature

Lens Set State

Type: Enumeration

GenICam Name: MFTLensState

This enumeration controls the MFT Lens state.

Enumeration Entities

Name	GenICam Name	Register Value
inactive	*inactive*	0
Description:	*This enumeration value sets the lens inactive.*	
active	*active*	1
Description:	*This enumeration value activates the lens.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA0004

Feature

Lens Reset

Type: Command

GenICam Name: MFTLensReset

Reset the lens.

Direct Register Access

AccessMode	Address
Write Only	0xA0000

Feature

Lens Name

Type: String

GenICam Name: MFTLensName

Shows the MFT lens name.

Direct Register Access

AccessMode	Address	Length
Read Only	0xA0030	32

Feature

Focal Length

Type: Integer

GenICam Name: MFTFocalLength

This integer value sets the focal length.

Direct Register Access

AccessMode	Address
Read/Write	0xA0100

Feature

Focus

Type: Integer

GenICam Name: MFTFocus

This integer value sets the focus.

Direct Register Access

AccessMode	Address
Read/Write	0xA0120

Feature

Focus Unit

Type: Enumeration

GenICam Name: MFTFocusUnit

This integer value sets the focus unit: 1mm or 1/10mm.

Enumeration Entities

Name	GenICam Name	Register Value
1mm	*mft_unit_mm*	0
Description:	*focus unit 1mm.*	
1/10mm	*mft_unit_deci_mm*	1
Description:	*focus unit 1/10mm.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA013C

Feature

Aperture

Type: Integer

GenICam Name: MFTAperture

This integer value sets the aperture.

Direct Register Access

AccessMode	Address
Read/Write	0xA0140

Feature

Lens Control Type

Type: Enumeration

GenICam Name: LensControlType

Selected Lenscontroller type.

Enumeration Entities

Name	GenICam Name	Register Value
none	*none*	0
Description:	*No lens controller available.*	
Birger Mount	*birger*	1
Description:	*Birger Mount connected to camera.*	
Varioptic	*varioptic*	2
Description:	*Varioptic connected to camera.*	
SVCam-EF lens adapter	*svcamef*	3
Description:	*EF lens connected to camera.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB38C

Feature

Focus

Type: Integer

GenICam Name: LensControlFocus

This integer value sets the focus.

Direct Register Access

AccessMode	Address
Read/Write	0xB35C

Feature

Iris

Type: Integer

GenICam Name: LensControlIris

This integer value sets the iris.

Direct Register Access

AccessMode	Address
Read/Write	0xB360

Feature

Lens Init

Type: Command

GenICam Name: LensControlLensInit

Resets the Lens.

Direct Register Access

AccessMode	Address
Write Only	0xB364

Defect Pixel Correction

This category includes items used to set the parameters for the Defect Pixel Correction

Feature

Control

Type: Enumeration

GenICam Name: DefectPixelCorrectionEnable_Control

This enumeration provides a list of the values available for controlling the defect pixel correction.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value disables the defect pixel correction.*	
On	*On*	1
Description:	*This enumeration value enables the defect pixel correction.*	

Direct Register Access

AccessMode	Address
Read/Write	0x10004000

Feature

Mark defect pixels

Type: Enumeration

GenICam Name: DefectPixelCorrectionMark_Control

This enumeration provides a list of the values available for setting test modes for the defect pixel correction.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value disables the marking of the defect pixels.*	
Mark	*Mark*	1
Description:	*This enumeration value enables the marking of the defect pixels.*	

Direct Register Access

AccessMode	Address
Read/Write	0x10004000

Feature

Defect Pixel Map Selector

Type: Enumeration

GenICam Name: DefectPixelCorrection_MapSelect

This enumeration provides a list of maps available for the defect pixel correction.

Enumeration Entities

Name	GenICam Name	Register Value
Factory Map	*factory*	0
Description:	*This enumeration value selects the factory map, containing defect pixels from sensor data sheet.*	
Custom1 Map	*custom1*	1
Description:	*This enumeration value selects the custom1 map, handled by customer.*	
Custom2 Map	*custom2*	2
Description:	*This enumeration value selects the custom2 map, handled by customer.*	

Direct Register Access

AccessMode	Address
Read/Write	0x10004014

Feature

Defect Pixel Map Max Size

Type: Integer

GenICam Name: DefectPixelCorrection_MapMaxSize

This integer value reads the maximal number of defect pixels per map.

Direct Register Access

AccessMode	Address
Read Only	0x10004020

Feature

Defect Pixel Map Size

Type: Integer

GenICam Name: DefectPixelCorrection_MapSize

This integer value reads the current number of defect pixels of the selected map.

Direct Register Access

AccessMode	Address
Read Only	0x1000401C

Feature

Dynamic Hot Pixel Correction Control

Type: Enumeration

GenICam Name: DynamicHotPixelCorrectionEnable_Control

This enumeration provides a list of the values available for controlling the dynamic hot pixel correction.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value disables the dynamic hot pixel correction.*	
On	*On*	1
Description:	*This enumeration value enables the dynamic hot pixel correction.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB40C

Shading

This category includes items used to set the parameters for the Shading Correction

Feature

Shading Control

Type: Enumeration

GenICam Name: Shading_Control

This enumeration provides a list of the values available for controlling the shading correction.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*This enumeration value disables the shading correction.*	
On	*On*	1
Description:	*This enumeration value enables the shading correction.*	

Direct Register Access

AccessMode	Address
Read/Write	0x105FFFE0

Feature

Shading Map Selector

Type: Enumeration

GenICam Name: Shading_MapSelect

This enumeration provides a list of maps available for the shading correction.

Enumeration Entities

Name	GenICam Name	Register Value
Shading Map 0	*ShadingMap0*	0
Description:	*This enumeration value selects the shading map 0.*	
Shading Map 1	*ShadingMap1*	1
Description:	*This enumeration value selects the shading map 1.*	
Shading Map 2	*ShadingMap2*	2
Description:	*This enumeration value selects the shading map 2.*	

Direct Register Access

AccessMode	Address
Read/Write	0x105FFFE4

Sensor Tap Correction

This category includes items used to set the parameters for the Sensor Tap Correction

Feature

Correction Map Selector

Type: Enumeration

GenICam Name: SensorTapCorrectionMap

This enumeration provides a list of maps available for the sensor tap correction.

Enumeration Entities

Name	GenICam Name	Register Value
Entocentric Lens Map	*CorrectionTubus*	0
Description:	*This enumeration value selects the Entocentric Lens map.*	
Bi-telecentric Lens Map	*CorrectionLens*	1
Description:	*This enumeration value selects Bi-telecentric Lens map.*	
Correction Map User	*CorrectionUser*	2
Description:	*This enumeration value selects the user correction map.*	
Off	*Off*	3
Description:	*This enumeration value disable the correction.*	

Direct Register Access

AccessMode	Address
Read/Write	0x99004

Transport Layer Control

The transport layer category includes items related to the GigE Vision transport layer

Feature

PayloadSize

Type: Integer

GenICam Name: PayloadSize

Provides the number of bytes transferred for each image or chunk on the stream channel. This includes any end-of-line, end-of-frame statistics or other stamp data. This is the total size of data payload for a data block.

Direct Register Access

AccessMode	Address
Read Only	0xB06C

Feature

GevVersionMajor

Type: Integer

GenICam Name: GevVersionMajor

Major version of the specification.

Direct Register Access

AccessMode	Address
Read Only	0x0000

Feature

GevVersionMinor

Type: Integer

GenICam Name: GevVersionMinor

Minor version of the specification.

Direct Register Access

AccessMode	Address
Read Only	0x0000

Feature

GevDeviceModeIsBigEndian

Type: Boolean

GenICam Name: GevDeviceModeIsBigEndian

Endianess of the device registers.

Direct Register Access

AccessMode	Address
Read Only	0x0004

Feature

Gev Device Mode Character Set

Type: Enumeration

GenICam Name: GevDeviceModeCharacterSet

Character set used by all the strings of the bootstrap registers.

Enumeration Entities

Name	GenICam Name	Register Value
UTF 8	*UTF8*	1

Description: *Device use UTF8 character set.*

Direct Register Access

AccessMode	Address

Direct Register Access

AccessMode	Address
Read Only	0x0004

Feature

Gev Interface Selector Type: Integer

GenICam Name: GevInterfaceSelector

Selects which physical network interface to control.

Feature

GevMACAddress Type: Integer

GenICam Name: GevMACAddress

MAC address of the logical link. This feature must return a 64-bit value representing the full MAC address of the device (i.e. the high and low parts).

Feature

GevSupportedIPConfigurationLLA Type: Boolean

GenICam Name: GevSupportedIPConfigurationLLA

Link Local Address IP configuration scheme is supported by the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0010

Feature

GevSupportedIPConfigurationDHCP Type: Boolean

GenICam Name: GevSupportedIPConfigurationDHCP

Indicates if DHCP IP configuration scheme is supported by the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0010

Feature

GevSupportedIPConfigurationPersistentIP Type: Boolean

GenICam Name: GevSupportedIPConfigurationPersistentIP

Indicates if PersistentIP configuration scheme is supported by the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0010

Feature

GevCurrentIPConfigurationLLA Type: Boolean

GenICam Name: GevCurrentIPConfigurationLLA

Indicates if Link Local Address IP configuration scheme is activated on the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0014

Feature

GevCurrentIPConfigurationDHCP Type: Boolean

GenICam Name: GevCurrentIPConfigurationDHCP

Indicates if DHCP IP configuration scheme is activated on the given network interface.

Direct Register Access

AccessMode	Address
Read/Write	0x0014

Feature

GevCurrentIPConfigurationPersistentIP Type: Boolean

GenICam Name: GevCurrentIPConfigurationPersistentIP

Indicates if PersistentIP configuration scheme is activated on the given network interface.

Direct Register Access

AccessMode	Address
Read/Write	0x0014

Feature

GevCurrentIPAddress Type: Integer

GenICam Name: GevCurrentIPAddress

Reports the IP address for the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0024

Feature

GevCurrentSubnetMask Type: Integer

GenICam Name: GevCurrentSubnetMask

Reports the IP address for the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0034

Feature

GevCurrentDefaultGateway Type: Integer

GenICam Name: GevCurrentDefaultGateway

Indicates the default gateway IP address to be used on the given network interface.

Direct Register Access

AccessMode	Address
Read Only	0x0044

Feature

GevFirstURL Type: String

GenICam Name: GevFirstURL

Indicates the first URL to the XML device description file. The First URL is used as the first choice by the application to retrieve the XML device description file.

Direct Register Access

AccessMode	Address	Length

Direct Register Access

AccessMode	Address	Length
Read Only	0x0200	512

Feature

GevSecondURL Type: String

GenICam Name: GevSecondURL

Indicates the second URL to the XML device description file. This URL is an alternative if the application was unsuccessful to retrieve the device description file using the first URL.

Direct Register Access

AccessMode	Address	Length
Read Only	0x0400	512

Feature

GevNumberOfInterfaces Type: Integer

GenICam Name: GevNumberOfInterfaces

Indicates the number of physical network interfaces supported by this device.

Direct Register Access

AccessMode	Address
Read Only	0x0600

Feature

GevMessageChannelCount Type: Integer

GenICam Name: GevMessageChannelCount

Indicates the number of message channels supported by this device.

Direct Register Access

AccessMode	Address
Read Only	0x0900

Feature

GevStreamChannelCount Type: Integer

GenICam Name: GevStreamChannelCount

Indicates the number of stream channels supported by this device.

Direct Register Access

AccessMode	Address
Read Only	0x0904

Feature

GevPersistentIPAddress Type: Integer

GenICam Name: GevPersistentIPAddress

Indicates the Persistent IP address for this network interface. It is only used when the device boots with the Persistent IP configuration scheme.

Direct Register Access

AccessMode	Address
Read/Write	0x064C

Feature

GevPersistentSubnetMask

Type: Integer

GenICam Name: GevPersistentSubnetMask

Indicates the Persistent subnet mask associated with the Persistent IP address on this network interface. It is only used when the device boots with the Persistent IP configuration scheme.

Direct Register Access

AccessMode	Address
Read/Write	0x065C

Feature

GevPersistentDefaultGateway

Type: Integer

GenICam Name: GevPersistentDefaultGateway

Indicates the persistent default gateway for this network interface. It is only used when the device boots with the Persistent IP configuration scheme.

Direct Register Access

AccessMode	Address
Read/Write	0x066C

Feature

GevCCP

Type: Enumeration

GenICam Name: GevCCP

Controls the device access privilege of an application. Only one application is allowed to control the device. This application is able to write into device's registers. Other applications can read device's register only if the controlling application does not have the exclusive privilege.

Enumeration Entities

Name	GenICam Name	Register Value
OpenAccess	*OpenAccess*	0
Description: *Open access.*		
ExclusiveAccess	*ExclusiveAccess*	1
Description: *Exclusive access.*		
ControlAccess	*ControlAccess*	2
Description: *Control access.*		

Direct Register Access

AccessMode	Address
Read/Write	0x0A00

Feature

GevHeartbeatTimeout

Type: Integer

GenICam Name: GevHeartbeatTimeout

Indicates the current heartbeat timeout in milliseconds.

Direct Register Access

AccessMode	Address
Read/Write	0x0008

Feature

GevSCPSPacketSize Type: Integer

GenICam Name: GevSCPSPacketSize

Specifies the stream packet size in bytes to send on this channel. This does not include data leader and data trailer and the last data packet which might be of smaller size (since packet size is not necessarily a multiple of block size for stream channel). If a device cannot support the requested packet size, then it must not fire a test packet when requested to do so.

Direct Register Access

AccessMode	Address
Read/Write	0x0D04

Feature

GevSCPHostPort Type: Integer

GenICam Name: GevSCPHostPort

Indicates the port to which the device must send data stream. Setting this value to 0 closes the stream channel.

Direct Register Access

AccessMode	Address
Read/Write	0x0D00

Feature

GevSCDA Type: Integer

GenICam Name: GevSCDA

Indicates the destination IP address for this stream channel.

Direct Register Access

AccessMode	Address
Read/Write	0x0D18

Feature

GevSCPD Type: Integer

GenICam Name: GevSCPD

Indicates the delay (in timestamp counter unit) to insert between each packet for this stream channel. This can be used as a crude flow-control mechanism if the application or the network infrastructure cannot keep up with the packets coming from the device.

Direct Register Access

AccessMode	Address
Read/Write	0x0D08

Feature

GevSCSP Type: Integer

GenICam Name: GevSCSP

Indicates the source port of the stream channel.

Direct Register Access

AccessMode	Address
Read Only	0x0D1C

Feature

Gev Stream Channel Selector Type: Integer

GenICam Name: GevStreamChannelSelector

Selects the stream channel to control.

Feature

Timestamp Tick Frequency Type: Integer

GenICam Name: GevTimestampTickFrequency

Indicates the number of timestamp ticks during 1 second (frequency in Hz). This is a 64 bits number.

Feature

Timestamp Control Latch Type: Command

GenICam Name: GevTimestampControlLatch

Latches current timestamp counter into GevTimestampValue.

Direct Register Access

AccessMode	Address
Write Only	0x0944

Feature

Timestamp Control Reset Type: Command

GenICam Name: GevTimestampControlReset

Resets the Timestamp counter to 0.

Direct Register Access

AccessMode	Address
Write Only	0x0944

Feature

Timestamp Value Type: Integer

GenICam Name: GevTimestampValue

Returns the latched 64-bit value of the timestamp counter. It is necessary to latch the 64-bit timestamp value to guaranty its integrity when performing the two 32-bit read accesses to retrieve the higher and lower 32-bit portions.

Feature

GevMCPHostPort Type: Integer

GenICam Name: GevMCPHostPort

Indicates the port to which the device must send messages. Setting this value to 0 closes the message channel.

Direct Register Access

AccessMode	Address
Read/Write	0x0B00

Feature

GevMCDA Type: Integer

GenICam Name: GevMCDA

Indicates the destination IP address for the message channel.

Direct Register Access

AccessMode	Address
Read/Write	0x0B10

Feature

GevMCTT Type: Integer

GenICam Name: GevMCTT

Provides the transmission timeout value in milliseconds.

Direct Register Access

AccessMode	Address
Read/Write	0x0B14

Feature

GevMCRC Type: Integer

GenICam Name: GevMCRC

Indicates the number of retransmissions allowed when a message channel message times out.

Direct Register Access

AccessMode	Address
Read/Write	0x0B18

Feature

GevMCSP Type: Integer

GenICam Name: GevMCSP

This feature indicates the source port for the message channel.

Direct Register Access

AccessMode	Address
Read Only	0x0B1C

Feature

DeviceTapGeometry Type: Enumeration

GenICam Name: DeviceTapGeometry

This device tap geometry feature describes the geometrical properties characterizing the taps of a camera as presented at the output of the device.

Enumeration Entities

Name	GenICam Name	Register Value
Geometry_1X_1Y	*Geometry_1X_1Y*	0
Description:	*1X 1Y tap geometry.*	
Geometry_2XE_1Y	*Geometry_2XE_1Y*	1
Description:	*2XE 1Y tap geometry.*	
Geometry_1X_2YE	*Geometry_1X_2YE*	2
Description:	*1X 2YE tap geometry.*	
Geometry_2XE_2YE	*Geometry_2XE_2YE*	3
Description:	*2XE 2YE tap geometry.*	
Geometry_2X_1Y	*Geometry_2X_1Y*	4
Description:	*2X 1Y tap geometry.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB0AC

Feature

Network Utilization

Type: Integer

GenICam Name: NetworkUtilization

This value Indicate the network utilization in percent.

Direct Register Access

AccessMode	Address	FormulaFrom	FormulaTo
Read/Write	0xB3D4	TO * 10	FROM / 10

Ptp Control

Category that contains the features related to the Precision Time Protocol (PTP) of the device.

Feature

Ptp Enable

Type: Boolean

GenICam Name: PtpEnable

Enables the Precision Time Protocol (PTP).

Direct Register Access

AccessMode	Address
Read/Write	0xA0400

Feature

Ptp Clock Accuracy

Type: Enumeration

GenICam Name: PtpClockAccuracy

Indicates the expected accuracy of the device PTP clock when it is the grandmaster, or in the event it becomes the grandmaster.

Enumeration Entities

Name	GenICam Name	Register Value
Within 25ns	*Within25ns*	0
Description: *Within 25ns*		
Within 100ns	*Within100ns*	1
Description: *Within 100ns*		
Within 250ns	*Within250ns*	2
Description: *Within 250ns*		
Within 1us	*Within1us*	3
Description: *Within 1us*		
Within 2p 5us	*Within2p5us*	4
Description: *Within 2p 5us*		
Within 10us	*Within10us*	5
Description: *Within 10us*		
Within 25us	*Within25us*	6
Description: *Within 25us*		
Within 100us	*Within100us*	7
Description: *Within 100us*		
Within 250us	*Within250us*	8
Description: *Within 250us*		
Within 1ms	*Within1ms*	9
Description: *Within 1ms*		
Within 2p 5ms	*Within2p5ms*	10
Description: *Within 2p 5ms*		
Within 10ms	*Within10ms*	11
Description: *Within 10ms*		
Within 25ms	*Within25ms*	12
Description: *Within 25ms*		

Enumeration Entities

Name	GenICam Name	Register Value
Within 100ms	*Within100ms*	13
Description: *Within 100ms*		
Within 250ms	*Within250ms*	14
Description: *Within 250ms*		
Within 1s	*Within1s*	15
Description: *Within 1s*		
Within 10s	*Within10s*	16
Description: *Within 10s*		
Greater Than 10s	*GreaterThan10s*	17
Description: *Greater Than 10s*		
Alternate PTP Profile	*AlternatePTPProfile*	18
Description: *Alternate PTP Profile*		
Unknown	*Unknown*	19
Description: *Unknown*		
Reserved	*Reserved*	20
Description: *Reserved*		

Direct Register Access

AccessMode	Address
Read Only	0xA0404

Feature

Ptp Data Set Latch Type: Command

GenICam Name: PtpDataSetLatch

Latches the current values from the device's PTP clock data set.

Feature

Ptp Status Type: Enumeration

GenICam Name: PtpStatus

Returns the latched state of the PTP clock.

Enumeration Entities

Name	GenICam Name	Register Value
Initializing	*Initializing*	0
Description: *Initializing*		
Faulty	*Faulty*	1
Description: *Faulty*		
Disabled	*Disabled*	2
Description: *Disabled*		
Listening	*Listening*	3
Description: *Listening*		
Pre Master	*PreMaster*	4
Description: *Pre Master*		

Enumeration Entities

Name	GenICam Name	Register Value
Master	*Master*	5
Description: *Master*		
Passive	*Passive*	6
Description: *Passive*		
Uncalibrated	*Uncalibrated*	7
Description: *Uncalibrated*		
Slave	*Slave*	8
Description: *Slave*		

Direct Register Access

AccessMode	Address
Read Only	0xA040C

Feature

Ptp Servo Status

Type: Enumeration

GenICam Name: PtpServoStatus

Returns the latched state of the clock servo. When the servo is in a locked state, the value returned is 'Locked'. When the servo is in a non-locked state, a device-specific value can be returned to give specific information. If no device-specific value is available to describe the current state of the clock servo, the value should be 'Unknown'.

Enumeration Entities

Name	GenICam Name	Register Value
Unknown	*Unknown*	0
Description: *Unknown*		
Locked	*Locked*	1
Description: *Locked*		
Device - Specific	*DeviceSpecific*	2
Description: *Device - Specific*		

Direct Register Access

AccessMode	Address
Read Only	0xA0410

Feature

Ptp Offset From Master

Type: Integer

GenICam Name: PtpOffsetFromMaster

Returns the latched offset from the PTP master clock in nanoseconds.

Feature

Ptp Clock Id

Type: Integer

GenICam Name: PtpClockId

Returns the latched clock Id of the PTP device.

Feature

Ptp Parent Clock Id

Type: Integer

GenICam Name: PtpParentClockId

Returns the latched parent clock Id of the PTP device. The parent clock Id is the clock Id of the current master clock.

Feature

Ptp Grandmaster Clock Id

Type: Integer

GenICam Name: PtpGrandmasterClockId

Returns the latched grandmaster clock Id of the PTP device. The grandmaster clock Id is the clock Id of the current grandmaster clock.

Feature

Ptp Trigger Enable

Type: Enumeration

GenICam Name: PtpTriggerEnable

Start and Stop PTP Trigger

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*Ptp Trigger generation is disabled.*	
On	*On*	1
Description:	*Ptp Trigger genration is enabled. If Ptp Trigger Start already exceeded, triggering will start at next whole second.*	

Direct Register Access

AccessMode	Address
Read/Write	0xA044C

Feature

Ptp Trigger Pulse Len

Type: Integer

GenICam Name: PtpTriggerPulseLen

Trigger pulse length in ns.

Direct Register Access

AccessMode	Address
Read/Write	0xA0448

Feature

Ptp Trigger Interval

Type: Integer

GenICam Name: PtpTriggerInterval

Trigger inverval in ns.

Direct Register Access

AccessMode	Address	Length
Read/Write	0xA0440	8

Feature

Ptp Trigger Start

Type: Integer

GenICam Name: PtpTriggerStart

Begin of first Trigger, zero to start with alignment to next second.

Direct Register Access

AccessMode	Address	Length
Read/Write	0xA0438	8

Event Control

Category that contains event control features.

Feature

EventSelector

Type: Enumeration

GenICam Name: EventSelector

Selects which Event to signal to the host application.

Enumeration Entities

Name	GenICam Name	Register Value
SequenceDone	*SequenceDone*	9000 hex
Description:	*Sequence done event.*	
AcquisitionError	*AcquisitionError*	9001 hex
Description:	*Acquisition error event.*	
FrameTransferStart	*FrameTransferStart*	9002 hex
Description:	*Frame transfer start event.*	
FrameTransferEnd	*FrameTransferEnd*	9003 hex
Description:	*Frame transfer end event.*	
FrameTrigger	*FrameTrigger*	9004 hex
Description:	*Frame trigger event.*	
FrameStart	*FrameStart*	9005 hex
Description:	*Frame start event.*	
FrameEnd	*FrameEnd*	9006 hex
Description:	*Frame end event.*	
ExposureStart	*ExposureStart*	9007 hex
Description:	*Exposure start event.*	
ExposureEnd	*ExposureEnd*	9008 hex
Description:	*Exposure end event.*	
LensFocallengthDone	*LensFocallengthDone*	9009 hex
Description:	*Lens Focallength Done event.*	
LensFocusDone	*LensFocusDone*	900A hex
Description:	*Lens Focus Done event.*	
LensApertureDone	*LensApertureDone*	900B hex
Description:	*Lens Aperture Done event.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB2B0

Feature

EventNotification

Type: Enumeration

GenICam Name: EventNotification

Activate or deactivate the notification to the host application of the occurrence of the selected Event.

Enumeration Entities

Name	GenICam Name	Register Value
Off	*Off*	0
Description:	*If EventNotification is Off, no event of the selected type is generated.*	
On	*On*	1
Description:	*If EventNotification is On, an event of the selected type is generated.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB2B4

Feature

EventFrameTransferStartData Type: Category

GenICam Name: EventFrameTransferStartData

Category that contains all the data features related to the Frame Transfer Start Event.

Feature

EventFrameEndData Type: Category

GenICam Name: EventFrameEndData

Category that contains all the data features related to the Frame End Event.

Feature

EventExposureStartData Type: Category

GenICam Name: EventExposureStartData

Category that contains all the data features related to the Exposure Start Event.

Feature

EventExposureEndData Type: Category

GenICam Name: EventExposureEndData

Category that contains all the data features related to the Exposure End Event.

User Set Control

User Sets provides the features used to save camera settings to on-board non-volatile memory.

Feature

UserSetSelector

Type: Enumeration

GenICam Name: UserSetSelector

This enumeration selects the user set to load, save, or configure. Once a user set has been selected, all changes to the user set settings will be applied to the selected user set.

Enumeration Entities

Name	GenICam Name	Register Value
Default User Set	*Default*	0
Description:	*This enumeration value selects the default user set. This is a user set that contains factory settings. It is read-only and cannot be modified.*	
User Set 1	*UserSet1*	1
Description:	*This enumeration value selects the user set 1 configuration set.*	
User Set 2	*UserSet2*	2
Description:	*This enumeration value selects the user set 2 configuration set.*	
User Set 3	*UserSet3*	3
Description:	*This enumeration value selects the user set 3 configuration set.*	
User Set 4	*UserSet4*	4
Description:	*This enumeration value selects the user set 4 configuration set.*	
User Set 5	*UserSet5*	5
Description:	*This enumeration value selects the user set 5 configuration set.*	
User Set 6	*UserSet6*	6
Description:	*This enumeration value selects the user set 6 configuration set.*	
User Set 7	*UserSet7*	7
Description:	*This enumeration value selects the user set 7 configuration set.*	
User Set 8	*UserSet8*	8
Description:	*This enumeration value selects the user set 8 configuration set.*	

Direct Register Access

AccessMode	Address
Read/Write	0xBF00

Feature

UserSetLoad

Type: Command

GenICam Name: UserSetLoad

This command loads the User Set specified by UserSetSelector to the device and makes it active.

Direct Register Access

AccessMode	Address
Write Only	0xBF04

Feature

UserSetSave

Type: Command

GenICam Name: UserSetSave

This command copies the parameters in the current active user set into the selected user set in the camera's non-volatile memory.

Direct Register Access

AccessMode	Address
Write Only	0xBF04

Feature

User Set Default

Type: Enumeration

GenICam Name: UserSetDefault

This enumeration sets the user set to be used as the default startup set. The user set that has been selected as the default startup set will be loaded as the active set whenever the camera is powered on or reset.

Enumeration Entities

Name	GenICam Name	Register Value
Default User Set	*Default*	0
Description:	*This enumeration value sets the default user set as the default startup set.*	
User Set 1	*UserSet1*	1
Description:	*This enumeration value sets user set 1 as the default startup set.*	
User Set 2	*UserSet2*	2
Description:	*This enumeration value sets user set 2 as the default startup set.*	
User Set 3	*UserSet3*	3
Description:	*This enumeration value sets user set 3 as the default startup set.*	
User Set 4	*UserSet4*	4
Description:	*This enumeration value sets user set 3 as the default startup set.*	
User Set 5	*UserSet5*	5
Description:	*This enumeration value sets user set 5 as the default startup set.*	
User Set 6	*UserSet6*	6
Description:	*This enumeration value sets user set 6 as the default startup set.*	
User Set 7	*UserSet7*	7
Description:	*This enumeration value sets user set 7 as the default startup set.*	
User Set 8	*UserSet8*	8
Description:	*This enumeration value sets user set 8 as the default startup set.*	

Direct Register Access

AccessMode	Address
Read/Write	0xBF08

File Access Control

Category that contains the File Access control features.

Feature

File Selector

Type: Enumeration

GenICam Name: FileSelector

Selects the target file in the device.

Enumeration Entities

Name	GenICam Name	Register Value
Userfile	*Userfile*	0
Description:	*The Userfile is selected through Filename Node, enumeration of available files is available through FilenameIndex.*	
Device Firmware	*DeviceFirmware*	1
Description:	*Device Firmware is write only.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB600

Feature

File Operation Selector

Type: Enumeration

GenICam Name: FileOperationSelector

Selects the target operation for the selected file in the device. This Operation is executed when the FileOperationExecute feature is called.

Enumeration Entities

Name	GenICam Name	Register Value
Open	*Open*	0
Description:	*Opens the file selected by FileSelector in the device. The access mode in which the file is opened is selected by FileOpenMode.*	
Close	*Close*	1
Description:	*Closes the file selected by FileSelector in the device.*	
Read	*Read*	2
Description:	*Reads FileAccessLength bytes from the device storage at the file relative offset FileAccessOffset into FileAccessBuffer.*	
Write	*Write*	3
Description:	*Writes FileAccessLength bytes taken from the FileAccessBuffer into the device storage at the file relative offset FileAccessOffset.*	
Delete	*Delete*	4
Description:	*Deletes the file selected by FileSelector in the device. Note that deleting a device file should not remove the associated FileSelector entry to allow future operation on this file.*	

Feature

File Operation Execute

Type: Command

GenICam Name: FileOperationExecute

Executes the operation selected by FileOperationSelector on the selected file.

Direct Register Access

AccessMode	Address

Direct Register Access

AccessMode	Address
Write Only	0xB604

Feature

File Open Mode

Type: Enumeration

GenICam Name: FileOpenMode

Selects the access mode in which a file is opened in the device.

Enumeration Entities

Name	GenICam Name	Register Value
Read	*Read*	0
Description:	*This mode selects read-only open mode.*	
Write	*Write*	1
Description:	*This mode selects write-only open mode.*	
Read Write	*ReadWrite*	2
Description:	*This mode selects read and write open mode.*	

Direct Register Access

AccessMode	Address
Read/Write	0xB608

Feature

File Access Buffer

Type: Register

GenICam Name: FileAccessBuffer

Defines the intermediate access buffer that allows the exchange of data between the device file storage and the application.

Direct Register Access

AccessMode	Address	Length
Read/Write	0xE0000	65536

Feature

File Access Offset

Type: Integer

GenICam Name: FileAccessOffset

Controls the Offset of the mapping between the device file storage and the FileAccessBuffer.

Direct Register Access

AccessMode	Address
Read/Write	0xB60C

Feature

File Access Length

Type: Integer

GenICam Name: FileAccessLength

Controls the Length of the mapping between the device file storage and the FileAccessBuffer.

Direct Register Access

AccessMode	Address
Read/Write	0xB610

Feature

File Operation Status

Type: Enumeration

GenICam Name: FileOperationStatus

Represents the file operation execution status.

Enumeration Entities

Name	GenICam Name	Register Value
Success	*Success*	0
Description:	*File Operation was successful.*	
Failure	*Failure*	1
Description:	*File Operation failed.*	

Direct Register Access

AccessMode	Address
Read Only	0xB614

Feature

File Operation Result

Type: Integer

GenICam Name: FileOperationResult

Represents the file operation result. For Read or Write operations, the number of successfully read/written bytes is returned.

Direct Register Access

AccessMode	Address
Read Only	0xB618

Feature

File Size

Type: Integer

GenICam Name: FileSize

Represents the size of the selected file in bytes.

Direct Register Access

AccessMode	Address
Read Only	0xB61C

Feature

Filename Index

Type: Integer

GenICam Name: FilenameIndex

Control the index (offset) of the Filename.

Direct Register Access

AccessMode	Address
Read/Write	0xB624

Feature

FilenameCount

Type: Integer

GenICam Name: FilenameCount

Number of available files.

Direct Register Access

AccessMode	Address

Direct Register Access

AccessMode	Address
Read Only	0xB620

Feature

Filename Type: String

GenICam Name: Filename

Filename.

Direct Register Access

AccessMode	Address	Length
Read/Write	0xB700	256

Debug

Feature

Refresh Register Type: Command

GenICam Name: RegisterRefresh

Refresh Register values

Feature

RegisterAddress Type: Integer

GenICam Name: RegisterAddress

This feature allows the direct access to the camera via register for debug purpose.

Feature

RegisterValue(DEC) Type: Integer

GenICam Name: RegisterValue_dec

This feature outputs the value of the accessed register in decimal.

Feature

RegisterValue(HEX) Type: Integer

GenICam Name: RegisterValue_hex

This feature outputs the value of the accessed register in hexadecimal.

Feature

Refresh StreamingStats Type: Command

GenICam Name: StreamingStatsRefresh

Refresh StreamingStats values

Feature

StreamingStatsImageAll Type: Integer

GenICam Name: StreamingStatsImageAll

Streaming channel acquired image counter.

Direct Register Access

AccessMode	Address
Read Only	0xA900

Feature

StreamingStatsImageDrop Type: Integer

GenICam Name: StreamingStatsImageDrop

Streaming channel dropped image counter.

Direct Register Access

AccessMode	Address
Read Only	0xA904

Feature

StreamingStatsImageSent Type: Integer

GenICam Name: StreamingStatsImageSent

Streaming channel sent image counter.

Direct Register Access

AccessMode	Address

Direct Register Access

AccessMode	Address
Read Only	0xA908

Feature

StreamingStatsResendPacketSum Type: Integer

GenICam Name: StreamingStatsResendPacketSum

Streaming channel packet resend counter.

Direct Register Access

AccessMode	Address
Read Only	0xA90C

Feature

StreamingStatsResendPacketUnavail Type: Integer

GenICam Name: StreamingStatsResendPacketUnavail

Streaming channel packet resend unavailable counter.

Direct Register Access

AccessMode	Address
Read Only	0xA910

Feature

StreamingStatsResendPacketNotYetAvail Type: Integer

GenICam Name: StreamingStatsResendPacketNotYetAvail

Streaming channel packet resend not yet unavailable counter.

Direct Register Access

AccessMode	Address
Read Only	0xA914

Feature

StreamingStatsResendPacketOverflow Type: Integer

GenICam Name: StreamingStatsResendPacketOverflow

Streaming channel packet resend unavailable counter.

Direct Register Access

AccessMode	Address
Read Only	0xA918

Feature

StreamingStatsResendPacketRequests Type: Integer

GenICam Name: StreamingStatsResendPacketRequests

Streaming channel packet resend request counter.

Direct Register Access

AccessMode	Address
Read Only	0xA91C