

Matrox Radiant eV-CL

Camera Interface Application Note

Teledyne DALSA Linea Color CL (LA-CC-08k05)

February 15, 2018

Basics about the camera

Camera Descriptions

- Color dual line CMOS line scan.
- Effective resolution: Up to 8192 pixels/line @ up to 70k lines per second.
- Camera Link FULL interface (3, 6, 8 or 10 taps at 8 or 12-bit).
- External and internal sync.
- External or internal exposure control.
- 85 MHz pixel clock rate.
- GenICam or ASCII command-compliant interfaces

*Mode of operations as per
Matrox Imaging (in parentheses
as per camera manufacturer)*

Interface Mode (requires MIL 10 Update 49 Build 27 or greater)

- Fixed line scan rate¹
- Variable line scan rate²
- Variable line scan rate with rotary encoder^{2,3}
- Fixed line scan rate with frame trigger¹
- Variable line scan rate with frame trigger²
- Variable line scan rate with rotary encoder with frame trigger^{2,3}
- Fixed line scan rate with variable frame size¹
- Variable line scan rate with variable frame size²
- Variable line scan rate with rotary encoder with variable frame size^{2,3}

Basics about the interface modes

Camera Interface Briefs

Mode 1: Fixed line scan rate

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radiant eV-CL sending periodic EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radiant eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.

¹ EXSYNC, level-controlled or Free Run programmable

² EXSYNC, level-controlled.

³ LVDS line trigger for rotary encoder is 5V tolerant.

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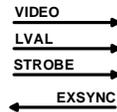
Camera Interface Briefs (cont.)

Mode 1: Fixed line scan rate (cont.)

- DCF file: [LA-CC-8K05_8192_8bit_Deca_RGBG8_Fls.dcf](#)



**Teledyne DALSA
LA-CC-08K05**



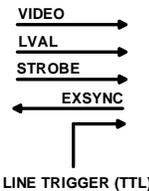
**Matrox
Radiant eV-CL**

Mode 2: Variable line scan rate

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radiant eV-CL receiving external TTL line trigger signal.
- Matrox Radiant eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radiant eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05_8192_8bit_Deca_RGBG8_Vls.dcf](#)



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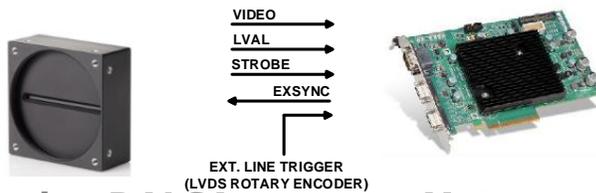
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Basics about the interface modes

Camera Interface Briefs (cont.)

Mode 3: Variable line scan rate with rotary encoder

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external LVDS line trigger (ROTARY ENCODER) signal.
- Matrox Radient eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05 8192 8bit Deca RGB8 VlsRe.dcf](#)

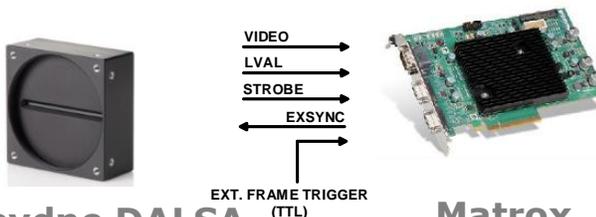


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Mode 4: Fixed line scan rate with frame trigger

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external TTL frame (virtual) trigger signal.
- Matrox Radient eV-CL sending periodic EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05 8192 8bit Deca RGB8 Flsft.dcf](#)



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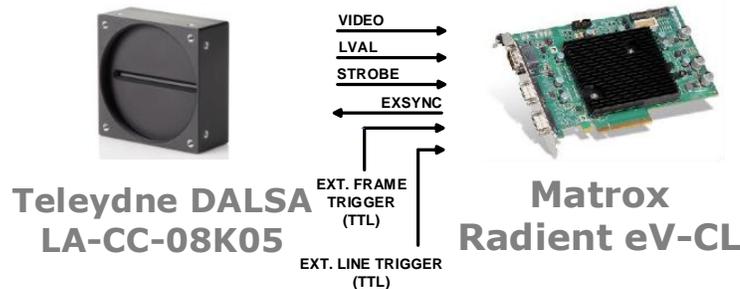
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Basics about the interface modes

Camera Interface Briefs (cont.)

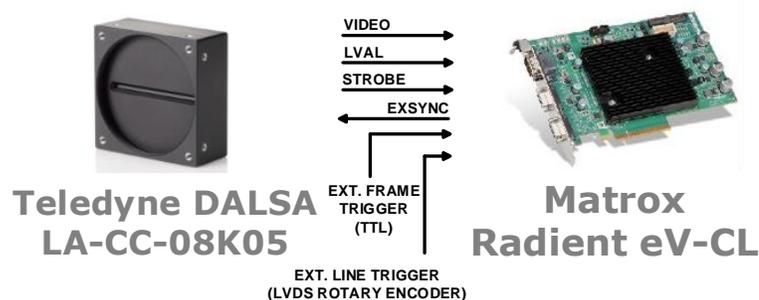
Mode 5: Variable line scan rate with frame trigger

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external TTL frame (virtual) and line trigger signals.
- Matrox Radient eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05_8192_8bit_Deca_RGBG8_Vlsft.dcf](#)



Mode 6: Variable line scan rate with rotary encoder and frame trigger

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external TTL frame (virtual) and external LVDS line trigger (ROTARY ENCODER) signals.
- Matrox Radient eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05_8192_8bit_Deca_RGBG8_VlsftRe.dcf](#)



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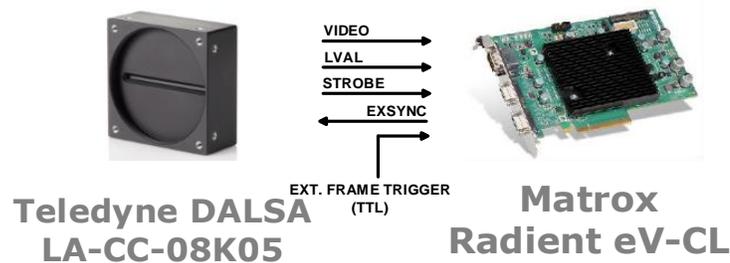
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Basics about the interface modes

Camera Interface Briefs (cont.)

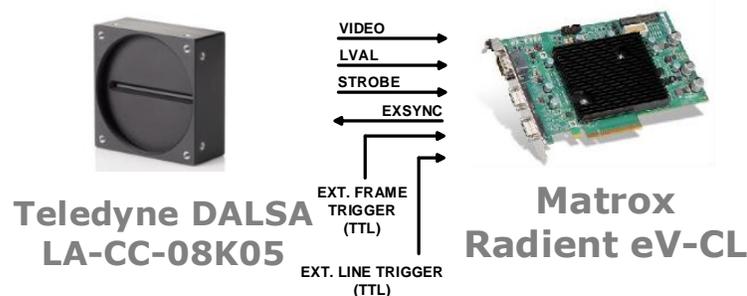
Mode 7: Fixed line scan rate with variable frame size

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external TTL frame (virtual) trigger signal.
- Matrox Radient eV-CL sending periodic EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05 8192 8bit Deca RGBG8 Flsvf.dcf](#)



Mode 8: Variable line scan rate with variable frame size

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radient eV-CL receiving external TTL frame (virtual) and line trigger signals.
- Matrox Radient eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radient eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05 8192 8bit Deca RGBG8 Vlsft.dcf](#)



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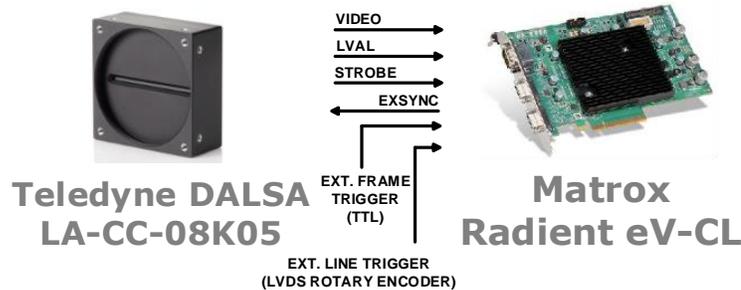
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Basics about the interface modes

Camera Interface Briefs (cont.)

Mode 9: Variable line scan rate with rotary encoder and variable frames size

- 8192 pixels/line.
- Camera Link FULL interface (10 taps at 8-bit).
- DCF file configured for 1000 lines per virtual frame.
- Matrox Radiant eV-CL receiving external TTL frame (virtual) and external LVDS line trigger (ROTARY ENCODER) signals.
- Matrox Radiant eV-CL sending EXPOSURE1 (EXSYNC) signal to camera.
- Matrox Radiant eV-CL receiving LVAL, PIXEL CLOCK (@ 85 MHz) and video data from camera.
- DCF file: [LA-CC-8K05_8192_8bit_Deca_RGBG8_VlsvfRe.dcf](#)



Specifics about the interface modes

Camera Interface Details

Mode 1: Fixed line scan rate

- **Line rate:** The frequency of the periodic EXPOSURE1 (EXSYNC) signal determines the camera's line rate. The maximum line rate for this camera equals **50 kHz**.
- **Exposure time:** When trigger width exposure mode is selected, the length of the exposure for each line acquisition will be directly controlled by the EXSYNC signal (i.e. CC1 signal). If the camera is set for rising edge triggering, the exposure time begins when the EXSYNC signal rises and continues until the EXSYNC signal falls. The default exposure time for the Deca mode DCF file is **52 μs**. Maximum/minimum exposure time per line for this DCF file is **197 ms** and **11.7 ns** respectively when the pixel clock of the camera is used to generate the exposure time. The exposure time can be modified in the DCF file using Matrox Intellicam or with the MIL MdigControl() function. Consult the respective manual for more information.

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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 1: Fixed line scan rate (cont.)

- **Camera communication:** This DCF file will work with all **Free Run** and **Triggered** modes however **Trigger Width Exposure Mode** is the recommended mode for use with this DCF file. Set the mode using the Dalsa camera configuration tool (Sapera). Refer to the camera manual for additional information.

When the camera is in the **Free Run** mode, the camera will ignore the EXSYNC (i.e. CC1) signal from the board. Please set the parameters as follow from the default configuration:

Section "Camera Control"

Parameter	Setting
Internal Line Rate	As desired
Exposure Time Source	Timed
Exposure Time	As desired
Direction Source	Internal
Internal Direction	Forward
Gain	As desired

Section "I/O Control"

Parameter	Setting
Trigger Mode	Off

Section "Image Format"

Parameter	Setting
Pixel Format	RGBG8

Section "Transport Layer"

Parameter	Setting
Camera Link Configuration	Deca
Camera Link Clock Frequency	CL85MHz
Tap Geometry	Geometry_1X10_1Y

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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 1: Fixed line scan rate (cont.)

When the camera is in the **Trigger Mode** mode, the EXSYNC (i.e. CC1) signal will control the exposure time and the line rate. Please set the parameters as follow from the default configuration:

Section "Camera Control"

Parameter	Setting
Exposure Time Source	Trigger Width
Direction Source	Internal
Internal Direction	Forward
Gain	As desired

Section "I/O Control"

Parameter	Setting
Trigger Source	CC1
Trigger Selector	LineStart
Trigger Mode	On

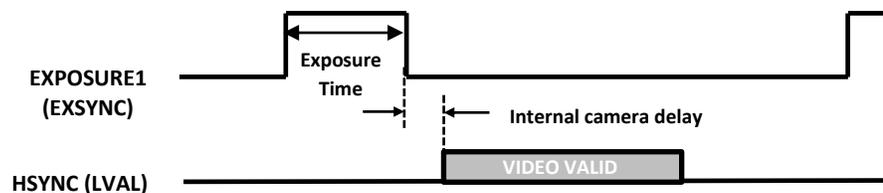
Section "Image Format"

Parameter	Setting
Pixel Format	RGBG8

Section "Transport Layer"

Parameter	Setting
Camera Link Configuration	Deca
Camera Link Clock Frequency	CL85MHz
Tap Geometry	Geometry_1X10_1Y

▪ Timing diagram:



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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 2: Variable line scan rate

- **Line rate:** The line rate is controlled by the frequency of the external TTL line trigger signal. The external line trigger signal period must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate section in the “Trigger Width Exposure with Rising Edge Triggering” section
- **Camera communication:** This DCF file will work with all **Triggered** modes however **Trigger Width Exposure Mode** is the recommended mode for use with this DCF file. Set the mode using the Dalsa camera configuration tool (Sapera). Refer to the camera manual for additional information.

The camera should be in the Trigger Mode. The EXSYNC (i.e. CC1) signal will control the exposure time and the line rate. Please set the parameters as follow from the default configuration:

Section “Camera Control”

Parameter	Setting
Exposure Time Source	Trigger Width
Direction Source	Internal
Internal Direction	Forward
Gain	As desired

Section “I/O Control”

Parameter	Setting
Trigger Source	CC1
Trigger Selector	LineStart
Trigger Mode	On

Section “Image Format”

Parameter	Setting
Pixel Format	RGBG8

Section “Transport Layer”

Parameter	Setting
Camera Link Configuration	Deca
Camera Link Clock Frequency	CL85MHz
Tap Geometry	Geometry_1X10_1Y

▪

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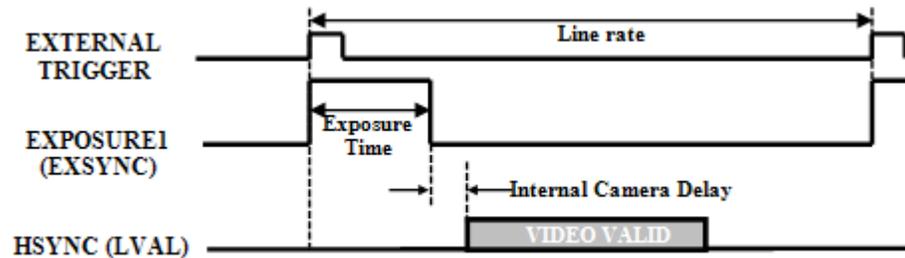
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Specifics about the interface modes

Camera Interface Details (cont.)

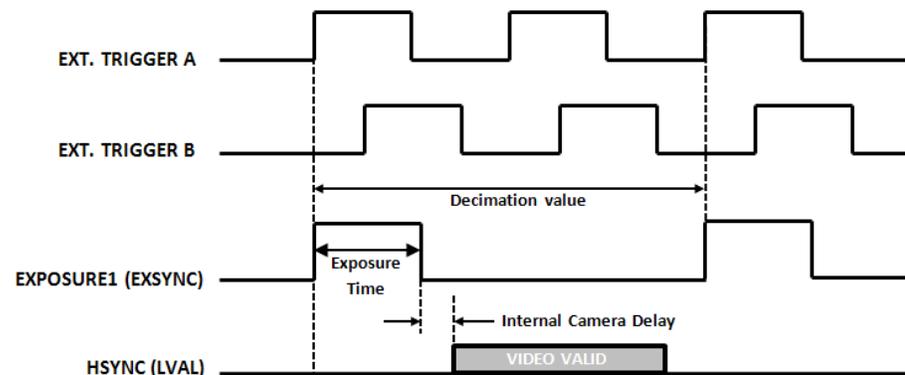
Mode 2: Variable line scan rate (cont.)

▪ **Timing diagram:**



Mode 3: Variable line scan rate with rotary encoder

- **Line/frame rate:** The line rate is controlled by the frequency of the external LVDS line trigger signal using a rotary encoder format. With the rotary encoder approach, it is possible to force a certain decimation value to grab a line every x number of pulses from the line trigger (combination of the A and B signals). The line trigger signal controlled by the decimation value must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera. The DCF file is done for a forward direction from the rotary encoder.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate in the “Trigger Width Exposure with Rising Edge Triggering” section
- **Camera communication:** Refer to Mode 2: Variable line scan rate.
- **Timing diagram:**



* The decimation value showed in this timing diagram is eight (8).

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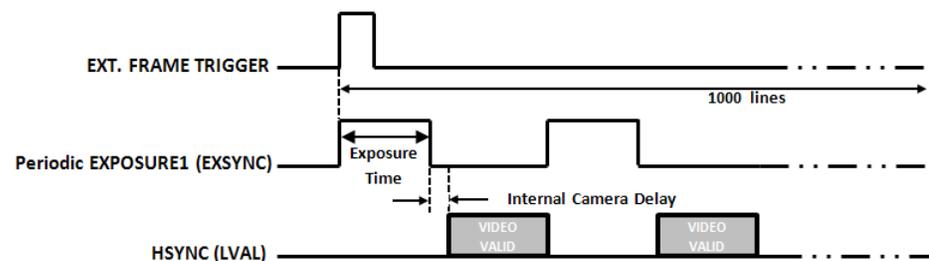
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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 4: Fixed line scan rate with frame trigger

- **Line/frame rate:** The line rate is fixed and controlled by the frequency of EXPOSURE1 (i.e. EXSYNC) signal. The default exposure time for the Deca mode DCF file is **52 μ s**. The virtual frame rate is variable and controlled by the period of the external frame trigger signal, however the external frame trigger period must always be greater than the total time of the number of lines captured. The number of lines per virtual frame (maximum of 1000 for this DCF file) is fixed and controlled by the vertical timing of the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate.
- **Camera communication:** Refer to Mode 1: Fixed line scan rate.
- **Timing diagram:**



Mode 5: Variable line scan rate with frame trigger

- **Line/frame rate:** The line rate is controlled by the frequency of the external TTL line trigger signal. The line trigger signal period must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera. The default exposure time for the Deca mode DCF file is **52 μ s**. The virtual frame rate is variable and controlled by the period of the external frame trigger signal, however the external trigger period must always be greater than the total time of the number of lines captured. The number of lines per virtual frame (1000 for this DCF file) is fixed and controlled by the vertical timing of the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate in the “Trigger Width Exposure with Rising Edge Triggering” section.
- **Camera communication:** Refer to Mode 2: Variable line scan rate

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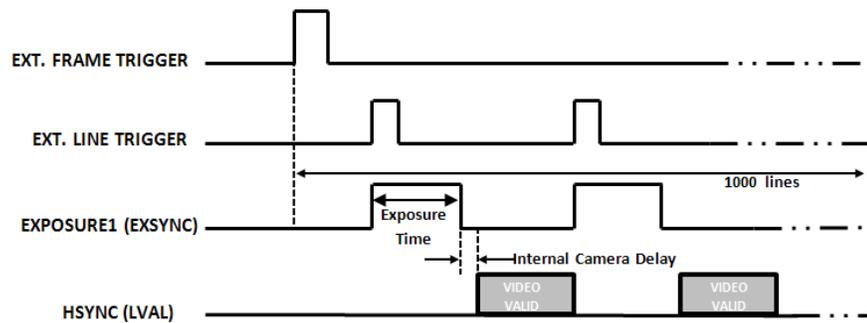
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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 5: Variable line scan rate with frame trigger (cont.)

▪ **Timing diagram:**



Mode 6: Variable line scan rate with rotary encoder and frame trigger

- **Line/frame rate:** The line rate is controlled by the frequency of the external LVDS line trigger signal using a rotary encoder format. With the rotary encoder approach, it is possible to force a certain decimation value to grab a line every x number of pulses from the line trigger (combination of the A and B signals). The line trigger signal controlled by the decimation value must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera. The DCF file is done for a forward direction from the rotary encoder. The number of lines per virtual frame (maximum of 1000 for this DCF file) is variable and controlled by the frame trigger signal. Matrox Radiant eV-CL captures lines during the high level of the frame trigger signal. To modify the maximum amount of lines captured, change the active vertical timing period in the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate in the “Trigger Width Exposure with Rising Edge Triggering” section.
- **Camera communication:** Refer to Mode 1: Fixed line scan rate

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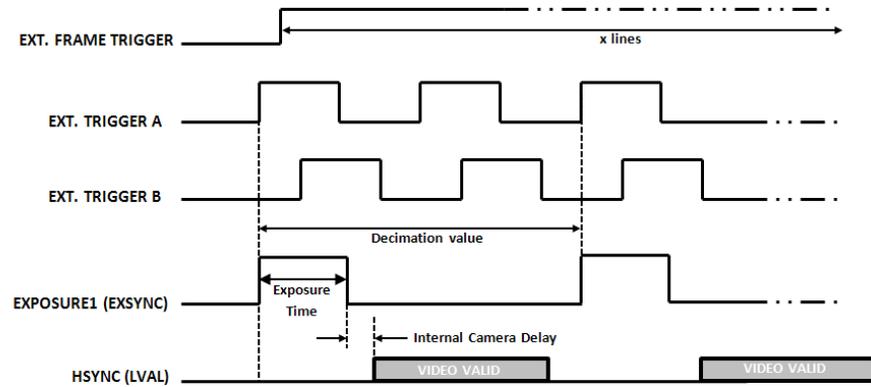
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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 6: Variable line scan rate with rotary encoder and frame trigger (cont.)

▪ **Timing diagram:**

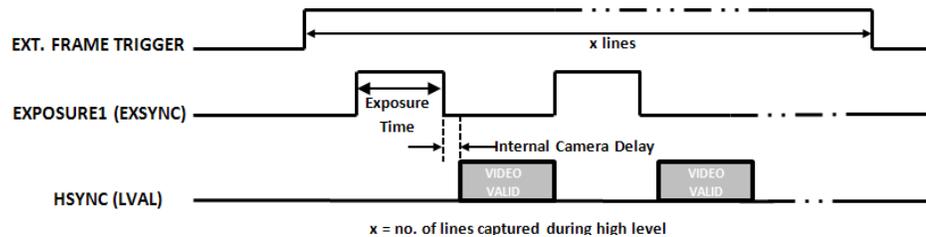


x = no. of lines captured during high level

* The decimation value showed in this timing diagram is eight (8).

Mode 7: Fixed line scan rate with variable frame size

- **Line/frame rate:** The line rate is fixed and controlled by the frequency of EXPOSURE1 (i.e. EXSYNC) signal. The default exposure time for the Deca mode DCF file is **52 μ s**. The number of lines per virtual frame (maximum of 1000 for this DCF file) is variable and controlled by the frame trigger signal. Matrox Radiant eV-CL captures lines during the high level of the frame trigger signal. To modify the maximum amount of lines captured, change the active vertical timing period in the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate.
- **Camera communication:** Refer to Mode 1: Fixed line scan rate
- **Timing diagram:**



x = no. of lines captured during high level

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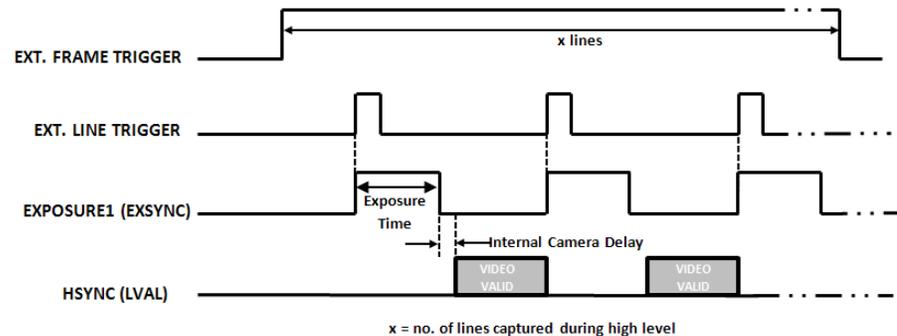
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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 8: Variable line scan rate with variable frame size

- **Line/frame rate:** The line rate is variable and controlled by the external line trigger frequency. The line trigger signal period must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera. The default exposure time for the Deca mode DCF file is **52 μ s**. The number of lines per virtual frame (maximum of 1000 for this DCF file) is variable and controlled by the frame trigger signal. Matrox Radiant eV-CL captures lines during the high level of the frame trigger signal. To modify the maximum amount of lines captured, change the active vertical timing period in the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate in the “Trigger Width Exposure with Rising Edge Triggering” section
- **Camera communication:** Refer to Mode 2: Variable line scan rate
- **Timing diagram:**



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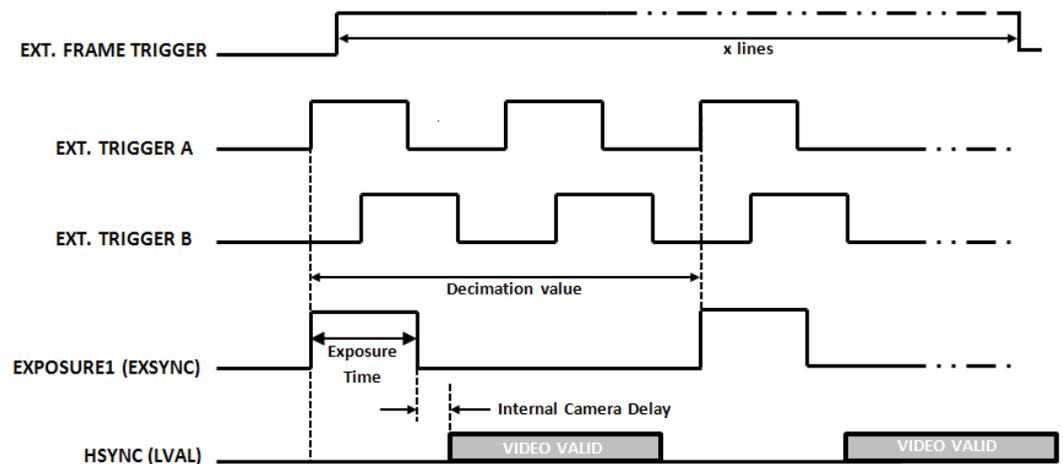
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Specifics about the interface modes

Camera Interface Details (cont.)

Mode 9: Variable line scan rate with rotary encoder and variable frame size

- **Line/frame rate:** The line rate is controlled by the frequency of the external LVDS line trigger signal using a rotary encoder format. With the rotary encoder approach, it is possible to force a certain decimation value to grab a line every x number of pulses from the line trigger (combination of the A and B signals). The line trigger signal controlled by the decimation value must be larger than the total duration of the exposure time (high level duration of the timer), the internal delay of the camera or slower than the maximum line rate of the camera. The DCF file is done for a forward direction from the rotary encoder. The number of lines per virtual frame (maximum of 1000 for this DCF file) is variable and controlled by the frame trigger signal. Matrox Radiant eV-CL captures lines during the high level of the frame trigger signal. To modify the maximum amount of lines captured, change the active vertical timing period in the DCF file. Capture of the lines will start with the rising edge of the frame trigger signal.
- **Exposure time:** Refer to Mode 1: Fixed line scan rate in the “Trigger Width Exposure with Rising Edge Triggering” section
- **Camera communication:** Refer to Mode 2: Variable line scan rate
- **Timing diagram:**



x = no. of lines captured during high level

* The decimation value showed in this timing diagram is eight (8).

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Cabling details for the interface modes

Cabling Requirements

Mode 1: Fixed line scan rate

- **Cable and Connection:** Standard mini to mini Camera Link cable.

Mode 2: Variable line scan rate

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN0 +	15	←	LINE TRIGGER (TTL FORMAT)
OPTO_AUX_IN0 -	09	←	LINE TRIGGER (GROUND)

Mode 3: Variable line scan rate with rotary encoder

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
LVDS_AUX_IN2 +	04	←	LINE TRIGGER A + (LVDS FORMAT)
LVDS_AUX_IN2 -	05	←	LINE TRIGGER A - (LVDS FORMAT)
LVDS_AUX_IN3 +	06	←	LINE TRIGGER B + (LVDS FORMAT)
LVDS_AUX_IN3 -	08	←	LINE TRIGGER B - (LVDS FORMAT)

Mode 4: Fixed line scan rate with frame trigger

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)

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Cabling details for the interface modes

Cabling Requirements (cont.)

Mode 5: Variable line scan rate with frame trigger

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)
OPTO_AUX_IN0 +	15	←	LINE TRIGGER (TTL FORMAT)
OPTO_AUX_IN0 -	09	←	LINE TRIGGER (GROUND)

Mode 6: Variable line scan rate with rotary encoder and frame trigger

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)
LVDS_AUX_IN2 +	04	←	LINE TRIGGER A + (LVDS FORMAT)
LVDS_AUX_IN2 -	05	←	LINE TRIGGER A - (LVDS FORMAT)
LVDS_AUX_IN3 +	06	←	LINE TRIGGER B + (LVDS FORMAT)
LVDS_AUX_IN3 -	08	←	LINE TRIGGER B - (LVDS FORMAT)

Mode 7: Fixed line scan rate with variable frame size

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radiant eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)

Matrox Radient eV-CL

Camera Interface Application Note

Teledyne DALSA Linea Color CL (LA-CC-08k05)

February 15, 2018

Cabling details for the interface modes

Cabling Requirements (cont.)

Mode 8: Variable line scan rate with variable frame size

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radient eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)
OPTO_AUX_IN0 +	15	←	LINE TRIGGER (TTL FORMAT)
OPTO_AUX_IN0 -	09	←	LINE TRIGGER (GROUND)

Mode 9: Variable line scan rate with rotary encoder and variable frame size

- **Cable and Connection:** Standard mini to mini Camera Link cable.
- **External trigger:** External line trigger should be connected to the external auxiliary I/O (connector A on the Matrox Radient eV-CL bracket)

EXTERNAL AUX. I/O (connector A)

PIN NAME	PIN NO.		External Trigger Source
OPTO_AUX_IN1 +	12	←	FRAME TRIGGER (TTL FORMAT)
OPTO_AUX_IN1 -	11	←	FRAME TRIGGER (GROUND)
LVDS_AUX_IN2 +	04	←	LINE TRIGGER A + (LVDS FORMAT)
LVDS_AUX_IN2 -	05	←	LINE TRIGGER A - (LVDS FORMAT)
LVDS_AUX_IN3 +	06	←	LINE TRIGGER B + (LVDS FORMAT)
LVDS_AUX_IN3 -	08	←	LINE TRIGGER B - (LVDS FORMAT)

The DCFs mentioned in this application note are also attached (embedded) to this PDF file – use the Adobe Reader's View File Attachment to access the DCF files. The information furnished by Matrox Electronics System, Ltd. is believed to be accurate and reliable. Please verify all interface connections with camera documentation or manual. Contact your local sales representative or Matrox Sales office or Matrox Imaging Applications at 514-822-6061 for assistance. © Matrox Electronic Systems Ltd, 2015.

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