

Frame Grabber Board requirement for Bluevision prism based multi sensor cameras:

Applicable camera: BV-C3500, BV-C3300, BV-C3350, BV-C3200

Bluevision's multi-sensor prism based cameras are designed to operate multiple sensors independently in one camera package by sending different command(s) to each sensor.

For example, the line rate and exposure time for each sensor can be controlled individually. In that case, each sensor has different sets of DVAL/LVAL. However, in order to handle multi sets of DVAL/LVAL for each Channel, it is required to have **customized FGB**.

Currently, we have confirmed the following FGBs work with Bluevision's cameras.

Graphin IPM-55XX
Aval Data APX-3302-BV

In order to capture multiple sensor images by the **standard FGB** (with one DVAL/LVAL set), Bluevision adds the following command. This eliminates the need for dedicated FGB and enables image capture with standard FGB.

The list of cameras which can accept standard FGB to capture images with New Command W2,7

model	Command	operation	Change to 8BIT output
BV-C3500 BV-C3300 BV-C3350 BV-C3200	W2,7	With a single set of DVAL/LVAL, you can capture 2CH images. Note: You need to have customized FGB to use W2,1 , W2,2 or W2,3 Command	W13

Note: **Image Capturing and Control commands:**

Image Capturing:

You can use Camera Link interfaced standard FGB with 2CH capturing ports in the operation mode W2,7.

Also, most of standard FGB support 8bit / 3CH for 3 sensor camera (RGB), it is required to set the camera output data length from 10bit (Bluevision default setting) to 8bit.

Camera control commands:

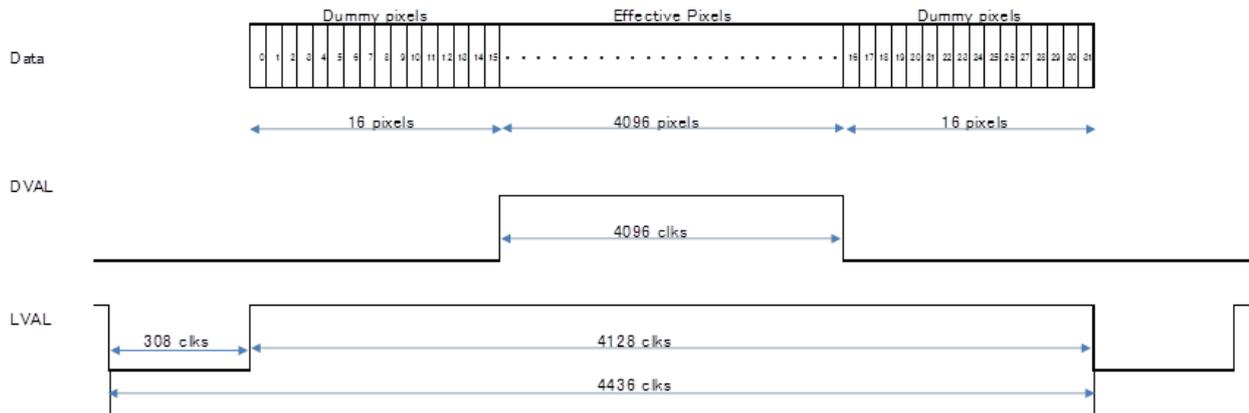
Bluevision cameras are using serial communication protocol RS232C.

Recommended communication tool is as follow: UTF-8 Tera Term terminal emulator. (Open software)

http://forest.watch.impress.co.jp/library/software/utf8teraterm/download_10868.html

Reference:

The following drawing is BV-C3300 Image output Timing chart



When the camera had been operated by W2,7 command, Data/DVAL/LVAL will be synchronized for CH1 / CH2 so that you can use standard FGB.

However, the process S/W setting of FGB were necessary.