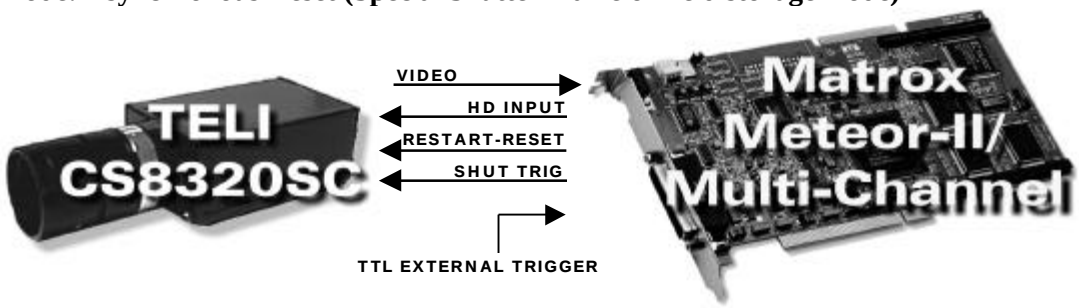
Application Note:
Interfacing non-standard cameras to Matrox Meteor-II

TELI CS8320SC **September 1, 1999**

Camera Descriptions	• 768 x 572 x 8-bit. • Single channel analog video output. • Interlaced or Progressive scan. • External synchronization. • External exposure control. • Pixel clock: 14.75 MHz
Interface mode	• Asynchronous reset (Special Shutter-frame or field storage mode)
Camera Interface Briefs	**Mode: Asynchronous Reset (Special Shutter-frame or field storage mode)**  • 768 x 572 x 8-bit. • Single channel analog video. • Interlaced or Progressive scan. • Matrox Meteor-II receiving TTL external trigger. • Matrox Meteor-II sending EXPOSURE1 (SHUTTER TRIGGER), VSYNC (RESTART_RESET), HSYNC (HD INPUT) signals to camera. • Matrox Meteor-II receiving video signal from camera. • DCF used: 8320AFRM.DCF (Frame Storage mode) • DCF used: 8320AFLD.DCF (Field Storage mode)
Camera Interface Details	**Mode: Asynchronous Reset (Special Shutter)** • **Frame rate**: The frame rate is determined by the frequency of the external trigger signal. • **Exposure time**: The active period of EXPOSURE1 (SHUTTER TRIGGER) signals is the exposure time. The default exposure time for this DCF is **320 ms**. **Note before making any changes to the width and deployment time of EXPOSURE1 (SHUTTER TRIGGER), it is important that you first contact Matrox Imaging applications**. • **Internal jumper settings:** use factory settings. • **Camera switch settings:** Switches are located externally (camera's rear) and internally (EXT SYNC board). Refer to the camera manual for additional information. Switches should be set as follows: Mode: Asynchronous Reset

External Switches (camera rear)	
Name	***Setting***
AGC	OFF
SHT (SHUTTER)	OFF

Internal Switches (Internal PC boards)	
Board/Switch	***Setting***
EXT SYNC/Special Shutter	ON
DRIVER/S1	FRM

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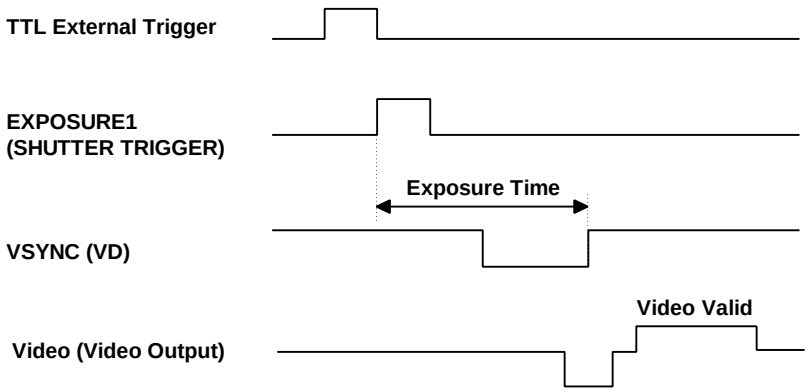
Camera Interface Details (continued)



Mode: Asynchronous Reset (Special Shutter)

- DBHD44-TO-8BNC/O (open end) cable required for TTL external trigger and analog video output of camera.
- The external trigger source should be connected to the OptoCoupled Trigger input (pin 34, 35) of the DBHD44-TO-8BNC/O (open ended) cable.
- The following connections should be made between the 12-pin connector of the camera and Matrox Meteor-II/Multi-Channel are as follows:

METEOR2-MC/4 (44-pin connector)			**TELI CS8320SC (6-pin connector)**	
Pin name	***Pin no.***		***Pin name***	***Pin no.***
VID1_IN1	15	←	VIDEO OUTPUT	04
EXP(1)	38	→	SHUTTER TRIGGER	09
VSYNC_TTL	32	→	RESTART-RESET	07
HSYNC_TTL	02	→	HD INPUT	06
GROUND	03		GND	05
GROUND	14		GND	03
GROUND	17		GND	12
GROUND	25		GND	08
			EXTERNAL TRIGGER SOURCE	
OPTOTRIG+	35	←		
OPTOTRIG-	34	←		

The DCF(s) mentioned in this application note can be found on the MIL and MIL-Lite CD, or our FTP site (ftp.matrox.com). 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.

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