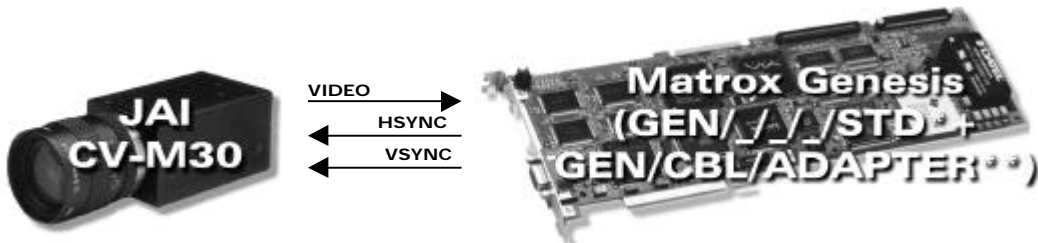
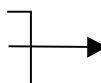


# Application Note:

## Interfacing non-standard cameras to Matrox Genesis

JAI CV-M30

January 24, 1997

Camera Descriptions	<ul style="list-style-type: none"><li>• 768 x 494 (60-120-180 fps normal speed, 120-240-480 fps double speed).</li><li>• Analog video output.</li><li>• Interlaced or non-interlaced.</li><li>• Internal (composite) or external sync.</li><li>• Internal exposure control.</li><li>• Normal, double speed, or partial scanning.</li></ul>																																								
Interface Mode	<ul style="list-style-type: none"><li>• Continuous mode (Double speed, non-interlaced).</li></ul>																																								
Camera Interface Briefs	<p><b>Mode : Continuous Mode (Double speed, non-interlaced)</b></p> <div></div> <p>* Matrox Genesis Main Board with Grab Module ** Matrox Digital Cable Adapter module</p> <ul style="list-style-type: none"><li>• 756 x 242 @ 120 fps.</li><li>• Analog video output.</li><li>• Non-interlaced.</li><li>• Matrox Genesis sending TTL HSYNC and TTL VSYNC signals to camera.</li><li>• Matrox Genesis receiving video signals from camera.</li><li>• DCF used: <a href="#">CVM30NS.DCF</a></li><li>• DCF can support up to four cameras simultaneously.</li></ul>																																								
Camera Interface Details	<p><b>Switch settings (switches on rear panel of camera) :</b></p> <p><b>Mode : Continuous mode</b> (Double speed, non-interlaced)</p> <table><thead><tr><th>OFF</th><th>ON</th><th></th><th></th><th></th></tr></thead><tbody><tr><td>•</td><td></td><td>1</td><td>ED2</td><td>shutter speed</td></tr><tr><td>•</td><td></td><td>2</td><td>ED1</td><td>shutter speed</td></tr><tr><td>•</td><td></td><td>3</td><td>ED0</td><td>shutter speed</td></tr><tr><td>•</td><td></td><td>4</td><td>LM2</td><td>scanning mode</td></tr><tr><td>•</td><td></td><td>5</td><td>RM1</td><td>scanning speed</td></tr><tr><td></td><td>•</td><td>6</td><td>LM1</td><td>scanning mode</td></tr><tr><td>•</td><td></td><td>7</td><td>TRSW</td><td>reset mode</td></tr></tbody></table> <div><p>Switches 4-6 must be set as shown, all others can be set by the user to either position</p></div>	OFF	ON				•		1	ED2	shutter speed	•		2	ED1	shutter speed	•		3	ED0	shutter speed	•		4	LM2	scanning mode	•		5	RM1	scanning speed		•	6	LM1	scanning mode	•		7	TRSW	reset mode
OFF	ON																																								
•		1	ED2	shutter speed																																					
•		2	ED1	shutter speed																																					
•		3	ED0	shutter speed																																					
•		4	LM2	scanning mode																																					
•		5	RM1	scanning speed																																					
	•	6	LM1	scanning mode																																					
•		7	TRSW	reset mode																																					
Cabling Requirements	<p><b>Mode : Continuous mode (Double speed, non-interlaced)</b></p> <ul style="list-style-type: none"><li>• IMG-7W2-TO-1BNC cable required for video output of camera and PLS/CBL/OPEN required for sync signals in TTL format.</li><li>• Video input of IMG-7W2-TO-1BNC cable should be connected to video out BNC connector of camera</li></ul>																																								

# Application Note:

## Interfacing non-standard cameras to Matrox Genesis

JAI CV-M30

January 24, 1997

<b>Cabling Requirements (continued)</b>	<ul style="list-style-type: none"> <li>The connections between the digital cable adapter board and the 12-pin lens connector of the camera are as follows :</li> </ul>			
	<b>Digital cable adapter board (PLS/CBL/OPEN)</b>		<b>JAI CV-M30 (12-pin lens connector)</b>	
	<i>Pin name</i>	<i>Pin no.</i>	<i>Pin name</i>	<i>Pin no.</i>
	HSYNC, OUTPUT, TTL	62 ®	HD INPUT (TTL)	06
	GROUND	60	ground	05
	VSYNC, OUTPUT, TTL	26 ®	VD INPUT (TTL)	07
	GROUND	28	ground	08
<ul style="list-style-type: none"> <li>The connections between the 12-pin lens connector of the camera and the power supply are as follows :</li> </ul>				
	<b>POWER SUPPLY</b>		<b>JAI CV-M30 (12-pin lens connector)</b>	
			<i>Pin name</i>	<i>Pin no.</i>
	12 Volts		DC+12V in	02
	GROUND		GND	01

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

**Corporate Headquarters:**  
Canada and U.S.A.  
**Matrox Electronic Systems Ltd.**  
1055 St.Regis Blvd.  
Dorval, Quebec, Canada  
H9P 2T4  
Tel: (514) 685-7230  
Fax: (514) 822-6273

**Sales Offices:**  
U.K.  
**Matrox (UK) Ltd.**  
Sefton Park, Stoke Poges  
Buckinghamshire  
U.K. SL2 4JS  
Tel: +44 (0) 1753 665500  
Fax: +44 (0) 1753 665599

**France**  
**Matrox France SARL**  
2, rue de la Couture,  
Silic 225  
94528 Rungis Cedex  
Tel: (0) 1 45-60-62-00  
Fax: (0) 1 45-60-62-05

**Germany**  
**Matrox GmbH**  
Inselkammerstr.8  
D-82008  
Unterhaching  
Germany  
Tel: 089/614 4740  
Fax: 089/614 9743

**Asia Pacific**  
**Matrox Asia Liaison Office**  
Rm. 1901, 19/F, Workington  
Tower,  
78 Bonham Strand E.,  
Sheung Wan, Hong Kong.  
Tel: 852.2877.5387  
Fax: 852.2537.9530

