

Application Note:

Non-standard cameras working with Matrox Pulsar

Kodak XHF

November 16, 1995

Camera Interface Overview	• 1008 x 1018 x 8-bit @ 15 fps • Single channel RS-422 • Non-interlaced • Non-standard timings • 10 MHz acquisition clock • mode switch on CCU is set to “NO SHUTTER” position • DCF used: XHF.DCF																																																																																																																												
	• Requires PULSAR/DIG/MOD • Connections between the SCSI-2 connector of PULSAR/DIG/MOD and the SCSI connector of the Kodak Megapuls XHF are as follows (a SCSI to SCSI-2 type cable can be used): <table><tr><th colspan="2">PULSAR/DIG/MOD SCSI-2 connector</th><th colspan="2">KODAK MEGAPLUS XHF SCSI connector</th></tr><tr><th><u>Pin name</u></th><th><u>Pin no.</u></th><th><u>Pin name</u></th><th><u>Pin no.</u></th></tr><tr><td>GROUND</td><td>1</td><td>GROUND</td><td>1</td></tr><tr><td>DATA15+ (MSB)</td><td>2</td><td>AMSB</td><td>2</td></tr><tr><td>DATA14+</td><td>3</td><td>AMSB1</td><td>3</td></tr><tr><td>DATA13+</td><td>4</td><td>AMSB2</td><td>4</td></tr><tr><td>DATA12+</td><td>5</td><td>AMSB3</td><td>5</td></tr><tr><td>DATA11+</td><td>6</td><td>AMSB4</td><td>6</td></tr><tr><td>DATA101+</td><td>7</td><td>AMSB5</td><td>7</td></tr><tr><td>DATA9+</td><td>8</td><td>AMSB6</td><td>8</td></tr><tr><td>DATA8+</td><td>9</td><td>AMSB7</td><td>9</td></tr><tr><td>DATA7+</td><td>10</td><td>BMSB</td><td>10</td></tr><tr><td>DATA6+</td><td>11</td><td>BMSB1</td><td>11</td></tr><tr><td>GROUND</td><td>12</td><td>GROUND</td><td>12</td></tr><tr><td>DATA5+</td><td>13</td><td>BMSB2</td><td>13</td></tr><tr><td>DATA4+</td><td>14</td><td>BMSB3</td><td>14</td></tr><tr><td>DATA3+</td><td>15</td><td>BMSB4</td><td>15</td></tr><tr><td>DATA2+</td><td>16</td><td>BMSB5</td><td>16</td></tr><tr><td>DATA1+</td><td>19</td><td>BMSB6</td><td>19</td></tr><tr><td>DATA0+ (LSB)</td><td>20</td><td>BMSB7</td><td>20</td></tr><tr><td>VSYNC+</td><td>25</td><td>FRAME ENA</td><td>25</td></tr><tr><td>HSYNC+</td><td>26</td><td>LINE ENA</td><td>26</td></tr><tr><td>CLKIN+</td><td>29</td><td>PIX STRB</td><td>29</td></tr><tr><td>EXPOSURE1+</td><td>30</td><td>EXPOSE</td><td>30</td></tr><tr><td>GROUND</td><td>34</td><td>GROUND</td><td>34</td></tr><tr><td>GROUND</td><td>35</td><td>GROUND</td><td>35</td></tr><tr><td>DATA15- (MSB)</td><td>36</td><td>AMSB/</td><td>36</td></tr><tr><td>DATA14-</td><td>37</td><td>AMSB1/</td><td>37</td></tr><tr><td>DATA13-</td><td>38</td><td>AMSB2/</td><td>38</td></tr><tr><td>DATA12-</td><td>39</td><td>AMSB3/</td><td>39</td></tr><tr><td>DATA11-</td><td>40</td><td>AMSB4/</td><td>40</td></tr></table>	PULSAR/DIG/MOD SCSI-2 connector		KODAK MEGAPLUS XHF SCSI connector		<u>Pin name</u>	<u>Pin no.</u>	<u>Pin name</u>	<u>Pin no.</u>	GROUND	1	GROUND	1	DATA15+ (MSB)	2	AMSB	2	DATA14+	3	AMSB1	3	DATA13+	4	AMSB2	4	DATA12+	5	AMSB3	5	DATA11+	6	AMSB4	6	DATA101+	7	AMSB5	7	DATA9+	8	AMSB6	8	DATA8+	9	AMSB7	9	DATA7+	10	BMSB	10	DATA6+	11	BMSB1	11	GROUND	12	GROUND	12	DATA5+	13	BMSB2	13	DATA4+	14	BMSB3	14	DATA3+	15	BMSB4	15	DATA2+	16	BMSB5	16	DATA1+	19	BMSB6	19	DATA0+ (LSB)	20	BMSB7	20	VSYNC+	25	FRAME ENA	25	HSYNC+	26	LINE ENA	26	CLKIN+	29	PIX STRB	29	EXPOSURE1+	30	EXPOSE	30	GROUND	34	GROUND	34	GROUND	35	GROUND	35	DATA15- (MSB)	36	AMSB/	36	DATA14-	37	AMSB1/	37	DATA13-	38	AMSB2/	38	DATA12-	39	AMSB3/	39	DATA11-	40	AMSB4/	40
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Cabling Requirements	PULSAR/DIG/MOD		KODAK MEGAPLUS XHF	
	SCSI-2 connector		SCSI connector	
	<u>Pin name</u>	<u>Pin no.</u>	<u>Pin name</u>	<u>Pin no.</u>
	DATA10-	41	AMSB5/	41
	DATA9-	42	AMSB6/	42
	DATA8-	43	AMSB7/	43
	DATA7-	44	BMSB/	44
	DATA6-	45	BMSB1/	45
	GROUND	46	GROUND	46
	DATA5-	47	BMSB2/	47
	DATA4-	48	BMSB3/	48
	DATA3-	49	BMSB4/	49
	DATA2-	50	BMSB5/	50
	DATA1-	53	BMSB6/	53
	DATA0- (LSB)	54	BMSB7/	54
	VSYNC-	59	FRAME ENA/	59
	HSYNC-	60	LINE ENA/	60
	CLKIN-	63	PIX STRB/	63
	EXPOSURE1-	64	EXPOSE	64
	GROUND	68	GROUND	68
Special Considerations	DCF's are available for TTL or RS-422 trigger capability. Contact your local sales representative or Matrox Sales Office, or contact Matrox Imaging Applications at 514-822-6061 for more information.			

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](ftp://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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