In the process of growth and innovation, Vieworks moved to the next level by adding proprietary sensor design capability. The company started producing world’s first hybrid TDI (Time Delayed Integration) sensors. These sensors combine CCD-based pixel array with a light sensitive and noiseless charge transfer and accumulation process, with the fast CMOS readout electronics. Therefore, Vieworks TDI cameras combine the best of these two worlds: high sensitivity and high dynamic range offering remarkable image quality, typical for CCD, with the high speed and low power consumption, commonly found in CMOS sensors. Vieworks is currently the only company in the world owning this breakthrough and potentially disruptive technology.

Vieworks innovative Machine Vision cameras have been used in a variety of applications such as industrial automated optical inspection, aerial imaging, surveillance, science and research. Some of the largest and most demanding corporations in the world became Vieworks customers. By working with their ever changing and difficult requirements, Vieworks had to keep innovating and constantly improving the performance of the cameras. These new products were designed to provide the customers with higher resolution, wider dynamic range and faster frame rates. All Vieworks technological inventions and developments of unique know-how contribute to rapid growth of the company.

As Vieworks continues to grow globally, it has excellent long term prospects by advancing vision technologies and developing innovative and creative products with focus on customer’s needs. This bright future extends to our customers.
Line-up

Machine Vision Cameras

VA Series
Advanced High Speed CCD Cameras

VX Series
Aerial Imaging / Surveillance Cameras

VC Series
High Speed CMOS Cameras

VT Series
High Sensitivity & High Speed TDI Line Scan Cameras

VN Series
Ultra High Resolution Pixel Shifting Cameras

VH Series
High Performance CCD Cameras

VP Series
Thermoelectric Cooled Cameras

VNP Series
Pixel Shifting Camera with TEC Integrated

VA Series cameras are progressive scan high performance digital cameras based on the latest 5.5 μm CCD sensor technology of On Semiconductor (formerly Truesense Imaging, Inc.). On Semiconductor’s multi-tap readout structure results in faster frame rate as compared to previous generation image sensors. The VA-47MC, the new member of the VA series, uses the latest 16-tap CCD sensor technology and performs as fast as 7 fps with 47 million pixel resolution. This camera series is ideal for demanding applications such as semi-conductor inspection, electronics inspection, aerial imaging inspection, and FPD inspection.

- Progressive Scan Interline Transfer CCD Imager
- Field Upgradable Firmware
- Flat Field Correction
- Pixel Defect Correction
- Excellent anti-blooming and anti-smear

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Frame Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor Size</th>
<th>Sensor</th>
<th>Pixel Size (μm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA-1MC-M/C 120</td>
<td>1280 x 1024</td>
<td>1.25 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>5.63 x 5.63</td>
<td>7.96 mm</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>VA-1MG2-M/C 70</td>
<td>1024 x 1024</td>
<td>12 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>5.63 x 5.63</td>
<td>7.96 mm</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>VA-2MC-M/C 68</td>
<td>1600 x 1200</td>
<td>70 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>8.80 x 8.60</td>
<td>11.0 mm</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VA-2MG2-M/C 42</td>
<td>1600 x 1200</td>
<td>42 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>8.80 x 8.60</td>
<td>11.0 mm</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VA-4MC-M/C 32</td>
<td>2336 x 1752</td>
<td>33 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>12.85 x 9.64</td>
<td>16.06 mm</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VA-4MG2-M/C 20</td>
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<td>20 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>12.85 x 9.64</td>
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<td>1&quot;</td>
</tr>
<tr>
<td>VA-8MC-M/C 16</td>
<td>3296 x 2472</td>
<td>16 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>18.13 x 13.02</td>
<td>22.66 mm</td>
<td>4/3&quot;</td>
</tr>
<tr>
<td>VA-8MG2-M/C 10</td>
<td>3296 x 2472</td>
<td>10 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>18.13 x 13.02</td>
<td>22.66 mm</td>
<td>4/3&quot;</td>
</tr>
<tr>
<td>VA-16MC-M/C 8</td>
<td>4896 x 3264</td>
<td>8 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>29.19 x 17.95</td>
<td>32.55 mm</td>
<td>32 mm</td>
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<tr>
<td>VA-16MG2-M/C 4</td>
<td>4896 x 3264</td>
<td>4.3 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>29.19 x 17.95</td>
<td>32.55 mm</td>
<td>32 mm</td>
</tr>
<tr>
<td>VA-25MC-M/C 5</td>
<td>6576 x 4884</td>
<td>5 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>35.17 x 24.11</td>
<td>43.47 mm</td>
<td>35 mm</td>
</tr>
<tr>
<td>VA-25MG2-M/C 2</td>
<td>6576 x 4884</td>
<td>2.5 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>35.17 x 24.11</td>
<td>43.47 mm</td>
<td>35 mm</td>
</tr>
<tr>
<td>VA-47MC-M/C 7</td>
<td>8856 x 5380</td>
<td>7 fps</td>
<td>B/8/10/12 bits</td>
<td>Camera Link</td>
<td>48.7 x 29.0</td>
<td>56.7 mm</td>
<td>-</td>
</tr>
<tr>
<td>VA-47MG2-M/C 3</td>
<td>8856 x 5380</td>
<td>3 fps</td>
<td>B/8/10/12 bits</td>
<td>GigE</td>
<td>48.7 x 29.0</td>
<td>56.7 mm</td>
<td>-</td>
</tr>
</tbody>
</table>

* C, for M72 mount is available with VA Series. Contact us to request a custom mount.*
On Semiconductor is a family of high-resolution CMOS digital cameras for machine vision. Equipped with the latest technology and a wide range of camera resolutions make these cameras ideal for use in various industrial inspection and scientific research applications.

### VC Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Frame Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor Size</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC-2MC-M/C 110</td>
<td>2048×1088</td>
<td>148.5 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>11.26×5.98</td>
<td>12.75 sq</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VC-2MC-M/C 140</td>
<td>2048×1088</td>
<td>137.6 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>11.26×5.98</td>
<td>12.75 sq</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VC-4MC-M/C 280</td>
<td>1024×1770</td>
<td>285 fps</td>
<td>8 bits</td>
<td>Camera-Link</td>
<td>13.57×13.68</td>
<td>19.27 sq</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC-4MC-M/C 80</td>
<td>2048×2048</td>
<td>78.9 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>11.26×11.26</td>
<td>15.92 sq</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC-4MC-M/C 180</td>
<td>2048×2048</td>
<td>179.5 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>11.26×11.26</td>
<td>15.92 sq</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC-4MC-M/C 144</td>
<td>2048×2048</td>
<td>144 fps</td>
<td>8 bits</td>
<td>Camera-Link</td>
<td>11.26×11.26</td>
<td>15.92 sq</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC-7MC-M/C 65</td>
<td>4096×3072</td>
<td>64.3 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>22.53×16.90</td>
<td>28.14 sq</td>
<td>8/10 bits</td>
</tr>
<tr>
<td>VC-7MC-M/C 180</td>
<td>4096×3072</td>
<td>180 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>22.53×16.90</td>
<td>28.14 sq</td>
<td>8/10 bits</td>
</tr>
<tr>
<td>VC-12MC-M/C 30</td>
<td>4096×3072</td>
<td>330 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>22.53×16.90</td>
<td>28.14 sq</td>
<td>8/10 bits</td>
</tr>
<tr>
<td>VC-12MC-M/C 72</td>
<td>4096×3072</td>
<td>229.2 fps</td>
<td>8/10 bits</td>
<td>Camera-Link</td>
<td>22.53×16.90</td>
<td>28.14 sq</td>
<td>8/10 bits</td>
</tr>
<tr>
<td>VC-7MC-M/C 4</td>
<td>1024×7096</td>
<td>4.2 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>31.02×22.00</td>
<td>38.01 sq</td>
<td>8/10/12 bits</td>
</tr>
</tbody>
</table>

### VH Series

VH Series cameras are progressive scan high performance industrial digital cameras. Camera functions are easily updated in the field using our standard serial interface. These cameras use the latest CCD technology from On Semiconductor and Sony which provides superior low noise performance resulting in high dynamic range. The VH Series is an excellent choice for applications such as LCD inspection, Machine Vision inspection, Research and Scientific imaging and aerial imaging.

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Frame Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor Size</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VH-11MC-M/C 20</td>
<td>4096×3072</td>
<td>264 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>15.16×15.16</td>
<td>21.43 sq</td>
<td>4/3&quot;</td>
</tr>
<tr>
<td>VH-15MC-M/C 20</td>
<td>4096×3072</td>
<td>20 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>15.16×15.16</td>
<td>21.43 sq</td>
<td>4/3&quot;</td>
</tr>
<tr>
<td>VH-5MC-M/C 16</td>
<td>4096×3072</td>
<td>16 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>8.45×7.09</td>
<td>11.02 sq</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VH-15MC-M/C 16</td>
<td>2048×3072</td>
<td>16 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>8.45×7.09</td>
<td>11.02 sq</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VH-11MC-M/C 6</td>
<td>4096×3072</td>
<td>6 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>8.45×7.09</td>
<td>11.02 sq</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>VH-15MC-M/C 6</td>
<td>4096×3072</td>
<td>6 fps</td>
<td>8/10/12 bits</td>
<td>Camera-Link</td>
<td>8.45×7.09</td>
<td>11.02 sq</td>
<td>2/3&quot;</td>
</tr>
</tbody>
</table>

### VC Series Features
- Pixel Defect Correction
- Field Upgradable Firmware
- Excellent Noise Reduction
- CoaXPress Interface up to Octuple Digital Output Ports
- Global Shutter or Rolling Shutter CMOS Technology
- High-Speed Programmable Digital Cameras Up to 16 megapixels Resolution

### VH Series Features
- Excellent Dynamic Range and Noise Performance
- Progressive Scan Interline Transfer CCD Imager
- Flat Field Correction
- Field Upgradable Firmware
- Pixel Defect Correction

* C or F-mount is available with VC Series. Contact us to request a custom mount.

* C or F-mount is available with VH Series. Contact us to request a custom mount.
**VP Series**

Cameras are thermo-electric Peltier (TEC) cooled high-performance digital cameras. These cameras use cooling technology developed for, and used by, many demanding medical market customers. The TEC maintains the operating temperature of the CCD at up to 20 degrees below ambient temperature. These cameras provide a stable operating condition or the ability to expose for a long period of time to increase camera sensitivity. These cameras are ideal for industrial applications such as FPD inspection and microscopy.

- Thermoelectric Peltier Cooled
- 20 degrees below ambient temperature
- Progressive Scan Interline Transfer CCD Imager
- Progressive Scan CMOS Imager
- Flat Field Correction
- Field Upgradable Firmware
- Pixel Defect Correction

---

**VN Series**

Nano Stage Pixel Shifting Cameras for extended resolutions

VN Series pixel shifting cameras are designed for applications where the object is stationary and extremely high resolution is required. Vieworks’ advanced pixel shifting technology based on a precise piezoelectric stage allows image captures as high as 260 million pixels using the VN-29MC camera. The VN-25MX, the new model of the VN series, is the world first CMOS pixel shifting camera equipped with new CoaXPress interface. With VN-25MX, customers in the industrial market can take advantage of 100 million pixels resolution at 18 fps which is higher speed than ever. These cameras are ideal for applications such as FPD inspection, document/film scanning, research and scientific imaging.

- Nano Stage Pixel Shifting Mechanism
- True Color Full Image Resolution
- Improved Fill Factor
- Base Camera Link Interface with 8, 10 or 12 bit Data Output
- CoaXPress Interface up to Quadruple Digital Output Ports
- Flat Field Correction
- Field Upgradable Firmware
- Pixel Defect Correction

---

**Model** | **Resolution** | **Extended Resolution** | **Frame Rate** | **Pixel Data** | **Interface** | **Sensor Size (㎛²)** | **Sensor Pixel Size (㎟)** | **Diagonal Optical** |
---|---|---|---|---|---|---|---|---|
VN-25MC-M/C 5 | 6576×4384 | 5.0 fps | 8/10/12 bits | Camera Link | 36.17×24.11 | 40.47 mm | 35 mm |
VN-71MC-M/C 4 | 10000×7096 | 4.2 fps | 8/10/12 bits | Camera Link | 31.00×22.00 | 38.01 mm | 35 mm |

*No mount or F-mount is available with VP Series. Contact us to request a custom mount.*

**Model** | **Resolution** | **Extended Resolution** | **Frame Rate** | **Pixel Data** | **Interface** | **Sensor Size (㎛²)** | **Sensor Pixel Size (㎟)** | **Diagonal Optical** |
---|---|---|---|---|---|---|---|---|
VN-25MC-M/C 5 | 6576×4384 | 5.0 fps | 8/10/12 bits | Camera Link | 36.17×24.11 | 40.47 mm | 35 mm |
VN-29MC-M/C 5 | 6576×4384 | 5.0 fps | 8/10/12 bits | Camera Link | 36.17×24.11 | 40.47 mm | 35 mm |

*No mount or F-mount is available with VN Series. Contact us to request a custom mount.*
VNP Series
Integrating TEC into Nano Stage Pixel Shifting

VNP Series, pixel shifting camera equipped with TEC cooled, is designed not only for applications where extremely high resolution is required but also where high image quality is essential. The TEC maintains the operating temperature of the CCD at up to 20 degrees below ambient temperature to reduce noise significantly.

• Thermoelectric Peltier Cooled
• Nano Stage Pixel Shifting Mechanism
• True Color Full Image Resolution
• Improved Fill Factor
• All Other Features are Equivalent to VN Series

VX Series
Aerial Imaging / Ground Surveillance Cameras

VX Series cameras are ideal for aerial imaging and ground surveillance applications which require Photographic Quality resolution and easy-to-use system integration. The VX-29M camera incorporates a 29 million pixel interline transfer CCD with resolution of 6,576 × 4,384. Taking pictures with this camera is made easy with features such as: auto exposure, auto gain, auto focus, lens aperture control, and several innovative features.

• Auto Focus, Auto Exposure, Auto Gain, Auto Aperture Controls
• Canon-EF Adapter Control
• User Adjustable Back Focus
• Field Upgradable Firmware
• Pixel Defect Correction
• Excellent Anti-blooming and Anti-smear

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Frame Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor Size</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VX-29MC-M/C</td>
<td>6576×4384</td>
<td>4.6 fps</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>36.17 × 24.11</td>
<td>43.47 mm</td>
<td>35 mm</td>
</tr>
<tr>
<td>VX-29MG-M/C</td>
<td>6576×4384</td>
<td>2.3 fps</td>
<td>8/10/12 bits</td>
<td>GigE</td>
<td>36.17 × 24.11</td>
<td>43.47 mm</td>
<td>35 mm</td>
</tr>
</tbody>
</table>

* F-mount or interface for Canon-EF adapter is available with VX Series. Contact us to request a custom mount.
VT Series, Time Delayed Integration (TDI) line scan cameras, introduces its new models available with M42 mount. These cameras are built around the Vieworks’ advanced hybrid TDI line scan imaging sensors. The VT-3K7X camera achieves a maximum line rate of up to 250 kHz with up to 128× higher sensitivity. Even greater resolution and sensitivity, up to 200 kHz line rate and up to 256× greater sensitivity can be achieved using the VT-6K3.5X camera. VT series is available with Camera Link or the latest CoaXPress interface standard to meet application-specific requirements. Featured with high speed and high sensitivity, this brand new technology is ideal for demanding applications such as flat panel display inspection, wafer inspection, printed circuit board inspection, and high-performance document scanning.

- 3k / 4k / 6k TDI Line Scan
- Bidirectional Operations with up to 256 TDI Stages
- CoaXPress or Camera Link Interface
- Anti-blooming
- Exposure Control
- Advanced PRNU and DSNU Correction
- Area Scan Mode for Camera Alignment

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Line Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT-3K7X-H</td>
<td>4039×12B</td>
<td>125 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-4K14C-H</td>
<td>4014×64</td>
<td>125 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>14.0×14.0</td>
</tr>
<tr>
<td>VT-4K7X-H</td>
<td>8192×12B</td>
<td>250 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-4K9X-H</td>
<td>8192×12B</td>
<td>250 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>5.0×5.0</td>
</tr>
<tr>
<td>VT-6K10X-H</td>
<td>6240×12B</td>
<td>172 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-6K10X-H</td>
<td>6240×12B</td>
<td>250 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
</tr>
<tr>
<td>VT-12K5C-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
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<tr>
<td>VT-12K5X-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>5.0×5.0</td>
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<tr>
<td>VT-18K3.5C-H</td>
<td>17824×256</td>
<td>47 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
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<td>VT-18K3.5X-H</td>
<td>17824×256</td>
<td>80 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
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<tr>
<td>VT-18K3.5X-H</td>
<td>17824×256</td>
<td>142 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
</tr>
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</table>

VT Series, Time Delayed Integration (TDI) line scan cameras, introduces its new models available with M42 mount. These cameras are built around the Vieworks’ advanced hybrid TDI line scan imaging sensors.

- 4k / 6k / 9k / 12k / 18k TDI Line Scan
- Bidirectional Operations with up to 256 TDI Stages
- CoaXPress or Camera Link Interface
- Anti-blooming
- Exposure Control
- Advanced PRNU and DSNU Correction
- Area Scan Mode for Camera Alignment

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Line Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT-4K7C-H</td>
<td>4039×12B</td>
<td>125 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-4K7C-H</td>
<td>4039×12B</td>
<td>125 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>14.0×14.0</td>
</tr>
<tr>
<td>VT-4K14C-H</td>
<td>4014×64</td>
<td>125 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
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<tr>
<td>VT-4K7X-H</td>
<td>8192×12B</td>
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<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-4K7X-H</td>
<td>8192×12B</td>
<td>250 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>5.0×5.0</td>
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<tr>
<td>VT-6K10X-H</td>
<td>6240×12B</td>
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<tr>
<td>VT-6K10X-H</td>
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<td>CoaXPress</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
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<tr>
<td>VT-9K14C-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
</tr>
<tr>
<td>VT-9K14C-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>5.0×5.0</td>
</tr>
<tr>
<td>VT-9K7X-H</td>
<td>12480×256</td>
<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-9K7X-H</td>
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<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
</tr>
<tr>
<td>VT-9K7X-H</td>
<td>12480×256</td>
<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>14.0×14.0</td>
</tr>
<tr>
<td>VT-9K7X-H</td>
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<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
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<tr>
<td>VT-12K5C-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
</tr>
<tr>
<td>VT-12K5X-H</td>
<td>12480×256</td>
<td>100 kHz</td>
<td>8/10/12 bits</td>
<td>Camera Link</td>
<td>Vieworks</td>
<td>5.0×5.0</td>
</tr>
<tr>
<td>VT-12K5X-H</td>
<td>12480×256</td>
<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>7.0×7.0</td>
</tr>
<tr>
<td>VT-12K5X-H</td>
<td>12480×256</td>
<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>10.0×10.0</td>
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<tr>
<td>VT-12K5X-H</td>
<td>12480×256</td>
<td>200 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
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<td>VT-16K3.5C-H</td>
<td>17824×256</td>
<td>47 kHz</td>
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<td>Vieworks</td>
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<td>VT-16K3.5C-H</td>
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<td>80 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
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<td>VT-18K3.5C-H</td>
<td>17824×256</td>
<td>142 kHz</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
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</tbody>
</table>
VT Series
16k and 23k Resolution TDI Line Scan Cameras available with M95 Mount

VT Series. Time Delayed Integration (TDI) line scan cameras, introduces its new models available with M95 mount. These cameras supporting M95 mount offers two different high resolution models with 16k and 23k hybrid TDI sensors delivering greater speed and more sensitivity than ever before. The VT-23K3.5X model delivers a maximum line rate of 100 μs. Even higher line rate, up to 140 μs can be achieved using the VT-16K5X camera. All cameras have exposure control with anti-blooming. These cameras are ideal for demanding applications such as flat panel display inspection, wafer inspection, printed circuit board inspection, and high-performance document scanning.

- 16k / 23k TDI Line Scan
- Bidirectional Operations with up to 256 TDI Stages
- CoaXPress Interface
- Anti-blooming
- Exposure Control
- Advanced PRNU and DSNU Correction
- Area Scan Mode for Camera Alignment

VLink Series is a cost-effective Camera Link repeater to dramatically increase the distance between a camera and frame grabber. It amplifies video signals that are attenuated on the Camera Link cable and triples the available cable length through LVDS output connector equipped with a pre-emphasis feature. VLink Series allows not only to simplify the machine vision systems but also to save the cost with the least number of the repeaters and cables.

- Triples the maximum distance between camera and frame grabber
- Supports Camera Link Base/Medium/Full
- PoCL compatibility allows to use PoCL cameras and frame grabbers
- Supports cascade configuration to extend greater distances
- Optional power input receptacle to use with non-PoCL frame grabber

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Line Rate</th>
<th>Pixel Data</th>
<th>Interface</th>
<th>Sensor</th>
<th>Pixel Size (㎛²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT-16K5X/H-140</td>
<td>16384×256</td>
<td>140 μs</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
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<tr>
<td>VT-23K3.5X/H-100</td>
<td>23360×256</td>
<td>100 μs</td>
<td>8/10/12 bits</td>
<td>CoaXPress</td>
<td>Vieworks</td>
<td>3.5×3.5</td>
</tr>
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</table>

VLink Series Camera Link Repeater

<table>
<thead>
<tr>
<th>Model</th>
<th>VLink-Base</th>
<th>VLink-Full</th>
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</thead>
<tbody>
<tr>
<td>Camera Link Configuration</td>
<td>Base</td>
<td>Base/Medium/Full</td>
</tr>
<tr>
<td>Pixel Clock</td>
<td>20 ~ 85</td>
<td></td>
</tr>
<tr>
<td>Connector Type</td>
<td>MDR 26 / PoCL Compliant</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 ~ 50℃</td>
<td></td>
</tr>
<tr>
<td>Power Requirements</td>
<td>8 ~ 24 V DC</td>
<td></td>
</tr>
<tr>
<td>Power Supply</td>
<td>Power adapter (not included) or PoCL compliant</td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Typ. 2 W</td>
<td>Typ. 4W</td>
</tr>
<tr>
<td>Dimension (W × H × L) / Weight</td>
<td>92 mm × 23 mm × 68 mm / 162 g</td>
<td>92 mm × 23 mm × 87.5 mm / 400 g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cable Length</th>
<th>Camera to VLink</th>
<th>VLink to VLink or Grabber</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 μs</td>
<td>&lt; 10 m</td>
<td>&lt; 20 m</td>
</tr>
<tr>
<td>60 μs</td>
<td>&lt; 8 m</td>
<td>&lt; 15 m</td>
</tr>
<tr>
<td>85 μs</td>
<td>&lt; 5 m (4 μm at 10 Tap)</td>
<td>&lt; 10 m</td>
</tr>
</tbody>
</table>

Tripples the Link Distance
**Software**

**Vieworks Imaging Solution**

**VIS 7.X – SDK for GigE Vision & CoaXPress Cameras**

The new version of VIS includes full support for the new CoaXPress interface as well as the GigE Vision interface. VIS 7.X not only supports the CoaXPress interface but also includes powerful tools such as Device Observer, IP Changer and Spider Logger which have been added to the latest version of VIS 6.X.

- GenICam standard version 2.3
- SDK (VwGigE API and VwCXP API) – Supporting C/C++, .Net sample
- Supported Platform – Windows 7, Windows 8

**VIS 6.X – SDK for GigE Vision Cameras**

VIS 6.X is the SDK for all Vieworks cameras with GigE Vision interface. It provides customers with software libraries and sample programs that help users quickly develop various machine vision applications. Viewer software with user-friendly interface is also included.

- GenICam standard version 2.3
- Windows device driver for GigE Vision
- SDK (VwGigE API) – Supporting C/C++, .Net sample
- Supported Platform – Windows XP, Windows 7

**VIS–Shadow – GigE SDK for Linux**

The VIS–Shadow is a software package for operating Vieworks GigE cameras under Linux operating systems.

- GenICam 2.3.1 and GenTL 1.3 compliant
- Qt 4.8.1 compliant
- Ubuntu 12.04 (32 bit / 64 bit) supported

**Configurator – Control software for Camera Link**

Configurator is designed to operate with all Vieworks Camera Link cameras. The ideal tool for testing and evaluating Vieworks machine vision cameras gives you control of all advanced camera features, and lets you determine the best settings for your application.

**Download**

The latest VIS, VIS–Shadow and Configurator can be downloaded from the Vieworks website [www.vieworks.com](http://www.vieworks.com).
Global Network

In order to quickly adopt the specific requirements of customers to our solutions, the in-house research and development team of Vieworks is always ready to listen to customers’ opinion. In case of technical requests and troubleshooting, Vieworks customer service team is also ready to provide a proper solution and technical advice. Please contact our regional sales representative in your country or our headquarters directly.

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