SRI Sarnoff offers a customizable camera system to meet the specific needs of original equipment manufacturers (OEMs). The system is ideal for industrial processing and instrumentation applications—hyperspectral imaging, food inspection, and medical imaging—that demand the highest sensor performance.

The Avanti-768 is equipped with a time delay integration (TDI) imager that captures high-speed, high-resolution digital video with ultra sensitivity, and operates over multiple wavelengths. Using a back-illuminated, charge-coupled device (CCD) system, the camera is designed for low-noise operation with full resolution from slow scan rates of up to 150 kHz. It generates clear images even at high speeds or in high spectral ranges.

The system can be customized with user-selectable timing modes for staring or TDI operation. The Avanti-768’s high-speed performance increases throughput with maximum accuracy.

**Applications**
- High-speed web inspection
- Semiconductor inspection
- Scientific imaging
- Hyperspectral imaging
- Medical imaging
- Surveillance
- Chemical and geological imaging
- Food inspection

**Capabilities**
- Sealed CCD package
- External trigger
- Stabilized CCD temperature
- TDI and full frame readout modes
- Built-in test patterns (diagnostics)
- Control graphical user interface (GUI) (optional)
- User-selectable video gain controls (optional)
## Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Size</strong></td>
<td>12 cm (L) x 9.5 cm (W) x 18.5 cm (D) (4.75 in x 3.75 in x 2.5 in)</td>
</tr>
<tr>
<td><strong>Architecture</strong></td>
<td>Back-illuminated CCD time delay integration (TDI)</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>768 (H) x 256 (Stages) 12 bit (intensity) 400-950 nm (high sensitivity)</td>
</tr>
<tr>
<td><strong>Line Scan Rate</strong></td>
<td>5-150 kHz</td>
</tr>
<tr>
<td><strong>Pixel Size</strong></td>
<td>18 µm x 18 µm</td>
</tr>
<tr>
<td><strong>Optical Fill Factor</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Readout Noise</strong></td>
<td>&lt;50 e− RMS at 30 megapixels/second/port</td>
</tr>
<tr>
<td><strong>Full Well Signal</strong></td>
<td>120,000 e− typical</td>
</tr>
<tr>
<td><strong>Dark Current</strong></td>
<td>&lt;0.5 nA/cm² @ 20°C typical</td>
</tr>
<tr>
<td><strong>Lens Mount</strong></td>
<td>C-mount</td>
</tr>
<tr>
<td><strong>Camera Control / Data Output</strong></td>
<td>CameraLink</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>30 W (max)</td>
</tr>
</tbody>
</table>

## Contact us

for more information about this product:

SRI International Sarnoff
201 Washington Road
Princeton, NJ 08540-6449
609.734.2553
info@sarnoff.com
www.sarnoff.com/imaging

## About SRI International

Silicon Valley-based SRI International, a nonprofit research and development organization, performs sponsored R&D for governments, businesses, and foundations. SRI brings its innovations to the marketplace through technology licensing, new products, and spin-off ventures. SRI is known for world-changing innovations in computing, health and pharmaceuticals, chemistry and materials, sensing, energy, education, national defense, and more.

**Headquarters**

SRI International
333 Ravenswood Avenue
Menlo Park, California 94025-3493
650.859.2000

**Additional U.S. and international locations**

[www.sri.com](http://www.sri.com)

## Stay Connected

- [facebook.com/sri.intl](http://facebook.com/sri.intl)
- [twitter.com/SRI_Intl](http://twitter.com/SRI_Intl)
- [youtube.com/user/innovationSRI](http://youtube.com/user/innovationSRI)
- [linkedin.com/company/sri-international](http://linkedin.com/company/sri-international)
- [plus.google.com](http://plus.google.com)