AT-140 CL
3CCD Progressive Scan RGB Color

- 3 x 1/2" CCD progressive scan RGB color camera for vision applications
- 1392(h) x 1040 (v) effective pixels for each CCD (4.65 µm square)
- Compact RGB prism for C-mount lenses
- Chromatic shading reduction makes lens choice wider
- 25.2 frames per second with full resolution
- Pre-set or variable partial scan also available
- Vertical binning for higher sensitivity and frame rate
- 24-bit RGB output via single port Camera Link base configuration
- 30-bit or 36-bit output via dual port Camera Link medium configuration
- Linear matrix circuit with manual control or with sRGB or Adobe RGB pre-sets
- Knee function available for knee-point and knee-slope settings
- Edge pre-select and pulse width control trigger modes
- Pre-set shutter from OFF(1/25) to 1/53000 in 12 steps
- Individually programmable shutter/exposure for R, G, and B
- Manual, continuous, one-push auto, or pre-set white balance
- Setup by Windows 2000/XP software via RS 232C
## Specifications for AT-140 CL

<table>
<thead>
<tr>
<th>Specifications</th>
<th>AT-140 CL</th>
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<tbody>
<tr>
<td>Sensor</td>
<td>3 x 1/2” progressive scan CCD – ICX267AL</td>
</tr>
<tr>
<td>Pixel Clock</td>
<td>50 MHz</td>
</tr>
<tr>
<td>Frame rate full frame</td>
<td>25.21 frames/second (1040 lines per frame)</td>
</tr>
<tr>
<td>Active area</td>
<td>6.4 (h) x 4.8 (v) mm</td>
</tr>
<tr>
<td>Cell size</td>
<td>4.65 (h) x 4.65 (v) µm</td>
</tr>
<tr>
<td>Active pixels</td>
<td>1392 (h) x 1040 (v)</td>
</tr>
<tr>
<td>Read-out modes</td>
<td>1/2 partial scan: (25.21 fps)</td>
</tr>
<tr>
<td></td>
<td>1/4 partial scan: (62.77 fps)</td>
</tr>
<tr>
<td></td>
<td>1/8 partial scan: (78.46 fps)</td>
</tr>
<tr>
<td>Vertical binning</td>
<td>1392 (h) x 1040 (v)</td>
</tr>
<tr>
<td>S/N ratio (on sensor)</td>
<td>1.25 Lux, max gain, 50% video</td>
</tr>
<tr>
<td>Video output</td>
<td>3 x 8 bit RGB: single port Camera Link base</td>
</tr>
<tr>
<td></td>
<td>3 x 12 bit RGB: dual port Camera Link medium</td>
</tr>
<tr>
<td>Auto-iris lens video</td>
<td>0.7 V p-p, 75 Ω NUM luminance signal w/o sync</td>
</tr>
<tr>
<td>Power</td>
<td>12V to 24V DC ± 10%, 6.1W typical</td>
</tr>
<tr>
<td>Dimensions (H x W x L)</td>
<td>75 mm x 55 mm x 78.3 mm</td>
</tr>
<tr>
<td>Lens mount</td>
<td>C-mount (Max 4.0 mm thread)</td>
</tr>
<tr>
<td>Weight</td>
<td>290 g</td>
</tr>
</tbody>
</table>

### Connector pin-out

- **DC In / Trigger**
  - **Pin**
    - 1: Ground
    - 2: +12V DC
    - 3: Ground
    - 4: Iris video
    - 5: Ground
    - 6: Ground
    - 7: Ground
    - 8: Ground
    - 9: XEEN out
    - 10: Trigger in
    - 11: Ground
    - 12: Ground

- **Camera Link Interface**
  - 26 pin MDR connector 3M-10226-5A0G

### Camera Link Interface

- **Pin**
  - 14: GND
  - 15: Xo-/Xo+ CL Data out
  - 16: Xs-/Xs+ CL Data out
  - 17: Xz-/Xz+ CL Data out
  - 18: Xclk/Xclk+ CL Clock
  - 19: X3-/X3+ CL Data out
  - 20: SerTP+/SerTP- Serial in*
  - 21: SerTFG+/SerTFG- Serial out*
  - 22: CC1-/CC1+ Trigger*
  - 23: CC2+/CC2- Reserved
  - 24: CC3-/CC3+ Not used
  - 25: CC4-/CC4+ Not used
  - 26: GND

### Spectral Response

- **Combined prism and CCD response**

- **Camera Link Interface**

### Ordering Information

- **AT-140CL**
  - 1/2” 3CCD Progressive Scan RGB Color Camera

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