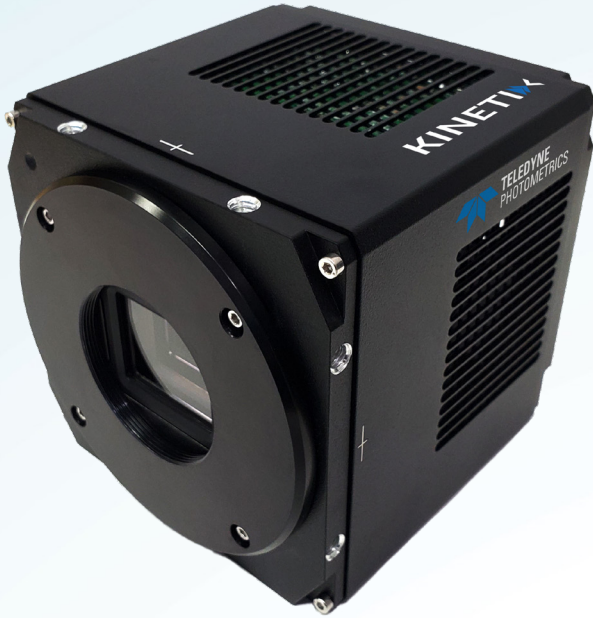




**TELEDYNE PHOTOMETRICS**  
Everywhereyoulook™



**KINETIX**

The New Category In sCMOS Cameras

10 Megapixel  
6.5  $\mu\text{m}$  Pixel Size  
500 Frames Per Second  
29.4 mm Field Of View  
95% Quantum Efficiency

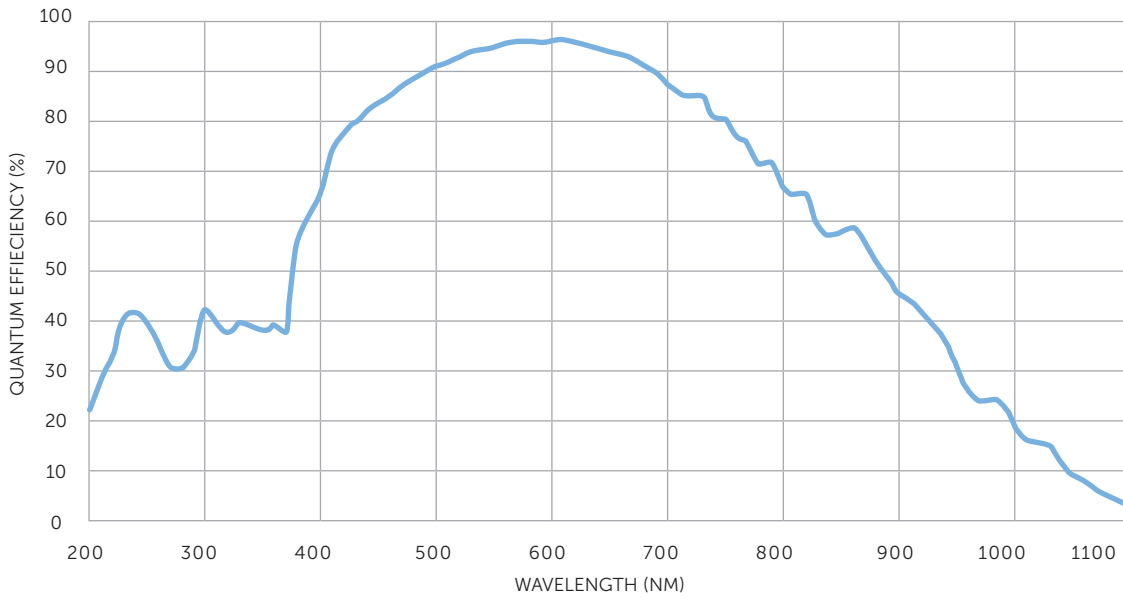
| Specifications    | Camera Performance  |
|-------------------|---|
| Sensor            | Teledyne Photometrics Kinetix Sensor  |
| Active Array Size | 3200 x 3200 (10.24 Megapixel)   |
| Pixel Area        | 6.5 $\mu$ m x 6.5 $\mu$ m (42.25 $\mu$ m <sup>2</sup> )                               |
| Sensor Area       | 20.8mm x 20.8mm<br>29.4mm diagonal  |
| Peak QE%          | >95%  |
| Readout Mode      | Rolling Shutter<br>Effective Global Shutter<br><a href="#">Programmable Scan Mode</a> |
| Binning           | 2x2 (Digital)   |
| Linearity         | >99%  |
| Cooling Options   | Air Cooled<br>Liquid Cooled   |

## Camera Modes

| Specifications          | Dynamic Range        | Speed                | Sensitivity (CMS)      |
|-------------------------|----------------------|----------------------|------------------------|
| Bit-Depth               | 16-bit               | 8-bit                | 12-bit                 |
| Frame Rate (Full Frame) | 83 fps               | 500 fps              | 88 fps                 |
| Read Noise              | 1.6e <sup>-</sup>    | 2.0e <sup>-</sup>    | 1.2e <sup>-</sup>      |
| Cooling                 | -10° C (air)         | 5° C (air)           | -10° C (air)           |
| Line Time               | 3.749 $\mu$ sec/line | 0.625 $\mu$ sec/line | 3.53125 $\mu$ sec/line |

| Specification     | Camera Interface                                  |
|-------------------|---|
| Digital Interface | PCI-Express Gen 3<br>USB 3.2 10 Gbps              |
| Lens Interface    | T-Mount<br>F-Mount<br>C-Mount<br>Swappable Mounts |
| Mounting Points   | 2x 1/4" mounting points per side                  |

| Triggering Mode        | Function   |
|------------------------|--|
| Input Trigger Modes    | Trigger First: Sequence triggered on first rising edge   |
|                        | Edge: Exposure time is controlled by length of high trigger signal                                   |
|                        | SMART Streaming: Fast iteration through multiple exposure times                                      |
| Output Trigger Modes   | Any Row: Expose signal is high while any rows acquiring data   |
|                        | Rolling Shutter: Effective Global Shutter - Expose signal is high when all rows are acquiring data   |
|                        | Signal is High for set Exposure time - Readout Time  |
|                        | First Row: Expose signal is high while first row is acquiring data.                                  |
| Output Trigger Signals | Line Output: Expose signal provides rising edge for each row advanced by the rolling shutter readout |
|                        | Expose Out (up to four signals), Read Out, Trigger Ready   |



**Accessories (Included)**

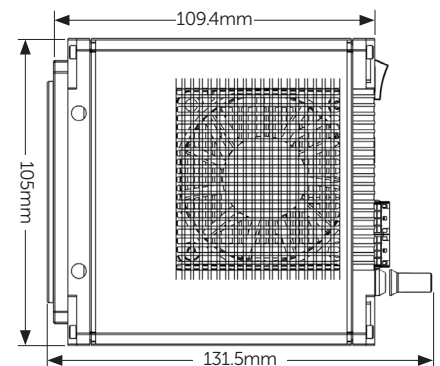
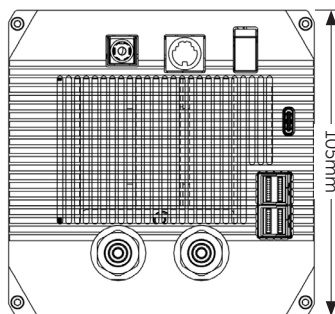
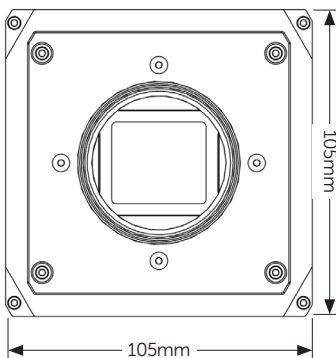
- USB 3.2 Cable
- Trigger Cable
- Power Supply
- Quickstart Guide
- PCIe Card/Cable

**Accessories (Additional)**

- Liquid Circulator
- Liquid Cooling Tubes

**Frame Rate**

| Array Size  | Dynamic Range |     | Speed |     | Sensitivity (CMS) |     |
|-------------|---------------|-----|-------|-----|-------------------|-----|
|             | PCI-E         | USB | PCI-E | USB | PCI-E             | USB |
| 3200 x 3200 | 83            | 34  | 500   | 83  | 88                | 38  |
| 3200 x 2304 | 115           | 47  | 694   | 115 | 122               | 52  |
| 3200 x 2048 | 130           | 53  | 781   | 129 | 138               | 59  |
| 3200 x 1600 | 166           | 69  | 1000  | 166 | 176               | 76  |



Teledyne Photometrics is a registered trademark. Kinetix is a trademark of Teledyne Photometrics. All other brand and product names are the trademarks of their respective owners.

Specifications in this datasheet are subject to change. Refer to the Teledyne Photometrics website for most current specifications.



[www.photometrics.com](http://www.photometrics.com)  
[photometrics.info@teledyne.com](mailto:photometrics.info@teledyne.com)/ tel: +1 520.889.9933



**TELEDYNE IMAGING**  
 Everywhere you look™