# T3340
## CCD 8 MP
### *CXP-3 CoaXPress®*

## Imperx: *T3340*

The Tiger T3340 CCD camera is an advanced, ruggedized, and economical digital camera providing 3296 x 2472 resolution, frame rates up to 21 fps. The camera features programmable image resolution, frame rates, gain, offset, external triggering, strobe outputs, transfer function correction, temperature monitoring, and user programmable LUTs, FFC, and Defect Correction Tables. The camera is fully field upgradable with optional forced air cooling available.

## Specifications

| Feature | Description | Feature | Description |
|---|---|---|---|
| Output Interface | CXP-3 CoaXPress® w/PoCXP | Data Correction | Bad pixel correction, four 12-bit LUTs, 2 FFC, Black level, Vertical smear |
| Resolution | 3296 (H) x 2472 (V), 3320 (H) x 2496 (V) max | Minimum Illuminations | 1 Lux, F/ 1.4 |
| Sensor | ON Semiconductor KAI-08051 Color/Mono/ Sparse CFA | Lens Mount | F-Mount (Default), C-Mount, M42, EOS Canon |
| Sensor Format | CCD, 4/3" | Supply Voltage Range | 24 V CoaXPress power over cable |
| Pixel Size | 5.5 microns square | Power Consumption (Ruggedized) | 8.16 W – 8.64 W |
| Frame Rate | 21 fps | | |
| Dynamic Range | 66 dB | Power Consumption (Industrial) | 8.88 W – 9.36 W |
| Output Bit Depth | 8-bit, 10-bit, 12-bit | | |
| Noise | 12 electrons rms | Size - Width/Height/Length | 69.5 mm (W) x 69.5 mm (H) x 51.5 mm (L) (Ruggedized, no fan) 69.5 mm (W) x 76.3 mm (H) x 51.5 mm (L) (Industrial, with fan) |
| Analog Gain Control | Manual, Auto (Rug.): 0 – 30 dB (Ruggedized), 0 – 24 dB (Industrial) | | |
| Black Level Control | Manual, 1024 steps, Auto | Weight | 461g |
| Digital Gain | 1x to 4x, 0.001x steps | Vibration, Shock (Ruggedized) | 100G (20-200Hz) XYZ/ 1000G |
| Digital Offset | -512 to +511, 1 step increments | | |
| AEC/AGC | Yes (Ruggedized) | Vibration, Shock (Industrial) | 20G (20-200Hz) XYZ / 200G |
| White Balance | Manual, Auto, Off | | |
| Shutter Speed | 1/100,000 to 1/21 s (nom) in 1 µs steps | Environmental (Ruggedized) | -40 ºC to +85 ºC Operating, -50 ºC to +90 ºC Storage |
| Exposure Control | Auto (Ruggedized), External, Internal | | |
| Long Integration | Up to 16 seconds | Environmental (Industrial) | -10 ºC to +60 ºC Operating, -50 ºC to +90 ºC Storage |
| Regions of Interest (ROI) | 2 ROIs (Ruggedized) or 1 ROI (Industrial). Any line to any line, any pixel to any pixel | Humidity | 10% to 90% non-condensing |
| Binning H/V | 1x, 2x, 4x (Independent for H & V) | MTBF | TBD |
| Trigger Inputs | External, Pulse generator, Software, Computer | Regulatory | FCC Part 15 Class A, CE, RoHS |
| Trigger Options | Edge, Pulse width, Trigger filter, Trigger delay, Debounce | | |
| Trigger Modes | Standard, Double, Fast | | |
| External Inputs/Ouputs | 2 IN (OPTO, LVTTL) / 2 OUT (OPTO, TTL) | | |
| Strobe Output | 2 strobes (Ruggedized) or 1 strobe (Industrial). Programmable position and duration | | |
| Pulse Generator | Yes, programmable | | |

# IMPERX
### Industrial Cameras & Imaging Systems

# Imperx: *T3340 Applications*

The T3340 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

Aerospace ● Satellites ● Surveillance ● Military and Non-Military Ground Vehicles ● Ball Grid Array ● Printed Circuit Board Inspection ● Motion Analysis ● Broadcast Television ● Telepresence ● Unmanned Aerial Vehicles ● Machine Vision ● Reconnaissance ● Intelligent Traffic Systems ● Aerial Imaging ● Open Road Tolling Systems ● Situational Awareness ● Scientific ● Particle Velocity
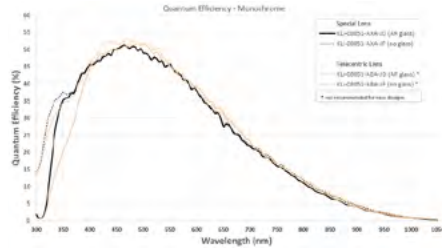
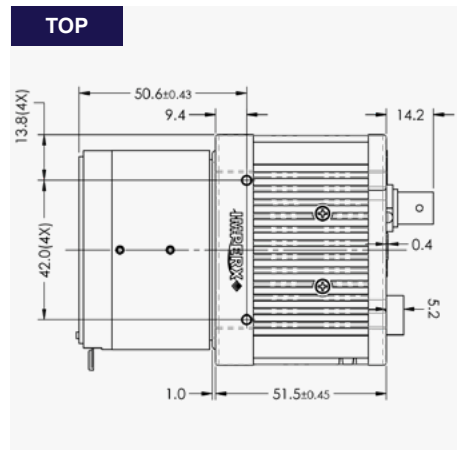## Absolute Quantum Efficiency

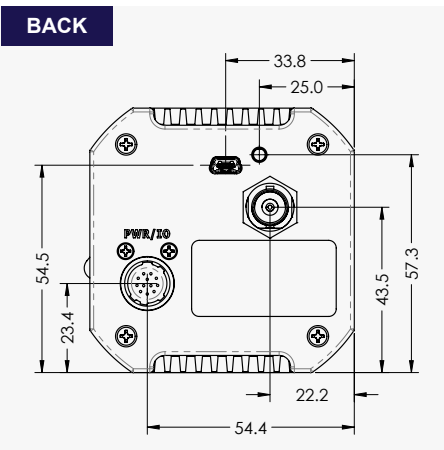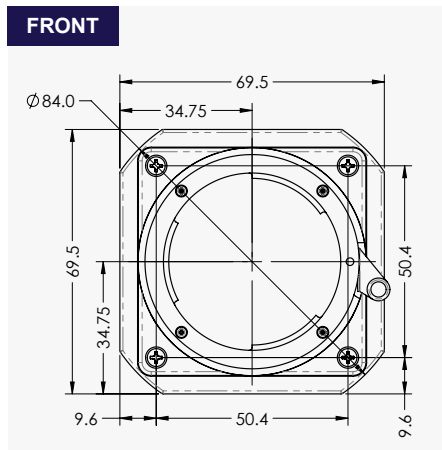Monochrome with Microlens          KAI-08051     Color (Bayer RGB) with Microlens          KAI-08051     Color (TRUESENSE Sparse CFA) with Microlens  KAI-08051
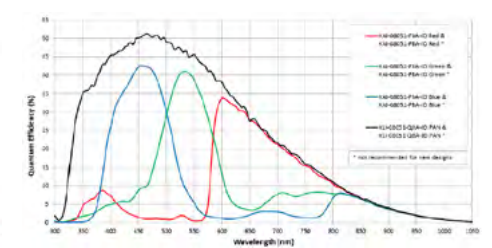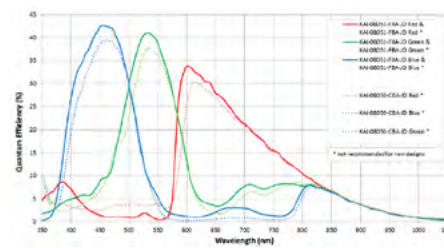


## Dimensions



## Ordering Information
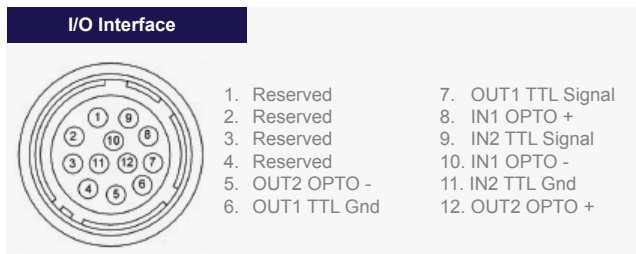
| Output Interface |
| --- |
| CXP-3 CoaXPress® w/PoCXP |

| Sensor Types available |
| --- |
| Monochrome |
| Bayer Color |
| Sparse CFA |

| Lens Mounts | |
| --- | --- |
| F-Mount (default) | M42 |
| C-Mount | EF Canon |

| Ordering | |
| --- | --- |
| Ruggedized | Industrial |

| Accessories (Sold Separately) | |
| --- | --- |
| CBL-PWIO01: Cable Power; Hirose 12p (F) to loose end; 2 meters | |

## Gen<I>Cam Compliant Camera Configurator
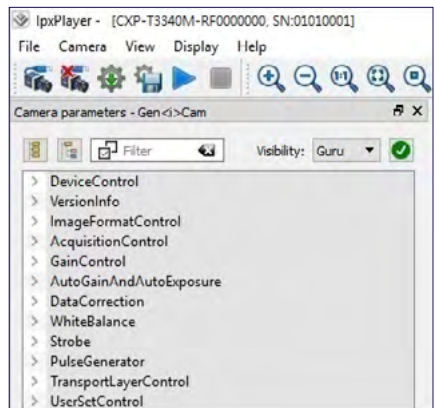


## Hirose Connectors

### I/O Interface



1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. OUT2 OPTO -
6. OUT1 TTL Gnd
7. OUT1 TTL Signal
8. IN1 OPTO +
9. IN2 TTL Signal
10. IN1 OPTO -
11. IN2 TTL Gnd
12. OUT2 OPTO +

Connector: Hirose HR 10A-10R-12PB(71)

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**IMPERX**

Industrial Cameras & Imaging Systems

**IMPERX** 6421 Congress Ave., Boca Raton, FL 33487, USA
Tel: +1-561-989-0006. Email: sales@imperx.com

**WWW.IMPERX.COM**