# T4840
# CCD 16 MP
## *Camera Link®*

## Imperx: *T4840*

The Tiger T4840 CCD camera is an advanced, ruggedized, and economical digital camera providing 4864 x 3232 resolution and frame rates up to 7.9 frames per second. The camera features programmable image resolution, frame rates, gain, offset, external triggering, strobe output, transfer function correction, temperature monitoring, and user programmable and uploadable LUT. The camera is fully field upgradable. Optional active forced air cooling available.

## Specifications

| Feature | Description | Feature | Description |
|---|---|---|---|
| Interfaces available | Camera Link Medium, CoaXPress | Data Corrections | Bad pixel correction, 12-bit LUTs, 2 FFC, black level, vertical smear |
| Resolution | 4864 x 3232; 4880 x 3232 max | Minimum Illuminations | 1 Lux, F/ 1.4 |
| Sensor | ON Semiconductor KAI-16070 color/mono/ Sparse CFA | Lens Mount | F-Mount (Default), M42, EOS Canon |
| Sensor Format | CCD, 43.2mm | Supply Input Range | 12VDC (6V - 30V), 1.5 A inrush |
| Pixel Size | 7.4 µm | Power Consumption | 7.5 W (typ) |
| Frame Rate | 7.9 fps | Size (WxHxL) | 69.5mm x 69.5mm x 51.5mm |
| Dynamic Range | 70 dB | Weight | 450g |
| Bit Depth | 8, 10, 12 bit | Vibration, Shock (Ruggedized) | 100G (20-200Hz) XYZ/ 1000G |
| Noise | 12 electrons rms | | |
| Analog Gain Control | Manual, Auto: 0-36dB | Vibration, Shock (Industrial) | 20G (20-200Hz) XYZ / 200G |
| Black Level Control | Manual, 1024 steps, Auto | | |
| Digital Gain | 1x to 4x, 0.001x steps | Environmental (Ruggedized) | -40ºC to +85ºC Operating, -50ºC to +90ºC Storage |
| Digital Offset | -512 to +511 | Environmental (Industrial) | -10ºC to +60ºC Operating, -50ºC to +90ºC Storage |
| White Balance | Manual, auto, off | | |
| Shutter Speed | 1/100,000 to 1/5 sec (nom) in 1 µs steps | Humidity | 10% to 90% non-condensing |
| Exposure Control | Manual, Auto, External | MTBF | TBD |
| Long Integration | Up to 16 seconds | Regulatory | FCC Part 15 Class A, CE, RoHS |
| Regions of Interest (ROI) | 2 ROIs, any line to any line, any pixel to any pixel | | |
| Binning H/V | 1x, 2x, 4x (Independent for H & V) | | |
| Trigger Inputs | External, pulse generator, software, computer | | |
| Trigger Options | Edge, pulse width, trigger delay, debounce | | |
| Trigger Modes | Standard, double, fast | | |
| External Inputs/Ouputs | 2 IN (OPTO, LVTTL) / 2 OUT (OPTO, TTL) | | |
| Strobe Output | 2 strobes, programmable position and duration | | |
| Pulse Generator | Yes, programmable | | |

## IMPERX
Industrial Cameras & Imaging Systems

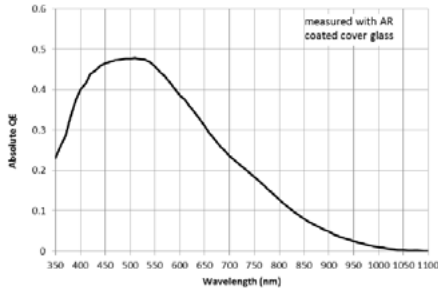## Imperx: *T4840 Applications*

The T4840 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

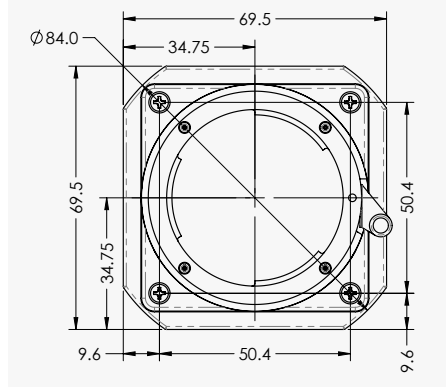Monochrome with Microlens     KAI-16070    Color (Bayer RGB) with Microlens    KAI-16070    Color (TRUESENSE Sparse CFA) with Microlens   KAI-16070
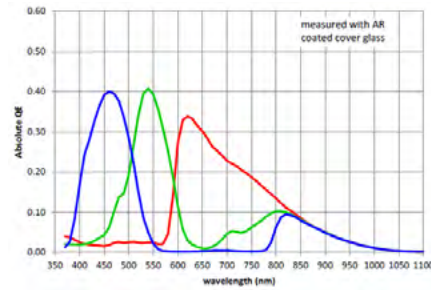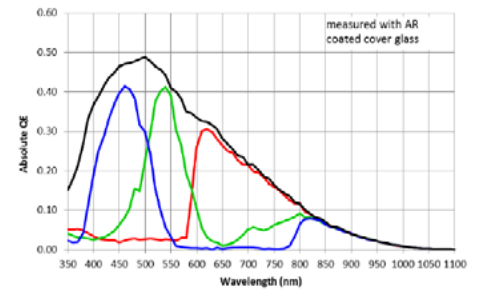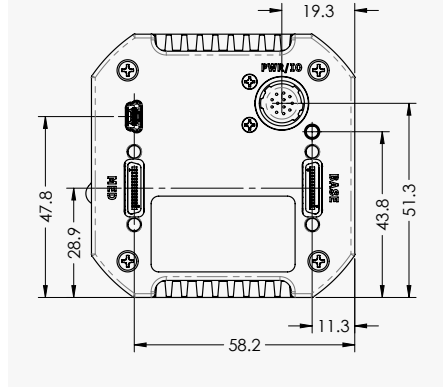
## Dimensions

**FRONT**

**BACK**

**SIDE**
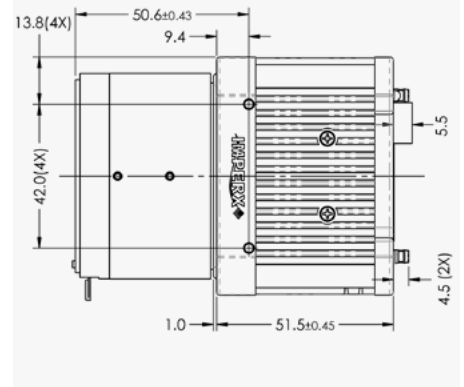
## Ordering Information

| Interface Available |
| --- |
| Camera Link Medium (CLM) |
| CoaXPress (CXP) |

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

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

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

| Accessories (Sold separately) |
| --- |
| PS12v04A-Power Supply w/ 1 input and 1 output |

## Camera Link GUI
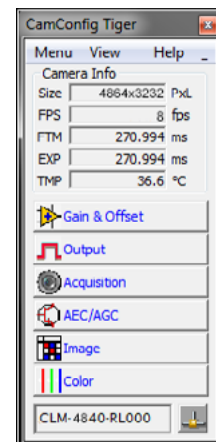
## Hirose Connectors

**Power and I/O Interface**

1. 12V DC Return
2. +12V DC
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)
*\* Not Connected for CXP*

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