

TIGER INTELLIGENT CAMERA SERIES

T3640 CCD 8.6 MP Camera Link®



Imperx: T3640

The Tiger T3640 CCD camera is an advanced, ruggedized, and economical digital camera providing 3600 x 2400 resolution and frame rates up to 15 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

Pulse Generator

Yes, programmable

| Feature | Description | Feature | Description | | | |
|---------------------------|--|-------------------------------|---|--|--|--|
| Interfaces available | Camera Link Medium, CoaXPress | Data Corrections | Bad pixel correction,12-bit LUTs, 2 FFC, black | | | |
| Resolution | 3600 x 2400, 3624 x 2424 max | | level, vertical smear | | | |
| Sensor | ON Semiconductor KAI-08670 color/mono/ | Minimum Illuminations | 1 Lux, F/ 1.4 | | | |
| | Sparse CFA | Lens Mount | F-Mount (Default), M42, EOS Canon | | | |
| Sensor Format | CCD, 32.0mm | Supply Input Range | 12VDC (6V - 30V), 1.5 A inrush | | | |
| Pixel Size | 7.4 µm | Power Consumption | 7.5 W (typ) | | | |
| Frame Rate | 15 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 | 100G (20-200Hz) XYZ/ 1000G | | | |
| Noise | 12 electrons rms | (Ruggedized) | | | | |
| Analog Gain Control | Manual, Auto: 0-36dB | Vibration, Shock | 20G (20-200Hz) XYZ / 200G | | | |
| Black Level Control | Manual, 1024 steps, Auto | (Industrial) | | | | |
| Digital Gain | 1x to 4x, 0.001x steps | Environmental (Ruggedized) | -40°C to +85°C Operating, -50°C to +90°C Storage | | | |
| Digital Offset | -512 to +511 | Environmental | -10°C to +60°C Operating, -50°C to +90°C | | | |
| White Balance | Manual, auto, off | (Industrial) | Storage | | | |
| 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 | | | | | |
| | | | | | | |



Imperx: T3640 Applications

The T3640 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

Aerospace

Satellites

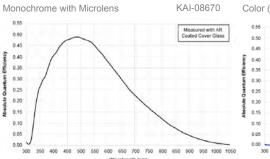
Surveillance

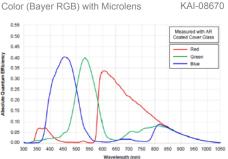
Military and Non-Military Ground Vehicles

Ball Grid Array

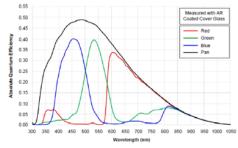
Printed Circuit Board Inspection Motion Analysis
 Broadcast Television
 Telepresence
 Unmanned Aerial Vehicles
 Machine Vision
 Reconnaissance Intelligent Traffic Systems • Aerial Imaging • Open Road Tolling Systems • Situational Awareness • Scientific • Particle Velocimetry

Absolute Quantum Efficiency

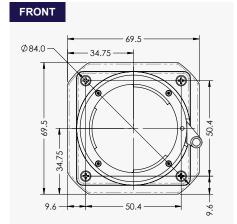


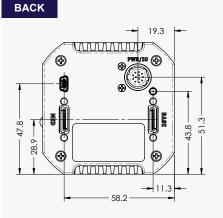


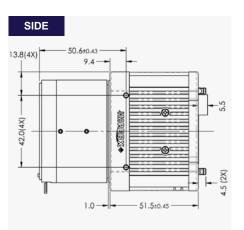




Dimensions







Camera Link GUI

| CamCor | nfig Tiger | | | × | | |
|---------------|------------|------|-----|---|--|--|
| Menu | View | H | elp | - | | |
| Camer | | | | | | |
| Size | 3600x | 2400 | PxL | | | |
| FPS | | 12 | fps | | | |
| FTM [| 270 | .994 | ms | | | |
| EXP | | .994 | | | | |
| тмр 🛛 | | 36.6 | °C | | | |
| Gain & Offset | | | | | | |
| Cutput | | | | | | |
| Acquisition | | | | | | |
| AEC/AGC | | | | | | |
| Image | | | | | | |
| Color | | | | | | |
| CLM-3 | 640-RL0 | 00 | | | | |
| | | | | | | |



Connector: Hirose HR 10A-10R-12PB(71) * Not Connected for CXP

Quality Management System ISO 9001:2015 Registered

2.

3.

4.

5

Environmental Management System ISO 14001:2015 Registered DDTC Registered (Directorate of Defense Trade Controls, US Department of State)

12V DC Return

OUT2 OPTO -

6. OUT1 TTL Gnd

+12V DC

Reserved

Reserved

7. OUT1 TTL Signal

IN1 OPTO +

9. IN2 TTL Signal

10. IN1 OPTO -

11. IN2 TTL Gnd

12. OUT2 OPTO +

8.

Technical data has been fully checked, but accuracy of printed matter is not guaranteed. Subject to change without notice. Copyright 2016.

Ordering Information

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

Sensor Types available

Hirose Connectors Power and I/O Interface

600

BO

8 (D) (D)

8080

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 | | | | | |

Link