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

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	3600 x 2400, 3624 x 2424 max	Minimum Illuminations	1 Lux, F/ 1.4
Sensor	ON Semiconductor KAI-08670 color/mono/ 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 (Ruggedized)	100G (20-200Hz) XYZ/ 1000G
Noise	12 electrons rms	Vibration, Shock (Industrial)	20G (20-200Hz) XYZ / 200G
Analog Gain Control	Manual, Auto: 0-36dB	Environmental (Ruggedized)	-40ºC to +85ºC Operating, -50ºC to +90ºC Storage
Black Level Control	Manual, 1024 steps, Auto	Environmental (Industrial)	-10ºC to +60ºC Operating, -50ºC to +90ºC Storage
Digital Gain	1x to 4x, 0.001x steps	Humidity	10% to 90% non-condensing
Digital Offset	-512 to +511	MTBF	TBD
White Balance	Manual, auto, off	Regulatory	FCC Part 15 Class A, CE, RoHS
Shutter Speed	1/100,000 to 1/5 sec (nom) in 1 µs steps		
Exposure Control	Manual, Auto, External		
Long Integration	Up to 16 seconds		
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

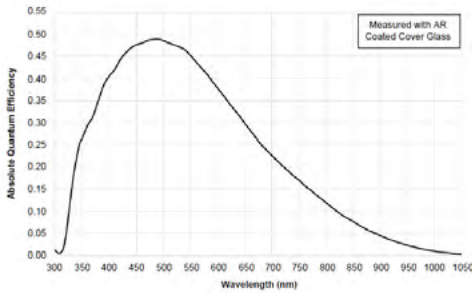## Imperx: *T3640 Applications*

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

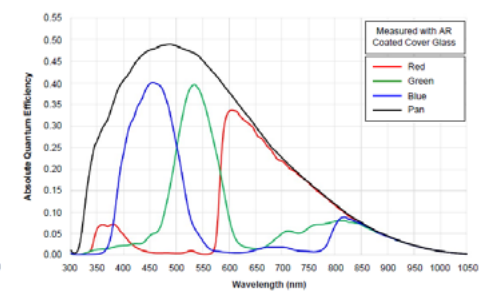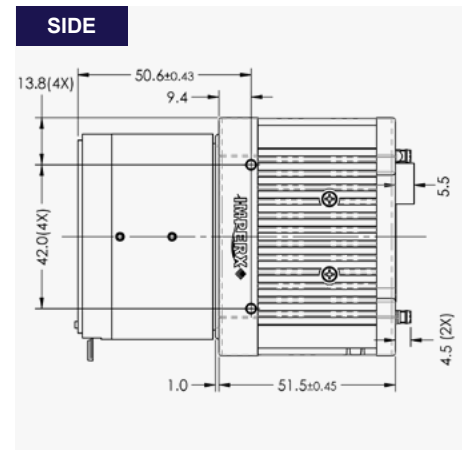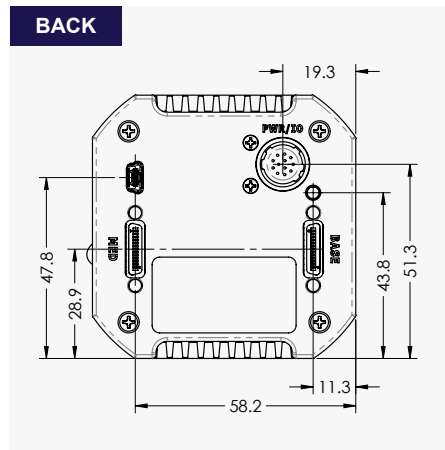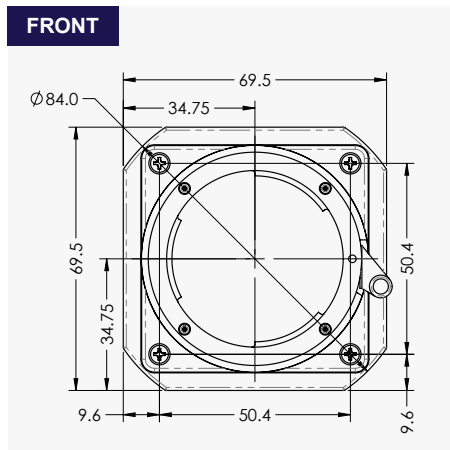Monochrome with Microlens   KAI-08670   Color (Bayer RGB) with Microlens   KAI-08670   Color (TRUESENSE Sparse CFA) with Microlens KAI-08670
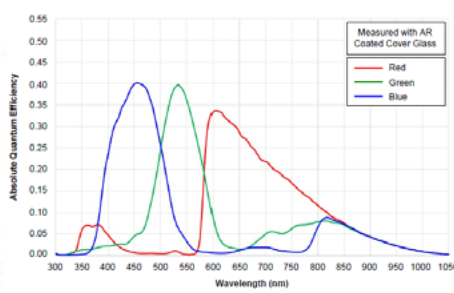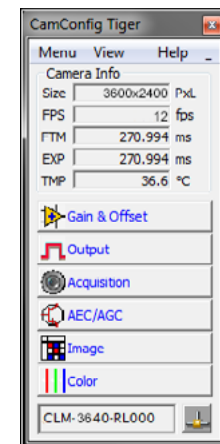

Dimensions

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

IMPERX

Industrial Cameras & Imaging Systems

Quality Management System ISO 9001:2015 Registered
Environmental Management System ISO 14001:2015 Registered
DDTC Registered (Directorate of Defense Trade Controls, US Department of State)