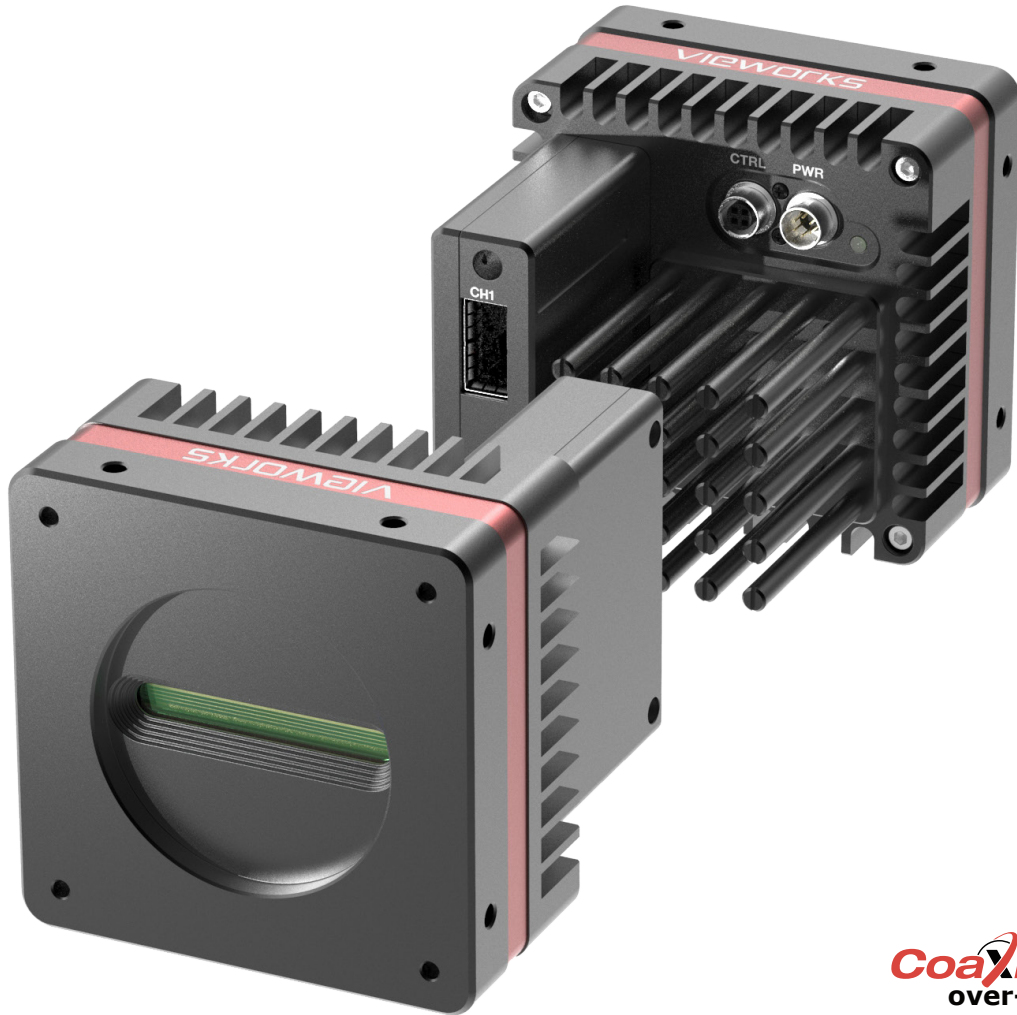


VT-9K5F-H550I-256

High Speed & High Sensitivity 9k TDI Camera
with Charge-domain BSI Image Sensor



CoaxPress[®]
over-Fiber

The VT-9K5F-H550I-256 camera, the new Time Delayed Integration (TDI) camera with a Back-Side Illuminated (BSI) image sensor by charge-domain CMOS technology, provides faster line rates and higher sensitivity than existing TDI cameras.

With the state-of-the-art BSI sensor from Gpixel, the camera acquires images of 9k resolution with 256x higher sensitivity, and for higher than that, the camera also supports the HDR feature using both photosensitive bands, 256 stages and 32 stages respectively.

Featured with high speed and high sensitivity, the camera is ideal for demanding applications such as semiconductor inspection, PCB(Printed Circuit Board) inspection, flat panel display inspection, and fluorescence imaging.



VIEWWORKS

vision.viewworks.com

Main Features

- 9k TDI, BSI(Back-Side Illuminated), Charge-domain CMOS
- CoaXPRESS over Fiber Interface up to 40 Gbps using 1 Link
- Bidirectional Operation with up to 256 TDI Stages in a Single Band, or 32 TDI Stages in a Dual Band
- Advanced DSNU and PRNU Correction
- Strobe Output Control
- GenICam Compatible – XML based Control

Applications

- Semiconductor Inspection
- Printed Circuit Board Inspection
- Flat Panel Display Inspection
- Fluorescence Imaging

Specifications

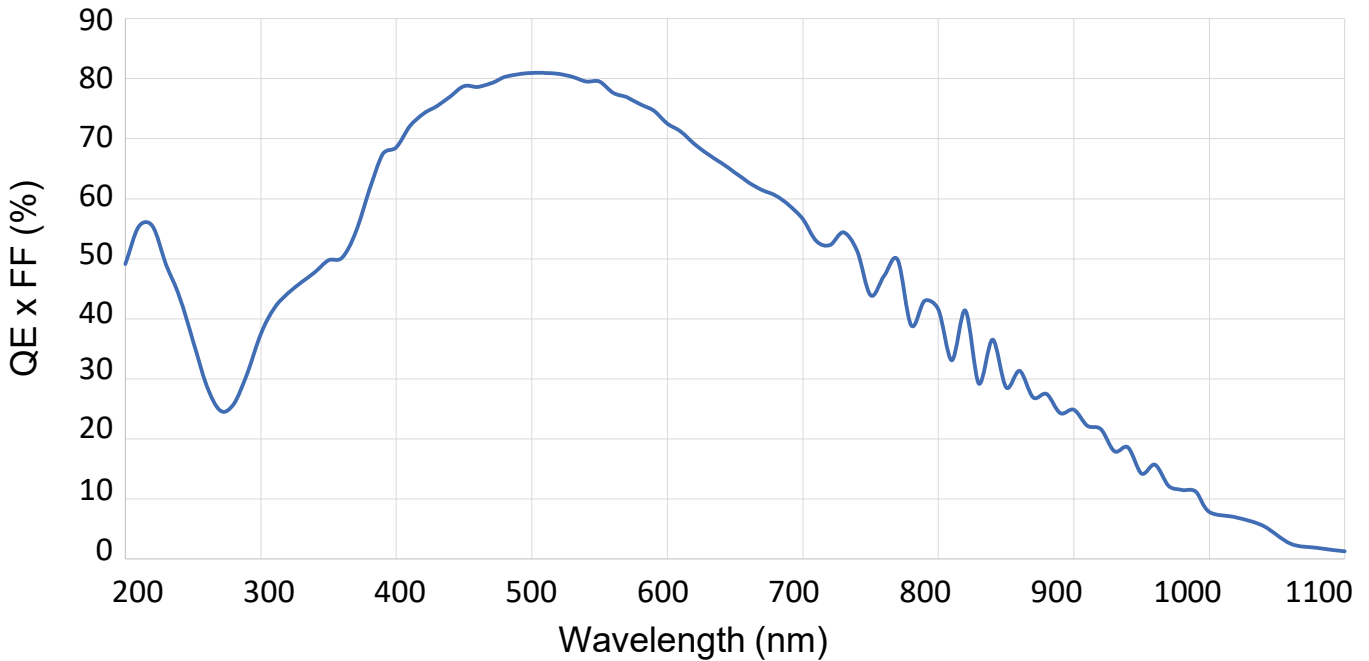
Photosensitive Bands		Single Band (No HDR)	Dual Band (HDR)
Resolution (H × V)		9056 × 256	9056 × (256 + 32)
Sensor		Back-Side Illuminated Image Sensor (GLT5009BSI)	
Interface		CoaXPRESS over Fiber	
Connection		QSFP+ Single-channel CoF Frame Grabber × 1 Optic Transceiver(40G QSFP+ SR4) × 2 Optic Cable(MPO female to MPO female, type B) × 1	
Pixel Size		5.0 μm × 5.0 μm	
Sensor Size (diagonal)		45.36 mm × 1.28 mm	45.36 mm × (1.28 + 0.16) mm
Max. Line Rate		8 bit: 543 kHz 10 bit: 435 kHz 12 bit: 300 kHz	8 bit: 271.5 kHz × 2 10 bit: 217.5 kHz × 2
Min. Line Rate		30 kHz	
Pixel Data Format		Mono 8/10/12 bit	Mono 8/10 bit
TDI Stages		4/8/16/32/64/96/128/160/192/224/240/248/252/256	
		OFF	2/4/8/16/24/28/30/32
Trigger Synchronization		Free-Run, External or CoaXPRESS 2.0	
Throughput		4.9 Gpixels	
Gamma Correction		User Defined Lookup Table (LUT)	
Black Level Control		-256 ~ 255 at 8 bit	
Gain Control	Analog Gain	2.0× ~ 8.0×	
	Digital Gain	1.0× ~ 32.0×	
Lens Mount		M58 × 0.75 mm	
Dimension / Weight		90 mm × 90 mm × 99.3 mm, 950 g (Basic) 90 mm × 129.5 mm × 99.3 mm, 1270 g (with more Heat-sink)	
Temperature		Ambient Operating: 0°C ~ 40°C (Housing: 10°C ~ 55°C), Storage: -40°C ~ 70°C	
Power	External	11 ~ 24 VDC	
	Dissipation	Typ. 25.2 W	
Compliance		CE, FCC, KC	
API SDK		Vieworks Imaging Solution 7.4.X	

VT-9K5F-H550I-256

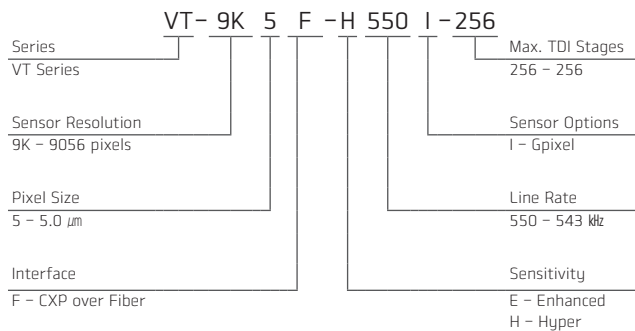
High Speed & High Sensitivity 9k TDI Camera



Quantum Efficiency

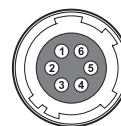


Ordering Scheme



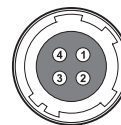
Connector Specification

Power



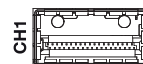
1 2 3: +12 VDC, 4 5 6: GND
(HR10A-7R-6PB)

Control



1: Trigger IN, 2: Direction IN
3: DC Ground, 4: Strobe OUT+
(HR10A-7R-4S)

Data Transfer / Communications



CH1: Master Connection and QSFP+



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Phone: (813) 984-0125

Contact: Sales@pyramidimaging.com

<https://pyramidimaging.com>

Connectors on Camera Body

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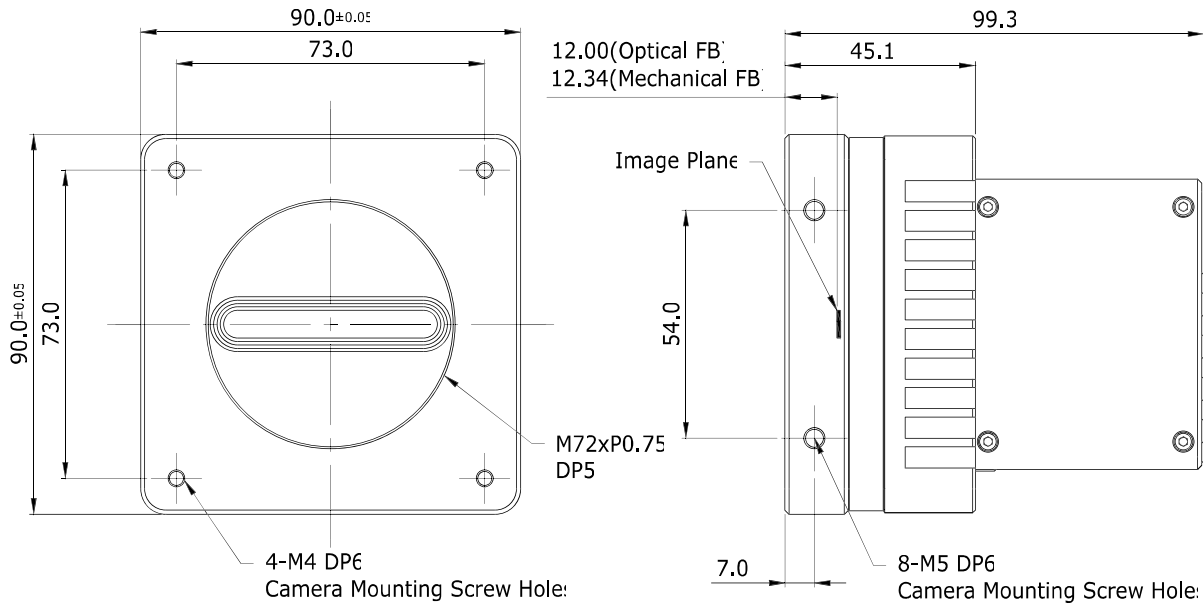
High Speed & High Sensitivity 9k TDI Camera



Mechanical Dimensions

Unit: mm

VT-9K5F (Heat Sink1)



VT-9K5F (Heat Sink2)

