

VT-4K5X-E300A-64 VT-4K5X-H300A-256

High Speed & High Sensitivity 4k TDI Line Scan Cameras



CoaXPress[®]

The VT-4K5X-E300A-64 and VT-4K5X-H300A-256, the new hybrid Time Delayed Integration (TDI) line scan cameras equipped with four CoaXPress channels, provide faster line rates and higher sensitivity than existing line scan cameras. With hybrid TDI line scan technology combining the strengths of both CCD and CMOS image sensors, the VT-4K5X-E300A-64 camera delivers line rates of up to 300 kHz at 4k resolution with 64× higher sensitivity. Even superior sensitivity, up to 4640 pixel resolution at a maximum line rate of 300 kHz and 256× greater sensitivity can be achieved using the VT-4K5X-H300A-256 camera. Featured with high speed and high sensitivity, these cameras are ideal for demanding applications such as flat panel inspection, wafer inspection, printed circuit board inspection, and high-performance document scanning.

VIEWWORKS

www.viewworks.com

VT-4K5X-E300A-64 / VT-4K5X-H300A-256

High Speed & High Sensitivity 4k TDI Line Scan Cameras

Main Features

- 4k Hybrid TDI Line Scan
- CoaXPress Interface up to 300 kHz at 25 Gbps using 4 CH
- Bidirectional Operation with up to 256 TDI Stages
- Exposure Control
- Advanced DSNU and PRNU Correction
- Trigger Rescaler and Strobe Output Control
- GenICam Compatible – XML based Control

Applications

- Flat Panel Display Inspection
- PCB Inspection
- Machine Vision Inspection
- Microscopy and Metrology

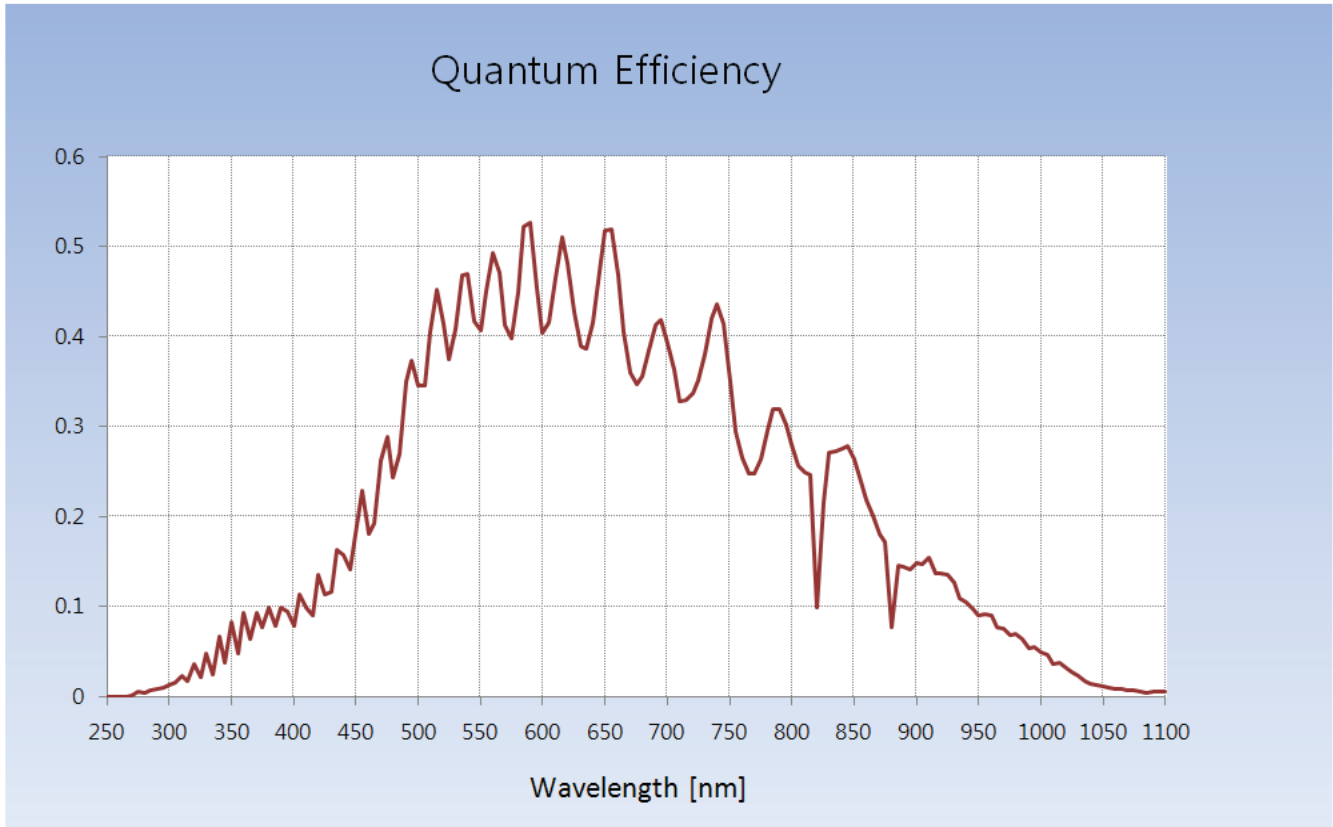
Specifications

Model	VT-4K5X-E300A-64	VT-4K5X-H300A-256
Resolution (H × V)	4640 × 64	4640 × 256
Sensor	Hybrid TDI Line Scan	
Pixel Size	5.0 μm × 5.0 μm	
Interface	CoaXPress (CXP-6, 4 CH)	
Max. Line Rate	300 kHz	
Min. Line Rate	1 kHz	
Pixel Data Format	8 / 10 / 12 bit	
TDI Stages	64	64 / 128 / 192 / 256
Trigger Synchronization	Free-Run, External or CoaXPress	
Throughput	1.39 Gpix/s	
Gamma Correction	User Defined Lookup Table (LUT)	
Black Level Control	-255 ~ 255 at 8 bit	
Gain Control	Analog Gain: 1×, 2×, 3×, 4× / Digital Gain: 1.0× ~ 8.0×	
Lens Mount	M42 × 1 mm	
Dimension / Weight	60 mm × 60 mm × 37 mm / 245 g	
Temperature	Ambient Operating: 0°C ~ 40°C (Housing: 10°C ~ 50°C), Storage: -40°C ~ 70°C	
Power	External	10 ~ 30 V DC
	Dissipation	Typ. 5.5 W
	PoCXP	24 V DC, Minimum of one PoCXP cable required
Compliance	CE, FCC, KC	
API SDK	Vieworks Imaging Solution 7.X	

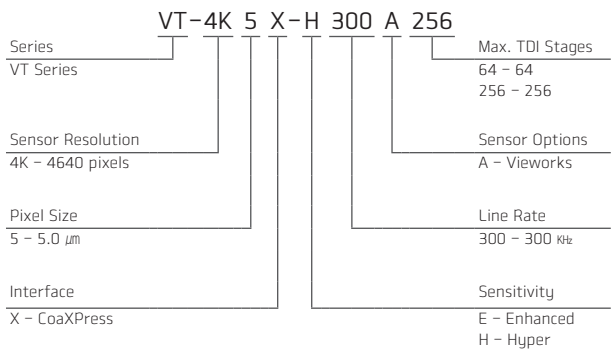
VT-4K5X-E300A-64 / VT-4K5X-H300A-256

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Quantum Efficiency



Ordering Scheme



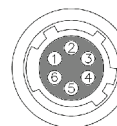
Connector Specification

Power



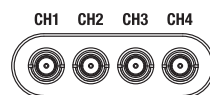
1, 2, 3: +12 V DC
4, 5, 6: GND
(HR10A-7R-6PB)

Control



1: Trigger IN
2: Direction IN
3: GND
4: GND
5: NC
6: Strobe Out
(HR10A-7R-6SB)

Data Transfer / Communications



CH1: Master Connection
(75 Ω , DIN 1.0/2.3)

Connectors on camera body

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Mechanical Dimensions

Unit: mm

