

VT-16K5X2-E300A-64 VT-16K5X2-H300A-256

High Speed & High Sensitivity 16k TDI Line Scan Cameras



CoaXPRESS[®]

The VT-16K5X2-E300A-64 and VT-16K5X2-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-16K5X2-E300A-64 camera delivers line rates of up to 300 kHz at 16k resolution with 64× higher sensitivity. Even superior sensitivity, up to 16384 pixel resolution at a maximum line rate of 300 kHz and 256× greater sensitivity can be achieved using the VT-16K5X-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.

VT-16K5X2-E300A-64 / VT-16K5X2-H300A-256

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Main Features

- 16k Hybrid TDI Line Scan
- CoaXPress Interface up to 300 kHz at 50 Gbps using 4 CH
- Bidirectional Operation with up to 256 TDI Stages
- 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

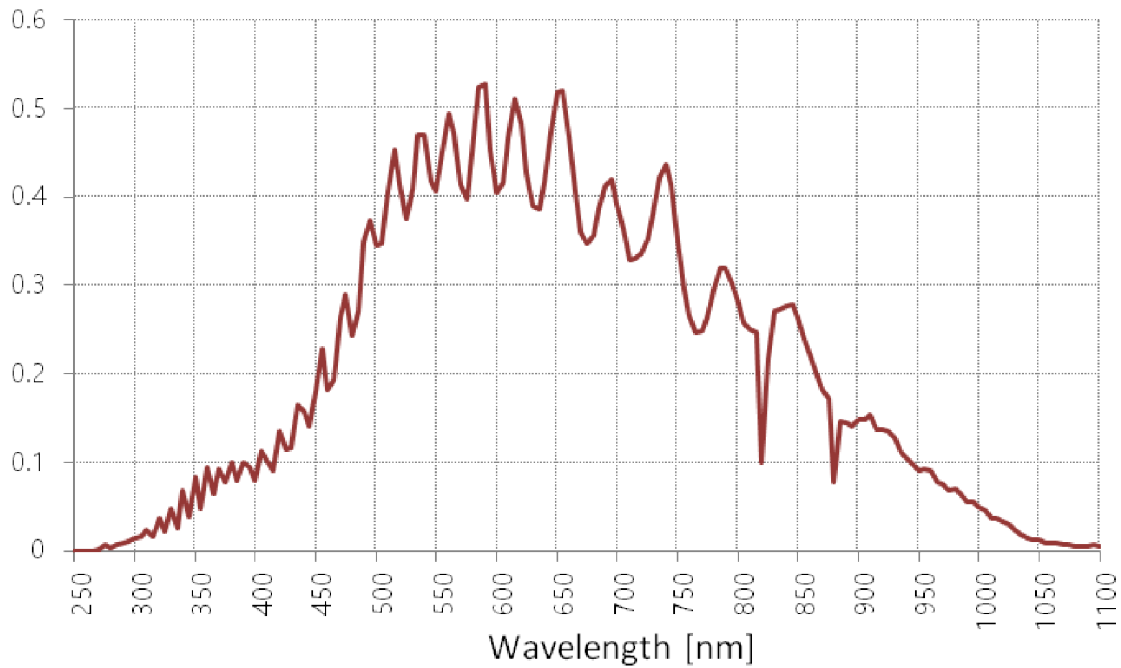
Model	VT-16K5X2-E300A-64	VT-16K5X2-H300A-256
Resolution (H × V)	16384 × 64	16384 × 256
Sensor	Hybrid TDI Line Scan	
Pixel Size	5.0 μm × 5.0 μm	
Interface	CoaXPress 2.0 (CXP-12, 4 channels)	
Max. Line Rate	300 kHz (ROI 16,000 pixels)	
Max. Line Rate (2 × 2 Binning)	257 kHz	
Min. Line Rate	1 kHz	
Pixel Data Format	8/10/12 bit	
TDI Stages	64	64 / 128 / 192 / 256
Trigger Synchronization	Free-Run, External or CoaXPress	
Throughput	4.8 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	M95 × 1 mm	
Dimension / Weight	100 mm × 100 mm × 72 mm / 886 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. 18.0 W
	PoCXP	24 V DC, Minimum of two PoCXP cables required
Compliance	CE, FCC, KC	
API SDK	Vieworks Imaging Solution 7.X	

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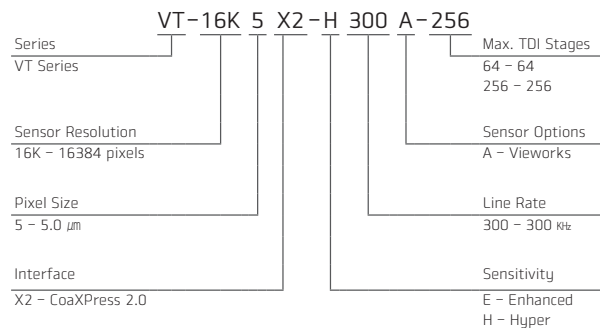
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Quantum Efficiency

Quantum Efficiency

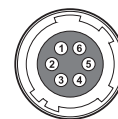


Ordering Scheme



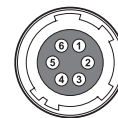
Connector Specification

Power



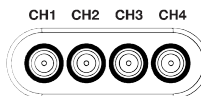
1, 2, 3: +12 V DC
4, 5, 6: GND
(HR10A-7R-6PB)

Control



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

Data Transfer / Communications



CH1 CH2 CH3 CH4

CH1: Master Connection

(75 Ω, DIN 1.0/2.3)

Connectors on Camera Body

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Mechanical Dimensions

Unit: mm

