

SALES INFORMATION UPDATE

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Teledyne DALSA is pleased to announce the release of Linea Color linescan cameras.

Linea Color cameras (Figure 1) are the newest additions to our successful Linea Series and built around our advanced CMOS technology. It delivers the best performance to cost ratio in machine vision industry for color imaging with high speed, high responsivity, low noise and a rich feature set. Employing Teledyne DALSA's advanced bilinear CMOS sensor architecture (Figure 2), the Linea Color delivers a line rate of up to 48 kHz for the 8k Camera Link model and 13kHz and 26kHz for the 4K and 2K GigE Vision models respectively. Linea Color 4k and 2k Camera Link models will be added later to meet various application requirements.

The built-in color interpolation in the SaperalT host driver delivers 50% faster speed in RGB full color mode than Spyder3 Color cameras. Furthermore TurboDrive, our award winning technology, boosts speeds to achieve line rates that are 2x ~ 3x faster than standard GigE Vision line rates.



Figure 1: Linea Color cameras

Product Specifications

Part Number	LA-CC-08k05B-00-R	LA-GC-04k05B-00-R	LA-GC-02k05B-00-R
Sensor type	Bilinear CMOS		
Resolution	8,192x2 pixels	4,096x2 pixels	2,048x2 pixels
Pixel size	7.04x7.04 μm		
Peak responsivity	350 (R), 300 (G), 300 (B) DN/nj/cm ² @ 1x gain in 12 bit See Figure 3		
Max line rate	48 kHz	13kHz*	26kHz*
Throughput	786/1180MPix/s [#]	106/160Mpix/s [#]	106/160Mpix/s [#]
Bit depth	8 or 12 bit		
Gain	1x~10x		
Interface	Camera Link	GigE Vision	
Lens mount	M72x.75	M42x1	
Dimensions	76x76x31 mm	62x62x47 mm	
Operating temperature	0~65 °C		

*Line rate without TurboDrive

#Data throughput without/with color interpolation in the SaperaLT host driver

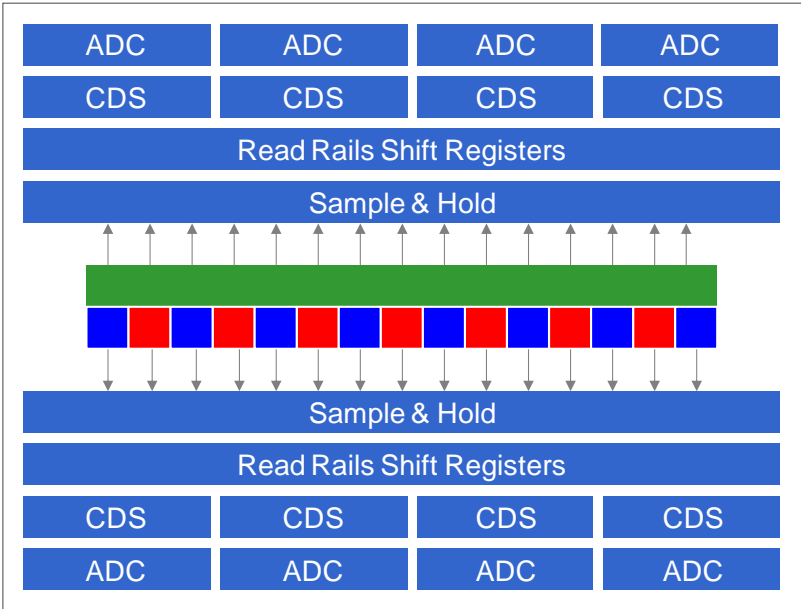


Figure.2: Bilinear CMOS sensor architecture



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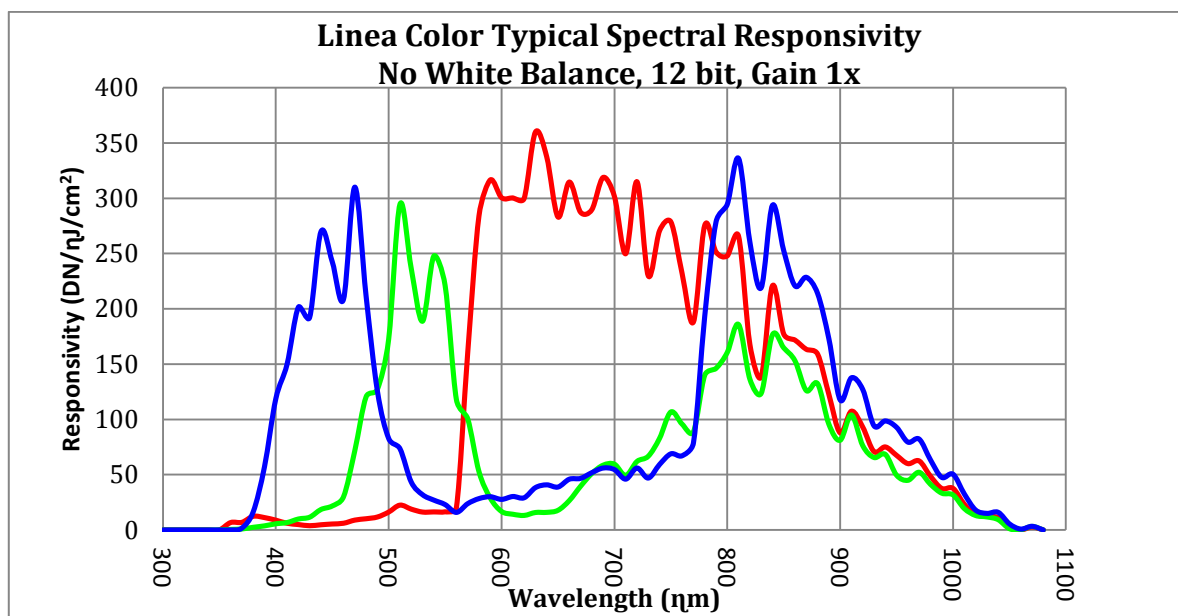


Figure 3: Spectral responsivity

Feature Highlight

- TurboDrive –Boosts speed of data transmission using GigE Vision interface
- AOI and ROI capability –Outputs and calibrates only the regions you are interested in
- Cycling mode –Operates the camera in a preset cycle to achieve e.g. high dynamic range imaging or multiple lighting configuration
- Burst mode –captures the images at faster speeds when sample is passing the FOV while transmits data during idle time
- Smart FFC –A low-pass filter that makes FFC easier without defocusing the lens
- Color interpolation in host PC–Reduces data amount for transmission and boosts the system speed
- LUT for High Dynamic Range imaging –sees more details for both bright and dark scenes without sacrificing speeds
- White balance ROI- only white balances a small ROI target
- Noise filter –Enables further noise reduction



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	Linea mono CL 2k/4k/8k/16k	Linea mono GigE 2k/4k/8k	Linea Color CL 8k	Linea Color GigE 2k/4k
TurboDrive		√		√
Multiple AOIs	√	√	√	√
Multiple ROIs	√	√	√	√
Cycling mode		√		
Burst mode		√		√
Smart FFC	√	√	√	√
Color interpolation in host PC			√	√
LUT			√	√
White balance ROI			√	√
Noise filter			√	√

Software

Supported by Sopera™ LT (8.10 or later)

	Compliant Standard	Version
XML camera description file	GenIcam™	GenCP v1.1
GigE Vision driver	GigE Vision™	V1.2
Camera Link driver	Camera Liink™	v2.0

Sopera LT (version 8.10 or later) software development toolkit which features:

- CamExpert's intuitive Graphical User Interface for configuration and setup
- Sopera LT's Trigger-To-Image Reliability tool (T2IR) for system monitoring
- A Beta GigE Vision Driver that supports the TurboDrive feature is currently available as a separate installation upon request; please contact Technical Customer Support for more information.

Sopera LT is a field proven SDK with over 500,000 installations worldwide.

The latest Sopera SDK and Linea GigE firmware can be found here:

<https://www.teledynedalsa.com/imaging/support/downloads/sdks/>

<https://www.teledynedalsa.com/imaging/support/downloads/firmware/>

Applications

- Food sorting
- Recycling sorting
- Printed circuit board inspection



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