Linea™ 2K and 4K GigE Vision™
Monochrome CMOS Line Scan Cameras

Pyramid Imaging

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High Performance GigE Camera with TurboDrive™

The new Linea line scan cameras deliver the exceptional performance and features found in Teledyne DALSA's current lineup of high-end cameras at an unprecedented price point.

Based on the most advanced CMOS line scan technology, the Linea GigE cameras employ a 2k or 4k single line 7.04 μm x 7.04 μm pixel array and a line rate up to 80 kHz using Teledyne DALSA's TurboDrive and Sapera™ LT GigE Vision driver. With excellent sensitivity and speed, Linea surpasses the requirements of demanding applications—such as materials grading and inspection, transportation safety, and general purpose machine vision.

The Linea cameras come complete with many attractive features, including Cycling Mode, configurable GPIO ports, Burst Mode and Meta Data per each line. Like the Camera Link models, the GigE models provide multiple ROI, and multiple user and calibration coefficients sets for various lighting conditions.

Our proprietary, patent pending, TurboDrive™ technology delivers high speed data transfer capability that breaks through the GigE limit. TurboDrive boosts data transfer up to 2 or 3 times faster than standard GigE Vision speeds – with no loss of image quality.

Key Features
- Low cost and compact
- TurboDrive makes line rates up to 80 kHz possible
- Cycling mode
- Burst mode
- Metadata per each line

Programmability
- Multiple Regions of Interest for calibration and data reduction
- 8 or 12 bit output, selectable
- Smart flat field and lens shading correction
- 4 programmable coefficient sets
- Configurable GPIO ports, timers and counters

Typical Applications
- Automated optical inspection
- High performance sorting systems
- Materials grading and inspection
- Web inspection
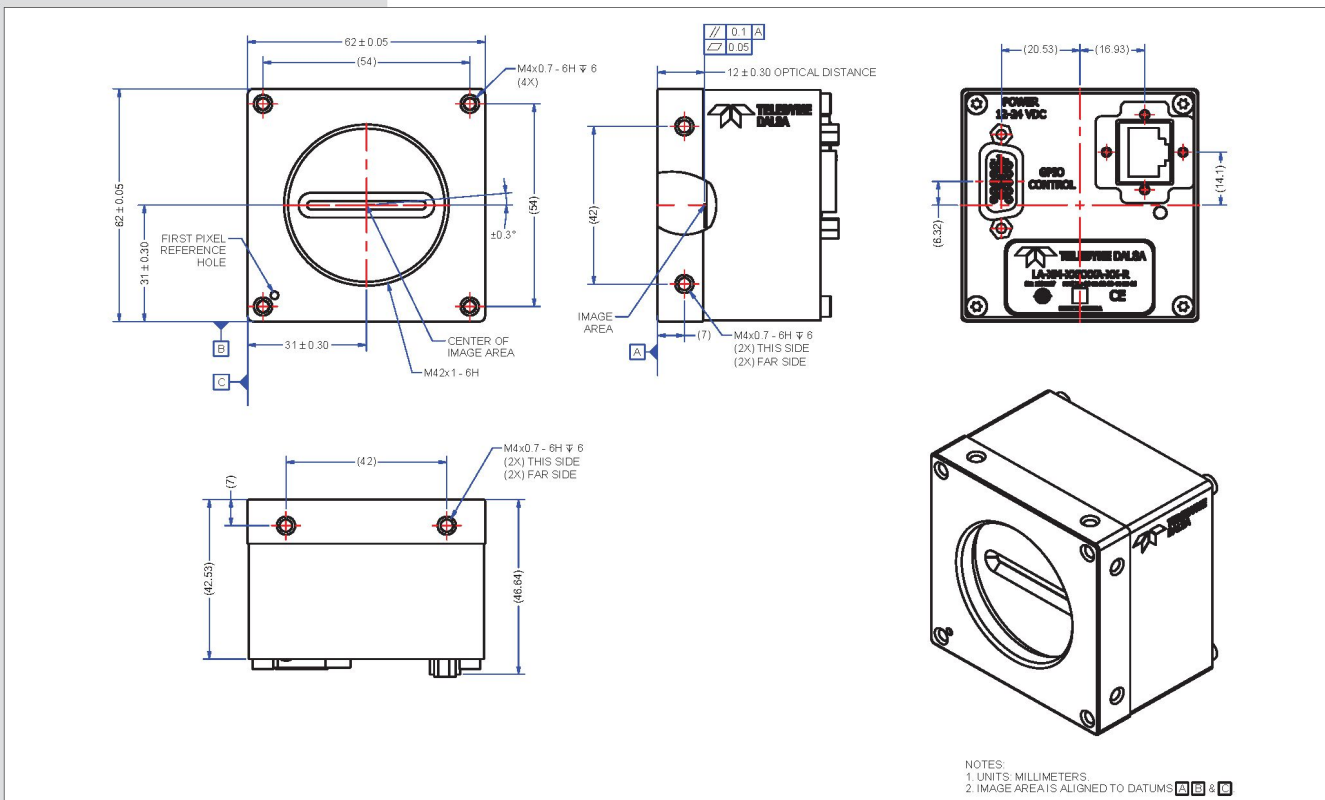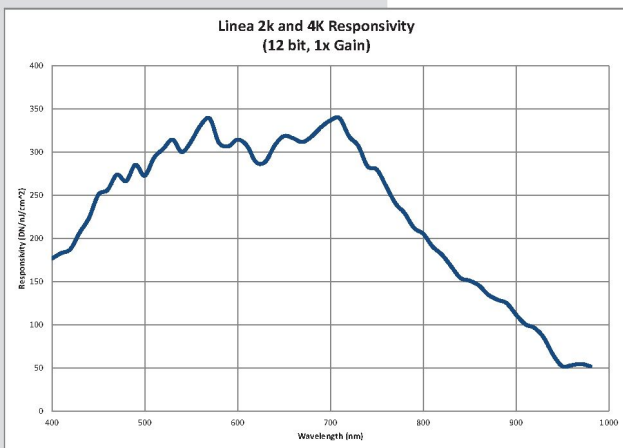- General purpose machine vision

Regulatory Compliance
- CE, FCC and RoHS

Specifications

Resolution	2048 or 4096 pixels
Line Rate	Up to 80 kHz, using TurboDrive and the Sapera LT driver
Pixel Size	7.04 μm x 7.04 μm
Data Format	8 or 12 bit selectable
Output	Gigabit Ethernet
Lens Mount	M42 x 1, C and F-mount adapters available
Responsivity	320 DN / (nJ / cm^2) in 12 bit at 1x gain
Dynamic Range	> 60 dB
Nominal Gain Range	1x to 10x
Size	62 mm x 62 mm x 46.7 mm
Mass	< 280 g
Operating Temp	0 °C to 65 °C (front plate)
Power	12 V to 24 V DC, HD15 connector (shared with I / O)
Power Dissipation	< 6 W
I / O	HD15 connector
Software Platform	GigE Vision v1.2 compliant Teledyne DALSA Sapera LT or 3rd party GenICam™ compliant SDK

Models			
Part Number	Resolution	Maximum Line Rates	Pixel Size
LA-GM-02K08A-00-R	2048	80 kHz, Sapera LT 52 kHz, standard	7.04 μm x 7.04 μm
LA-GM-04K08A-00-R	4096	80 kHz, Sapera LT 26 kHz, standard	7.04 μm x 7.04 μm

TELEDYNE DALSA
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Linea 2k and 4K Responsivity (12 bit, 1x Gain)

Linea 2K and 4K QE

Technical drawings

NOTES:
1. UNITS: MILLIMETERS
2. IMAGE AREA IS ALIGNED TO DATUMS A B & C

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