

# LYNX SQ SERIES

## Line-scan SWIR Camera with Square Pixels

- Line-scan SWIR Camera with 512, 1024, 2048 resolution
- In-house developed InGaAs sensor



### SMALL, UNCOOLED InGaAs LINE-SCAN CAMERA WITH SQUARE PIXELS

The Lynx square (SQ) series, based on an in-house developed linear InGaAs detector, offer affordable short-wave infrared (SWIR) line-scan imagers.

The Lynx SQ cameras are able to image line rates up to 40 kHz, for demanding machine vision applications.

The camera comes with an industry-standard CameraLink or GigE Vision interface.

Depending on your imaging requirements, three resolutions of 512, 1024, or 2048 pixels are offered.

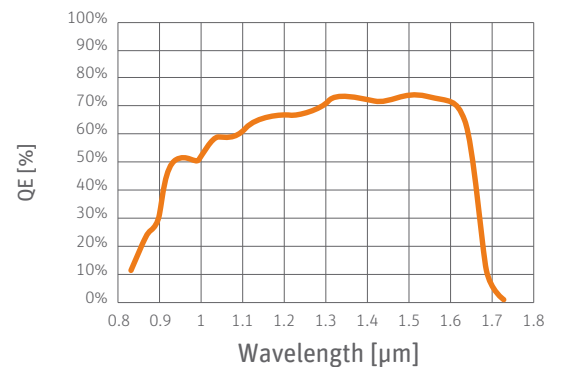
The cameras have standard on-board image correction featuring non-uniformity correction (NUC), bad pixel replacement (BPR) and gain control. For more info on other image enhancement features, contact our sales department.

#### DESIGNED FOR USE IN

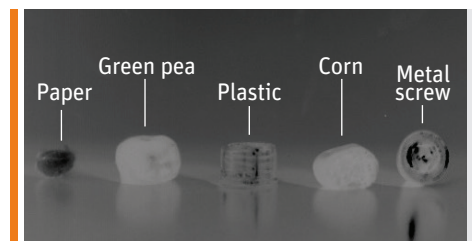
- Medical
- Process Monitoring

#### ADVANTAGES

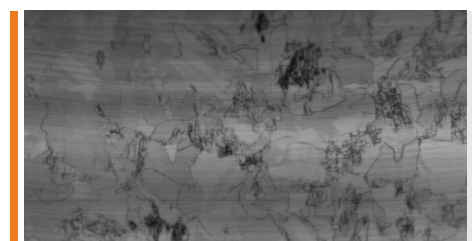
- High speed line-scan imaging up to 40 kHz
- High resolution
- CameraLink or GigE Vision interfacing



\* QE at 306 K (typical value)



Food sorting



Photoluminescence (solar wafer)



Crack inspection (solar wafer)

## SPECIFICATIONS

Camera Specifications	Lynx 512 SQ CL Lynx 512 SQ GigE	Lynx 1024 SQ CL Lynx 1024 SQ GigE	Lynx 2048 SQ CL Lynx 2048 SQ GigE
<b>Mechanical specifications</b>			
Approximate dimensions - excluding lens [width x height x length] [mm]	49 x 49 x 53 [CL], 49 x 49 x 71 [GigE]		
Weight [gr] - excluding lens	153 [CL], 208 [GigE]		
Optical interface	C-mount or M42 [M42 to F-mount adapter optional]		
Connector GigE	RJ-45		
Connector CameraLink	Standard SDR		
Connector power	Hirose HR10-7R-SA[73]		
Connector trigger	SMA		
<b>Environmental &amp; power specifications</b>			
Ambient operating temperature range [°C]	From -40 to +70 Also available in temperature range 0 - 50		
Storage temperature [°C]	From -50 to +85		
Power consumption [W]	2.6 [CL], 4.6 [GigE]		
Power supply voltage	DC 12 V		
Shock	IEC60068-2-27 Ed4.0; half-sine; terminal saw tooth; 50 g [11 ms]		
Vibration	Random: IEC60068-2-64 Ed2.0; 4.3 g [20 - 1000 Hz]. Sine: IEC60068-2-6 Ed7.0; 1 g [10 - 2000 Hz]		
IP rating	IP40		
Regulatory compliance	CE, RoHS		
<b>Electro-optical specifications</b>			
Sensor format [pixels]	512	1024	2048
Pixel pitch [µm]	25	12.5	12.5
Pixel height [µm]	25	12.5	12.5
Detector type	InGaAs photodiode array with CTIA ROIC		
Integration type	Snapshot - global shutter		
Spectral range [µm]	900 - 1700		
Quantum efficiency	~80% [typical peak value]		
Full well capacities [electrons]	450k to 32M	450k to 32M	450k to 10M
Read out modes	ITR and IWR		
Pixel operability	>99.6%	>99%	>98%
Max line rate [kHz]	40	40	10
Analog-to-Digital [ADC] [bits]	14		
Command and control	CameraLink or GigE Vision		
Digital output format	CameraLink or GigE Vision [16 bit]		
Trigger	In or out via SMA [configurable]. For CL - additional trigger in available via CC1		
<b>Product selector guide</b>			
Part number	XEN-000633 [CL]	XEN-000313 [CL]	XEN-000314 [CL]
	XEN-000309 [GigE]	XEN-000310 [GigE]	XEN-000311 [GigE]

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