

## 4K Line scan camera, 4096 x 2, 7 µm pix, CMOS, GigE, Mono, M42x1 FD 12 mm



### KEY ADVANTAGES

- High quality 4K CMOS sensors
- Reliable GigE interface with PoE support
- Gen-I-Cam compliance for easy integration
- Single-line and two-line TDI acquisition



The **COE LS-X series** features 4K line scan cameras with high-end CMOS sensors to provide excellent image quality and superior performance.

### SPECIFICATIONS

#### Sensor Specification

Resolution		4096 x 2
Sensor format		4K
Line length	(mm)	28.7
Pixel size	(µm)	7
Sensor model		GL0402
Image mode		1 Line/2 TDI
Sensor type		CMOS
Shutter		Global
Chroma		Mono

#### Camera Specification

Filter		AR
Line rate	(kHz)	28
Max line rate <sup>1</sup>	(kHz)	80
Exposure time		5 µs - 10 ms
Dynamic range	(dB)	65.6
Gain range	(dB)	0-10
SNR	(dB)	40
Image buffer	(MB)	1024
Pixel formats		Mono 8/10/ 10Packed/ 12/12Packed
Chunk data		yes
User sets		3
Timers/Counters		0/1
Synchronization		Free run, software trigger, hardware trigger

#### Connectivity

Data connector		RJ45
Data interface		1 GigE
I/O connector		12-pin Hirose
I/O interface		4x configurable input and output, supports single-end/differential
Serial interface		RS-422, RS-644, TTL&LVTTL
Encoder interface		yes
Power supply	(V)	12-24, PoE
Max power consumption <sup>2</sup>	(W)	5.8

#### Compliance

Standards		GigE Vision, GenICam
Client software		OECS or other GigEVision software
Operating systems		32/64-bit Windows XP/7/10
Warranty	(years)	1

#### Mechanical Specifications

Mount		M42x1 FD 12
Dimensions	(mm)	62 x 62 x 41
Clamping system		12x M4 threaded holes (on all sides)
Mass	(g)	280

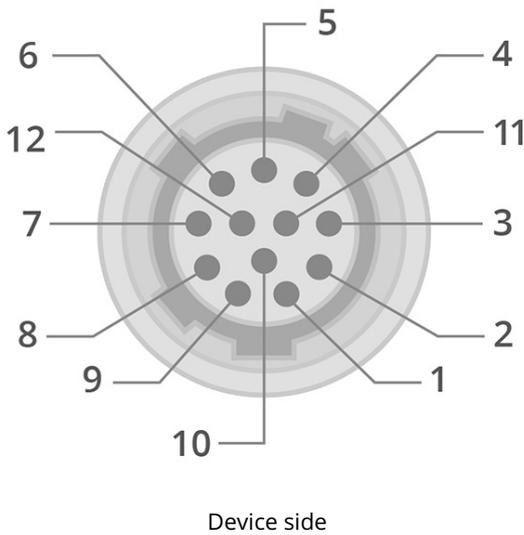
<sup>1</sup> Using image compression mode

<sup>2</sup> Measured at 12 VDC

**Environment**

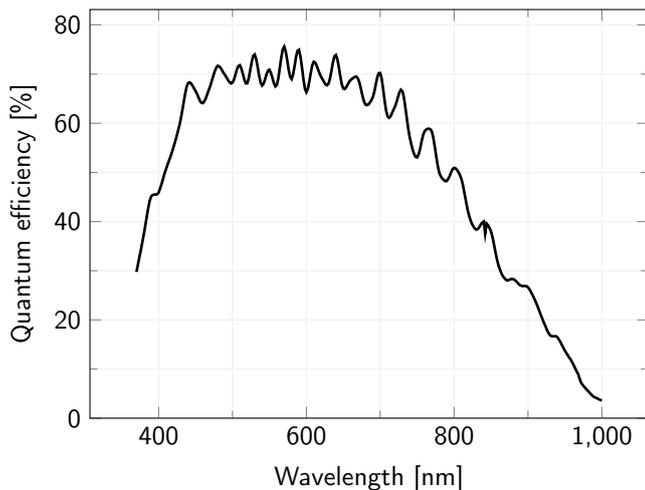
Operating temperature	(°C)	-20-+50
Storage temperature	(°C)	-30-+80
Operating relative humidity	(%)	20-80, non condensing
IP rating		IP30

**HIROSE PINOUT**



Pin	Signal	I/O Signal source	Description
1	GND	-	Power supply ground
2	DC_PWR	-	DC power supply positive
3	LINE0_P	Line 0+	Differential input/output IO 0+
4	LINE0_N	Line 0-	Differential input/output IO 0+
5	GND	-	Power supply ground
6	LINE3_P	Line 3+	Differential input/output IO 3+
7	LINE3_N	Line 3-	Differential input/output IO 3-
8	LINE4_P	Line 4+	Differential input/output IO 4+
9	LINE1_P	Line 1+	Differential input/output IO 1+
10	LINE1_N	Line 1-	Differential input/output IO 1-
11	DC_PWR	-	DC power supply positive
12	LINE4_N	Line 4-	Differential input/output IO 4-

**SENSOR QUANTUM EFFICIENCY**



**RECOMMENDED ACCESSORIES**

Opto-Engineering@ suggests the following accessories to power the camera:

- **CBETH003**, Ethernet cable, CAT6, industrial level, high flexible cable with screw, 5 m
- **CBGPI0001**, I/O cable, side 1 HIROSE 12 pin, side 2 cable end, 3 m
- **RT-POE15M-1AFE-R**, 15.4W Single Port Power-over-Ethernet IEEE802.3af Power Injector

**COMPATIBLE PRODUCTS**

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.