

# Proximity LineCamera Mini series

Line camera with integrated lens structure  
for use in continuous image capturing of flowing workpieces



Design Registration No.1429349

## Overview of LineCamera Mini Series

The LineCamera Mini Series consists of a compact black and white camera with built-in GRIN lenses. The sensor has 512/1,024/2,048 pixels, with a sampling rate of 40 MHz and pixel size of 14 x 14  $\mu\text{m}$ , designed to provide low-noise high sensitivity performance. The Camera Link output makes it perfect for various detection applications.

## Main Features of LineCamera Mini Series

1. Continuous capture of flowing workpieces
2. Compact design due to integrated lens
3. Captures at very close proximity
4. High-speed high-accuracy scanning

### Object for Inspection

Wafer Edges  
Web Edges  
High-Precision Dimensional Measurement  
Alignment Marks  
Other Flat Products

# High-speed high-accuracy scanning at close proximity Line camera with compact design due to integrated lens

## ■ Main Features of LineCamera Mini Series

### 1. High-Speed High-Accuracy Scan

- Pixels: Three types available with pixels of 512, 1,024 and 2,048
- Sampling rate: 40 MHz/20 MHz selectable
- Pixel size: 14 x 14 μm
- Exposure control

### 2. Captures at very close proximity

- Min. working distance of 17 mm
- Integrated lens design to save space
- Variable resolution due to horizontal binning

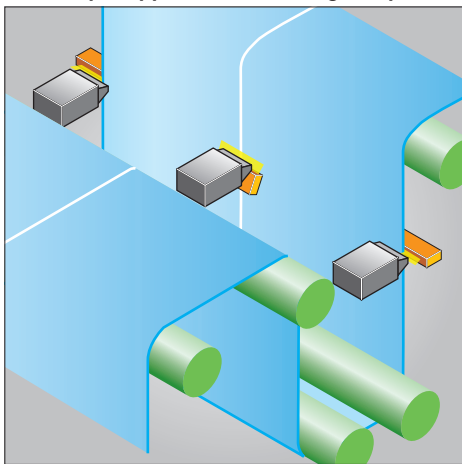
### 3. High Accuracy

- 1:1 erect capturing
- Pixel correction function (FPN, PRNU and contrast correction)

## ■ Product Specifications LCM-14M54 Series

Model No.	05CL	10CL	20CL
Pixels	512	1024	2048
Scan Width	7.17mm	14.34mm	28.67mm
Pixel Size	14x14μm		
Working Distance	17mm		
Power Input Connector	6pin, HR10-7P-6S (Hirose), 12 to 15V		
Dimensions	56 (W) x 50 (H) x 117 (D)mm (excluding connectors)		
Weight	350g		
Data Output Format	Camera Link(Base Configuration)		
Data Input/Output Connector	26pin, 10226-2200PE(3M)		
Max. Line Rate	66.6 KHz	36.0 KHz	18.7 KHz
Data Format	8/10/12 bit		
Gain and Sensitivity (12-bit conversion and excluding the lens)	2080DN/nJ/cm <sup>2</sup> (20dB), 832DN/nJ/cm <sup>2</sup> (12dB), 131.2DN/nJ/cm <sup>2</sup> (-4dB) 300V/lx·sec(20dB), 120V/lx·sec(12dB), 18.9V/lx·sec(-4dB)		
Signal Noise Ratio (at 0 dB gain)	850 : 1		
Anti-Blooming Output Saturation Voltage	1.1V		
Power Consumption	Approx. 5.4W		

## ■ Example Application: Web Edge Inspection

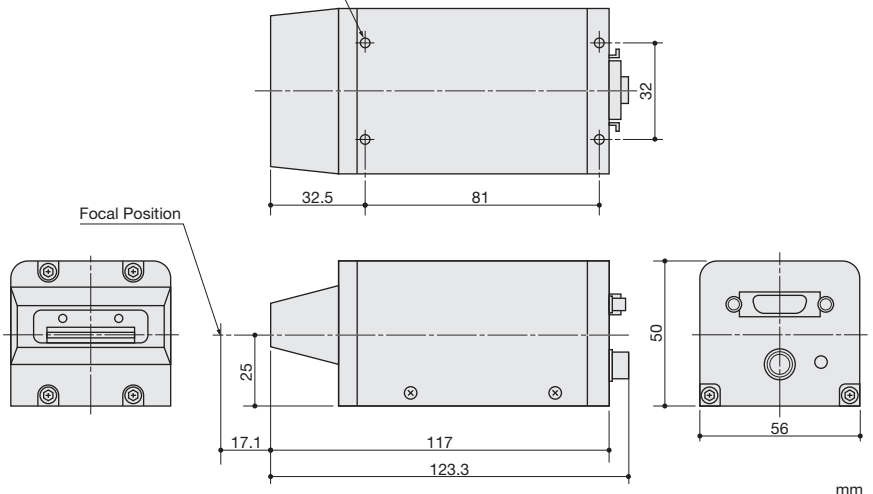


Available Soon

### High-Resolution Type **LCM-7M80CL**

Pixel Size: 7μm  
Scan Width: 57mm  
Line Rate: 35KHz

4-M3 screws, Depth: 5mm \*Mounting holes are the same size on top and bottom sides.



\* Specifications are subject to change without prior notice.