

HIGH SPEED HIGH SENSITIVITY LINESCAN IMAGERS FOR MACHINE VISION

MODULES AND OPTICAL RECEIVERS ■

P-Series CCD Linear Array

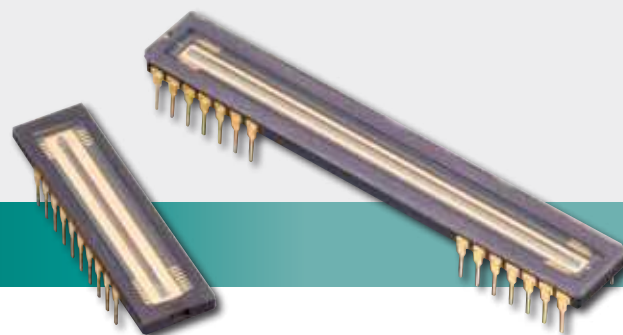
CCD Linear Imagers

Applications

- Web inspection
- Mail sorting
- Production measurement
- Position sensing
- Spectroscopy
- High speed document reading

Features and Benefits

- 2500:1 dynamic range
- Ultra-low image lag
- Electronic exposure control
- Antiblooming control
- Square pixels with 100 % fill factor
- Extended spectral range – 200–1000 nm



Product Description

Excelitas' P-series linear imager combines the best features of high-sensitivity photodiode array detection and high speed, charge-coupled scanning to offer an uncompromising solution to the increasing demands of advanced imaging applications. These high-performance imagers feature low noise, high sensitivity, impressive charge-storage capacity, and lag-free dynamic imaging. The 14 μm square contiguous pixels in these imagers reproduce images with minimum information loss and artifact generation, while their unique photodiode structure provides excellent blue response extending below 200 nm in the ultraviolet. These versatile imagers are available in array lengths of 512 to 4096 elements with either low-cost glass or UV-enhanced fused silica windows.

Technical Specification

P-Series CCD Linear Array

Part Number	Pixel Count Elements	Pixel Size μm	Number of Outputs	Spectral Response Range nm	Pixel Data Rate MHz	Dynamic Range	Horizontal Clocking typ.
RL0512P	512	14 x 14	1	200–1000	40	2500:1	2 σ @ 5 V
RL1024P	1024	14 x 14	1	200–1000	40	2500:1	2 σ @ 5 V
RL2048P	2048	14 x 14	1	200–1000	40	2500:1	2 σ @ 5 V
HL2048P	2048	14 x 14	2	200–1000	80	2500:1	2 σ @ 5 V
HL4096P	4096	14 x 14	2	200–1000	80	2500:1	2 σ @ 5 V

Technical Specification

Quantum Efficiency

