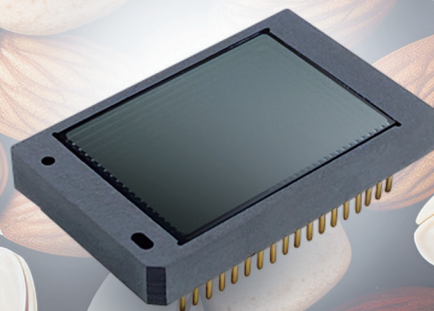
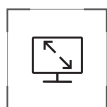




RL01K1-C0

Short-Wave Infrared Linear Array Detector

The short-wave infrared linear array is based on advanced InGaAs sensor technology, with an array size of 1024×1 , a pixel pitch of $12.5\mu\text{m}$, and a response spectrum range of $0.9\text{--}1.7\mu\text{m}$. This linear array detector uses a TECless ceramic package and features high resolution, high line rate, low noise, and SWaP (Size, Weight, and Power) characteristics. It can be widely used in applications such as agricultural product sorting, resource recycling, industrial sorting, photovoltaic inspection, and machine vision.



High Resolution



High Sensitivity



Compact and
Low Power
Consumption



Line Frequency
Up to 36kHz

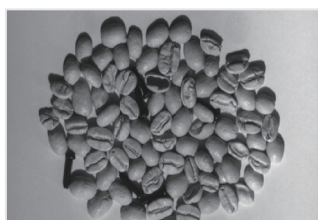


Wide Dynamic
Range

Product Imaging



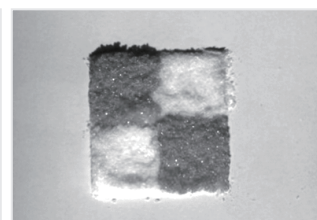
Coffee Beans and Impurities
(Visible Light)



Coffee Beans and Impuri-
ties (Short-Wave)



Sugar and Salt (Visible
Light)



Sugar and Salt
(Short-Wave)

Specifications

Product Model	RL01K1-C0
Sensor	InGaAs
Spectral Response Range	0.9~1.7μm
Quantum Efficiency	>70%(1.0~1.6μm)
Optical Fill Factor	100%
Pixel Pitch	12.5μm
Area Array Size	1024×1
Effective Pixel Rate	≥99.8%
Maximum Output Line Frequency	36kHz
Readout Mode	ITR, IWR
Minimum Integration Time	15μs
Readout Noise (Typical)	≤50e@ 1~36kHz,20°C
Optional Gain	≥4 level
Average Pixel Dark Current	≤200ke/s@20°C
Operating Power Consumption	≤200mW
Signal Output Swing	1.9±0.1V
Dynamic Range	≥58dB
Response Inhomogeneity	≤5%, non-corrected
Packaging Type	PGA ceramic packaging (TECless)
Overall Dimensions (Excluding pin size)	28.91mm×18.64mm×4.0mm
Device Weight	8±2g
Operating Environment Temperature	-20°C~+50°C
Storage Environment Temperature	-40°C~+60°C

Applications



Resource Recovery



Grain Sorting



Photovoltaic Inspection



Machine Vision

Company Profile

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