

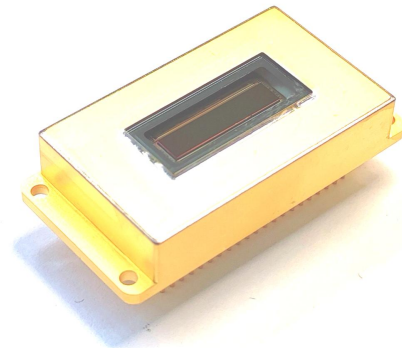
Overview

InGaAs 1024×1/12.5μm Linear Scanning detector provides 2- output channels analog video, The response waveband is 0.9μm ~ 1.7μm (which can be extended to 0.4 μm) , With high frame rate(The maximum line frequency is above 30kHz), high linearity and response uniformity. The peak quantum efficiency is greater than 70% and the effective pixel rate is more than 99.5%.

The detector is packaged with 42pin metal shell, with pin diameter of 0.45mm, spacing of 1.27mm and operation temperature range of - 40 °C ~ + 70 °C.

Features

1. Short wave infrared (0.9um ~ 1.7um) InGaAs linear scanning detector
- 2.1024(H) × 1 (V) Pixel size
- 3.12.5×12.5 μm/ 12.5×80 μm pixel spacing
- 4.DIP 21 × 2pin metal shell package
- 5.Two output channels of analog video
6. Effective pixel rate: > 99.5%
7. Quantum efficiency :> 70%
8. Built in Tec thermoelectric cooler



APPLICATIONS

1. Industrial / agricultural testing
2. Spectral analysis
3. Semiconductor testing
4. Medicine and Biology
5. Satellite remote sensing

1. Main technical parameters

Table 1 Technical Parameters

| Technical parameter | Value |
|--------------------------|---|
| Number of pixels | 1,024 × 1 |
| Pixel center distance | 12.5μm × 12.5μm/12.5μm × 80μm |
| spectral response | 0.9 μm-1.7 μm(which can be extended to 0.4 μm) |
| Packaging form | 42 pin dip metal shell package (ceramic package optional) |
| Outline size | 38mm × 41.9 mm × 7.8 mm |
| Pixel operability | ≥99.5% |
| Peak quantum efficiency | ≥ 70% |
| Non-uniformity | <6% |
| Channel gain capacitance | 16 stalls, 6.4fF to 2.1pF |
| Analog output range | 1.8V (design value) |
| Integration/readout mode | Snapshot, integral readout (ITR), integral simultaneous readout (IWR) |
| Data output rate | Typical value: 18MHz, up to 22 MHz |
| LineScan rate | ≥30kHz |
| Minimum integration time | 5μs |
| Power supply | 3.6V ±0.05V |
| Power dissipation | < 300mW(1024×1) |
| Operation temperature | - 40 °C ~ + 70 °C |
| Storage Temperature | - 45 °C ~ + 80 °C |
| Refrigeration mode | Tec thermoelectric cooler |
| Weight | ≤16g |