

SPECTRA L06P

640×512 Uncooled LWIR Module

Overview

640×512/12 μm uncooled infrared sensor + professional imaging readout circuitry + proprietary image processing algorithms = Spectra L06P. The highly reliable infrared detector collects more target information, while the professional hardware platform and image algorithms ensure clear imaging. A wide range of industry-standard interfaces and the full lens lineup comprehensively meet your individual night-vision observation needs.



640×512

RESOLUTION



12 μm

PIXEL PITCH



<40 mK

NETD



44.5×44.5×36.6 mm

DIMENSIONS

Key Features

Sharp, Clear Imaging

- 640×512 resolution with a wide field of view
- 12 μm small pixel pitch for high spatial resolution and long-range detection

Plug and Play, Easy Integration

- Standard 50-pin connector with multiple expansion boards
- Comprehensive SDK library with continuous iteration and optimization

Multiple Expansion Accessories

- USB 3.0 / VPC / CameraLink / HDMI / Gig-E network interfaces
- Suited to a variety of demanding environments

Typical Applications



Thermometry Inspection



Security Monitoring



Night Vision Observation



Epidemic Prevention
Healthcare



Technical Specifications

Detector Performance

Resolution	640×512
Pixel Pitch	12μm
Spectral Band	8~14μm
Typical NETD	<40mk

Image Processing

Frame Rate	9Hz/25Hz/30Hz/50Hz
Boot-up Time	10 s
Analog Video	PAL/NTSC
Digital Video	RAW/YUV/BT656/LVDS
Expansion Modules	USB/VPC/Cameralink/Gig-E
AGC	Linear / histogram / hybrid
Digital Zoom	1–8× stepless zoom, step 1/8
Image Display	Black-hot / white-hot / pseudo-color
Image Orientation	Horizontal / vertical / diagonal flip
Image Algorithms	NUC, adaptive AGC, intelligent image enhancement (IDE)

Electrical & Interfaces

Standard Connector	50-pin HRS
Communication	RS232-TTL, 115200bps
Operating Voltage Range	4~6V
Typical Power	1.4W

Physical

Dimensions (mm)	44.5×44.5×36.6
Weight	85g±3g

Environmental

Operating Temp.	-40°C ~ +70°C
Storage Temp.	-45°C ~ +85°C
Humidity	5%~95%, non-condensing
Vibration	Random vibration 5.35 grms, 3 axes
Shock	Half-sine 40 g / 11 ms, 3 axes 6 directions

Lens Options

13 mm fixed	FOV 32.9°×26.6° · IFOV 0.92 mrad DRI (est.) 920/310/150 m
19 mm fixed	FOV 22.9°×18.4° · IFOV 0.63 mrad DRI (est.) 1300/450/220 m
24 mm fixed	FOV 18.2°×14.6° · IFOV 0.5 mrad DRI (est.) 1700/570/280 m

D/R/I: estimated detection / recognition / identification range (m), Johnson criteria at 50% probability, standard human target 1.7 m × 0.5 m; actual range varies with scene and target.

Specifications subject to change without notice.

Rev. 1.0 · September 2026