

SPECTRA L12N

1280×1024 Uncooled LWIR Network Imaging Module

Overview

Spectra L12N is a high-performance, high-accuracy thermal imaging module for general IP networks. Combining megapixel infrared imaging with IP networking, it supports a wide range of standard network protocols and ships with a rich, easy-to-use SDK. Compact and small, with smooth imaging and high-definition picture quality, it is ideal for integration into security monitoring, industrial inspection and other high-end terminals that require online network support.



1280×1024

RESOLUTION


12 μ m

PIXEL PITCH


 ≤ 30 mK

NETD



50×50 mm

DIMENSIONS

Key Features

HD Imaging, Sensitive Perception

- 1280×1024 full-array thermal data output
- Stream rate up to 50 Hz for smooth, stutter-free imaging

Broad Compatibility, Always Online

- Supports common network protocols including TFTP, RTP, RTCP, RTSP, ONVIF, DHCP, GB/T 28181, UPnP and NTP

On-Board Storage, Easy Development

- Supports 32 GB on-board storage
- Windows / Linux SDK

Typical Applications



Security Monitoring



Outdoor Night Vision



Industrial Inspection



Machine Vision



Technical Specifications

Detector Performance

Sensitive Material	Vanadium oxide (VOx)
Resolution	1280×1024
Pixel Pitch	12μm
Spectral Band	8μm ~14μm
Typical NETD	≤30mK

Image Processing

Effective Pixels	640×512
Stream	25Hz/30Hz/50Hz
Video Encoding	H.264/H.265/MJPEG
Bit Rate	100 K–8 Mbps configurable
Image Coding	JPEG
Boot-up Time	≤10s
Digital Video Format	YUV420
Image Algorithms	NUC/DRC/DNS/DDE/SFFC
Image Display	10 (white-hot / lava / iron-red / hot-iron / medical / arctic / rainbow-1 / rainbow-2 / red-trace / black-hot)

Protocols & Storage

Network Protocols	TFTP, RTP, RTCP, RTSP, ONVIF, DHCP, GB/T 28181, UPnP, NTP
Storage	32G EMMC
SDK / API	Windows / Linux

Electrical Interfaces

Standard Connector	12PIN(A1257WV-S-12P)+RJ45
Communication Interface	RS-232 / RS-422 / RS-485 (PELCO-D), 4800 bps
Network	100M / 1000M Ethernet

Power Supply

Supply Range	DC 9–15 V; PoE
Typical Power	3W@23±3°C

Physical / Lens

Bare Dimensions (mm)	50×50 mm (≤50 mm lens); 68×69 mm (>50 mm lens)
Lens Configuration	Athermal fixed-focus: 14 / 19 / 25 / 35 mm, 50 / 100 mm Motorized focus: 75 / 100 / 150 mm Continuous zoom: 15–100 / 25–75 / 28–90 / 30–180 / 25–225 / 30–300 mm
Shock	Half-sine 40 g / 11 ms, 3 axes
Vibration	5.35 g random vibration, 3 axes 6 directions
Ingress Protection	Window IP67

Environmental

Operating Temp.	-40°C ~ +70°C
Storage Temp.	-45°C ~ +85°C
Humidity	5%–95%, non-condensing

Certifications

RoHS / REACH	ROHS2.0/REACH
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Specifications subject to change without notice.

Rev. 1.0 · September 2026