열화상 듀얼 카메라

HK Series



LYNRED PICO384 & PICO640 – Proven Thermal Imaging Performance

Trusted Thermal Detectors for Defense & Industrial Applications

LYNRED's PICO384 and PICO640 are widely recognized thermal imaging detectors, offering proven performance and reliability across a broad range of applications.

Ideal for detecting people and objects in challenging environments, including complete darkness, smoke, and adverse weather conditions. Widely used in thermal weapon sights (TWS), industrial and short-range thermal surveillance, human and livestock temperature screening, and continuous temperature monitoring.

Exceptional Thermal Sensitivity (NETD < 30 mK)

Detects extremely small temperature differences with outstanding precision, delivering sharp thermal contrast between objects and their surroundings.

Enables effective thermal imaging even in challenging weather conditions, such as fog and rain, subject to environmental limitations.

TECless & Shutterless Optimized Solution

Designed for ultra-low power consumption without the need for a Thermoelectric Cooler (TEC).

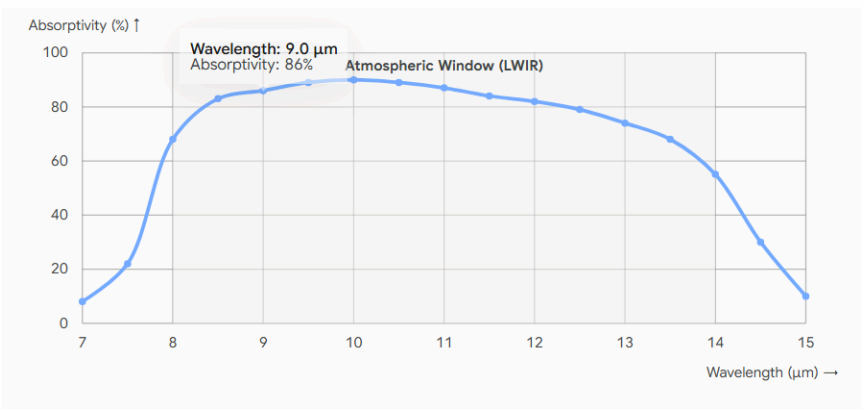
- **PICO384: < 200 mW**
- **PICO640: < 130 mW**

Fast startup and advanced image correction algorithms enable smooth, uninterrupted real-time thermal monitoring without mechanical shutter interruptions.

Military-Grade Reliability (MIL-STD-810 / MIL-STD-883)

Designed for demanding defense applications, including tactical equipment and Thermal Weapon Sights (TWS).

Engineered to withstand shock, vibration, and extreme temperatures, supporting reliable performance in harsh operating environments.



Application

- Machine Vision
- Automotive & Mobility
- Environmental Monitoring(환경 모니터링)
- Military Equipment(국방 장비)
- Electrical Inspection(전기설비 진단)
- Early Fire Detection(초기 화재감지)
- UAV & Robotics(드론 / 로보틱스)
- Security & Surveillance(보안 및 감시)
- Electrical, Battery & EV Charging Station Thermal Inspection(전기/밧데리/충전소)
- Industrial Inspection & Preventive Maintenance(산업 시설 예방 및 진단)

SPECIFICATION

	HK384 SIP	HK640 SIP	HKs640 SIP
Sensor Information			
Sensor	Lynred PICO384	Lynred PICO640	Lynred ATTO640
Simplified image processing	TECless, Shutterless		
Technology	a-Si microbolometer		Vox microbolometer
Spectral response	8 - 14µm(LWIR)		
Pixel Pitch	17µm		**12µm**
Focal Plane Array	394 x 288	640 x 480	
NETD	<40mK, (f/1, 300K, 50Hz)	<40mK (f/1, 300K, 30Hz)	
Interfaces			
Ethernet	Giga Ethernet(10/100/1000Mbps)		
Protocol	RTSP		
Frame rate	30fps		
Radiometric			
Type	Fully radiometric for all pixels		
Image Correction	Human Body Temperature 20 ~ 40°C (** especially applied to HK380 / HK384DIP / HK640DIP)		
	Low temperature : -15°C ~ 120°C		
	High Temperature : 0 ~ 500°C		
Image Correction	±0.2 w/Ref. Blackbody for Human Body Temperature Monitoring		
	±1°C or 1% at 25°C of ambient temperature		
	±2°C or 2% at 15~30°C of ambient temperature		
Electrical Interface			
Input Voltage	DC12V or PoE		
Power Consumption	<5.5W	<6.5W	<6W
Environmental Conditions			
Operation Temperature	-10°C ~ 40°C		
Operation Relative Humidity	maximum 80% non-condensing		
Storge Temperature	-40°C ~ 85°C		
Storage Relative Humidity	maximum 80% non-condensing		
Mechanical Interface			
Size (H x V x D)	63 x 63 x 66.09mm		
Weight	345g (without Lens)		
Power connector	6-pin threaded Hirose Mating connector part# HR10A-7R-6PB(73)		

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