LWIR(열화상)
UDP Series



LYNRED PICO384 & PICO640 – Proven Thermal Imaging Performance

Reliable Thermal Detection Across Diverse Applications

LYNRED's PICO384 and PICO640 are widely adopted thermal imaging detectors, recognized for their proven performance and reliability. They are ideal for detecting people and objects in challenging environments, including complete darkness, smoke, and adverse weather conditions.

These detectors are well suited for military thermal imaging, industrial and short-range 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 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 imaging without mechanical shutter operation.

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

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

	DE384 F60 IPE	DE640 F60 IPE	DEs640 F60 IPE
Sensor Information			
Sensor	Lynred PICO384	Lynred PICO640	Lynred ATTO640
Technology	Amorphous Silicom(a-Si) microbolometer		Vox microbolometer
Simplified image processing	TECless, Shutterless		
Spectral Response	8 - 14µm(LWIR)		
Pixel Pitch	17µm		**12µm**
Focal Plane Array	384 x 288	640 x 480	
NETD	<40mK, (f/1, 300K, 50Hz)	<40mK (f/1, 300K, 30Hz)	<40mK (f/1, 300K, 30Hz)
Interfaces			
Ethernet	Giga Ethernet(10/100/1000Mbps)		
Protocol	OZRAY own proprietary		
Frame rate	60fps	60fps	60fps
Radiometric			
Type	Fully radiometric for all pixels		
Measurement mode	Low Temperature : -15 ~ 120°C		
	High Temperature : 0 ~ 500°C		
Temperature Accuracy	±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	<5W	<6W	<4.5W
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 (W x H x D)	56 x 56 x 55mm		45 x 45 x 59.5mm
Weight	233g (without Lens)	243g (without Lens)	193g (without Lens)
Power connector	6-pin threaded Hirose Mating connector part# HR10A-7R-6PB(73)		

Tel. +82-2-863-3137 **Mail.** sales@ozray.co.kr **Web.** www.ozray.co.kr
D-#1514, GwangMyung SK Technopark, 60, Haan-ro, GwangMyung-si, Gyeonggi-do, Korea

OZRAY
Beyond the Boundaries of Light
OZRAY Co., Ltd. KOREA (Headquarters)