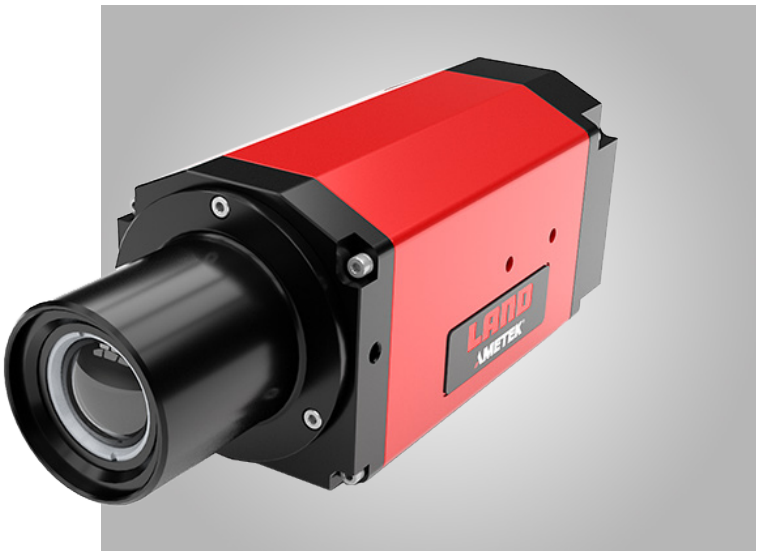


LWIR-640

Thermal imaging solutions

Designed for use in harsh industrial and environmental conditions, the LWIR-640's smart, Industry 4.0 capabilities, bi-direction digital interfaces and on-board I/O provide reliable and robust, real-time thermographic measurement and imagery in industrial processes.

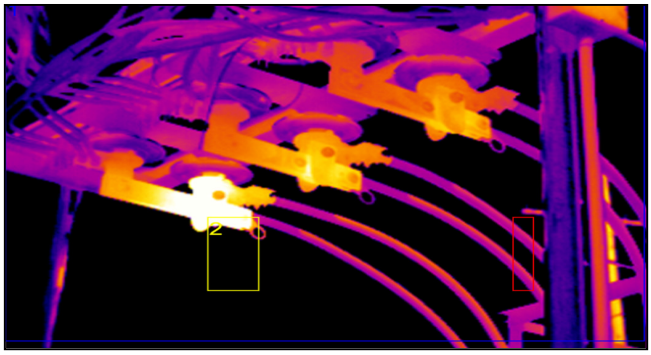
It provides temperature measurements between -20 and 1000 °C (-4 to 1832 °F) in three ranges with a choice of different optics and lenses. An integrated webserver enables the camera to be used autonomously or easily integrated into new or existing process control systems.

The LWIR-640 measures and streams live true-temperature images at up to 60 frames per second, providing high-precision temperature measurements and thermal profiles to continuously control, document, and visualise industrial processes.

The pixel resolution of 640 x 480 pixels and the high thermal resolution deliver uniquely clear and detailed thermal images and videos, at up to 60 Hz frame rate.

The IMAGEPro software is a Windows PC software system that enables custom configuration of LAND imagers and offers advanced analysis and visualisation of temperature data, with the ability to monitor and control up to sixteen imagers.

LWIR-640 is a highly accurate long-wavelength infrared thermal imager for a range of industrial applications.



FEATURES & BENEFITS

- **Industrial thermal imager** for use in harsh environmental conditions, providing continuous and reliable temperature measurements.
- **Extensive accessories available -** Hazardous area option for use in Zones 1 and 21 for cooling and protection.
- **High-quality thermal images** with 640x480 pixel sensor.
- **Excellent homogeneity** for accurate temperature measurements in all parts of the image.
- **Integrated web server** allows for easy access for remote configuration, I/O setup and image monitoring setup via any web browser.

See degrees differently.

SPECIFICATIONS

	LWIR-640
IMAGER UNIT	
Measurement Range:	-20 to 120 °C / -4 to 248 °F 0 to 500 °C / 32 to 932 °F 100 to 1000 °C / 212 to 1832 °F
Pixel Resolution:	640x480
Detector:	Uncooled mirobolometer
Spectral Response:	8 to 14 µm
Max Frame Rate:	60 fps* / 7.5 fps
Optic (HFOV x VFOV):	50° x 37 ° / 25° x 19° / 12° x 9° / 6° x 4°
Pixel Size / Pitch:	17 µm
Focus Range:	0.3 m to infinity (motorised focus) – (25° & 50°) 0.75 m to infinity (motorised focus) – (12°) 10 m to infinity (motorised focus) – (6°)
Accuracy:	1.5 %K
NETD:	40 mK @ 20 °C (-20 to 120 °C range, 7.5 Hz frame rate)
Dimensions:	80 x 80 x 222 mm (max) / 3.14 x 3.14 x 8.7 in (including lens)
Power Rating:	12 to 24 V DC, +/-10% 12W / IEEE 802.3 at PoE+
Weight:	1.6 kg / 3.5 lbs
Ambient Temperature:	-20 to 60 °C / -4 to 140 °F (0 - 95 % humidity, non-condensing)
Environmental Rating:	IP66/ NEMA 4
Compliance:	EMC (EN 61326-1)
CONNECTIVITY AND SERVICES	
Digital Connections:	M12 X coded 8way connector: 10/100/1000 Ethernet & IEEE 802.3 at PoE+
Analog Connections:	8 pin connector: 2pins - 12-24V DC power input 6 pins functions can be assigned to internal image processing algorithms 1 x 4 -20 mA output 1 x 4 -20 mA output OR relay output 1 x 4 -20 mA input OR digital input OR relay output Camera web browser for alignment & internal image processing analog I/O setup
Signal-LED:	3 x LED - Power / Status, Ethernet Comms & Camera internal temperature
Service:	Water, instrument air for optional cooling enclosures
SMART FUNCTIONALITY	
Integrated Webserver:	Remote access via Gbit ethernet interface Integrated webserver provides live thermal image
Autonomous Operation:	3 ROIs and configuration of integrated I/O's for full autonomous operation
THERMAL IMAGING PSU MODULE	
Components & Connections:	Power supply, Gbit Ethernet communications (switch)/ IEEE 802.3 at PoE+, Fibre optic data connection
Environmental Rating:	IP65 / NEMA 4
Size:	380 x 380 x 211 mm / 15 x 15 x 8.3 in
Weight:	15 kg / 33.07 lbs
IMAGE PROCESSING	
Integrated Webserver:	Integrated webserver accessible via standard web browser
Software:	IMAGEPro, IMAGEPro Application Specific
Workstation:	PC-Workstation (option)
Interfacing:	Open Data Interface, Modbus TCP, Moxa I/O unit
STANDARD ACCESSORIES	
Accessories (optional):	Power Supply, Industrial Housing and Purge, Light Housing with Purge, Cables, Brackets, Blower System, Software and Workstation

MARCOMS_DOC-0019 LWIR-640 Brochure Rev 2 EN