



Enhance Temperature Visibility

# PREDATOR 360



## System Overview

PREDATOR 360 is a Thermal + Visual camera based Thermal Hot-Spot detection and monitoring system. This is a 24/7 surveillance capable system which can be installed in critical zones like Substations, Coal Yards, Large Server facilities, Militarized zones etc.

## Features

- A Real time Thermal and Visual surveillance based system with IP66 Protection.
- Detects and Analyze Hot-Spots round the clock.
- Automatic 360° Pan , -90° to 45° Tilt & Digital zoom features.
- Customizable and feature rich Predator 360 InfraView™ Software.
- ROI (Region of Interest) selection and display ROI computed temperature.
- Stores frame data for inspection and study purpose later.
- Automatically saves data and send alerts when any Alarm against ROI is generated.
- On-site Server Integration.
- Weather proof Military grade Hardware for Long Life and Reliable operation. Also, this system includes Heater and wiper arrangement.

## Technical Specification

Dimensions	: 305(W) x 570(L) x 505(H) with Sunvisor Installed
Weight	: Under 15kg
Power	: DC48V, 7A
Heater Operating Temp.	: Under 15° C
Glass Heat Operating Temp.	: Under 30°C
Fan Operating Temp.	: Always on
Power Consumption	: Max
Operating Temperature/ Humidity:	-30 °C ~ 50 °C / Under 90%
Driving System	: Worm Gear Driving
Rotation Angle	: Pan) 360° Endless / Tilt) -90° ~ 45°
Rotation Speed (MAX)	: Pan) 60°/sec / Tilt) 25°/sec
Rotation Speed (Min)	: Pan) 0.025°/sec / Tilt) 0.025°/sec
Protocol	: KEVIS, Samsung-T/E, Pelco-D/P
PRESET	: 255 (Max 60°/sec) *Number of presets limited according to Protocol
SCAN/GROUP	: 8 / 4
Load Weight	: Max 30Kg
Power	: DC 48, Max. 7A(Heater ON, PT Moving), 0.6A (Stand-by)
Power Consumption	: Max 240W
Digital Output	: RS-485/422 (Controller), RS-485 x 2ch (Housing)
Ingress Protection	: IP66
Output	: Ethernet

## Thermal Camera Specification

### LTE 384

Detector Data	
Type	Uncooled FPA detector
IR Resolution	384x288
Pixel Pitch	17µm
Spectral Range	8 - 14µm
NETD	<40mK@f1.0, 30Hz 300 K
Frequency	25Hz
Lens Data	
FOV	30.4° x 23.1°
Focus	Motorized
Lens Type	4.8 mm to 300mm lenses, manual / motorized focus, zoom
Image & Temperature Measurement Performance	
E-zoom	2x, 4x
Temp. Measurement Range	-20°C - 120°C 0°C - 500°C (Switchable)
Accuracy	±2°C or ±2% of reading
Temp. measurement calibration	Auto
Hot Spot Tracking	Real time display of hot spot location and temperature values
Setting	Date/Time, °C/°F K, language
Emissivity Correction	0.01 to 1.0 adjustable; correction by predefined transmission table
Background temperature correction	Auto, according to the background temperature input
Optical filter/Window transmittance correction	Correction according to the transmittance table
Atmospheric transmittance correction	Auto, according to the reflecting ambient temperature, distance, relative humidity and ambient temperature input
Color Palettes	12 types including white hot, black hot, iron red, rainbow
Data Storage	
Image	BMP/JPG format
Video	AVI format
Report Generation	Word format, customization possible
Power System	
Network Interface	100M ethernet, Rj45 interface, temperature data transmission
CVBS interface	Analog video output, offering ground observation information
Power interface	DC12V
I/O	4 Analog O/P & 4 Digital I/O (Optional)
Power Consumption	4W
Environmental Data	
Operation Temp. Range	-10°C ~ +60°C
Storage Temp. Range	-40°C ~ +70°C
Humidity	≤ 95% (non-condensing)
Encapsulation	Ip54 (IEC60529)
Shock	25G, IEC60068-2-29
Vibration	2G, IEC60068-2-6
EMC	CE/FCC
Physical Data	
Weight	290g without lens
Size	92 x 62 x 52 mm without lens
Mounting	UNC 1/4" -20 standard mount, M3 thread
Packing	
Standard	Thermal Imaging camera (w/12mm lens) Integration cable, Software CD-ROM, Warranty card, registration card, Calibration certificate, Packing kit

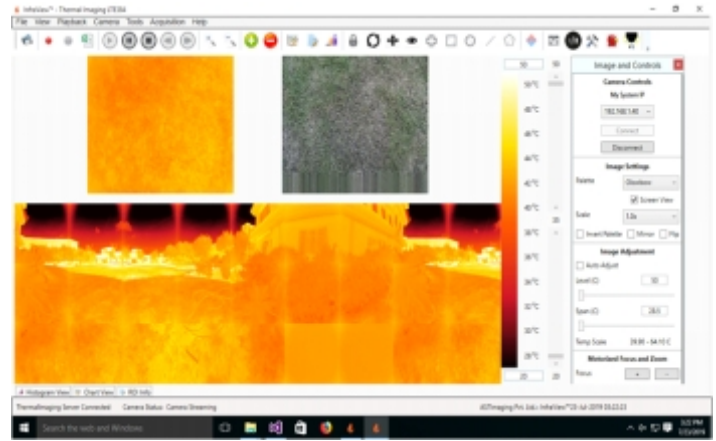
### LTE 640

Detector Data	
Type	Uncooled FPA detector
IR Resolution	640 x 480
Pixel Pitch	17µm
Spectral Range	8 - 14µm
NETD	<40mK@f1.0, 30Hz 300 K
Frequency	30Hz
Lens Data	
FOV	48.8° x 37.6°, 30.4° x 23.1°, 17.7° x 13.3°
Focus	Motorized
Lens Type	4.8 mm to 300mm lenses, manual / motorized focus, zoom
Image & Temperature Measurement Performance	
E-zoom	2x, 4x
Temp. Measurement Range	-20°C - 120°C 0°C - 500°C (Switchable)
Accuracy	±2°C or ±2% of reading
Temp. measurement calibration	Auto
Hot Spot Tracking	Real time display of hot spot location and temperature values
Setting	Date/Time, °C/°F K, language
Emissivity Correction	0.01 to 1.0 adjustable; correction by predefined transmission table
Background temperature correction	Auto, according to the background temperature input
Optical filter/Window transmittance correction	Correction according to the transmittance table
Atmospheric transmittance correction	Auto, according to the reflecting ambient temperature, distance, relative humidity and ambient temperature input
Color Palettes	12 types including white hot, black hot, iron red, rainbow
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Image	BMP/JPG format
Video	AVI format
Report Generation	Word format, customization possible
Power System	
Network Interface	100M ethernet, Rj45 interface, temperature data transmission
CVBS interface	Analog video output, offering ground observation information
Power interface	DC12V
I/O	4 Analog O/P & 4 Digital I/O (Optional)
Power Consumption	4W
Environmental Data	
Operation Temp. Range	-10°C ~ +60°C
Storage Temp. Range	-40°C ~ +70°C
Humidity	95% (non-condensing)
Encapsulation	Ip54 (IEC60529)
Shock	25G, IEC60068-2-29
Vibration	2G, IEC60068-2-6
EMC	CE/FCC
Physical Data	
Weight	290g without lens
Size	92 x 62 x 52 mm without lens
Mounting	UNC 1/4" -20 standard mount, M3 thread
Packing	
Standard	Thermal Imaging camera LTE 640(w/20mm lens) Integration cable, Software CD-ROM, Warranty card, registration card, Calibration certificate, Packing kit

## Software Description

Predator-360 has a thermal image processing and Movement controlling software Predator-360 InfraView™ at the core of a thermal imaging system which is customizable with Client-Server Architecture for catering to multiple clients at the same time. The modular windows software INFRAVIEW can be configured / customized to cater to application /solution requirements.

Predator-360 InfraView™ Software allows you to control the camera to record, view, manipulate and store the captured video / image as well as measured temperature data. This real time software allows simple and fast parameterization for documentation of the temperature data for optimizing process control.

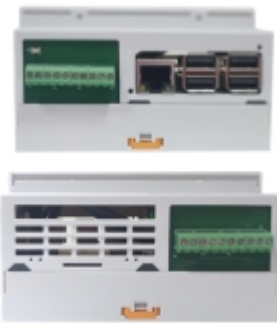


## Special Features

- Displays Real-time Video (Visual + Thermal)
- Real Time hot spot detection
- Generate Alarms as hot spot is detected
- Digital Zoom In/out function
- Region of Interest

- Live and History Mode
- Hot Spot Trending Analysis & report generation
- Storing video in RAW/MP4 format (Optional)
- SMS/Email Alerts

## I/O Module



DIN RAIL Mounted I/O Module  
(Ref No. 8900-07)

An I/O module acts as an interface between computer and thermal camera. The I/O module provides analog and relay outputs with respect to temperature. These outputs can be customized for temperature indication, alarm generation or error reporting.

- All I/O are user settable for range and ROI selection
- 4 analog outputs 4-20mA
- 2 Relay Outputs
- 2 Isolated Digital Inputs for triggering
- I/O can be customized according to user requirement
- I/O works on Ethernet
- Din rail Mounting for Easy Installation

## PC Specifications

**Processor :** Intel i7 8th Generation for Standard PC or Intel Xeon series for server grade PC

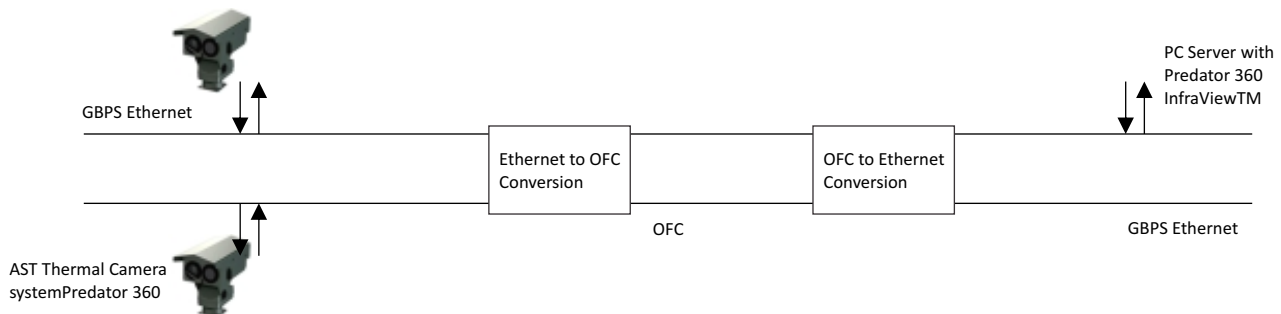
**RAM :** 32 GB or higher

**GPU :** 2 GB or higher

**HDD :** 2 TB or higher

**Operating System :** Windows 10

## Typical Configuration with PC



## INDIA

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