

NOPTIC®

NOPTIC Thermal Imager Summary

Phone: 888-NOPTIC-1
Website: www.noptic.com



Made in USA

Technical

The NOPTIC Spotlight System utilizes passive infrared uncooled micro bolometer sensor technology. The following is a technical summary of the camera.

NOPTIC System Configurations

7.5 Hz	30 Hz
P/N: 628497501 – with Halogen Bulb	P/N: 628497500 –with Halogen Bulb
P/N: 628497511 – with LED Bulb	P/N: 628497510 - with LED Bulb

Nominal NOPTIC System Power Consumption

Component	Current Consumption
NOPTIC System (Heater Off)	300mA @12V (excludes Lamp)*
NOPTIC System (Heater On)	700mA @12V (excludes Lamp)*

*System current consumption excludes lamp current consumption, reference lamp manufacture for further details.

7.5Hz and 30Hz Features & Specifications for NOPTIC Camera

Features	Specifications
IR sensor type	Passive Infrared Uncooled micro bolometer
IR spectral range	8 - 14 micrometer
IR sensitivity NE Δ T	<100 mK
Sensor array size	320 x 240 pixels
Horizontal Field of View (FOV)	24 degrees
Focus	Fixed to infinity
Video output	Composite (monochrome) video, NTSC compatible
Image polarity	White = Hot
Video Process	Video Conversion Box mounted inside the vehicle converts the camera signal into NTSC.
Supply Voltage	9 - 16V; Operating No function during cranking Protected against Over voltage, Jump start, Reverse battery
Operating temperature	-40°F to +176°F
Mounting provisions	"A" pillar spotlight
Humidity	95% Relative Humidity @ +150°F to +14°F
Altitude	Functional up to 3700 m @ +185°F Storage up to 12000 m @ -70°F
Enclosure resistance	High pressure cleaning Salt spray Solar radiation

Validation Testing

The NOPTIC Spotlight Camera meets Automotive OEM manufacturer specifications that are designed to simulate 10 years of harsh environmental exposure.

Test Description	Specifications
Temperature Cycle	<ul style="list-style-type: none"> -40°F to +176°F 35 cycles at 8 hours each cycle.
Low Temp Durability	<ul style="list-style-type: none"> -70°F for 72 hours.
Thermal Shock	<ul style="list-style-type: none"> -40°F to +176°F for 100 cycles. 30-second transition time. 60 minute dwell at each temperature.
Mechanical Shock	<ul style="list-style-type: none"> Half-sine pulse with 30g peak acceleration in x, y, and z direction. 5 shocks each direction.
Random Vibration &Temp Cycle	<ul style="list-style-type: none"> 8 hour/direction x, y & z direction. Temperature from -40°F to +176°F.
Thermal Shock with Splash Water	<ul style="list-style-type: none"> 100 cycles. Camera at +176°F splashed. +32°F water for 3 seconds each cycle.
Drop Test	<ul style="list-style-type: none"> 3 units dropped from 1 meter onto concrete floor. Two different directions/unit.
Hot Water Jet Test	<ul style="list-style-type: none"> +194°F water @ 1450 PSI. 4.5 gal/min. 30 cycles per accessible direction.
Salt Spray	<ul style="list-style-type: none"> 168 hours exposure to salt spray mixture.
Immersion test	<ul style="list-style-type: none"> Camera @ +176°F is submerged in water @32°F for 5 minutes. 20 cycles.
Humidity Heat cycle	<ul style="list-style-type: none"> Low temp is 14°F High temp is +150°F Relative humidity is 95% 6 cycles for Duration of 10 days.
Contamination	<ul style="list-style-type: none"> Expose unit to diesel fuel, engine oil, hydraulic oil, coolant, car wax, paint sealer, ammonia based glass cleaner, insect remover, tar remover, gasoline, and ethanol.

Operational Benefits

- **Conduct stealth surveillance with all vehicle lights off**
- **Record and view thermal video on your MDT**
- **Internal heater that automatically burns through ice on camera window**
- **Pan quickly using spotlight handle in vehicle**
- **Locate missing persons**
- **Spot vehicles that have recently been running**
- **Locate disturbed soil**
- **See tire tracks after accidents**
- **Find evidence after it has been tossed**
- **Secure perimeters**
- **Patented Design**
- **World-class technical support**

Side-by-side Comparison Photos:





Even with the spotlight it is hard to see the suspect hiding on the pier

Installation Support

1. **Technical and Installation Support:** A detailed installation manual is supplied with each camera. Estimated installation time is less than one hour. . Technical support is available for installers and end-users. Please dial our toll free phone number at 888-NOPTIC-1 or (888-667-8421).

