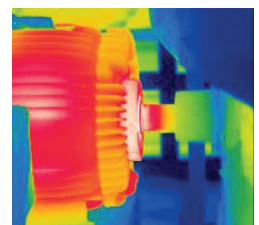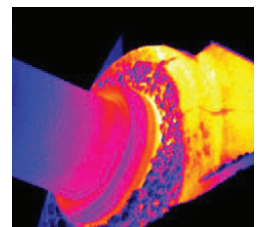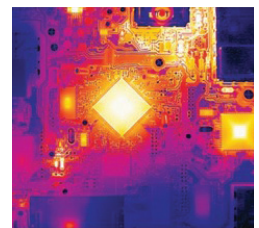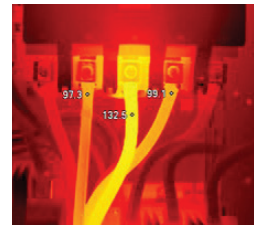# Uncooled Infrared Solutions

A68
Advanced Features.
Advanced Performance

The **A68** uncooled long wave infrared (LWIR) camera offers outstanding shutterless imaging performance and great flexibility in a very compact package. With a frontal form factor of 29 mm x 29 mm the camera can be integrated in tight spaces for compact solutions. The microbolometer-based platform covers wavelengths from 8-14 µm and offers a variety of lenses. With VGA resolution, standard GigE interface and state of the art on-board processing features serve a wide range of uncooled imaging applications in industrial settings.
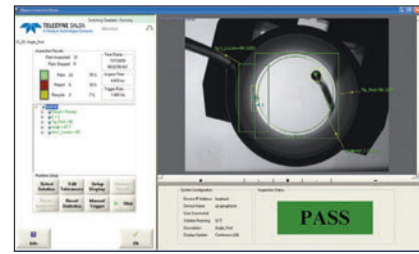
VICORE
Compact, Versatile Smart Vision
System for the Factory Floor

This versatile system offers excellent performance for inspection applications using traditional 2D imaging, thermal imaging, 3D imaging or a combination thereof. Its small, book style format consumes minimal cabinet space and provides convenient, front-accessible connections for cameras, I/O and system components. This includes a dedicated industrial Ethernet port that offers efficient communication with complementary factory devices using Ethernet/IP or Profinet.

iNspect Software
Machine Vision Made Simple

iNspect™ is a vision application software specifically designed to simplify the design and deployment of automated inspection on the factory floor. iNspect offers new and experienced users alike a practical tool delivering uncompromising functionality that can be readily applied to a wide range of manufacturing tasks.
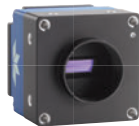
A68

KEY FEATURES

- 640 x 480 VGA resolution
- 17 µm square pixels
- 29 mm x 29 mm x 29 mm (body without lens mount)
- Compact modular design
- Rapid image output
- Adaptive Contrast Enhancement
- Shutter-less operation
- Supports analog, digital and GigE output
- Built-in Pseudo-color for enhanced visualization
- Made in Canada

GENERAL SPECIFICATIONS

- **Resolution:** 640 (H) x 480 (V) pixels
- **Frame Rate:** 30 fps; 502 fps (full frame size)
- **Spectral Response:** 8-14 µm (LWIR)
- **Pixel Size:** 17 µm
- **NETD:** ≤70 mK; F/1.0, at 30 fps, high gain mode
- **Lens Options:** 11 lens options: HFOV: 6.2° to 90°
- **Mass:** 38 g (without lens)
- **Operating Temp:** -40°C to 60°C
- **I/O Options Analog:** NTSAC, PAL, parallel digital2, GigE Vision
- **Lens Mount:** M34 & M25
- **Input Voltage:** 12/24 V DC (min 11 V, max 57 V)
- **Power Consumption (max):** 3.7 W
- **Operating Temperature:**
  Low Gain: -40°C to +60°C
  High Gain: -25°C to +50°C
- **Operating Relative Humidity:** 20% to 80% non-condensing

REGULATORY COMPLIANCE

- CE, FCC and RoHS
- MIL-STD 810G Compliant
  - Shock and vibration
  - Thermal Shock
- Subject to Canadian Export Regulations. A68 is categorized as a dual use item (group 1) under the Wassenaar Arrangement

VICORE

SPECIFICATIONS

- **Processor**
  Type
  1.8 GHz quad-core x7-E3950
- **Memory**
  Program: 4 GB @ 1866 MHz
- Storage: 32 GB
- **Software**
  OS: Win10 IoT
  Application: iNspect (-03 model)
  Sherlock 7 (-04 model)
  Sherlock 8 (-04 model)
- **Camera Ports**
  Interface: GigE PoE (x2)
- **I/O**
  General Inputs: 8 + 2 common pins
  Camera Inputs: 1 Trigger per camera
  General Outputs: 8 + 2 common pins
  Camera Outputs: 1 Strobe per camera
  LED Status: 1/0 + 3 user defined
  Encoder: 1x A, B & Z
- **Industrial Network**
  Hardware Port: 1 x 10/100 BaseT
  Protocols: Ethernet/IP & Profinet
- **Communications**
  Ethernet: 1 x GigE multi-use
  RS232: 1 Port
- USB 2.0 (x2) USB3.0 (x2)
- **Display**
  HDMI: 1 Port
- **Power**
  Type: 24 VDC @ 2A
  Connector: 3 pin Header
  Reset: Recessed button on side panel
- **Enclosure**
  Type: Painted Aluminum
  Cooling: Passive Heat Sink
  Mounting: DIN

iNspect Software

MACHINE VISION MADE SIMPLE

Intuitive User Interface
- Graphical point and click interface accessed via web browser or local keyboard and mouse
- Localized with different languages
- Easy camera, trigger and lighting setup via slider controls
- Versatile icon driven tool palette
- Flexible communication options
- Administration control and data logging
- Emulator for offline application development

Flexible Camera Solutions
- Multi camera compatibility offers low-cost per camera solutions. Standard license up to 4 cameras. Extended license up to 8 cameras.
- Supported by analog (via Vision Appliance), Firewire or GigE camera
- Flexible range of image resolution 640 x 480 to 1600 x 1200
- Mono or color imagers
- Synchronous and asynchronous part triggering
- One click color calibration

Robust Tools & Communication
- Simple click, apply and characterize setup
- Image preprocessors and calibration for image correction and translation
- Tools include: Search, ID & text reading, measuring, counting, feature finding, color verifying, bead and surface checks
- No limit to the number of tools that can be applied on each inspection
- Simple pass/fail tolerance setup
- Editing tools to quickly setup or modify complex applications with repetitive tasks

Factory Integration
- Supports digital I/O, Serial and Ethernet communications for interfacing 3rd party equipment
- Compatible with many standard protocols such as Modbus, ProfiNet, and Ethernet/IP
- Direct connect with Rockwell Automation Controllers
- Factory ready User Interface that can be locked down to prevent unauthorized access
- Visual Basic API for customers wishing to develop their own operator look and feel

TELEDYNE FLIR | PREMIUM PARTNER