

INFRARED IMAGING TECHNOLOGIES EXPERTS

SCD DETECTORS

PELICAN-D 15 μ m,
640x512 - VGA, MWIR
Up to 240Hz

KINGLET 15 μ m
640x512 - VGA, (HOT) MWIR
Up to 240Hz

HERCULES 15 μ m
1280x1024 - SXGA, MWIR
Up to 60Hz

BLACKBIRD 10 μ m
1280x1024 - SXGA, MWIR
Up to 60Hz

SOFRADIR DETECTORS

SCORPIO 15 μ m
640x512 - VGA MWIR / LWIR
Up to 240Hz

JUPITER 15 μ m
1280x1024 - SXGA MWIR
Up to 60Hz

IR CAMERAS CORES FOR EASY INTEGRATION

- + Fully customizable
- + Advanced Image Processing
- + Remote control GUI (Windows)

Thermal imaging Technologies & custom solutions
for integrators

IDA O ENGINEERING proved his expertise in design of complex electronic architectures based on **INTEL FPGA** and embedded software on **TEXAS INSTRUMENTS DSP** (Digital Signal Processors).

Technical Specifications

640x512 Detectors Up to 16 NUC Tables configured in software

1280x1024 Detectors Up to 4 NUC Tables configured in software

External Trigger Capabilities

Trigger Input / Output 1 Trigger IN / OUT, TTL or LVTTL

Shutter Interface

Control Open/Close 1 Compatible CVI MELLE'S GRIOT, TTL

Digital Outputs

CAMERALINK 16bits Monochrome, Compatible with DALSA standard Frame Grabbers

GigE Compatible with PLEORA Ntx-Mini board for GigE Vision

USB3.0 16bits Monochrome, optional board with Cypress FX3 drivers .

Video Outputs

HDMI v1.3 1 HDMI v1.3 output

CCIR/RS170 1 CCIR /RS170 Composite Video 75 Ohms output, factory setting

Camera Control and Communication

RS232 / RS422 and USB 2.0 available up to 230Kbauds

Electrical specifications

Input voltage 9V to 36V Wide input voltage

Power consumption < 5W (without detector proximity board)

Operating temperature -40°C to +85°C

Embedded Software functions

Integration Time Programmable by 1us step (1us to 100ms)

Frame Rate Programmable by 1Hz step from 1Hz to 1000Hz.

Windowing Programmable detector Full, Half, Quarter and Random window
Image Flip Horizontally and Flip Vertically

NUC processing Fast switching tables. Up to 8 tables in 640x512 full format.

Bad Pixels Detection Improved bad pixel detection algorithm (Gain, Offset and Rms noise method)

Cos4 Correction (Optical Vignetting) Cos4 Correction Applied or Disable on NUC Table

External Triggering Selectable Internal or External synchronization

AGC Auto & Manual control
Advanced AGC algorithm
Histogram equalization
Enhancement and Sharpening Details (ESD) function

Symbolologies Reticle Overlay with movement capabilities
Text Overlay

Shutter Control Command Open/Close

Stirling Cooler Power management ON/OFF, with current protection

IreneAgent Camera Control Software (Windows) GUI (Graphical User Interface)

IreneCom Camera Control Software (Windows) Communication Protocol description

IreneView USB3.0 & GigE Image Capture and Viewer Software (Windows)