CANTRONIC SYSTEMS INC.

IA126 LWIR
High-Sensitivity IR Imaging Camera

The IA126 uses a QWIP 640x512 IRFPA detector operating in the long infrared wavelength region (LWIR). IA126 cameras are normally used with a Windows 2000 or XP PC for control, image display and other advanced features through a command and data link. However the IA126 can also be integrated into an user's own system. The IA126 can be controlled with a basic control/configuration software, and can also run optional advanced RTS 1000 thermography software featuring live display and real-time storage.
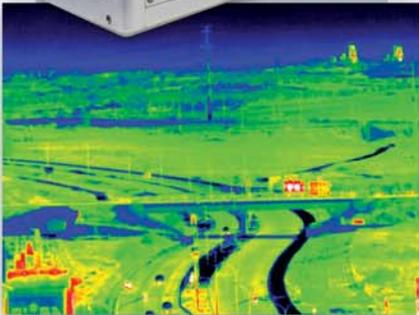
Available Lenses

The nominal aperture is F/2 or F/4. The average optical transmission is > 90% on the full wavelength.

The following lenses are available:

- F=25 mm
- F=50 mm
- F=100 mm
- F=200 mm
- F= 250 mm
- 50 / 250 mm bifocal
- Customized lenses (including zoom lenses) are available upon special request.

Software

Control and Configuration Software
With control software, you can configure the camera's frame size and rate, integrating time, NUC & PR (bad pixels replacement), gain and offset control. Also the image captured by the camera can be displayed and stored on PC through RS232 link and/or CamLink.

RTS1000 Software (Optional)
RTS1000 is a very useful software to generate live display and real time storage with real time board. The software has many functions for display, analysis and store images captured by the IA126 camera. Below are some of RTS1000 software's features:

- Live image display
- Digital Range and Level setup
- Real time storage
- Spot measurements
- Profiles
- Regions of interest
- Temporal profiles
- Color palettes
- Image conversion to several image format
- ASCII data generation
- Radiometric calibration functions
- Focal plane array calibration and characterization

HIGH-SENSITIVITY INFRARED IMAGING

QWIP-CHIP™ inside

Specifications

Sensor	QWIP
Resolution	640 x 512 pixels with random window in mode
Pitch	25 µm
Wavelength	7.8 - 9.2 µm (nominal 8-10 µm)
Image Mode	Snap shot
Cooling/MTBF	Stirling cooler /7,500 hours
Full Frame Rate	Programmable standard 1 to 60 Hz up to 100 Hz with high frame option
Integration Time	Programmable(from 3 µs to 20ms ; Typ. 1.7ms/min. step: 1µs)
A/D Conversion	14 bits
NETD	25 mK at 25°C
F Number	Standard F/2 or F/4 (Optional)
System Control	From a remote computer, Windows 2000 and XP
Video Output	CCIR or RS 170 1 Vpp to 75 ohms, digital video
NUC Table	3 tables full frame
AGC Algorithms	3 tables full frame
Size w/o Lens	245mm(L) x 115mm(W) x 150mm(H)
Weight w/o Lens	2 KG
Power Supply	24VDC, 30W, external power adapter supplied
Operating Temperature	-20°C to +50°C
Storage Temperature	-20°C to +70°C
Vibration	10 g during 6 ms in case of shock; 3 g RMS between 1 Hz at 500 Hz in random vibration; 2 g peak to peak between 1 Hz at 500 Hz in sine vibration

Image Display

Image can be directed to the PC VGA screen or to a CCIR/RS170 video monitor (such as a LCD monitor). When using the VGA display mode, the image is presented on a window under the RTS1000 program (optional). Real time tools such as spot, profiles, histograms etc. are available on the live image. The video image is compatible with either CCIR 50 Hz or RS170 60 Hz.

Standard Accessories:

- Power supply module 80-240 VAC 50-60 Hz input, 24 V DC output
- Rugged transport case
- Remote control Software
- User manual (CD-ROM Electronic Format)
- 50 mm LWIR manual focusing lens
- 200 mm LWIR manual focusing lens
- High Temperature Filter (High Pass 9.0µm, 1" diameter)
- Three (3) Neutral Density Filters (1" diameter) 7-10µm 1%, 2%, and 10%
- Standard Calibration from 5°C to 100°C without filter for 1 lens
- Standard Calibration from 100°C to 1500°C with either high temp or neutral density filter for 1 lens and 1 set of filter
- 15 m Digital Data Cable
- 15 m Serial Communication Cable

QWIP-CHIP™ inside
www.qwip.com