KT Photonics
Improve Your Vision

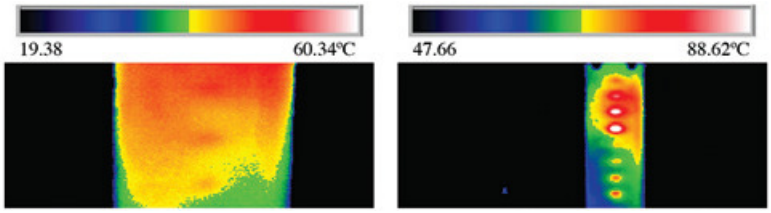
IA126 High Sensitivity Camera

Model IA126 is a very high sensitivity infrared imaging camera using an T2SL 640x512 IRFPA detector operating in the middle infrared wavelength region (LWIR)

IA126 cameras are normally used with a PC for control image display and other advanced features through a RS232 command link. However it can also be used as standalone for users to integrating their own big systems. The PC operates under Windows 2000, and XP, and runs a basic control with continuously adjustable integration time and configuration software and advanced live display and real time storage KTPAir thermography software (optional).

Image Display

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



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 (21°x 16°), IFOV = 1 mrad
- F=50 mm (11° x 8°), IFOV = 0,5 mrad
- F=100 mm (5°x 4°), IFOV = 0,25 mrad
- F=200 mm (2.5° x 2°), IFOV=0.12 mrad
- G1 (9.6mm x 7.2mm), IFOV=40mm
- 50/250 mm bifocal (11o x8°/2.2° x1.6°), IFOV =0.5 mrad/0.1 mrad
- Customized lenses (including zoom lenses) are available upon special request.

Specifications subject to change without notice

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Dealer/Distributor

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Standard Accessories:

- Power supply module 80-240 VAC 50-60 Hz input, 24 V DC output
- Rigid transport suitcase
- Remote control Software
- User manual (CD-Rom Electronic Format)
- **50 mm** LWIR F/2 manual focusing lens FOV **11°x 8°**
- **200 mm** LWIR F/2 manual focusing lens FOV **3°x2°**
- **High Temperature Filter** (High Pass 9.0µm, 1" diameter)
- **Neutral Density Filter** (1" diameter) 7-10µm 1%
- **Neutral Density Filter** (1" diameter) 7-10µm 2%
- **Neutral Density Filter** (1" diameter) 7-10µm 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

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 CamLink.

KTPAir Software (Optional)
KTPAir is a very useful software to generate live display and real time storage with real time board (a specially designed Frame Grab Board). The software has many functions for display, analysis and store images captured by the IA126camera. Below are some of KTPAir 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

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Sensor	QWIP or MTC IRFPA
Resolution	640 x 512 pixels with random window in mode
Pixel Size	22 mm x 22 mm(pitch 24mm)
Wavelength	7.8-9.8um (nominal 8-10 um)
Image Mode	Snap shot
Cooling/MTBF	Stirling cooler /7,500 hours
Full Frame Rate	Programmable standard 1 to 60 Hz Up to 120Hz with high frame option
Integration Time	Programmable(from 3us to 20ms ; Typ. 17ms)
A/D Conversion	14 bits
NETD	25 mK at 25℃
F Number	Standard F/4
System Control	RS232 from a remote computer, Windows 98, 2000, and XP
Video Output	CCIR or RS 170 1 Vpp to 75 ohms, digital video RS422
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℃ to +50℃
Storage Temperature	-20℃ to +70℃
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

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