Thermal Imaging, Research & Development Cameras

IA116 LWIR HIGH SENSITIVITY CAMERA

Cantronic's Model IA116 is a very high sensitivity infrared imaging camera using a QWIP 320 x 256 IRFPA detector. It operates in the long infrared wavelength region (LWIR).

IA116 cameras are normally used with a PC for control image display and other advanced features through a RS232 command link. However, the IA116 can also be integrated into a user's existing system. The PC operates under Windows 95, 98 or NT, 2000, XP and runs a basic control/configuration software and can also run optional CSIAir thermography software, featuring advanced live display and real-time storage.

IMAGE DISPLAY

Image display can be directed to a computer monitor or to a video CCIR/PAL monitor. Real-time tools such as spot, profiles, and histograms are available on a live image feed. The video image is compatible with either CCIR 50 Hz or RS170 60 Hz.

LENSES (OPTIONAL)

OPTIONAL LENSES AVAILABLE:

- F=25mm (21° x 16°), IFOV = 1 mrad
- F=50mm (11° x 8°), IFOV = 0,5 mrad
- F=100mm (5° x 4°), IFOV = 0,25 mrad
- F=200mm (2.5° x 2°), IFOV=0.12 mrad
- 50/250mm bifocal (11o x 8°/2.2° x 1.6°), IFOV=0.5 mrad/0.1 mrad
- G1 (9.6mm x 7.2mm), IFOV=40mm
- Customized lenses (including zoom lenses) are available upon special request.

SIMILAR PRODUCTS

ThermaLab R&D Camera
IA113 LWIR Camera
IA116 LWIR Camera

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

SOFTWARE

CONTROL AND CONFIGURATION SOFTWARE:

With control software, you can configure the camera's frame size and rate, integrating time, NUC and bad pixel replacement, gain and offset control. Also the image captured by camera can be displayed and stored on a PC through the RS232 link.

OPTIONAL CSIAIR SOFTWARE

CSIAir is an extremely useful software program, used to generate a live display of IR images. It can also perform real time storage with real time board (a speicially designed Frame Grab Board). The software also has many functions to display, analyze and store images captured by the IA113camera. Below are some of CSIAir software features:

ENVIRONMENTAL SPECIFICATIONS:

- 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 formats
- ASCII data generation
- Radiometric calibration functions
- Focal plane array calibration and characterization

Operating Temperature:	-20° C – +50° C
Storage:	-20° – C +70° C
Vibration:	• 10 g during 6 ms in case of shock • 3 g RMS between 1 Hz et 500 Hz in random vibration • 2 g peak to peak between 1 Hz et 500 Hz in sine vibration

CAMERA SPECIFICATIONS

Sensor:	MCT (HgCdTe) IRFPA
Resolution:	320 x 256 pixels with random windowin mode
Pixel size:	25mm x 25mm (pitch 30mm)
Wavelength:	8mm – 9.6mm

Image mode:	Snap Shot
Cooling:	Stirling cooler
Frame rate (full image):	Programmable Standard 1 to 60Hz up to 120Hz with High frame option
Integration time:	Programmable (from 1ms to 10ms; Typ. 17ms)
A/D:	14 bits
NETD	35 mK at 25° C
Operation temp. range:	-20° C to 50° C
F number:	Standard F/2, or F/4
System control:	RS232 from a remote computer, A windows 98, 95, NT, 2000.
Video output:	CCIR or RS 170 1 Vpp to 75 ohms, digital vidieo RS422
NUC tables:	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