Datasheet

Scientific Infrared Camera Series

TEL 1000

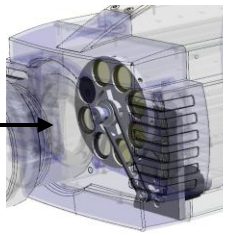
Accelerating Infrared Imaging

Application-driven fast and sensitive LW and MW Camera for the Infrared Expert

The ***NEW*** **TEL 1000** Scientific Infrared Camera is THE REVOLUTION in long wave and mid wave IR cameras.

It provides either raw or calibrated data in real-time without any needs of external black bodies. Calibration coefficients are acquired automatically using built-in etalons.

For multispectral applications, a fast filter wheel is available.



Establish the standard with this state-of-the-art IR Camera.

Features:

- **Raw Data Output Mode**
- **Fast Filter Wheel**
- **Advanced built-in synchronisation (IRIG & GPS included)**
- **GEN< I >CAM compatible**
- **Rugged, sealed enclosure**
- **Standard bayonet optic interface**
- **Complete Control with SDK**
- **Easy-to-use all-in-one software**
- **Multiple Digital Output**

Benefits:

- **Real-time radiometric or uniformity corrected images**
- **Patent black body free correction technique**
- **High resolution and thermal sensitivity**

Applications:

- **Nondestructive Testing & Evaluation**
- **Military**
- **R&D & Scientific**
- **Biomedical**
- **Ranging (target tracking & IR signature)**
- **Long range surveillance**

TELOPS

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SPECIFICATIONS	TEL-1000-VLW	TEL-1000-LW	TEL-1000-MW
DETECTOR SPECIFICATIONS			
FPA frame size	320 × 256 pixels	640 × 512 pixels	640 × 512 pixels
Detector type	MCT	MCT	MCT
Spectral range	7.7 µm to 11.8 µm	8µm to 9.6µm	3.6 µm to 4.95µm
Detector pitch	30 µm	16 µm	16 µm
f/#	f/1.94	f/2	f/4
Sensor cooling	Split-stirling closed cycle	Rotary-stirling closed cycle	Rotary-stirling closed cycle
PERFORMANCES			
NETD	< 23 mK	<27 mK	<21 mK
Radiometric temperature accuracy	1 K or 1 % (°C)	1 K or 1 % (°C)	1 K or 1 % (°C)
Scene radiometric temperature	−15 °C to 150 °C -15°C to 1500°C (option)	−15 °C to 150 °C -15°C to 1500°C (option)	−15 °C to 150 °C -15°C to 1500°C (option)
ELECTRONIC SPECIFICATIONS			
Maximum full frame rate	300 Hz	115 Hz	115 Hz
Exposure time	3 µs to full frame time	3 µs to full frame time	3 µs to full frame time
Windowing	yes	yes	yes
Dynamic range	16 bits	16 bits	16 bits
RTP Real time processing/NUC	yes	yes	yes
EHDRI (Option) Enhanced High Dynamic Range	yes up to 4 settings in post processing up to 2 settings in real time	yes up to 4 settings in post processing up to 2 settings in real time	yes up to 4 settings in post processing up to 2 settings in real time
AEC (Option) Automatic exposure control	yes	yes	yes
AEC+ (Option) Automatic high temperature range	yes	N/A	N/A
RTTC (Option) Real time radiometric temperature calibration	yes	yes	yes
DATA TRANSFER AND CONTROL			
Command and control	CameraLink/GenICam	CameraLink/GenICam	CameraLink/GenICam
Data output selection	raw or NUC (Radiometric temperature optional)	raw or NUC (Radiometric temperature optional)	raw or NUC (Radiometric temperature optional)
Digital output	CameraLink	CameraLink	CameraLink
Analog output	NTSC or PAL	NTSC or PAL	NTSC or PAL
Trigger	input / output	input / output	input / output
Time stamping (Option)	GPS & IRIG	GPS & IRIG	GPS & IRIG
SDK support (Option)	Yes	Yes	Yes
CAMERA CONSTRUCTION			
Multi-spectral (option)	8× / 1" optics Fixed or fast rotating	N/A	N/A
Operating environnement	−15 °C to 50 °C Without sun radiation	−15 °C to 50 °C Without sun radiation	−15 °C to 50 °C Without sun radiation
Lens mount	Janos bayonet interface	Janos threaded iterface	Janos bayonet interface
Base mounting	¼−20 UNC + dowel pin	¼−20 UNC + dowel pin	¼−20 UNC + dowel pin
Size w/o lens	13" × 6" × 9"	13" × 6" × 9"	13" × 6" × 9"
Weight w/o lens	10.5 kg (typ)	10.5 kg (typ)	10.5 kg (typ)
Power supply	24 VDC 40W steady-state	24 VDC 40W steady-state	24 VDC 40W steady-state

Optional focal lengths available *(other focal lengths available upon request)*:

Very Long Wave
25, 50, 100*

Long Wave
7, 13, 25, 50, 75, 100, 200, 250*

Mid Wave
7, 13, 25, 50,100, 200*

*Measurement in mm.

Telops provides training and support which enable you to get the best use possible out of your instrument. We are committed to providing you with the highest level of customer service and are very open to customizing your instrument to better suit your needs

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