

Synchronous DFOV LWIR Gimbal

Gimbal System for Thermographic Inspections with HD Resolution

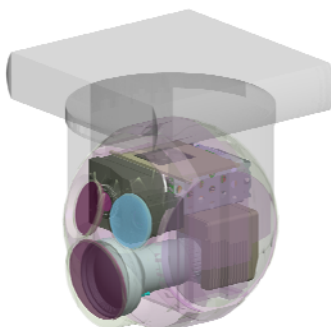


WFOV LWIR thermogram (640 x 512) IR pixels



NFOV LWIR thermogram (1,024 x 768) IR pixels

Proven hardware components



Gimbal arrangement



Cooled WFOV LWIR camera



Colour HD camera

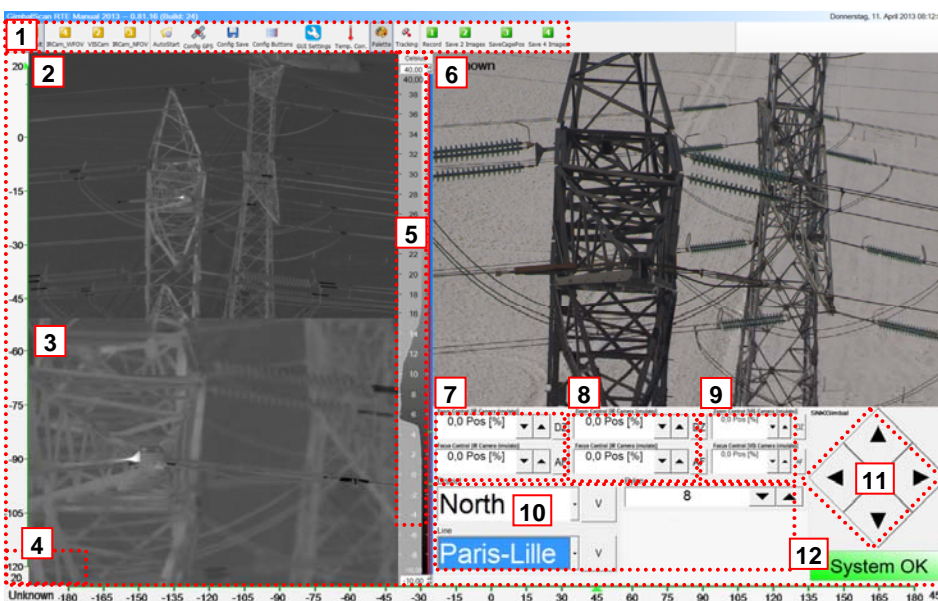


Uncooled NFOV LWIR camera



Gimbal SWE 400

Powerful software solution GimbalScan®



- 1) Control and setting buttons
- 2) Image of cooled WFOV thermographic camera
- 3) Image of uncooled NFOV thermographic camera
- 4) Gimbal status and position display
- 5) Temperature scale and temperature display control
- 6) Image of colour video camera
- 7) Focus control of the NFOV thermographic camera
- 8) Focus control of the WFOV thermographic camera
- 9) Focus control of the colour video camera
- 10) Filename manager
- 11) Gimbal control buttons
- 12) System status

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Gimbal System for Thermographic Inspections with HD Resolution

Technical specification

| | |
|----------------------------------|---|
| NFOV thermographic camera | VarioCAM® HD head short |
| Spectral range | (7,5 ... 14) µm |
| Detector | Uncooled Microbolometer Focal Plane Array |
| Detector format (IR pixels) | (1,024 x 768) |
| Measurement accuracy | +/- 1.5 K or +/- 1.5 % |
| Temperature resolution @ 30 °C | Better than 0.05 K |
| Frame rate | 30 Hz |
| Dynamic range | 16 Bit |
| 120 mm super tele lens | FOV: (8 x 6)°; IFOV: 0.14 mrad; F1.0 |
| Temperature measuring range | (-40 ... 200) °C; optional up to 1,200 °C |
| WFOV thermographic camera | ImageIR® 8800 open frame |
| Spectral range | (8 ... 10) µm |
| Detector | Cooled MCT Focal Plane Array |
| Detector format (IR pixels) | (640 x 512) |
| Measurement accuracy | ± 1.0 K or ± 1.0 % |
| Temperature resolution @ 30 °C | Better than 0.03 K |
| Frame rate | 50 Hz; optional up to 100 Hz |
| Dynamic range | 16 Bit |
| 25 mm lens | FOV: (23 x 19)°; IFOV: 0.6 mrad |
| Temperature measuring range | (-40 ... 200) °C |
| Colour HD camera | Colour camera module SONY FCB-EH6300 |
| Image sensor | 1/3" wide dynamic HD CMOS sensor |
| Effective pixels | Approx. 2 Megapixels |
| Lens | 20 x optical zoom; HFOV (55 ... 2.9)° at 1080p/30 |
| Digital zoom | 12 x |
| System software | GimbalScan® |
| PC system | Ruggedized Laptop; Intel® Core™ i7; Windows® 7 |
| Camera interface | 3 x GigE |
| Desktop resolution | (1,920 x 1,080); optional (1,920 x 1,200) |
| Parallel data acquisition | WFOV, NFOV, VIS single images and sequences |
| Gimbal system | SWE 400 Triple |
| Dimensions | 400 mm diameter |
| Gimbal stabilization | Better than 25 µrad |
| Flight standard | RTCA 160D |
| Gimbal mount | Tyler nose mount |