

DigiTHERM[®]



DigiTHERM is IGI's thermal camera solution for professional digital thermography. Different sensor heads with a resolution of up to 1920 x 1536 IR pixels are available. These high-end cameras trigger extremely fast and are perfectly suited for fast mobile mapping applications and high-resolution airborne missions.

DigiTHERM, as well as *DigiCAM*, are part of IGI's *Modular Sensor Solutions* which implies the conveniently and inexpensively exchange of sensor heads.

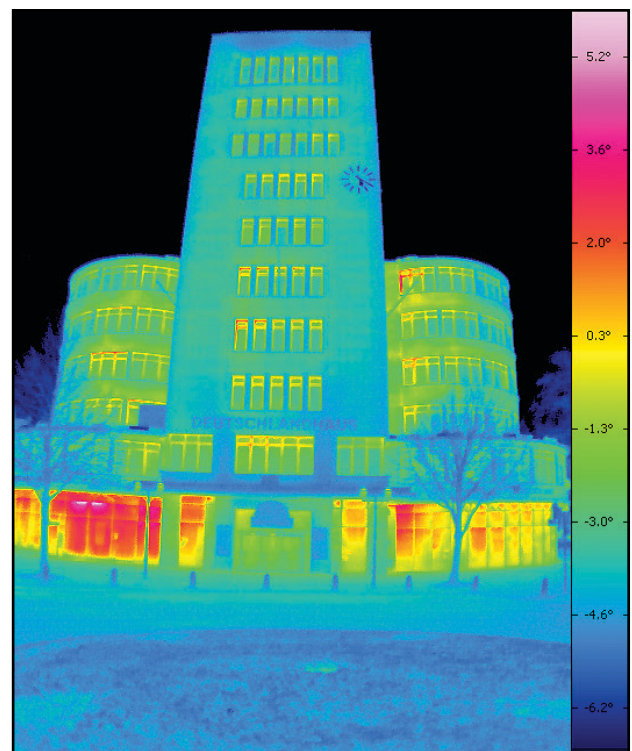
DigiTHERM components consist of a thermal camera head, a *DigiControl SMU* with hot-swap storage unit for up to 36 hours of recording time and 10 or 20 inch TFT operator touch-screens. Using the same components as *DigiCAM*, the changeover between the two systems is realised within minutes.



Modular Thermal Solution for Airborne Mapping & Mobile Mapping



Airborne sample images, *DigiTHERM-1920C*
Sample image provided by courtesy of Infratec



Mobile sample images, City of Essen, Germany

DigiTHERM - Thermal Camera System

DIGITHERM SENSORS					
	DigiTHERM-1920C	DigiTHERM-1280C	DigiTHERM-640C MWIR	DigiTHERM-640C LWIR	DigiTHERM-1024
Mission Planning Software	IGIplan				
Flight Guidance System	CCNS-5, Pilot and Operator Display				
Precise Positioning System	AEROcontrol, export free MEMS & FOG IMUs available up to 600Hz				
Sensor Management Unit	IGI SMU-2, 10" or 20" Operator Touch-Screen				
TECHNICAL SENSOR FEATURES					
Detector	Cooled FPA photon detector	Cooled FPA photon detector	Cooled FPA photon detector	Cooled FPA photon detector	Uncooled microbolometer FPA-detector
Geometric Resolution [IR pixel]	1920 x 1536	1280 x 1024	640 x 512	640 x 512	1024 x 768
Thermal Resolution @ 30°C [K]	0.03 K	0.025 K	0.02 K	0.025 K	0.02 K
Thermal Measuring Range [C]	-40 .. 500°	-40 .. 1500°	-40 .. 1500°	-40 .. 1200°	-40 .. 2000°
Spectral Range [µm]	3.6 .. 4.9 (MWIR)	2.0 .. 5.5 (MWIR)	2.0 .. 5.7 (MWIR)	7.7 .. 10.2 (LWIR)	7.5 .. 14 (LWIR)
Accuracy	± 1°C or ± 1%	± 1°C or ± 1%	± 1°C or ± 1%	± 1°C or ± 1%	± 1°C or ± 1%
DIGITHERM LENSES FOV					
Super Wide-Angle 7.5 mm					98.5° x 82.1°
Wide-Angle 15 mm					60.3° x 47°
Wide-Angle 13 mm				40.5° x 32.5°	
Wide-Angle 12 mm			43.6° x 35.5°		
Standard 25 mm	42° x 34.2°	29° x 23°	21.7° x 17.5°	21.7° x 17.5°	
Standard 30 mm					32.4° x 24.6°
Telephoto 50 mm	21.2° x 17.5°	15° x 12°	11° x 8.8°	11° x 8.8°	
Telephoto 60 mm					16.5° x 12.4°
Telephoto 100 mm	11° x 8.8°	7.3° x 5.9°	5.5° x 4.4°	5.5° x 4.4°	
Telephoto 120 mm					8.3° x 6.2°
Telephoto 200 mm		3.7° x 2.9°	2.7° x 2.2°	2.7° x 2.2°	

Applications:

- Capture loss of heat in:
 - Populated areas
 - Industrial plants
 - Pipelines and power lines
- Rapid Powerline Monitoring
- Border protection
- Flow measurement of streams and rivers
- Forrest fire warning system
- Monitoring volcanos
- Animal tracking
- Search and rescue operations
- Support of all LiDAR applications

