



The IP-67 certified enclosure.

HIGH DYNAMIC RANGE INFRARED CAMERA

The HDR M700 represents a revolution in high dynamic range infrared imaging. Traditional midwave infrared cameras can effectively measure a span of about 150 degrees with a single exposure time before experiencing image saturation. Telops HDR M700 utilizes an advanced on-chip saturation management solution to extend the single-exposure time dynamic range to a span of over 900 degrees enabling analysis of scenes and objects exhibiting strong thermal contrast.

KEY BENEFITS

HIGH DYNAMIC RANGE

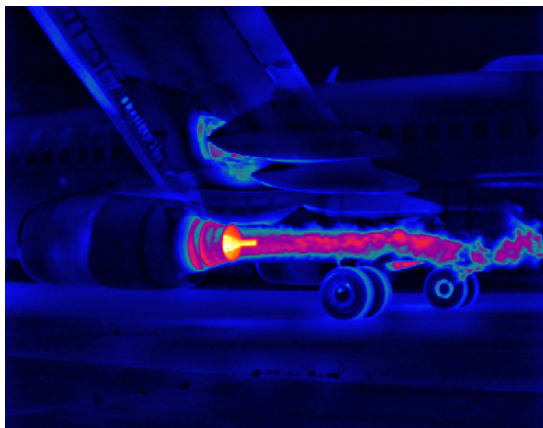
24-bit architecture and advanced on-chip saturation management solution enable measurement of extremely wide temperature ranges in a single snapshot image. Traditional MW thermal cameras can typically measure a range of about 100-150 degrees in a single image using a single exposure time. The advanced design of the HDR M700 allows for a measurement range of approximately 900 degrees in a single exposure time snapshot, allowing for efficient and quantitative imaging of hot and cold objects simultaneously.

TELOPS RTTC

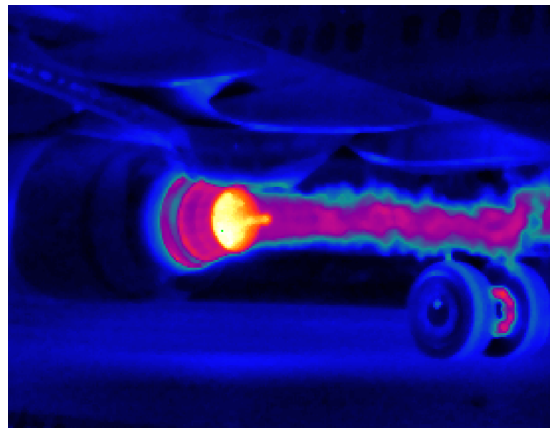
Unique proprietary real-time processing of infrared images including NUC, radiometric temperature, in-band radiance, and in-band irradiance. Blackbody-free calibration allows for full freedom over important image parameters including exposure time and window size without impacting radiometric accuracy. This advanced calibration protocol benefits users through increased ease of use and operational flexibility while maintaining radiometric performance and image quality throughout the entire camera operating range.

EXAMPLES OF TYPICAL USES

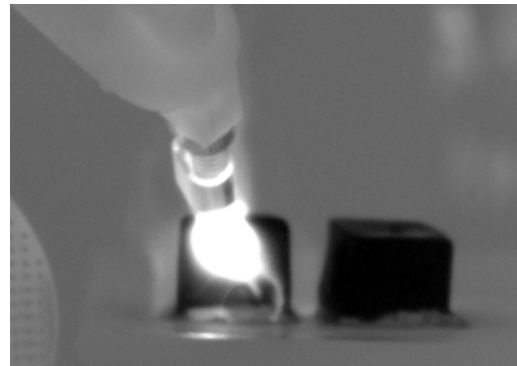
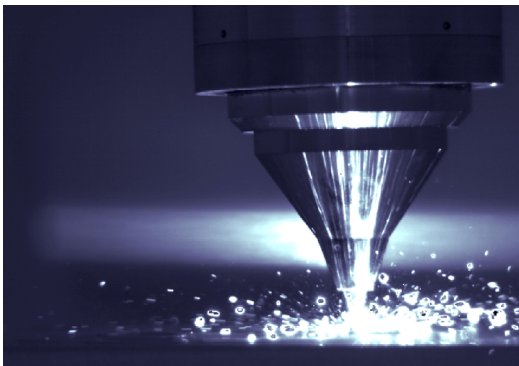
High dynamic range enables detailed imaging of a broad range of target temperatures in the same scene



Increased in-scene dynamic range allows for precise visualization of hot target behavior without sacrificing image quality for lower temperature objects



| HDR M700 | |
|--------------------------|--|
| SPECIFICATIONS | HDR M700 |
| DETECTOR TYPE | SLS |
| SPECTRAL RANGE | 3.0 μm to 5.0 μm |
| APERTURE SIZE | F/4 |
| FRAME RATE | 650 Hz @ 640 × 512 |
| MAXIMUM FRAME RATE | 40 000 Hz |
| ENVIRONMENTAL RESISTANCE | IP67 |
| OPERATIONAL TEMPERATURE | -15 °C to +50 °C |
| STORAGE TEMPERATURE | -35 °C to +60 °C |
| TYPICAL NETD | 20 mK |
| EXPOSURE TIME | 1 μs to full frame rate |
| LENS MOUNT | Threaded |



High dynamic range capability allows simultaneous imaging of hot and cold target in the same scene.
 (Left) Visualization of a high temperature additive manufacturing process
 (Right) Ice cube being melted by a propane blow torch

| OTHER SPECS & FEATURES | |
|---|--|
| Rotary-stirling closed cycle sensor cooling | Camera Link |
| Blackbody-free permanent calibration (up to 1000 °C) | Trigger In, Trigger Out |
| Calibration up to 2 500 °C (optional) | SDI, GPS, IRIG-B, RS232 and thermistor ports |
| 24 bits dynamic range | Lock-In (optional) |
| High-speed internal memory buffer: up to 32 GB | Weight w/o lens: < 7 kg |
| Gig-E | Size w/o lens: 12.6" × 7.8" × 6.9" 321 mm × 199 mm × 176 mm |

FOR MORE INFORMATION | TELOPS.COM

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