

QWIPTECH®
See the Heat
Proven
Low Cost
High Sensitivity
Large Format
LWIR & MWIR



QWIPTECH®
SEE THE HEAT

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QWIPTECH®
SEE THE HEAT

QWIPTECH® uses Quantum Well Infrared Photodetector (QWIP) technology to produce the patented QWIPCHIP™ focal plane arrays. These highly-sensitive detectors respond to light at wavelengths ranging from the mid-wave to long-wave infrared. QWIPTECH® products provide high performance solutions to the most demanding infrared imaging problems.

QWIPTECH® products have the best cost/performance ratio in the high performance infrared industry. No longer is it necessary to sacrifice performance due to cost limitations. QWIPTECH® manufactures affordable focal plane arrays (FPAs), sensor engines, and QWIP-based cameras suitable for most applications.

QWIPCHIP™ applications

Military

- FLIR
- Fire control
- Missile guidance systems
- Smart weapons
- Threat detection and characterization
- Surveillance
- Search and rescue

Commercial

- Non-destructive testing and evaluation
- Process control
- Maintenance inspection
- Thermography
- Security
- Search and rescue
- Fire detection and prevention
- Medical
- Accident avoidance
- Research

QWIPCHIP™ FPAs deliver exceptional image quality and thermal sensitivity

QWIPCHIPS™ are constructed out of Gallium Arsenide (GaAs) using well established production processes. This permits high yields, low costs, large formats, and high pixel uniformity. This combination allows QWIPCHIPS™ to provide sharp, clear, and detailed images at an affordable price.

QWIPCHIPS™ are a flexible and versatile solution to many infrared imaging problems. Their low noise design was originally pioneered at NASA's Jet Propulsion Laboratory. QWIPCHIPS™ exploit the bound to quasi-bound photoexcitation of an electron in a GaAs/Al_xGa_{1-x}As quantum well. This yields intrinsic noise levels considerably lower than other QWIP designs based on bound to continuum and mini-band transport processes. QWIPTECH® continues to advance the QWIPCHIP™ product design to preserve its performance edge.

QWIPCHIP™ sensor engines and cameras provide an integrated solution

QWIPTECH® sensor engines provide high performance, exceptional reliability, and excellent cost/performance ratios. We also provide QWIPCHIP™ cameras designed to meet your particular imaging needs.

Working with JPL and Caltech

QWIPTECH® possesses the exclusive patent rights to Quantum Well Infrared Photodetector (QWIP) technology developed at the Jet Propulsion Laboratory (JPL). JPL pioneered, and continues to be a world leader in, the research and development of QWIPs. QWIPTECH's relationship with JPL enables the company to bring the latest innovations to its customers in the shortest time.

The California Institute of Technology (Caltech) operates the Jet Propulsion Laboratory under contract from the U.S. National Aeronautics and Space Administration (NASA).