

DELIVERING INNOVATIVE TECHNOLOGY SOLUTIONS TO OEMS

**EXCELITAS**  
TECHNOLOGIES

ENGAGE.ENABLE.EXCEL.

**Excelitas Technologies provides innovative, customized optoelectronics and advanced electronic systems to a global customer base of leading OEMs seeking high-performance, market-driven technology solutions. We are committed to enabling our OEM customers' success in their markets and applications.**



**A Broad Range of Customized,  
High-Performance Technologies,  
Products and Solutions**

**Lighting**

Light Emitting Diodes (LEDs)

Short-Arc Xenon Lighting

Flash Lamps

**Detection**

Avalanche Photodiodes

Photodiodes and Photodiode Arrays

Photon Counting Devices, Modules,  
and Optical Receivers

Pyroelectric Infrared Detectors  
and Modules

Thermopile Infrared Detectors  
and Modules

Infrared Emitting Diodes

Pulsed Laser Diodes

CCD Cameras and Imagers

**Advanced Electronic Systems**

Frequency Standards/Atomic Clocks

Energetic Safety Systems

Power Supplies

Spark Gaps

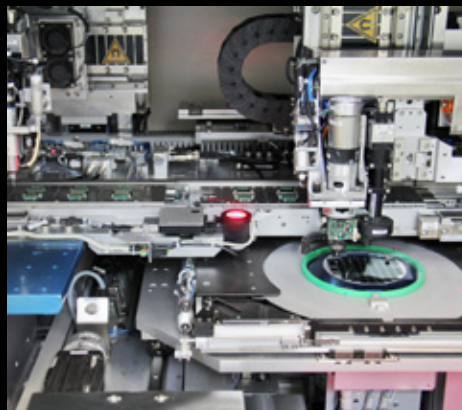
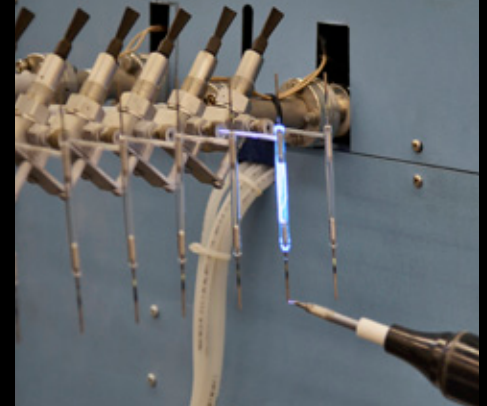
Thyratrons

**A Legacy of Pioneering Innovation**

Excelitas has a strong heritage of technology leadership and continuing product innovation dating back to its earliest days as EG&G - named after MIT technology pioneers, Edgerton, Germeshausen, and Grier. The founders' legacy was grounded in high-performance technology solutions and pioneering innovations and this carries into Excelitas Technologies today.

**Quality Commitment: Excellence is Embodied in All We Do**

Our company name, Excelitas Technologies, exemplifies our guiding principle – excellence is embodied in all that we do - including all aspects of product performance, quality, reliability, delivery and service. Excelitas is committed to stringent manufacturing and quality systems. We have a Continuous Improvement (CI) culture including robust Six Sigma and Lean manufacturing processes. In fact, nearly 40% of our worldwide workforce has 6-Sigma Belts.



Our continued investments in manufacturing capacity and quality systems ensure that our customers have a long-term, guaranteed supply of high-quality components and subsystems for supporting their successful market introductions.



## Global Footprint. Global Resources. Local Support.

Excelitas is committed to meeting your local needs, wherever they might be. We have a diverse global network of ISO-certified design and manufacturing sites across the Americas, Europe and Asia. Our applications support experts, sales and customer care personnel are there to assist in addressing your company's unique needs.



Across the globe, we aim to forge collaborative customer partnerships and direct engineer-to-engineer relationships. Whether supported by our expanded Montreal wafer fab for avalanche photodiode production, our LED Centers of Excellence on three continents or our state-of-the-art Energetic Safety Systems facility, Excelitas is focused on enabling our global OEM customers' success.

- Surgical Suite Lighting
- Endoscopy Lighting
- Dental Lighting
- Dental Curing
- Surgical Headlamps
- Intense Pulsed Light Therapy for Skin Rejuvenation
- Photopilation
- Photodynamic Therapy for Newborns
- Medical Laser Pumping
- Microscopy
- Molecular/PET Imaging
- Ear and Forehead Thermometry
- Photometry
- Pulse Oximetry



**Excelitas brings decades of experience to the design, manufacture, and marketing of high-performance, customized solutions to demanding medical applications.**



Excelitas thermopiles reliably enable the world's best-known ear thermometers.



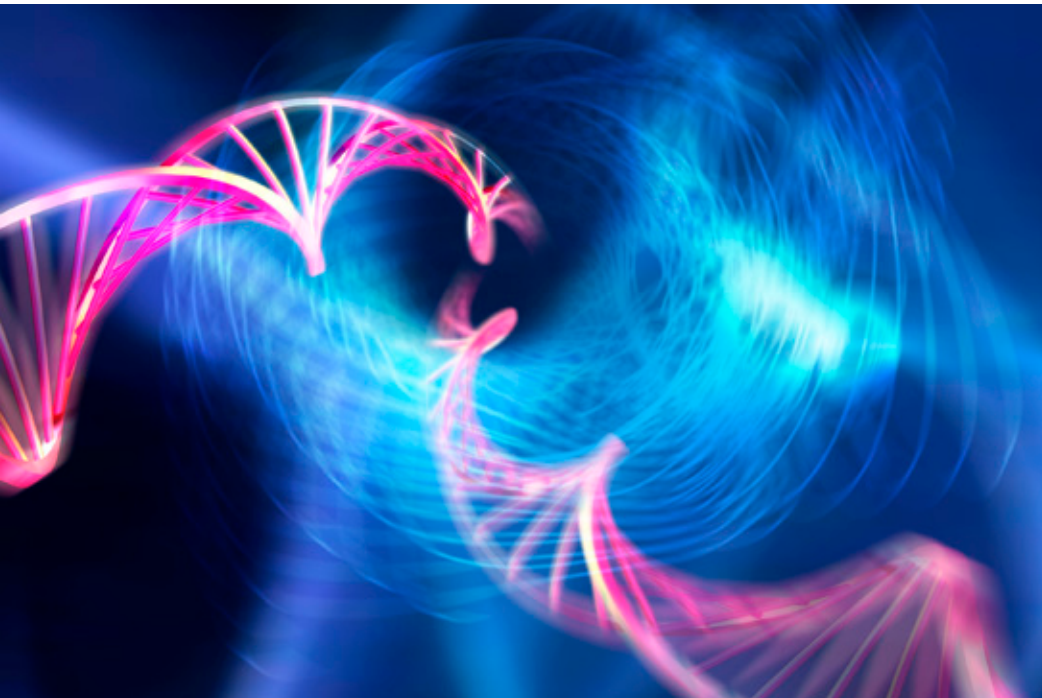
Excelitas' low light level detection portfolio - especially technologies such as APDs, SPCMs and SiPMs - are playing an increasingly enabling role in medical diagnostics and combined platforms such as Magnetic Resonance Imaging and Positron-emission Tomography, MRI/PET scanning.

Cermax® Xenon is a trusted brand name that is virtually synonymous with medical lighting applications and perfect bright, white light, whether for endoscopic illumination, surgical headlamps, or robotic surgery equipment. Over the years, we have continued to expand upon our lighting portfolio which includes a broad range of both LED-based and Xenon solutions. Several of our lighting facilities are specifically certified to ISO13485:2003 for medical devices.

With our world-class thermopile detectors, Excelitas is a highly trusted brand enabling consumer health applications such as Ear and Forehead Thermometry. Excelitas continues to drive MEMS innovation including the introduction of the DigiPile® Family of digital thermopiles for non-contact temperature measurement applications. Excelitas' photodiode/LED assemblies are playing a critical role in medical applications such as Pulse Oximetry, a non-invasive method allowing monitoring of the oxygenation of a patient's hemoglobin.



# Analytical Instrumentation and Life Sciences Applications

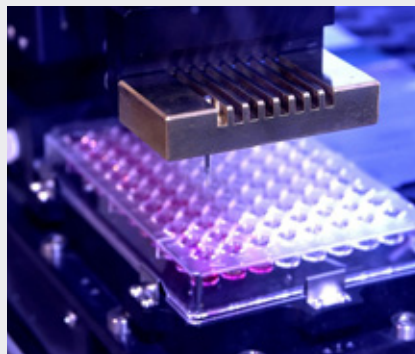


DNA Sequencing  
Blood Glucose Monitoring  
Clinical Diagnostics  
Colorimetry  
Confocal Microscopy  
Fluorescence and Luminescence Spectroscopy  
High Throughput Screening  
Liquid Chromatography  
Microplate Readers  
Nucleic Acid Amplification  
Particle Sizing  
Time-correlated single photon counting (TCSPC)

## At Excelitas Technologies, we share in our customers' commitment to finding answers.

We are providing leading analytical and clinical diagnostics instrumentation OEMs with broad expertise in both light emission and detection. Excelitas offers our customers a range of products from discrete lamps and sensors to fully integrated light engines, analytical subsystems, and detection modules.

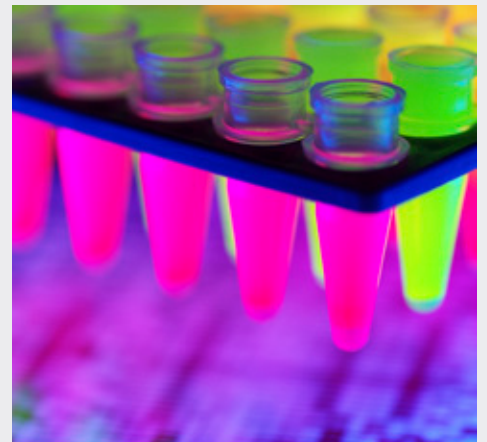
OEMs can confidently turn to Excelitas for answers that leverage our integrated light emission and detection solutions so they can focus on unlocking the mysteries around disease and treatment.



Excelitas' lighting and detection solutions are designed into today's leading microplate reader instrumentation.

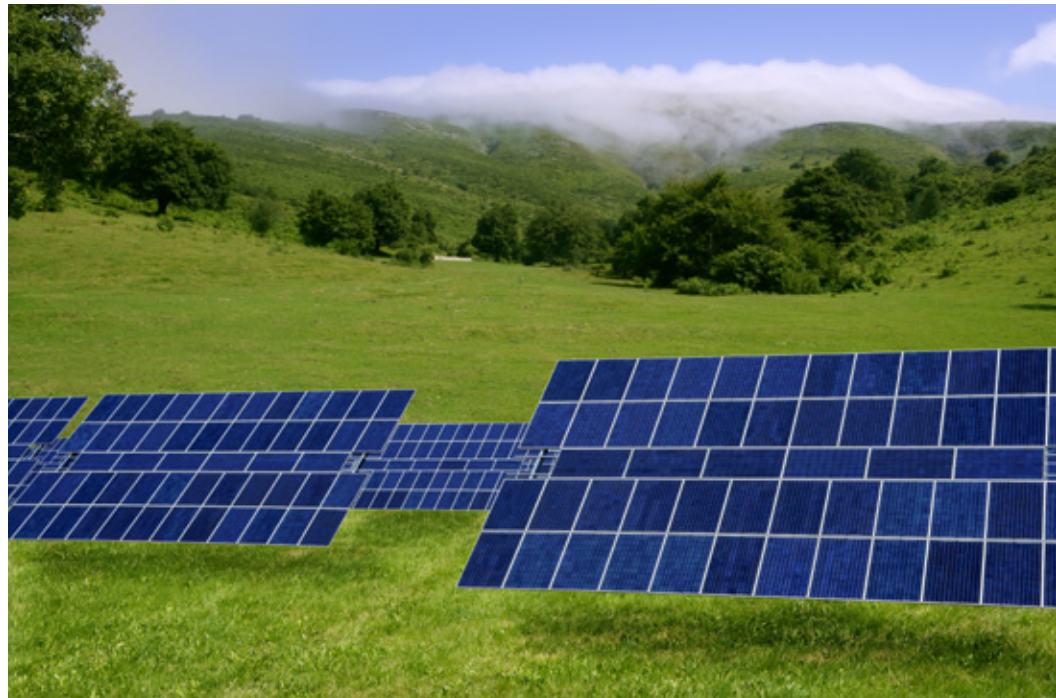
Excelitas' LED Solutions are helping enable low-cost sequencing of the human genome.

Excelitas' specialized APDs and SPCMs are meeting the low light level analytical detection demands of confocal microscopy, particle sizing, fluorescence and luminescence.

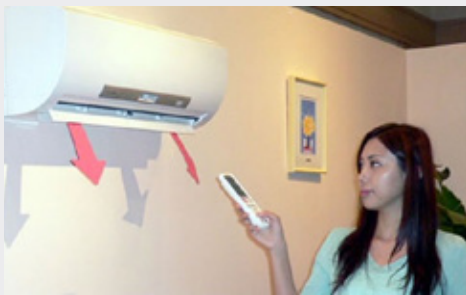


# Energy-Conserving and Environmental Applications

- Solar (Sunlight) Simulation
- Energy-saving Lighting
- Intelligent Air Conditioners
- Smart Thermostats
- Energy-efficient Printer/Copiers
- Energy-efficient Microwave ovens
- Automotive Sunload and Twilight Light Sensing
- Battery Monitoring in Electric Cars
- Proximity Light Switching
- Dusk-to-Dawn Light Switching
- Smart Gaming Controllers
- Smart PC Monitors and TVs
- UV Lighting for Sterilization



According to a study performed by ERA Technology, in a single year, Excelitas' sensors have saved an estimated 22 million tons of carbon dioxide emissions from applications ranging from intelligent air conditioners to proximity and dusk-to-dawn light switches.



## One of Excelitas' key goals is to enable a host of energy-conserving applications to help ensure a greener and more sustainable future.

We provide OEMs with a variety of environmentally-focused applications solutions fueled by Excelitas' industry-leading technologies. Our DigiPyro® digital pyrodetectors monitor presence and then automatically switch lights on or off based on occupancy. Our high-performance thermopile infrared detector arrays are deployed in intelligent air conditioners which actively direct airflow based on the location of room occupants.

With lower power consumption, substantially less heat output, and long life, our LED Solutions are enabling a variety of energy-saving applications such as illuminating windfarms, airfields and railroad crossings.

Excelitas' specialty Xenon lamps are highly effective in simulating sunlight for testing photovoltaic cells and solar modules.

From components and subsystems to fully integrated solutions, Excelitas brings OEM customers the expertise needed to enable economically viable energy-conserving and environmental applications.



# Safety and Security Applications



- X-ray Security Scanning
- Smoke Detection
- Laser Perimeter Scanning and Surveillance
- Laser Range Finding
- Motion Sensing for Home Security
- Safety Light Curtains
- Gas Sensing
- Laser Pumping
- Hazardous Area Lighting
- Airfield Runway and Taxiway Lighting
- Obstruction Lighting
- Emergency Lighting
- Warning Beacons and Strobes
- License Plate Recognition (LPR)
- Quantum Cryptography

**Excelitas is providing market-driven solutions to OEMs that help enable a safer and more secure world.**

We are providing leading security and surveillance OEMs with a variety of detection technologies such as photodiodes and photodiode arrays, high performance sensors, pioneering digital pyroelectric infrared detectors, and industry-leading single photon counting modules (SPCMs).

We are a leading innovator in solid state and Xenon-based lighting solutions, where the emphasis is on durable, cost-effective designs that perform well in harsh environments and are fully compliant with state and federal regulations.



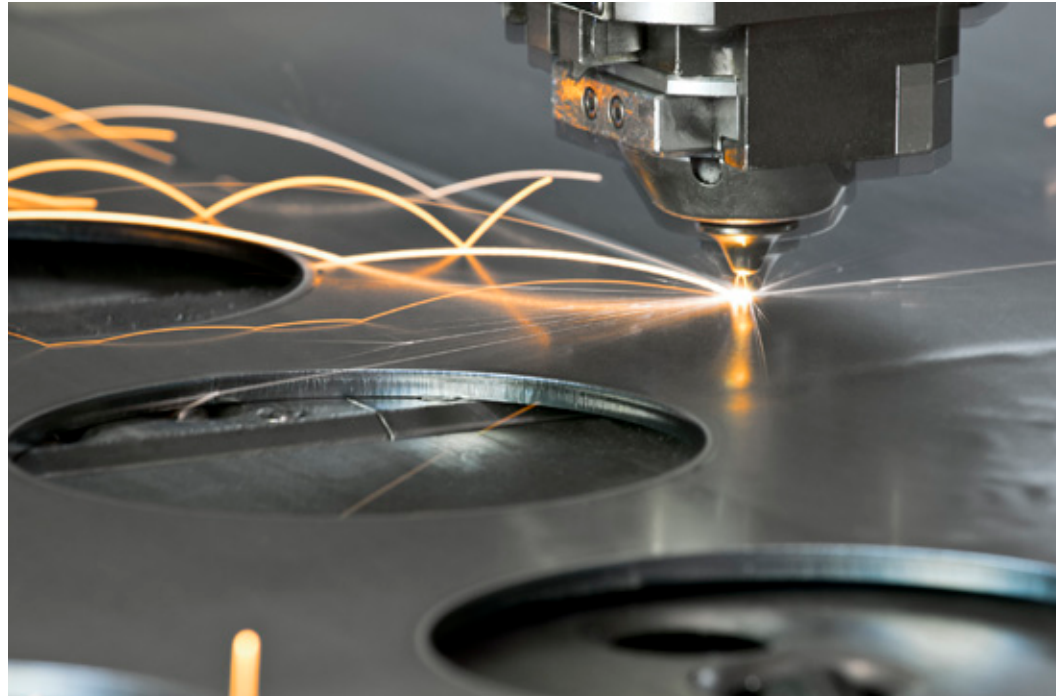
**Excelitas is providing custom LED light engines and fixtures that meet stringent FAA and ICAO regulations for airport runways and taxiways.**

Excelitas provides calibrated, custom smoke detection modules/assemblies to leading OEMs for both home and commercial applications.





Laser Pumping, Cutting and Welding  
Area Scanning and Surveillance  
Laser Range Finding  
Barcode Scanning  
Gas Sensing and Monitoring  
Machine Vision  
Inspection, Sorting, and Recognition  
Particle Sizing  
Pyrometry  
Reprographic Lighting  
Stage and Studio Lighting  
Video Projection Lighting  
Material Testing and Weathering  
UV Curing



Excelitas' Infrared sensing technology enables OEMs to build systems that monitor and detect low concentrations of gases such as carbon dioxide and methane, protecting industrial assets and personnel.



**Customers can feel confident in Excelitas' ability to economically address the customized and high-volume requirements that their industrial applications demand.**

Excelitas has decades of experiences in providing innovative, customized solutions to OEMs for a wide variety of demanding industrial applications. We leverage our global footprint of design, manufacturing and R&D facilities, offering customers a deep toolkit of components and systems including our Xenon Flash Lamps, Xenon Strobes, Cermax® Xenon, LED Solutions, Power Supplies, Detectors, and CCD Cameras. Our applications experts engage with customers' design teams "engineer-to-engineer" to develop the technology solutions that will economically meet customer requirements and accelerate their time-to-market.

When it comes to UV curing of industrial coatings, inks, lacquers and resins, Excelitas offers both LED-based and Xenon lighting solutions.



# Defense and Aerospace Applications



- Global Navigation Satellite Systems
- Arming and Fuzing
- Rocket Motor Ignition
- Warhead Initiation
- Laser-initiated Ordnance
- Laser Warning Systems
- Laser Range Finding
- Terminal Guidance
- Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR)
- Electronic Warfare Systems
- Space Vehicle Lighting
- Heads Up Displays (HUD)
- Cockpit Display Backlighting

## Today's advanced aerospace and defense applications demand a partner who can deliver mission-critical performance, reliability, and support.

Excelitas is that partner with over 60 years of experience and a proven heritage of leadership integrating advanced technology components into systems for a range of smart systems that safeguard lives. Excelitas offers a broad range of customized, COTS, MOTS, and Build-to-Print solutions designed for the defense and aerospace markets.

Whether through our HARLID (High Angular Resolution Laser Irradiance Detector) modules designed for use in Laser Warning Receivers; our Power Supplies for Communication, Navigation, and Electronic Warfare Systems; or our LED Solutions for Space Vehicle Lighting, Heads-up Displays, and Display Backlighting, Excelitas is dedicated to using our advanced technology portfolio and expertise to help ensure that our service men and women remain safe and secure.

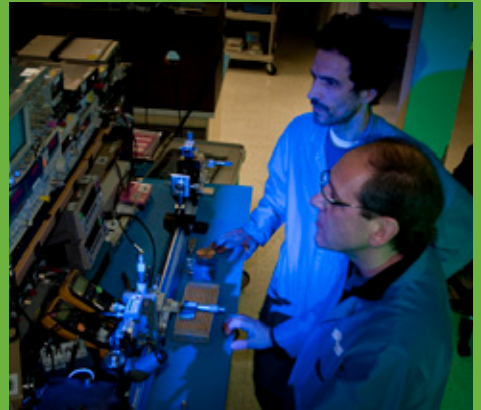
Excelitas' space-qualified rubidium atomic frequency standards technology was first launched aboard the U.S. Air Force Global Positioning System Block IIR satellite in July 1997 and remotely activated in August 1997, now marking nearly a decade and a half of continuous, failure-free operation.



Excelitas' Laser Warning Receiver Systems are detecting and reporting laser-aided and laser-guided threats on the battlefield so as to allow appropriate countermeasure initiation.



Excelitas' ESAF Systems monitor distance from launch point and only arm tactical missiles after safe separation is achieved.



## Diversity Is Our Strength.

Beyond our deep portfolio of enabling technologies and the broad range of applications and markets we serve, it's the collaborative strength of Excelitas' 3000+ employees across the globe that deliver value to our customers on a daily basis.

**ENGAGE. ENABLE. EXCEL.**



# Excelitas Technologies

Excelitas Technologies delivers innovative, customized opto-electronic solutions to OEMs seeking high-performance market-driven technologies. Our high-performance components and subsystems are designed into the products of leading OEMs worldwide.

Our applications expertise, engineer-to-engineer collaboration, and customized solutions to the unique system demands of our customers are at the heart of the Excelitas advantage.

Learn more about our range of technology solutions for OEMs at [www.excelitas.com](http://www.excelitas.com)

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For a complete listing of Excelitas' locations, visit [www.excelitas.com/Locations](http://www.excelitas.com/Locations)