

HELIOS®Plus

Remote Sensing Calibration Solutions



Labsphere

MEASURE
any light source

CREATE
any spectrum

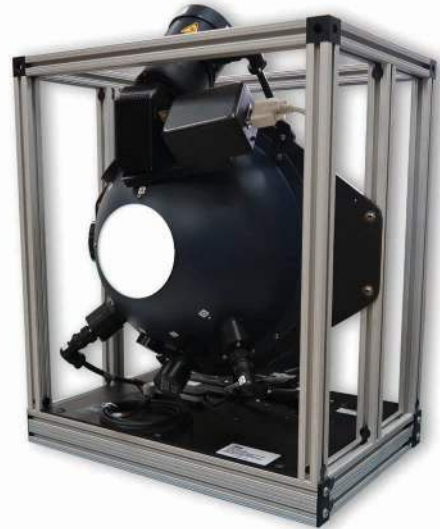
REFLECT
any wavelength



HELIOSPlus Uniform Sources of Luminance and Radiance

The dynamic HELIOSPlus family of uniform sources of luminance and radiance offers a flexible foundation to meet the challenges for rapidly changing remote sensing needs

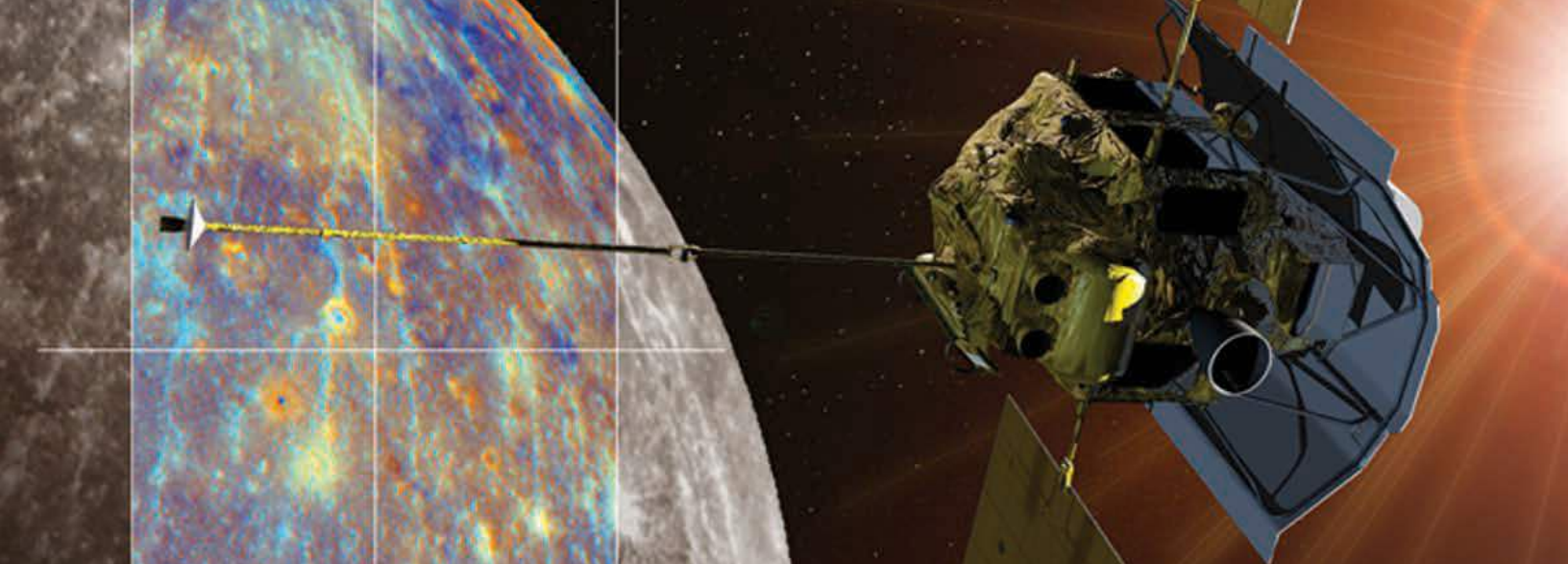
- Scalable, rugged solutions for R&D, production or field applications
- Unparalleled built-in characterization and performance
- LabVIEW® and many software options with intelligent components for active system configuration



Applications:

- Cameras, Sensors and Focal Plane Arrays
- Multispectral and Hyperspectral Imagers
- Small Satellite Imagers
- Earth Observation Systems
- SWIR Band Science and Imaging
- Reconnaissance and Security
- Unmanned Aerial Vehicles (UAV)
- Automotive and Autonomous Vehicles
- Ground Truth and Vicarious Calibration





HELIOsPlus-AS Application Specific Systems

Scalable luminance and radiance sources that meet the unique applications of your technology



Features:

- Complete system integration with robust component and software implementation
- Streamlined custom order processing from concept to calibration
- Consultative design approach with a cross functional team of engineers, scientists, and application specialists
- Radiometric, photometric, thermal, and mechanical modeling and simulation

HELIOsPlus-DR D Family Dynamic Range Systems

Used in R&D by the satellite community and other applications with the most demanding imaging requirements

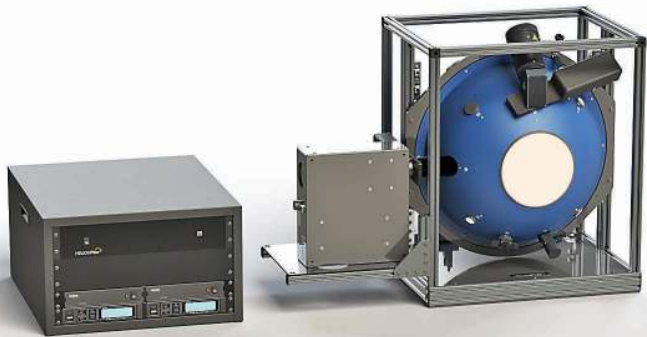


Features:

- Cameras and sensors >16bit, Actual -27bit (167dB)
- Full day light down to night vision radiances
- High, medium and low resolution options
- Remote access and maximum automation
- Low uncertainty and high precision
- Tungsten halogen spectrum

HELIOsPlus-AMA A Family Air Mass-Albedo Sunlight Systems

Solar spectrums for use in R&D by the satellite, airborne, field imaging and sensing systems



Features:

- Test as You Fly: Solar Spectrum
- Cameras and sensors >16bit, Actual -23bit (150dB)
- Albedo 1 (AM 1) down to night vision light levels
- UV ranges
- Resolution and adjustability to meet customer's application and budget
- High level of absolute characterization

HELIOsPlus-LL L Family Low Level Systems

Specially designed for night vision systems, security cameras, and imagers and sensors with sensitivity



Features:

- Automated solutions to allow remote use in dark environments
- Meets MIL Specifications for low level sensing
- 2856K radiance temperatures and filter options available
- Accurate, repeatable, high resolution at low light levels
- Spectralon® sphere for best spectral shaping



HELIOSPlus-VM V Family Variable Manual Systems

Dynamic manual systems with variable levels based on single lamp and attenuator configurations



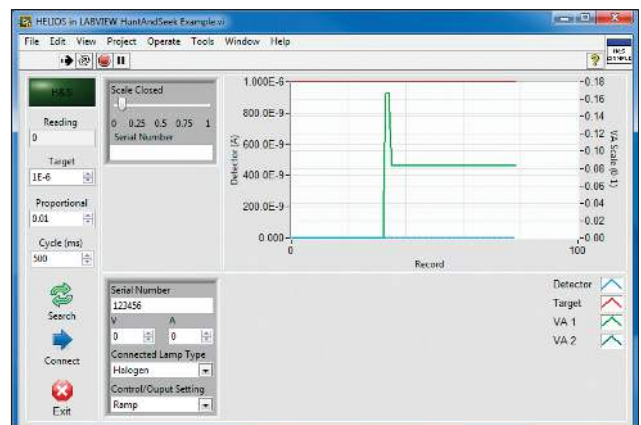
Features:

- Great all-round source system for simple sensor testing
- Straightforward operation with high performance
- High level of absolute characterization
- Spare ports and future upgrade capability
- Easy to upgrade to other system options or family configurations

HELIOSense Software

Configurable software built on the Integral® API foundation with a LabVIEW™ user interface

- Complete control of all HELIOSPlus modular components
- “State” functions that can be set up for system configurations, saved and re-accessed or password protected
- Scripting functions for simple programs inside and outside HELIOSense GUI
- TCP enabled scripting and communication functions
- Hunt & Seek functions using attenuators, detectors and spectrometers
- Continuous real-time asynchronous data logging with time stamps on all data parameters
- “Infinite” Scrolling Display & Data Session Logging – Access to control settings and measured parameters
- SQLite database with export functions
- Calibration data interface for loading characterization files
- User-definable non-linear detector response tables for external Devices Under Test (DUTs)



Our services and capabilities give us the flexibility to meet your specific application needs.



Knowledge Leadership

We lead because we listen. Regularly called upon to guide the future and set the standard, our expertise at solving radiometric, photometric and electro-optical challenges results in innovative solutions for the most complex applications.

Global Presence

We are here for you. With a headquarters in the United States, a satellite facility in China, and over 41 international value add representatives, our global network is unmatched.



User Centered Product Design

Together we solve the impossible. We will continually answer the call to apply our creativity and experience towards engineering answers for tomorrow's next big challenge, confident in the understanding that the future is limited only by our imagination.

Consultative Custom Order Process

We are ready to adapt and meet you wherever you are. We are a team of experts in radiometry and photometry which translates in our ability to listen, understand, and adapt to a variety of applications and inform how our technologies can be tailored to multiple industries.

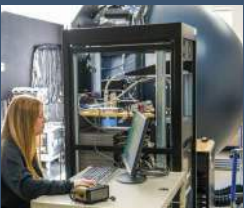


Responsive Manufacturing

Let's build the future together. We are ready to build your next optical system with a proprietary suite of industry leading optically diffuse materials and coatings, onsite manufacturing and fabrication, and dedicated quality facilities for unmatched performance assurance.

Calibrate with Confidence

We deliver confidence and trust. We strive for perfection and hold our radiometric calibration laboratories to the highest standards. Our laboratories are voluntarily certified through national metrology institutes so you can have complete confidence in your results.



Custom and OEM Solutions

Challenging problems require innovative solutions. Labsphere has created thousands of customized solutions, tailored to the specific and often proprietary radiometry and photometry needs of our customers.



Our expert team of Scientists, Engineers, and Manufacturing Professionals continue to advance our 40+ years of experience in dozens of industries. We can quickly turn this expertise into finished product through our internal prototype shop and advanced manufacturing techniques.

Let's Connect: www.labsphere.com