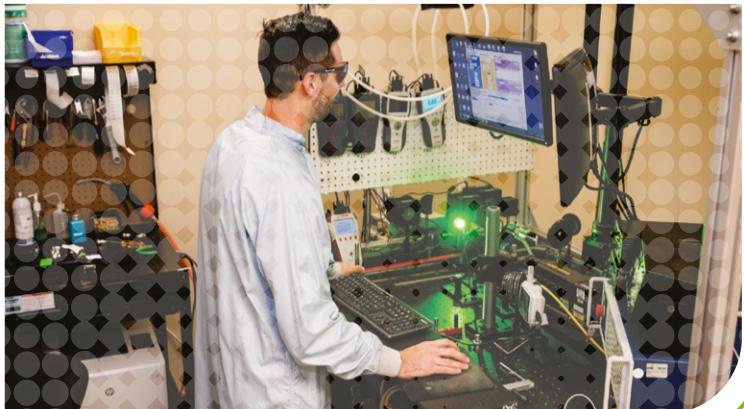
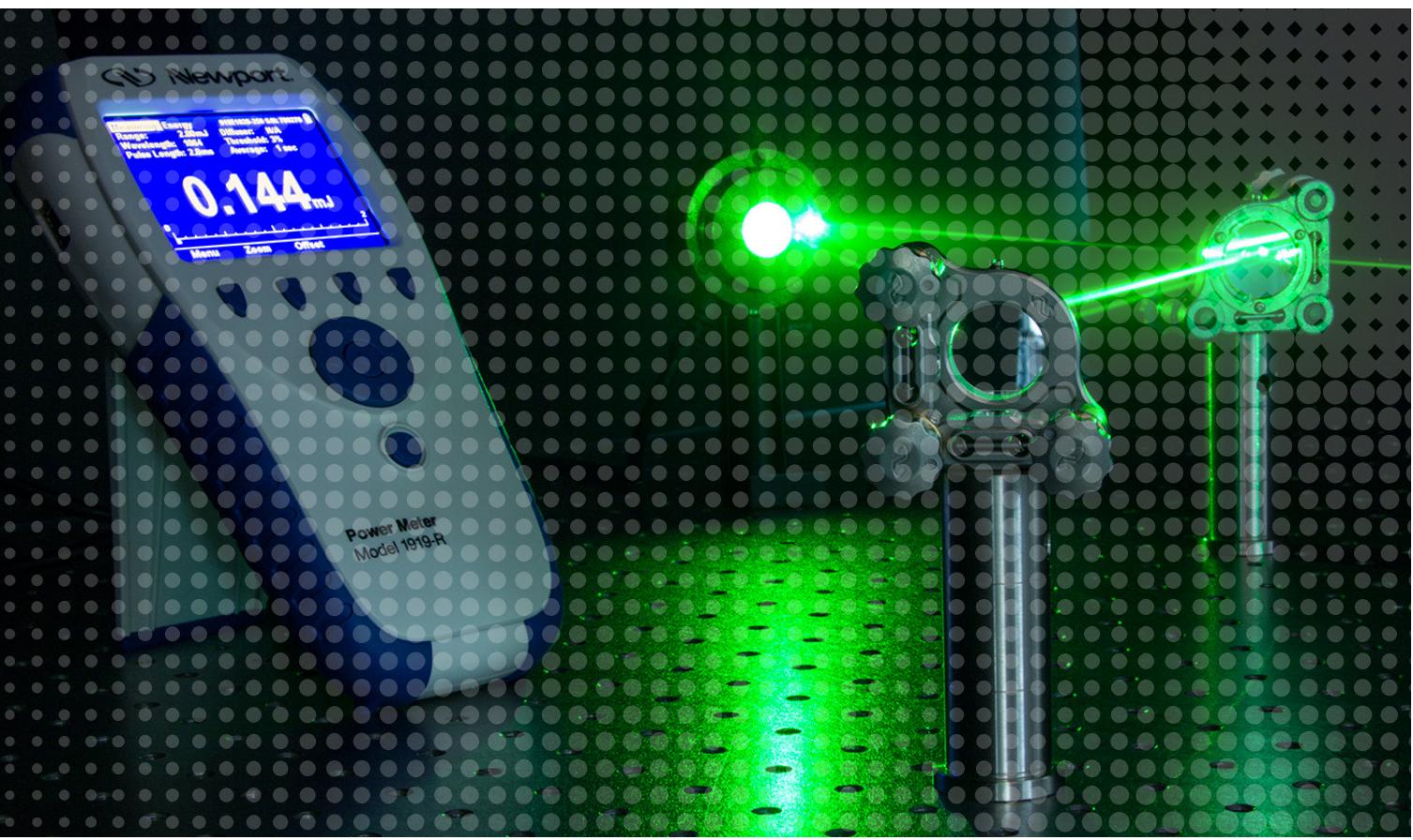


## MKS NEWPORT™ SERVICE

### CERTIFIED PRODUCT SUPPORT AND EXPERTISE





## MKS NEWPORT™ SERVICE

- REPAIR & REFURBISHMENT SERVICES
- FIELD & TECHNICAL PRODUCT SUPPORT
- FIELD SERVICE SUPPORT AGREEMENTS

At MKS, our vision is to enable technologies that transform our world. We have a long history of leveraging our collective curiosity to understand and develop solutions that enable progress, as well as enabling economic development, by solving the technology challenges of tomorrow. For our Newport optical meters, re-calibration and re-certification are critical to ensure the high quality of the measurements. Therefore, we offer enhanced calibration and repair services in our worldwide laboratories.

### POWER METERS AND SENSORS

MKS offers accredited re-calibrations and certified repairs of all power and energy meters and sensors at its accredited ISO/IEC 17025 laboratory. While some customers, especially in the medical industry, are obliged to have their measurement devices calibrated on a regular basis, this is also recommended to all other users. As a standard service, all power and energy sensors and meters within our ISO/IEC 17025 Scope of Accreditation are provided with the accredited re-calibration, including Before and After data using Silver Masters traceable to NIST.

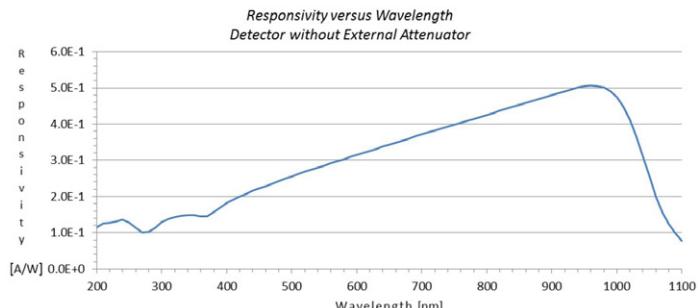
Upon receipt of your product, a complete evaluation is performed by our team of trained technicians, which includes full functionality testing and visual inspection. After the sensor is cleaned, it is calibrated by using a monochromator. In a first step, the silver master is measured with the monochromator to get reference data for the calibration. Afterwards the sensor itself is measured within the calibrated range in steps between 5-20nm. The full record of calibration is saved in our lab and can be sent to the customer upon request.

Before the calibration process itself gets started, the sensor will be carefully cleaned by our technicians. Once the equipment has been evaluated, the technicians provide recommendations for the servicing of the product if necessary. These recommendations may include a variety of services such as an additional cleaning procedure,

a cable, or a battery replacement or other remedial. After any repairs or remedial actions are taken, our technicians perform calibration optimizations of the equipment, adjusting the equipment and returning it to within tolerance. The data is reported in the After Data section of the Certificate of Calibration, along with any notes regarding remedial actions and documentation of the changes, giving you confidence regarding the calibration of the equipment. All calibrations – whether for standard or OEM products are performed according to the product specifications of our manufacturing site and include a wide range of wavelengths and power/energy levels, from mW through multi-kW power levels and laser wavelengths from 193 nm to 10.6 µm.

### Service Options

- Expedite Service for customers who need a 24–72 hour calibration and return of their equipment
- Extended Warranty for customers who want extended coverage for the repairs and calibration services provided.
- High Power Calibrations for customers who need 1kW and above points calibrated for their equipment.
- Specialty Calibrations for customers who have additional testing or calibration needs for their use cases of the equipment.



## CAMERA-BASED BEAM PROFILERS

Laser beam profilers undergo a re-certification process using Statistical Process Control (SPC) to ensure accuracy and consistency.

Similar to the power and energy sensors, camera-based profilers are taken through an incoming inspection and a standard cleaning is performed if necessary. Within the re-certification process the imager is carefully checked to detect defective (dead) pixels. To a certain level those dead pixels can be corrected. If there are too many defect pixels, the imager needs to be changed. In this case, the service team will reach out to the customer with a proposal. Devices with additional optical components undergo additional testing and calibration.

## CALIBRATED SPHERE SENSORS

Newport Integrating Spheres are calibrated in our laboratories based on the ISO/IEC 17025 standard using NIST-traceable Masters. Before starting the calibration process, the internal surface of the integrating sphere is inspected for visual damages. Afterwards it is carefully cleaned to ensure there is no debris inside the sphere. The calibration itself is performed with a monochromator system. Depending on the type of integrating sphere the devices are tested between 190 and 2100 nm in steps of 5–20 nm. The calibration data is taken to program the calculation modules and is finally stored in the smart head of the integrating sphere.

## CUSTOMER-ORIENTED SERVICE

Typical lead times provided by our team are industry-leading, with 3–5 business days for standard processing. Additional expedited lead times are available including Same Day, 24-hour, or 3-day guaranteed services.

If there is damage detected our team works to evaluate the cause so that we can provide detail on the failure modes seen. This also allows us to provide guidance on ways to avoid any future damage, which should decrease your cost of ownership.

MKS offers support for you before, during, and after calibration services, helping you to set up the systems, troubleshooting any issues or questions that may arise, supporting you through audits and failure investigations, and providing training and educational materials to ensure that you are using your equipment properly so that it will be ready and accurate when it is needed.

## World-Class Calibration Operations

- Complete Functionality Testing performed on all equipment before performing calibrations.
- Certified Repairs completed by MKS trained technicians to the original equipment specification.
- Power Meter calibrations performed in our ISO/IEC 17025 certified lab using NIST-traceable Masters.
- Full Calibration Records available upon request to customers who have returned equipment to MKS.



## MKS GLOBAL SERVICE LOCATIONS

Newport



For more information, please visit:

[www.newport.com](http://www.newport.com)

[www.mksinst.com](http://www.mksinst.com)

## WHY MKS?

### CRITICAL TECHNOLOGIES

World-class technology and development capabilities for leading-edge processes



### PROVEN PARTNER

Recognized leader delivering innovative, reliable solutions for our customers' most complex problems



### OPERATIONAL EXCELLENCE

Consistent execution across all aspects of our business



### COMPREHENSIVE PORTFOLIO

Largest breadth of product and service solutions for the markets we serve



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**Newport** is a brand within the MKS Instruments Light & Motion division. Newport product portfolios consists of a full range of solutions including precision motion control, optical tables and vibration isolation systems, photonic instruments, optics and opto-mechanical components. Our innovative Brand solutions leverage core expertise in vibration isolation and sub-micron positioning systems and opto-mechanical and photonics subsystems, to enhance our customers' capabilities and productivity in the semiconductor, industrial technologies, life and health sciences, research and defense markets.

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