Quantum Design, Inc.

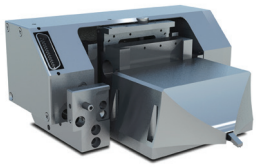
Quantum Design (QD) was established in 1982 and is a leading manufacturer of automated cryostats and materials characterization systems. These systems (OptiCool®, PPMS®, MPMS®3) offer a variety of measurement capabilities at liquid helium and sub-kelvin temperatures and are widely used in the fields of physics, quantum materials, chemistry, electrical engineering, biotechnology, materials science, and nanotechnology. Recently, Quantum Design developed, and now manufactures, a leading-edge AFM solution (AFSEM®nano) for use with SEM/FIB systems.

In 2020, Quantum Design launched QD Microscopy, a research and applications division dedicated to the development of unique microscopy tools. Working in their laboratory in Darmstadt, Germany, the researchers and applications scientists at QD Microscopy are exploring new possibilities of correlated AFM/SEM characterization. The team at QD Microscopy consists of experts in the fields of physics, chemistry, material science, and engineering. They are passionate about correlative microscopy and know that it can also benefit your applications and research.

- **AFSEM®** – AFSEM is an atomic force microscope (AFM), designed for seamless integration in a SEM or Dual beam (SEM/FIB) microscope, allowing you to simultaneously operate SEM and AFM inside the SEM vacuum chamber. The correlated image data of AFM and SEM enable unique characterization of your sample, and the combination of complementary techniques is a key success factor for gaining new insights into the micro and nano worlds. The AFSEM provides the user all standard AFM modes (contact, intermittent contact, non-contact, force-volume, and phase contrast) that can be easily switched using the controller software. The advanced modes, namely Conductive AFM (C-AFM), Magnetic Force Microscopy (MFM) and Electrostatic Force Microscopy (EFM) are also available by using a variety of functional probes.
- **OptiCool®** – The OptiCool is a magneto-optical, cryogen free, low vibration cryostat with automated software to control temperature and magnetic field. Users can conveniently change sample temperature from 1.7 K to 350 K, with or without an applied magnetic field of up to 7 T. A generous 89 mm diameter by 84 mm tall sample volume provides exciting possibilities in experiment design, and customizations are available to make microscopy measurements at cryogenic temperatures in the presence of a magnetic field.
- **PPMS® DynaCool®** – The PPMS DynaCool is an automated, cryogen-free materials characterization system that offers many automated measurement options covering areas such as electric, thermal, magnetic, optical and spectroscopic characterization.
- **nGauge AFM** – Quantum Design International currently distributes in select territories the nGauge AFM, manufactured by ICSPI. The nGauge is a robust, easy-to-use, and affordable benchtop AFM. Pushing the boundaries of what is possible in nanoscale metrology with the world's first benchtop AFM-on-a-Chip instrument, the nGauge provides 3D images with sub-nanometer resolution in a fraction of the time traditional AFM instruments require. The nGauge enables researchers and engineers to quickly get the data they need in their own lab for research, process optimization and quality control.
- **NexGen™ Helium Liquefiers and Recovery Systems** – QD offers a full line of Helium liquefiers, recovery, storage, and purification systems. Quantum Design's helium liquefiers and recovery systems allow users to break their dependence on cryogen suppliers and no longer be subjected to higher costs and unreliable supply.

Quantum Design is a market leader with 40 years of experience in the design and manufacture of cryogenic and material characterization instruments. With offices in technology centers around the world, our knowledgeable staff are ready to assist you in the successful completion of your research goals.

Quantum Design



How to find us

10307 Pacific Center Court
San Diego, CA, 92121
Tel: +1 800-289-6996
Fax: +1 858-481-7410
Email: info@qdusa.com
www.qdusa.com