METAMAGNETICS®

CONSULTING SERVICES

A spin-out from the Northeastern University Center for microwave Magnetic Materials and Integrated Circuits (CM3IC)—a world leader recognized in microwave and mm-wave ferrite materials, metamaterials, and multiferroics, Metamagnetics®' knowledge and expertise in leveraging ferrite materials and technology in current and next-generation systems is unmatched. Metamagnetics' team has extensive industry experience working with the armed forces, DARPA, and major US defense prime contractors.

Our mission is to optimize existing systems and components or enable entirely new ones by replacing out-of-date, inefficient ferrite devices and materials with new state-of-the-art concepts and compositions. Metamagnetics has demonstrated utilizing the correct materials within a microwave system can directly increase performance due to increased efficiency, reduced size and weight, or reduced cost.

Design Services

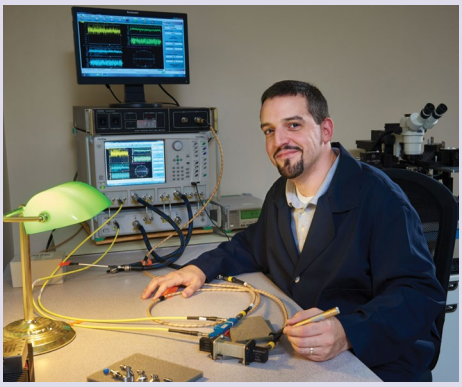
Metmagnetics' expert design staff is comprised of Ph.D., scientists, engineers and consultants who collectively have more than 100 years of experience in the design, prototyping, and manufacturing of current and next-generation microwave devices. Metmagnetics leverages the core competencies of the company's staff and consultants for custom design and prototyping services, and is focused on the optimization of microwave devices such as antennas, circulators, phase shifters and filters.

We take great pride in working collaboratively with our customers and providing responsive, flexible services to ensure each device design meets or exceeds all customers specifications.

TEST, MEASUREMENT, AND FABRICATION SERVICES

Metamagnetics has a wide range of test, prototyping, and measurement equipment, enabling us to offer fabrication, testing, and characterization services of structural, magnetic, and high frequency properties of materials and devices. Upon request, all of Metamagnetics services can be provided with expert analysis of data at competitive rates.

Material characterization capabilities include:



- Vibrating sample magnetometry
- Ferromagnetic resonance spectrometry
- Complex permeability and permittivity spectroscopy (0.1 to 50 GHz)
- X-ray diffractometry
- Power core loss characterization (0.1 to 10 MHz)
- Optical particle size analysis (100 to 1000 nm)
- Scanning electron microscopy

Device Characterization facilities include:

- Vector network analysis (0.1 to 50 GHz)
- Impedance analysis (10 kHz to 100 MHz)
- Spectrum analysis (100 Hz to 22 GHz)
- Pulsed and continuous wave power analysis (S and X band)
- Probe station and microstrip/stripline test fixtures

Materials and device fabrication facilities include:

- Compaction presses with and without application of magnetic fields
- Vacuum and gas flow furnaces
- Machining and polishing
- Powder processing
- Photolithography
- Wire bonding

Contact us today to learn more about our services.

*Metamagnetics is an ITAR registered company

ABOUT METAMAGNETICS

U.S. based and veteran owned, Metamagnetics LLC develops and markets advanced RF and microwave solutions to enhance the performance and effectiveness of mission-critical security, surveillance and communication systems. Our unparalleled knowledge of electromagnetism and materials science empowers break-through technologies that can bring significant value to defense and commercial projects. Efficient and agile, our team can help you rapidly design and deploy innovative solutions for current and next-generation radar, sensing and related systems.

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