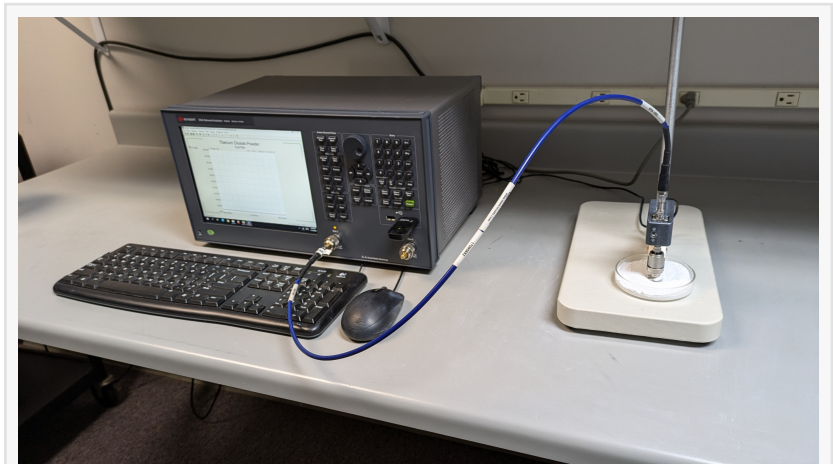


# Crescend Technologies Expands Capabilities with Advanced Dielectric Testing Services

*Crescend Technologies expands its lab with advanced dielectric testing, optimizing microwave energy applications for greater efficacy and precision.*

GLENDALE HEIGHTS, IL, UNITED STATES, February 6, 2025 /EINPresswire.com/ -- Crescend Technologies, a leader in [solid-state microwave](#) energy solutions, is proud to announce the expansion of its state-of-the-art microwave test lab in Ankeny, Iowa, to include advanced dielectric material testing services. This enhancement underscores Crescend's commitment to empowering industrial sectors with innovative tools to optimize processes like microwave drying, heating, and material processing.



Dielectric Material Testing for Optimizing Microwave Applications

## Why Dielectric Testing Matters

For industries that rely on microwave energy applications, understanding how materials interact with electromagnetic fields is critical. Crescend's dielectric testing services provide precise data on dielectric properties such as dielectric constant and dielectric loss. These insights enable companies to:

- Ensure consistent product quality by eliminating issues like uneven heating and moisture variation.
- Reduce energy consumption by optimizing microwave energy absorption.
- Improve scalability and reliability by tailoring systems to meet specific operational needs.

With these insights, businesses can confidently transition from outdated systems to cutting-edge solid-state microwave technology for superior results.

## A Comprehensive Testing Approach

Crescend's advanced lab combines precision tools with decades of engineering expertise to deliver actionable results. Key features of the new dielectric testing services include:

- Wide Frequency Range: Testing materials from 200 MHz to 4.5 GHz for diverse industrial applications.
- Temperature Simulations: Analyzing material behavior in real-world conditions, ranging from -40°C to +200°C.
- Material Versatility: Offering insights for powders, liquids, and solids.

Additionally, Crescend integrates dielectric testing data with COMSOL Multiphysics software to simulate electromagnetic and thermal performance, enabling clients to achieve maximum efficiency and reliability in their processes.

### Driving Innovation Across Industries

Crescend's dielectric testing services are ideal for industries such as powder processing, food manufacturing, chemical production, and other manufacturing like plastics, polymers and minerals. By replacing fossil-fueled systems and outdated magnetron-based technologies with solid-state microwave solutions, businesses can achieve greater efficiency, sustainability, and precision.

"Our newly expanded lab represents Crescend's unwavering commitment to helping clients solve their toughest industrial challenges," said Ken Kaplan, Chief Scientist at Crescend Technologies. "With advanced dielectric testing and our solid-state microwave expertise, we're enabling businesses to transform their operations and achieve optimized microwave success."

### About Crescend Technologies

Crescend Technologies, LLC, founded in 1979 as a leader in high-power amplifiers for the Public Safety market, has evolved into a pioneering force in solid-state microwave energy solutions. Leveraging decades of engineering expertise, Crescend empowers industrial sectors to replace outdated systems with innovative solid-state microwave technology designed to increase throughput, minimize downtime, and enhance sustainability.

From concept to implementation, Crescend supports process developers with comprehensive services, including advanced testing, precision modeling, and high-power solid-state microwave generator systems. Our solutions are transforming industries such as mining, renewable energy, waste recycling, chemical processing, and more, enabling businesses to achieve unmatched performance and reliability.

At Crescend Technologies, we are not just advancing technology; we are driving the future of industrial innovation with a steadfast commitment to efficiency, sustainability, and operational excellence. For more information, visit [www.crescendrf.com](http://www.crescendrf.com).

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