



## ABOUT US

**AT LAIRD R&F PRODUCTS, IT'S ALL ABOUT ENGINEERING, QUALITY, AND SERVICE**

### ENGINEERING

**Design** - Internal modeling includes HFSS, Microwave CST, and VBROP 2D Stack Code. A database of all material properties over frequency exists to support various customer designs

**Measurement** - Complete range of measurement equipment from 10 MHz to 90 GHz for low-loss and high-loss materials; supporting absorber and radome design and fabrication

**Mechanical and Environmental** - Environmental test lab for thermal, humidity, fuel and solvents as well as mechanical test and characterization

**Process Engineering** - Lean six sigma techniques allow for continuous improvement and process optimization

**Product Development** - Ever-increasing internal funding of next generation products in absorbers and transparencies

### QUALITY

AS9100-certified in design and manufacturing. Quality engineers and technicians ensure compliance, matching all customer requirements

### SERVICE

Customer service and engineering will work to make your design a success

## OUR COMPETITIVE EDGE:

### COMPLETE SATISFACTION OF OUR CUSTOMERS

They recognize Laird R&F Products for the consistent imagination and innovation we offer

They trust us for reliable fulfillment, enabling them to deliver on plan and on budget with high quality

They grow accustomed to our speed, giving them a distinct and powerful competitive advantage

They acknowledge us for our sustainable business, contributing to the value we bring to them



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# R&F Products for Aerospace and Defense

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As part of DuPont Interconnect Solutions, Laird R&F Products continues to produce unique capabilities in serving aerospace and defense markets. We provide a wide variety of materials and products with engineered properties enabling effective electromagnetic absorption and transparency, high thermal conductivity, overall thermal management, and other innovations including multi-functional solutions.

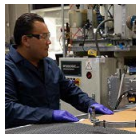
#### SURVIVABILITY MATERIALS



Modern military systems across all platforms rely on survivability materials to enhance vehicle performance. Laird R&F Products manufactures the widest range of microwave absorbing materials in the industry. Products include broadband

foam absorbers, magnetically loaded parasitic sheet materials, molded components, treated honeycomb core and structural absorbers. For design engineers, our wide variety of materials offers maximum flexibility in selecting design options for a given requirement.

#### ANTENNA PATTERN ENHANCEMENT



A common problem on military platforms is antenna-to-antenna interference. Wherever broadband electronic warfare equipment operates in proximity to communication or radar systems, system performance can

degrade severely. The addition of absorber barriers between conflicting systems can solve these problems. Absorber housings can be designed to surround the antenna to minimize antenna sidelobes and enhance performance.

#### HIGH FREQUENCY EMI ABSORPTION



For electronic systems operating above 2 GHz, internal noise and cavity resonance can degrade performance. Applying absorbers within cavities can minimize standing waves and resonances and mitigate these problems. Laird

R&F Products manufactures a wide variety of cavity resonance absorbers for EMI problems from two to 90 GHz. Additionally, Laird R&F Products has developed a line of fuel-resistant cavity resonance absorbers for specialty applications. Ask about our time- and labor-saving Laird™ brand *Coolzorb™* dispensable absorber aiding high-volume assembly operations.

#### RADOMES



Besides EMI absorbing materials, Laird R&F Products offers a range of dielectric materials. We have some of the highest-performing dielectrics available. These products include LoK syntactic foam dK 1.7, Flex LoK, a flexible version of LoK; HiK

custom dK from 3-30, and customized low-dK urethane foams. Laird R&F Products works closely with customers in developing these excellent products and other custom materials, helping ensure high performance for radomes. Laird R&F has complete capabilities for design, measurement, and fabrication of radome structures.

#### CUSTOM SEALS AND GASKETS



Laird R&F Products provides a complete line of seals and gaskets including fluorosilicone gaskets, EMI conductive seals and gaskets, and absorbing gaskets. A variety of conductive fillers is used including nickel graphite and silver-coated

metals. Abaqus FEA software allows for optimization of the nonlinear mechanical properties of elastomeric gaskets, both standard and high performance. Laird conductive gaskets are flying on fifth-generation fighters. These gaskets are designed for flawless performance in the toughest conditions imaginable.

#### CAMOUFLAGE



Laird R&F Products offers custom solutions to designers of camouflage from radar, visual, and multispectral threats. Internal sewing and fabrication capabilities at Laird R&F Products allow prototype concepts to be quickly

engineered and optimized. Laird engineers have a broad spectrum of experience solving these types of problems. Covers, tents, soldier and other concepts are available.

**CUSTOMERS RELY ON LAIRD R&F PRODUCTS FOR HIGH-PERFORMANCE SOLUTIONS AND QUALITY SERVICE WHICH POSITIVELY BENEFITS THE WARFIGHTER**

Laird R&F Products designs, develops, manufactures, and serves the aerospace and defense markets with materials and products. We work closely with your design team in supporting the following areas and delivering solutions in:

- Survivability Materials
- Antenna Pattern Enhancement
- High Frequency EMI absorption
- Radomes
- Custom Seals and Gaskets
- Camouflage

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

