Test & Measurement Accelerometer Design Engineer

Do you have a passion for mechanical engineering and a drive to make a difference? Kickstart your career with us at CTC, where you'll have the opportunity to apply your knowledge and skills to real-world projects that shape the future. We're seeking a Test & Measurement Accelerometer Design Engineer to join our team and grow alongside experienced professionals in a supportive and dynamic environment. If you're eager to learn, ready to take on new challenges, and excited to make your mark in the field of mechanical engineering, we want to hear from you. Apply now and jumpstart your career with us.

About the Company

Connection Technology Center (CTC) is the global leader in the design & manufacture of cutting-edge vibration analysis hardware for machine condition monitoring. As a family-owned & operated business for 30 years, we are proud to play a crucial role in preventing operational disruptions, financial losses, and safety concerns for heavy industry. From small scale manufacturing to Fortune 500 companies in Paper & Pulp, Auto & Steel, Food & Beverage, Pharmaceutical, Mining and many more, our mission is to create products that help ensure seamless operational uptime and contribute to a safer, more efficient manufacturing future.

Main Responsibilities

Demonstrated proficiency regarding all aspects of miniature accelerometer design. This includes:

- Understanding design performance requirements.
- Developing and maintaining performance specifications.
- Developing a design that meets/exceeds performance and cost requirements.
- Developing a design incorporating practical and cost-effective component tolerances and high yield.
- Developing a working relationship with key suppliers.
- Designing manufacturing fixtures needed to build and test products.
- Creating and maintaining work instructions/procedures.
- Facilitating ongoing production issues and failure analyses to improve yield and reliability.

Requirements

- Bachelor’s degree in mechanical engineering or related field required.
- Knowledgeable in mechanical drawing/drafting for the creation of digital images.
- 5 years of proven experience in mechanical engineering, with a focus on design, analysis, and testing.

Technical Knowledge and Skills

Comprehensive understanding of the application of piezoelectric ceramics in accelerometers. This includes:

- Charge coefficients, dij
- Dielectric constants, K1, K3
- Equations that determine charge sensitivity
- Plating (metallization)

- Performance parameters:
    - Charge sensitivity
    - Voltage sensitivity
    - IEPE circuitry
    - Noise (resolution)
    - Resonance
    - Transverse sensitivity
    - Base strain sensitivity
    - Temperature response

Additional Abilities

- Intermediate knowledge of Microsoft Office including Word, Excel, and PowerPoint.
- Basic knowledge of Autodesk Inventor or other 3D CAD system.
- Proficient in CAD software (e.g., SolidWorks, AutoCAD) and other relevant engineering tools.
- Ability to research and develop new technology.
- Strong analytical and problem-solving skills.
- Excellent communication and interpersonal skills.
- Ability to work independently and collaboratively in a team environment.
- Knowledge of industry regulations and standards.
- Ability to meet deadlines and project management.
- Perform Verification and Validation testing.
- Ability to present technical concepts to leadership both verbally and written.

Work Location

This in-person position will start work out of the Victor, NY facility. However, has flexibility to work out of the Naples, FL facility once open in 2026, if desired.

Salary Range:

$120K - $130K

Benefits

- Health Insurance
- Dental Insurance
- Vacation Time
- Sick Leave
- Company-wide shutdown from Christmas to New Year's
- 401K plan with Employer Match
- Summer golf membership to Bristol Harbour Private Golf Course

How to Apply

Please apply here: https://www.ctconline.com/opportunities/employment/

Connection Technology Center (CTC) is an equal-opportunity employer. NYS law prohibits discrimination because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, marital status, domestic violence victim status, carrier status, gender identity, prior conviction records, prior arrests, youthful offender adjudications or sealed records unless based upon bona fide occupational qualification or other exception, or any other protected characteristic as outlined by federal, state, or local laws.