



## **Application Design Engineer**

NKK Switches (NKK) is a global tech manufacturer of innovative electromechanical switches and programmable displays, setting the standard for quality and reliability in human-machine interface solutions. NKK provides full-service engineering support to include electronic system design, programming and value-added services by combining over 65 years of expertise and a true commitment to our partners' success.

We are seeking an experienced Application Design Engineer to:

- Design, evaluate, and test electronic boards to ensure they meet the project requirements.
- Design the schematics and layouts of the PCB and evaluate the processors and boards to verify the functionality of the designs.
- Provide troubleshooting support regarding NKK Switches applications to customers.

### **Essential Duties and Responsibilities:**

- Analyzes product or equipment specifications and performance requirements to determine designs which can be produced by existing manufacturing or processing facilities and methods.
- Determines the feasibility of designing new plant equipment versus modifying existing facilities considering costs, available space, time limitations, company planning, and other technical and economic factors.
- Provides technical information concerning manufacturing or processing techniques, materials, properties, and process advantages and limitations which affect long range plant and product engineering planning.
- Designs electronic controller modules. Creates schematics and Printed Circuit Board (PCB).
- Conducts research to clarify or resolve problems and develops design solutions.
- Prepares or directs preparation of product or system layouts, detailed drawings and/or schematics.
- Directs and coordinates the manufacturing or building of prototype products or systems. Documents process and prepares application notes.
- Compiles and analyzes operational, test, and research data to establish performance standards for newly designed or modified equipment or products.
- Plans and develops experimental test programs.

- Analyzes test data and affiliated reports to determine if the design meets functional and performance specifications.
- Confers with research and other engineering personnel to prepare required design modifications.
- Evaluates engineering test results for possible use in other applications or in the development of other systems.
- Travels to consult with clients and customers to discuss and provide technical solutions to meet their needs.

**Qualifications:**

Bachelor's degree in Electrical Engineering and three years related experience and/or training; or equivalent combination of education and experience.

**Preferred Qualifications:**

- Expertise in analog and digital design, schematic creation, and PCB layout
- Hands on experience in Electronics & Embedded Product development
- Codes, tests, integrates and documents software solutions
- Researches and analyzes data, such as customer design proposals, market trends, state of technology and industry, specifications and manuals to determine feasibility of design or application
- Shows initiative on assignments, and professionally executes projects with very little direction, or can provide direction and leadership
- Frequently works with organizations outside engineering or with external customers
- Strong understandings on Electronics products and basic electronics
- Strong in electronic components fundamentals
- Previous experience with complex electrical, electro-mechanical product development
- Must have previous work experience in PIC32MZ microcontroller, digital logic, Serial protocols (USB, I2C, SPI, RS232, etc.)
- Must understand and use simple electronics in lab environment (power supplies, data acquisition, oscilloscope, current probes, signal generator, etc.)
- Comfortable with working in a lab environment and executing hands-on testing
- Must be familiar with technical work instruction and drawings, and good documentation practices
- Must have circuit design experience
- Must have embedded firmware design experience in C
- Knowledge of Solidworks is plus

**Benefits:**

NKK Switches offers a competitive compensation and benefits package including Paid Time Off, 401k with employer match, Life/Disability package, Health, Dental, and Vision insurance.

Submit resume and cover letter to NKK Switches Human Resources: [jjones@nkkswitches.com](mailto:jjones@nkkswitches.com)