

# CIREXX PROVIDES QUICK TURN RIGID-FLEX DESIGN SOLUTION ON-THE-FLY

## CLIENT / INDUSTRY

R&D Engineering Firm

## PROJECT SIZE

\$20,000 Project  
1 Part Number

## THE CLIENT

A global Engineering firm, specializing in research and development of advanced technology solutions for government agencies and commercial corporations with much of their work involving electronic systems.

## INTRODUCTION

The R&D Engineering firm was facing an immediate need for a complicated interconnection scheme to keep a critical project moving and on schedule. The Lead Engineer for the program located and reached out to Cirexx for assistance with the design, development and manufacturing of this item.

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## NEEDS ASSESSMENT

The customer needed the interconnection and had determined that perhaps it needed to be a Rigid-Flex. After the initial PDR (preliminary design review) it was determined by Cirexx engineers, working closely with the customer's Lead Engineer, that a Rigid-Flex Circuit Board design was indeed the solution needed to address all requirements. The item needed to be 8 to 9 layers in construction, incorporating differential impedance pairs, buried capacitance and an ENIG finish. The board also needed to be fabricated in accordance with ITAR, RoHS, and specific MIL standards.

Customer engages Cirexx with critical, quick turn need for Rigid-Flex Circuit Board Design

Cirexx begins to work closely with the customer's engineer to understand the parameters and performance requirements of the application

Cirexx identified the need for a Rigid-Flex Circuit Board design and began providing details of such with data sheets and examples

Cirexx finished the development process with an improved 9 Layer Rigid-Flex Design and associated configuration documentation in less than 48 Hours and had the entire design quoted inside of a week

The project resulted in a design that was the most reliable, efficient and cost-effective and was completed in a time frame that met the customer's critical need

## SOLUTIONS

After a more thorough review of the work that the customer had initially done, including a Stack Up, Cirexx engineers began making revisions to the design that only allowed for the achievement of the basic performance criteria but also improved the overall product performance and reliability. Throughout this process Cirexx worked very closely with the customer's Lead Engineer, backing up all recommendations with rationale, data sheets and examples addressing material selection, high temperature environment, and the limits of the bend radii for installation and operation. A new design was completed within 48 hours and completely quoted in one week

**“The entire process - from initial email inquiry to product quotation - took less than one week.”**

## FINAL OUTCOME

Cirexx responded quickly to the customer's inquiry regarding product development and engineering services. Cirexx was able to revise and produce design documentation with strategic improvements and provide manufacturing recommendations. And then to quote the complicated manufacturing of the item in a couple of days. The entire process took place in a week and met the customer's time critical needs.

### HIGHLIGHTS

- Timely response to customer's inquiry
- Understood and developed design
- Produced documentation rapidly
- Quick quote development